ISCAR **TURNING** LINES

Metric Catalog



TURNING INDUSTRY4.0 INTELLIGENTLY



ISO TURNING | GROOVING | PARTING | FACE GROOVING | TOOL BLOCKS | THREADING | TOOL HOLDERS | GRADES

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Quality Standard

ISCAR has been certified by the prestigious Standards Institution, as being in full compliance to ensure delivery of the finest quality goods. Quality control facilities include the metallurgical laboratory, raw metal testing, an online testing procedure and a machining center for tool performance testing and final product inspection. Only the finest products are packaged for entry into ISCAR's inventory.

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ISOTURN
Tools and Inserts



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ISOTURN TOOLS



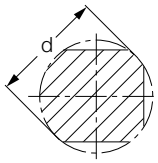
Toolholder Identification System

Toolholder				M	W	L	N	R	25	25	M	-	08	W
				4	5	6	7	8	9	10	3		11	12
Boring Bar	S	25	S	M	W	L	N	R				-	08	W
	1	2	3	4	5	6	7	8					11	12

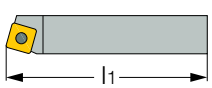
1 Boring Bar

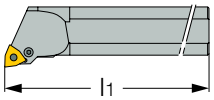
S	Steel Shank
A	Coolant Through Steel Shank
C	Solid Carbide Shank
E	Coolant Through Carbide Shank

2 Bar Diameter



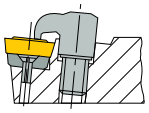
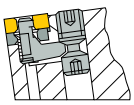
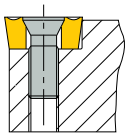
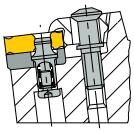
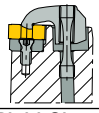
3 Tool Length



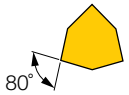
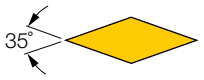
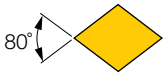
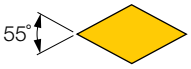
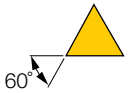
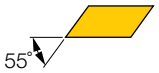


A	=	32	H	=	100	Q	=	180
B	=	40	J	=	110	R	=	200
C	=	50	K	=	125	S	=	250
D	=	60	L	=	140	T	=	300
E	=	70	M	=	150	U	=	350
F	=	80	N	=	160	V	=	400
G	=	90	P	=	170	W	=	450
						Y	=	500
						X	=	Special

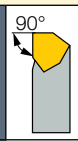
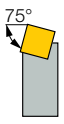
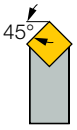
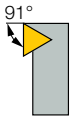
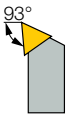
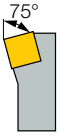
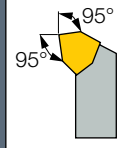
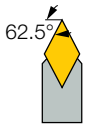
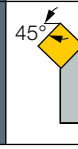
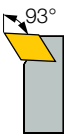
4 Clamping System

C	 Top Clamp Iscadex	P	 Lever Lock
S	 SC-Screw Clamping	M...W	 Top Wedge Lock
D	 Rigid Clamp		

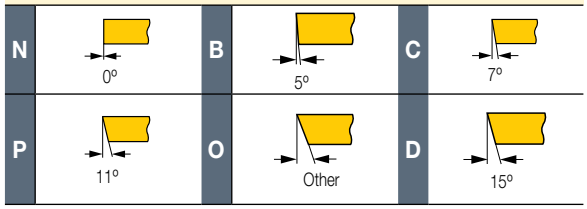
5 Insert Shape

W		V	
C		D	
T		S	
R		K	
L		Q	

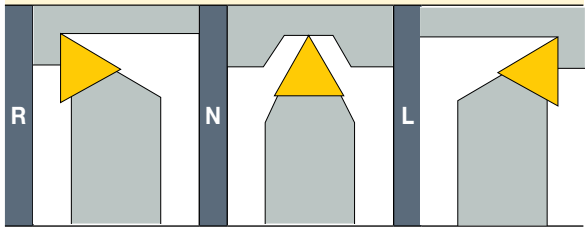
6 Approach Angle

A		B		D		E	
F		G		J		K	
L		N		Q		R	
S		U		V		X	

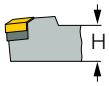
7 Insert Clearance Angle



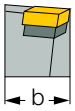
8 Hand of Tool



9 Shank Height

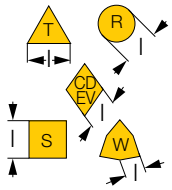


10 Shank Width

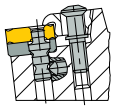
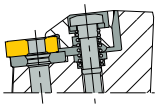


11 Insert Size

Cutting edge length

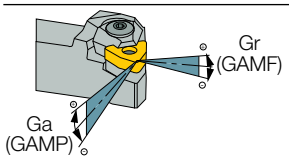
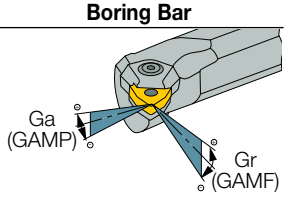


12 Wedge Lock

W-Top wedge	MW-Multi-wedge
	

S- for Swiss-type machines

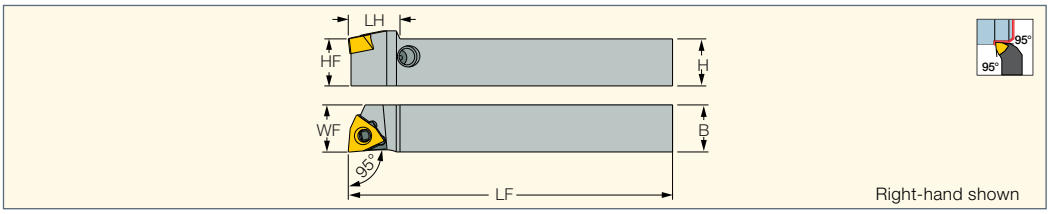
Axial Ga and Radial Gr Rake angles

Toolholder	Boring Bar
	

ISOTURN

PWLNR/L-S

Lever Lock External Turning Tools Carrying WNGP 0403.. Double-Sided Trigon Inserts



Designation	H	HF	B	LF	LH	WF	Insert				
PWLNR/L 1010X-04S	10.0	10.0	10.0	120.00	11.0	10.00	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PWLNR/L 1212F-04S	12.0	12.0	12.0	85.00	11.0	12.00	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PWLNR/L 1212X-04S	12.0	12.0	12.0	120.00	11.0	12.00	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PWLNR/L 1616X-04S	16.0	16.0	16.0	120.00	13.0	16.00	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN

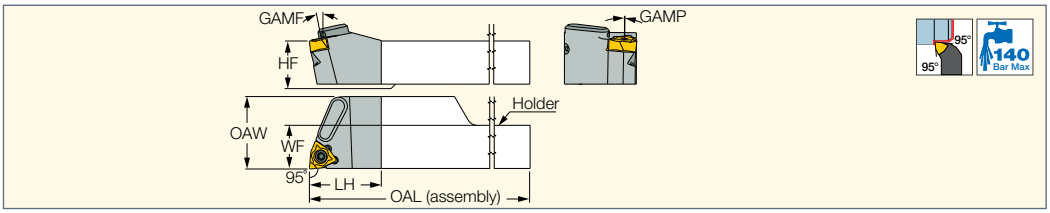
- Use a left-hand insert on a right-hand tool and vice versa.

For inserts, see pages: WNGP-F2M (137) • WNGP-F2P (135)

NEOSWISS INDEXABLE HEADS
MINIPTURN POSITIVE DOUBLE SIDED

NQCH-SWLNR/L-S-JHP

Screw Lock Modular Heads with High-Pressure Coolant - Positive Double-Sided Trigon Inserts for SwissType Machines



Designation	WF	HF	LH	OAL	OAW	GAMP	GAMF	Insert
NQCH12-SWLNR/L-04S-JHP	12.15	12.0	20.0	120.00	20.15	11.0	1.0	WNGP.. 0403
NQCH16-SWLNR/L-04S-JHP	16.15	16.0	20.0	120.00	20.15	11.0	1.0	WNGP.. 0403

For user guide, see pages 6-7, 78-84

For holders, see pages: NQCH-JHP (61)

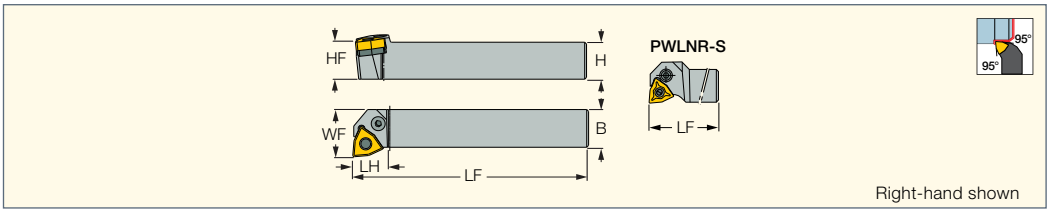
Spare Parts

Designation		
NQCH-SWLNR/L-S-JHP	SR 34-514	T-7/5

ISOTURN

PWLNR/L

Lever Lock External Turning Tools Carrying 80° Negative Trigon Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PWLNR/L 1616H-06	16.0	16.0	16.0	100.00	16.0	20.00	WN..06T3
PWLNR/L 1616H-06S (1)	16.0	16.0	16.0	100.00	20.3	16.00	WN..06T3
PWLNR/L 2020K-06	20.0	20.0	20.0	125.00	20.0	25.00	WN..06T3
PWLNR/L 2525M-06	25.0	25.0	25.0	150.00	20.0	32.00	WN..06T3
PWLNR/L 2020K-08	20.0	20.0	20.0	125.00	19.0	25.00	WN..0804
PWLNR/L 2525M-08	25.0	25.0	25.0	150.00	20.5	32.00	WN..0804
PWLNR/L 3232P-08	32.0	32.0	32.0	170.00	19.0	40.00	WN..0804

(1) Can be used on automatics

For inserts, see pages: WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-SF (138) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • WNMG-CERMET (136)

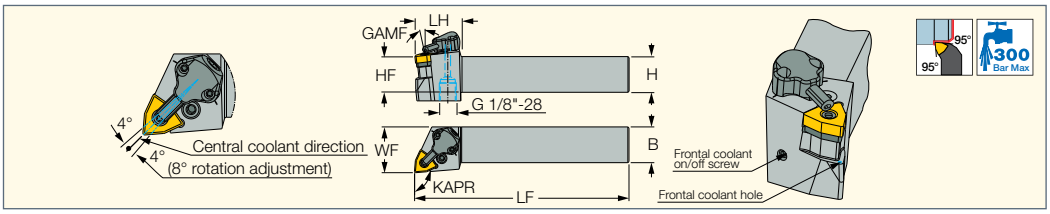
Spare Parts

Designation						
PWLNR/L 1616H-06	TWN 322	SP 3	PN 3-4	HW 2.5/5	SR 117-2014	LR 3
PWLNR/L 1616H-06S	TWN 322	SP 3	PN 3-4	HW 2.5/5	SR 117-2014	LR 3
PWLNR/L 2020K-06	TWN 322	SP 3	PN 3-4	HW 2.5/5	SR 117-2014	LR 3
PWLNR/L 2525M-06	TWN 322	SP 3	PN 3-4	HW 2.5/5	SR 117-2014	LR 3
PWLNR/L 2020K-08	TWN 423	SP 4	PN 3-4	HW 3.0	SR 117-2010	LR 4
PWLNR/L 2525M-08	TWN 423	SP 4	PN 3-4	HW 3.0	SR 117-2010	LR 4
PWLNR/L 3232P-08	TWN 423	SP 4	PN 3-4	HW 3.0	SR 117-2010	LR 4

ISOTURN JETCUT

PWLNR/L-08-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMF	Insert
PWLNR/L 2525M-08-JHP	25.0	25.0	25.0	150.00	33.0	32.00	-6.0	WNMG 0804..
PWLNL 3232P-08-JHP	32.0	32.0	32.0	170.00	33.0	40.00	-6.0	WNMG 0804..
PWLNR 3232P-08-JHP	32.0	32.0	32.0	170.00	33.0	40.00	-6.0	WNMG 0804

• For user guide, see pages 78-84

For inserts, see pages: WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)

Spare Parts

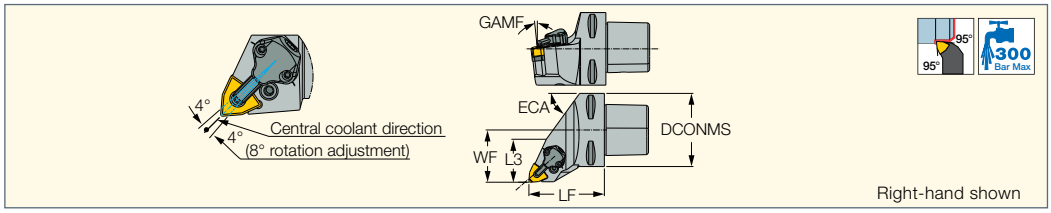
Designation											
PWLNR/L 2525M-08-JHP	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010	SR M4X4 DIN913 TL360		CU-CW-JHP	HW 2.0	HW 3.0	T-8/5
PWLNR/L 3232P-08-JHP	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010	SR M4X4 DIN913 TL360	OR 6.4X0.9N	CU-CW-JHP	HW 2.0	HW 3.0	T-8/5

ISOTURN JETCUT

CAMFIX

C#-PWLNR/L-08-JHP

Lever Lock Tools with CAMFIX Exchangeable Shanks and Channels for High-Pressure Coolant Carrying Trigon Inserts



Designation	DCONMS	WF	OHN(1)	L3	ECA	GAMF	Insert	CDI(2)	CP(3)
C6 PWLNR/L-45065-08-JHP	63.00	45.00	65.00	37.00	55.0	-6.0	WNMG 08..	1	300

• For user guide, see pages 78-84

(1) Minimum overhang

(2) 1 - Hole for data chip, 0 - Without hole for data chip

(3) Coolant pressure (Bar)

For inserts, see pages: WNGG-F3N (209) • WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-SF (138) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)

Spare Parts

Designation										
C#-PWLNR/L-08-JHP	TWN 423	SP 4	LR 4	SR 117-2010	T-8/5	PN 3-4	CU-CW-JHP	OR 6.4X0.9N	HW 3.0	LR 4DHTL (MR INJ)*

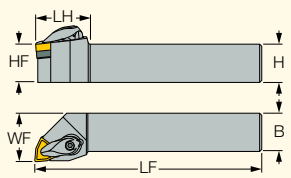
* Optional, should be ordered separately



ISOTURN

DWLNR/L

External 95° Lead Tools Carrying Negative WNMG Trigon Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert
DWLNR/L 1616H-06	16.0	16.0	16.0	100.00	26.0	16.00	WNMG 0604
DWLNR/L 2020K-06	20.0	20.0	20.0	125.00	26.0	25.00	WNMG 0604
DWLNR/L 2525M-06	25.0	25.0	25.0	150.00	24.0	32.00	WNMG 0604
DWLNR/L 2020K-08	20.0	20.0	20.0	125.00	35.0	25.00	WNMG 0804
DWLNR/L 2525M-08	25.0	25.0	25.0	150.00	35.0	32.00	WNMG 0804
DWLNR/L 3232P-08	32.0	32.0	32.0	170.00	35.0	40.00	WNMG 0804

For inserts, see pages: WNMG-F3S (138) • WNMX-M3/4MW (143) • WNMX-M3/4PW (143) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-CERMET (136) • WNGG-F3N (209) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-SF (138) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)

Spare Parts

Designation									
DWLNR/L 1616H-06	RWT 322	RWT 3-2[b]*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 2020K-06	RWT 322	RWT 3-2[b]*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 2525M-06	RWT 322	RWT 3-2[b]*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 2020K-08	RWT 443	RWT 443-TNM[a]*	TWH 4[c]*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	
DWLNR/L 2525M-08	RWT 443	RWT 443-TNM[a]*	TWH 4[c]*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	
DWLNR/L 3232P-08	RWT 443	RWT 443-TNM[a]*	TWH 4[c]*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	

* Optional, should be ordered separately

[a] RWT 3-2 seat, for WNMG 06T3 insert

[b] RWT 443-TNM seat, for WNMG 0804...-TNM insert

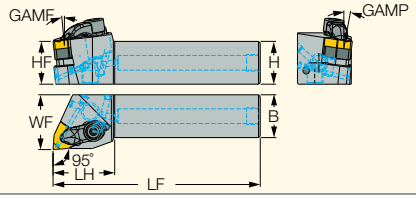
[c] TWH 4 seat, for WNMX 0807... insert

ISOTURN

JETRTURN RIGID CLAMP

DWLNR/L-JHP-MC

Rigid Clamp Tools with Channels for High-Pressure Coolant Carrying 80° Trigon Inserts





Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	MIID[1]
DWLNR/L 2020X-08-JHP-MC	20.0	20.0	20.0	106.00	36.0	25.00	6.0	6.0	WNMG 0804
DWLNR/L 2525X-08-JHP-MC	25.0	25.0	25.0	121.00	36.0	32.00	6.0	6.0	WNMG 0804

[1] Master insert identification

For inserts, see pages: WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • WNMA/WNMA-WG (143) • WNMG-CERMET (136) • WNMG-F3M (137) • WNMG-F3P (135) • WNMG-F3S (138) • WNMG-GN (141) • WNMG-M3M (138) • WNMG-M3P (135) • WNMG-NF (139) • WNMG-NR (142) • WNMG-PP (140) • WNMG-TF (141) • WNMG-TNM (142) • WNMG-VL (139) • WNMG-WF (140) • WNMG-WG (139) • WNMM-NM (142) • WNMX-M3/4MW (143) • WNMX-M3/4PW (143)

Spare Parts

Designation							
DWLNR/L-JHP-MC	RWT 443	TWH 4*	RWT 443-TNM*	LCGR/L-4JC SET[a]	SR 14-506	PLG G1/8 TL360	OR 4X3 NBR70

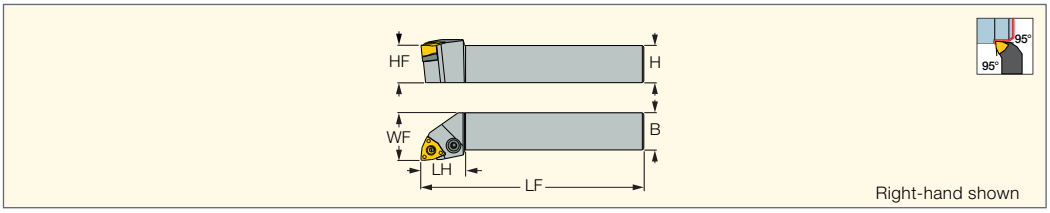
* Optional, should be ordered separately

[a] Recommended tightening torque 4Nm for R-Clamp Screw

HELITURN LD

PWLNR/L-X

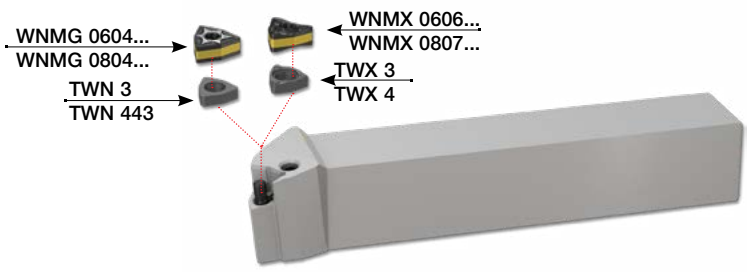
Lever Lock External Turning
Tools Carrying HELITURN LD
WNMX or WNMG Trigon Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PWLNR/L 2020K-06X (1)	20.0	20.0	20.0	125.00	25.0	25.00	WNMX 0606, WNMG 0604
PWLNR/L 2525M-06X (1)	25.0	25.0	25.0	150.00	25.0	32.00	WNMX 0606, WNMG 0604
PWLNR/L 2020K-08X (2)	20.0	20.0	20.0	125.00	30.0	25.00	WNMX 0807, WNMG 0804
PWLNR/L 2525M-08X (2)	25.0	25.0	25.0	150.00	30.0	32.00	WNMX 0807, WNMG 0804
PWLNR 3232P-08X (2)	32.0	32.0	32.0	170.00	30.0	40.00	WNMX 0807, WNMG 0804

(1) Supplied with TWX 3 seat for WNMX 0606.. inserts and TWN 3 seat for WNMG 0604.. inserts.
(2) Supplied with TWX 4 seat for WNMX 0807.. inserts and TWN 443 seat for WNMG 0804.. inserts.

For inserts, see pages: WNGG-F3N (209) • WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMX-M3/4PW (143) • WNMG-F3M (137) • WNMG-M3M (138) • WNMX-M3/4MW (143) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)



Spare Parts

Designation								
PWLNR/L 2020K-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4	
PWLNR/L 2525M-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4	
PWLNR/L 2020K-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	LR 4DHTL (MR INJ)*
PWLNR/L 2525M-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	LR 4DHTL (MR INJ)*
PWLNR 3232P-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	LR 4DHTL (MR INJ)*

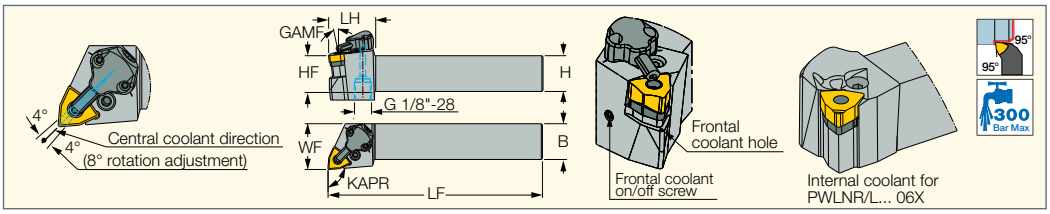
* Optional, should be ordered separately



HELITURN LD
JETCUT

PWLNR/L-X-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying HELITURN LD WNMX or WNMG Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMF	KAPR[3]	Insert
PWLNR/L 2020K-06X-JHP [1]	20.0	20.0	20.0	125.00	25.0	25.00	-6.0	95.0	WNMX 0606, WNMG 0604
PWLNR/L 2525M-06X-JHP [1]	25.0	25.0	25.0	150.00	25.0	32.00	-6.0	95.0	WNMX 0606, WNMG 0604
PWLNR/L 2525M-08X-JHP [2]	25.0	25.0	25.0	150.00	33.0	32.00	-6.0	95.0	WNMX 0807, WNMG 0804
PWLNR/L 3232P-08X-JHP [2]	32.0	32.0	32.0	170.00	33.0	40.00	-6.0	95.0	WNMX 0807, WNMG 0804

- For user guide, see pages 78-84

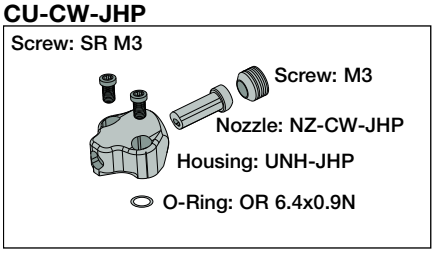
[1] Supplied with TWX 3 seat for WNMX 0606.. inserts and TWN 3 seat for WNMG 0604.. inserts.

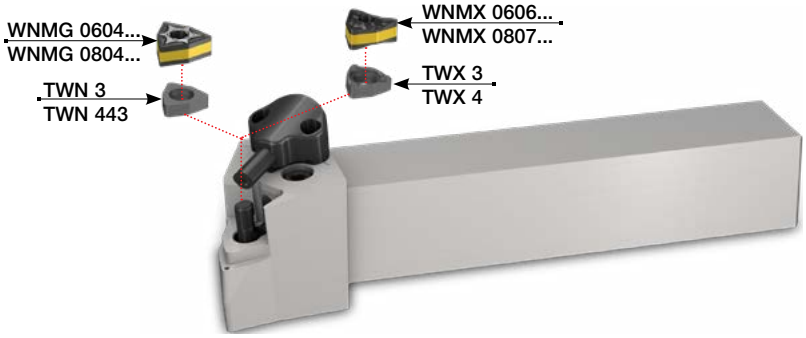
[2] Supplied with TWX 4 seat for WNMX 0807.. inserts and TWN 443 seat for WNMG 0804.. inserts.

[3] Tool cutting edge angle

For inserts, see pages: WNGG-F3N (209) • WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMX-M3/4PW (143) • WNMG-F3M (137) • WNMG-M3M (138) • WNMX-M3/4MW (143) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)

CU-CW-JHP

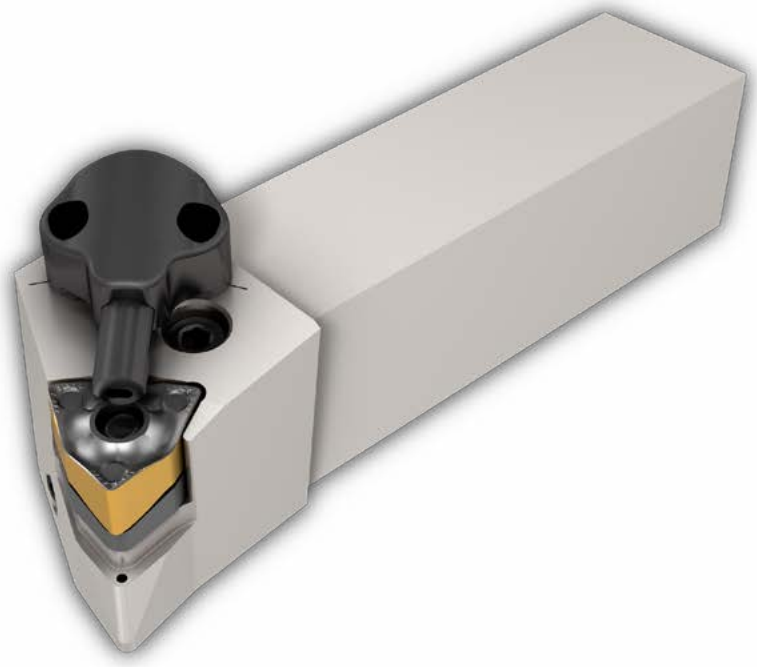




Spare Parts

Designation													
PWLNR/L 2020K-06X-JHP	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4				HW 2.5/5		
PWLNR/L 2525M-06X-JHP	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4				HW 2.5/5		
PWLNR/L 2525M-08X-JHP	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	LR 4DHTL (MR INJ)*	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360
PWLNR/L 3232P-08X-JHP	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	LR 4DHTL (MR INJ)*	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360

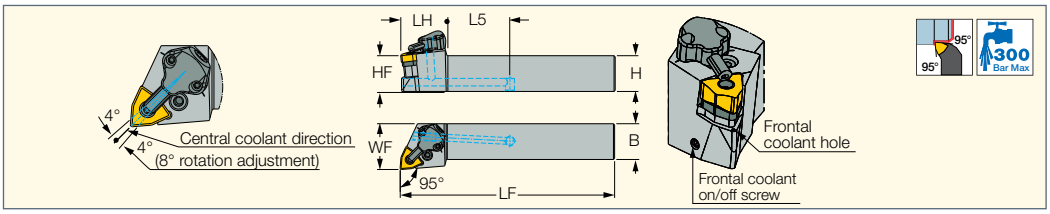
* Optional, should be ordered separately



HELITURN LD
JETCUT

PWLNR/L-X-JHP-MC

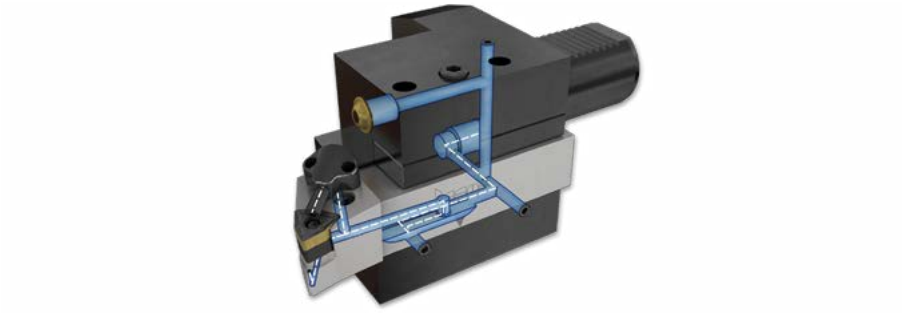
Lever Lock Tools with Bottom Inlets for High-Pressure Coolant Channels Carrying HELITURN LD WNMX and WNMG Trigon Inserts



Designation	H	HF	B	LF	LH	L5	WF	Insert
PWLNR/L 2020X-06X-JHP-MC	20.0	20.0	20.0	97.00	27.0	29.00	25.00	WNMX 0606, WNMG 0604
PWLNR/L 2525X-06X-JHP-MC	25.0	25.0	25.0	118.00	33.0	35.00	32.00	WNMX 0606, WNMG 0604
PWLNR/L 2020X-08X-JHP-MC	20.0	20.0	20.0	97.00	27.0	29.00	25.00	WNMX 0807, WNMG 0804
PWLNR/L 2525X-08X-JHP-MC	25.0	25.0	25.0	118.00	33.0	35.00	32.00	WNMX 0807, WNMG 0804

• For user guide, see pages 78-84

For inserts, see pages: WNGG-F3N (209) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMX-M3/4PW (143) • WNMG-F3M (137) • WNMG-M3M (138) • WNMX-M3/4MW (143) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)



Spare Parts

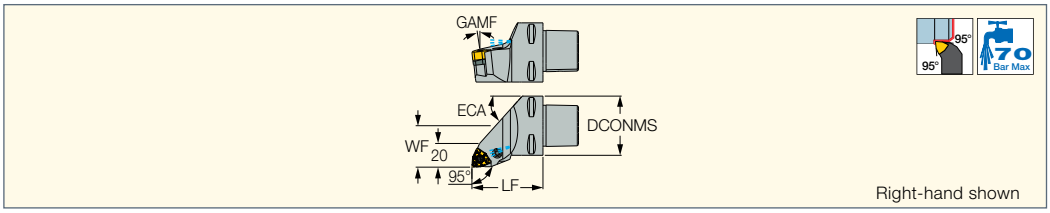
Designation												
PWLNR/L 2020X-06X-JHP-MC	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	HW 2.5	CU-CW-JHP	T-8/5	SR M5X5 DIN913 TL360		
PWLNR/L 2525X-06X-JHP-MC	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	HW 2.5	CU-CW-JHP	T-8/5	SR M5X5 DIN913 TL360		
PWLNR/L 2020X-08X-JHP-MC	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	HW 2.5	CU-CW-JHP	T-8/5	SR M5X5 DIN913 TL360	HW 3.0	LR 4DHTL (MR INJ)*
PWLNR/L 2525X-08X-JHP-MC	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	HW 2.5	CU-CW-JHP	T-8/5	SR M5X5 DIN913 TL360	HW 3.0	LR 4DHTL (MR INJ)*

* Optional, should be ordered separately

HELITURN LD
CAMFIX

C#-PWLNR/L-X

Lever Lock Tools with CAMFIX Shanks Carrying HELITURN LD WNMX or WNMG Inserts



Designation	DCONMS	WF	OHN[3]	ECA	GAMF	Insert	CDI[4]	CP[5]
C4 PWLNR/L-27050-06X [1]	40.00	27.00	50.00	45.0	6.0	WNMX 0606, WNMG 0604	1	70
C5 PWLNL-25060-06X [1]	50.00	25.00	60.00	48.0	6.0	WNMX 0606, WNMG 0604	1	70
C4 PWLNR/L-27050-08X [2]	40.00	27.00	50.00	45.0	6.0	WNMX 0807, WNMG 0804	1	70
C5 PWLNR/L-35060-08X [2]	50.00	35.00	60.00	48.0	6.0	WNMX 0807, WNMG 0804	1	70

[1] Supplied with TWX 3 seat for WNMX 0606.. inserts and TWN 3 seat for WNMG 0604.. inserts.
[2] Supplied with TWX 4 seat for WNMX 0807.. inserts and TWN 443 seat for WNMG 0804.. inserts.
[3] Minimum overhang
[4] 1 - Hole for data chip, 0 - Without hole for data chip
[5] Coolant pressure (Bar)

For inserts, see pages: WNGG-F3N (209) • WNMG-F3S (138) • WNMX-M3/4MW (143) • WNMX-M3/4PW (143) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-PP (140) • WNMG-NF (139) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139)

Spare Parts

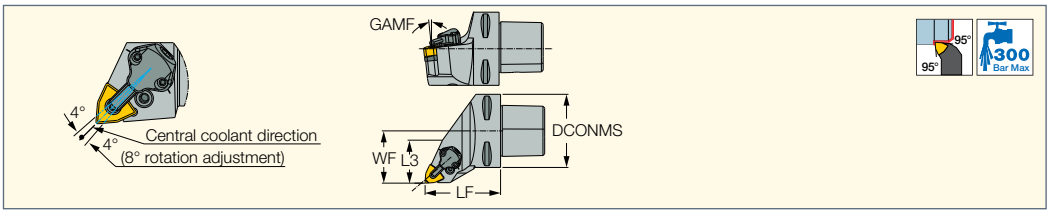
Designation									
C4 PWLNL-27050-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	EZ 62	HW 2.5/5	
C4 PWLNR-27050-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	EZ 62	HW 2.5/5	
C5 PWLNL-25060-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	EZ 83	HW 2.5/5	
C4 PWLNL-27050-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 62	HW 3.0	LR 4DHTL (MR INJ)*
C4 PWLNR-27050-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 62	HW 3.0	LR 4DHTL (MR INJ)*
C5 PWLNL-35060-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 83	HW 3.0	LR 4DHTL (MR INJ)*
C5 PWLNR-35060-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 83	HW 3.0	LR 4DHTL (MR INJ)*

* Optional, should be ordered separately

HELITURN LD
JETCUT CAMFIX

C#-PWLNR/L-X-JHP

Lever Lock Tools with CAMFIX Shanks and Channels for High-Pressure Coolant, Carrying WNMX or WNMG Inserts



Designation	DCONMS	LF	WF	L3	GAMF	Insert	CDI[3]
C3 PWLNR-22045-06X-JHP [1]	32.00	45.00	22.00	26.00	-6.0	WNMX 0606, WNMG 0604	0
C3 PWLNR-22045-08X-JHP [2]	32.00	45.00	22.00	22.00	-6.0	WNMX 0807, WNMG 0804	0
C4 PWLNR/L-27050-08X-JHP [2]	40.00	50.00	27.00	22.00	-6.0	WNMX 0807, WNMG 0804	1
C5 PWLNR/L-35060-08X-JHP [2]	50.00	60.00	35.00	25.00	-6.0	WNMX 0807, WNMG 0804	1
C6 PWLNR/L-45065-08X-JHP [2]	63.00	65.00	45.00	37.00	-6.0	WNMX 0807, WNMG 0804	1

- For user guide, see pages 78-84

[1] Supplied with TWX 3 seat for WNMX 0606.. inserts and TWN 3 seat for WNMG 0604.. inserts.

[2] Supplied with TWX 4 seat for WNMX 0807.. inserts and TWN 443 seat for WNMG 0804.. inserts.

[3] 1 - Hole for data chip, 0 - Without hole for data chip

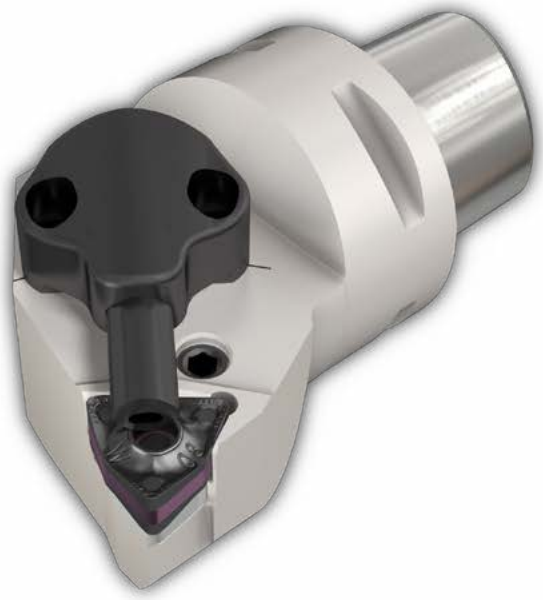
For inserts, see pages: WNMG-F3S (138) • WNMX-M3/4MW (143) • WNMX-M3/4PW (143) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-PP (140) • WNMG-NF (139) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139)



Spare Parts

Designation										
C3 PWLNR-22045-06X-JHP	TWX 3	TWN 3	SP 3	PN 3-4	LR 3	SR 117-2014	CU-CW-JHP		T-8/5	HW 2.5
C3 PWLNR-22045-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C4 PWLNL-27050-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C4 PWLNR-27050-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C5 PWLNL-35060-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C5 PWLNR-35060-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C6 PWLNL-45065-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C6 PWLNR-45065-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0

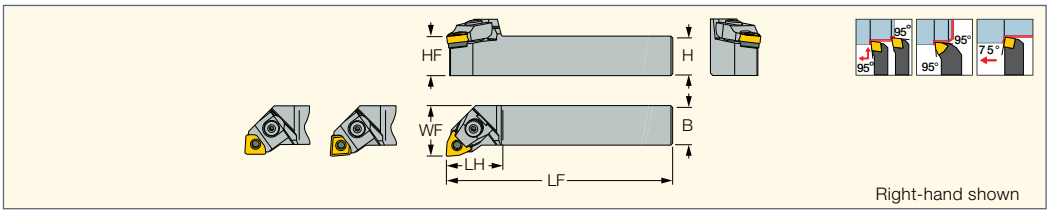
* Optional, should be ordered separately



MULTI-WEDGE

MULNR/L-12MW

MULTI-WEDGE Lock
External Tools Carrying
80° Negative Rhombic or
Trigon or Square Inserts

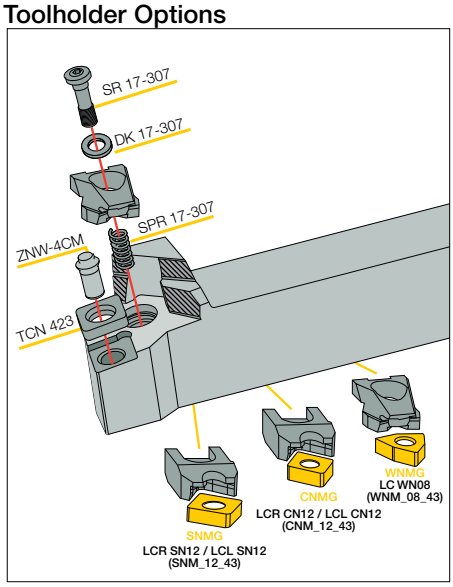


Designation	H	HF	B	LF	LH	WF
MULNR/L 2525M-12MW	25.0	25.0	25.0	150.00	35.0	32.00

• The wedge for the WNMG insert is supplied with the holder, order the others separately

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • SNMG-F3S (175) • WNMG-CERMET (136)
• WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142)
• WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139)
• WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152)
• CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147)
• CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216)
• CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225)
• CNMA (PCD) (221) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177)
• SNMG-NR (177) • SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Toolholder Options



Spare Parts

Designation	TCN 423	ZNW 4CM	LC WN08	LCR/L CN12*	LCR/L SN12*	SR 17-307	SR M4X8	HW 3.0	DK 17-307	SPR 17-307
MULNR/L 2525M-12MW										

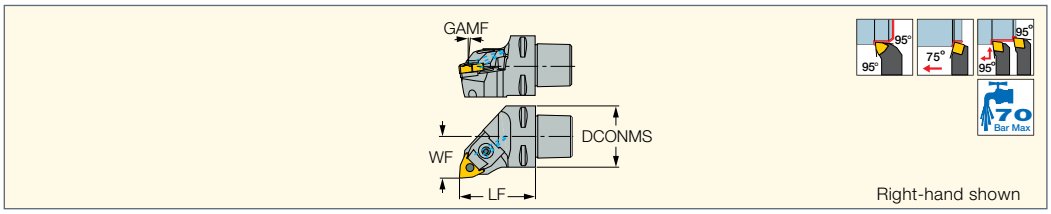
* Optional, should be ordered separately



MULTI-WEDGE CAMFIX

C#-MULNR/L-MW

MULTI-WEDGE Tools with CAMFIX Exchangeable Shanks Carrying 80° Negative Rhombic or Trigon or Square Inserts



Designation	DCONMS	WF	LF	GAMF	Insert	CDI(1)
C4 MULNR/L 27050-12MW	40.00	27.00	50.00	6.0	W/C/SNMG 1204..	1
C5 MULNR/L 35060-12MW	50.00	35.00	60.00	6.0	W/C/SNMG 1204..	1
C6 MULNR/L-45065-12MW	63.00	45.00	65.00	6.0	W/C/SNMG 1204..	1

- R.H. wedge for R.H. tool, L.H. wedge for L.H. tool

(1) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • SNMG-F3S (175) • WNMG-CERMET (136)
• WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142)
• WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139)
• WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152)
• CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147)
• CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216)
• CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)
• SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177)
• SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

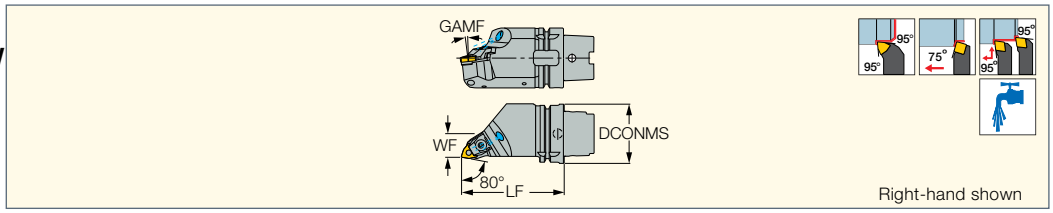
Spare Parts

Designation								
C4 MULNL 27050-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 62
C4 MULNR 27050-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 62
C5 MULNL 35060-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 83
C5 MULNR 35060-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 83
C6 MULNL-45065-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 104
C6 MULNR-45065-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 104

HSK MULTI-WEDGE

HSK A63WH-MULNR/L-MW

MULTI-WEDGE Toolholders with HSK Taper Shanks for 80° Rhombic, Trigon and Square Inserts



Designation	DCONMS	LF	WF	GAMF	Insert	CDI(1)
HSK A63WH MULNR/L J12MW	63.00	110.00	25.00	-6.0	W/C/SNMG 1204	0

- Complies with ICTM standard (ISO 12164-3) • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)
- For shank dimensions, see page 735

(1) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • SNMG-F3S (175) • WNMG-CERMET (136)
• WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142)
• WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139)
• WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152)
• CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147)
• CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMA (149) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226)
• CNGA-4 (CBN) (225) • CNGA-Ceramic (217) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)
• SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177)
• SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

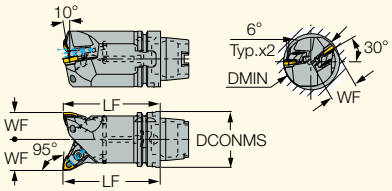
Designation											
HSK A63WH-MULNR/L-MW	TCN 423	LCR/L CN12*	LCR/L SN12*	LC WN08	ZNW 4CM	SR 17-307	HW 3.0	DK 17-307	SPR 17-307	SR M4X8	EZ 104

* Optional, should be ordered separately

MULTI-WEDGE HSK

HSK A63WH-MULNR-J12MWX2

MULTI-WEDGE Twin Toolholders with HSK Taper Shanks for 80° Rhombic, Trigon and Square Inserts



Right-hand shown

Designation	DCONMS	LF	WF	DMIN	Insert	CDI[1]
HSK A63WH-MULNR-J12MWX2	63.00	110.00	35.00	72.00	W/C/SNMG 1204	0

- Complies with ICTM standard (ISO 12164-3)
- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately).
- For shank dimensions, see page 735

[1] 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • SNMG-F3S (175) • WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

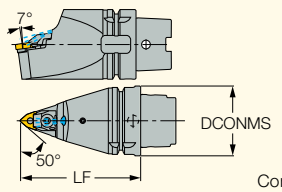
Designation									
HSK A63WH-MULNR-J12MWX2	TCN 423	LC WN08	LCR CN12*	LCR SN12*	ZNW 4CMI	DK 17-307	SPR 17-307	SR 17-307	HW 3.0

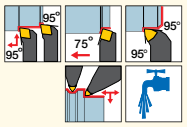
* Optional, should be ordered separately

HSK MULTI-WEDGE

HSK A63WH-MUMNN-MW

MULTI-WEDGE Tools with HSK Exchangeable Shanks Carrying 80° Negative Rhombic or Trigon or Square Inserts





Complies with ICTM standard (ISO 12164-3)

Designation	DCONMS	LF	Insert	CDI[1]
HSK A63WH MUMNN J12MW	63.00	110.00	W/C/SNMG 1204	0

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately).
- For shank dimensions, see page 735

[1] 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • SNMG-F3S (175) • WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

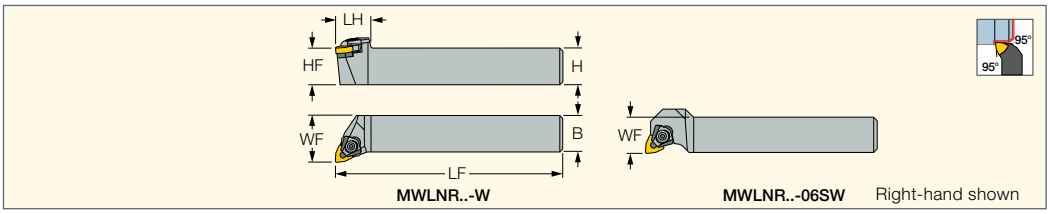
Designation											
HSK A63WH MUMNN J12MW	LC WN08	LCR CN12*	LCR SN12*	TCN 423	ZNW 4CM	SR 17-307	HW 3.0	DK 17-307	SPR 17-307	EZ 83	SR M4X8

* Optional, should be ordered separately

ISOTURN

MWLNR/L-W

Top Wedge Lock External Tools Carrying Trigon Inserts



Designation	H	HF	B	LF	LH	WF	Insert
MWLNR/L 1616H-06SW	16.0	16.0	16.0	100.00	23.0	16.00	WNMG 06T3
MWLNR/L 2020K-06W	20.0	20.0	20.0	125.00	25.0	25.00	WNMG 06T3
MWLNR/L 2525M-06W	25.0	25.0	25.0	150.00	25.0	32.00	WNMG 06T3
MWLNR/L 2020K-08W	20.0	20.0	20.0	125.00	30.0	25.00	WNMG 0804
MWLNR/L 2525M-08W	25.0	25.0	25.0	150.00	30.0	32.00	WNMG 0804
MWLNR/L 3232P-08W	32.0	32.0	32.0	170.00	35.0	40.00	WNMG 0804

For inserts, see pages: WNGG-F3N (209) • WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-SF (138) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)

Spare Parts

Designation						
MWLNR/L 1616H-06SW	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5
MWLNR/L 2020K-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5
MWLNR/L 2525M-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5
MWLNR/L 2020K-08W	IWSN 433	IWSN 433M[b]*	ZNW 4W	SR M4X8	LC 252 SET 1	HW 3.0
MWLNR/L 2525M-08W	IWSN 433	IWSN 433M[b]*	ZNW 4W	SR M4X8	LC 252 SET 1	HW 3.0
MWLNR/L 3232P-08W	IWSN 433	IWSN 433M[b]*	ZNW 4W	SR M4X8	LC 252 SET 1	HW 3.0

* Optional, should be ordered separately

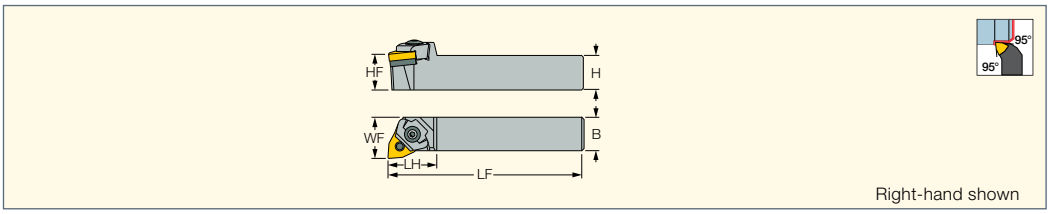
[a] Use IWSN 3-2W optional seat for WNMG 0604.. inserts

[b] Use IWSN 433M optional seat for WNMG 0804..-TNM inserts

ISOTURN

MWLNR/L-13W

Top Wedge Lock External Toolholders for Large Trigon Inserts



Designation	H	B	HF	LF	LH	WF	Insert
MWLNR/L 3232P-13W	32.0	32.0	32.0	170.00	45.0	40.00	WNMG 1306
MWLNR/L 4040R-13W	40.0	40.0	40.0	200.00	45.0	50.00	WNMG 1306

For inserts, see pages: WNMA/WNMA-WG (143) • WNMG-TNM (142)

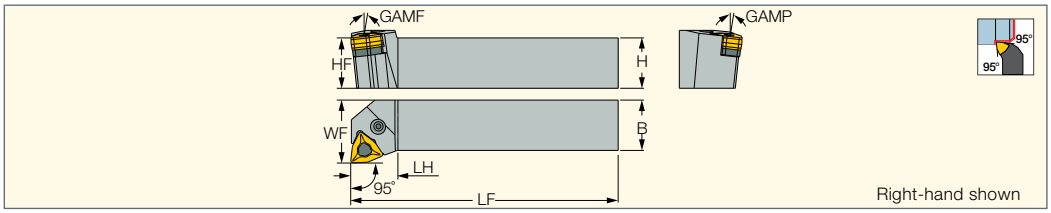
Spare Parts

Designation								
MWLNR/L-13W	IWSN 635	ZNW 6W	SR 14-570	LC 253	HW 4P	SPR 17-362	SR 17-362	WA M8

DOVEIQTURN HEAVY DUTY LINE

PWLOR/L-IQ

Lever Lock and Dovetail Pocket Rigid Clamping Tools Carrying Unique Double-Sided Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLOR/L 2525M-10-IQ	25.0	25.0	25.0	150.00	25.0	32.00	-6.0	-6.0	WOMG 1007-IQ
PWLOR/L 3232P-10-IQ	32.0	32.0	32.0	170.00	30.0	40.00	-6.0	-6.0	WOMG 1007-IQ
PWLOR/L 3232P-13-IQ	32.0	32.0	32.0	170.00	30.0	40.00	-6.5	-6.5	WOMG 1306-IQ
PWLOR/L 4040S-13-IQ	40.0	40.0	40.0	250.00	30.0	48.00	-6.5	-6.5	WOMG 1306-IQ

For inserts, see pages: WOMG-10-T3P-IQ (136) • WOMG-13-R3P-IQ (137)

Spare Parts

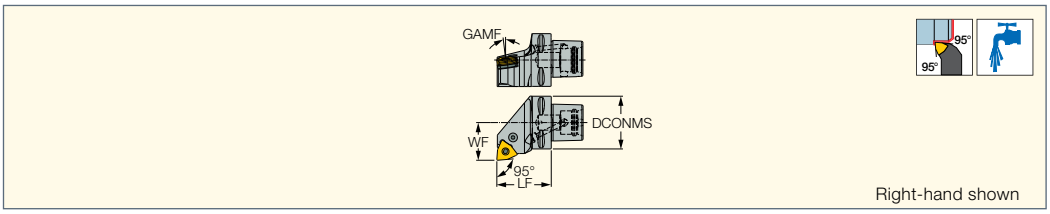
Designation					
PWLOR/L 2525M-10-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0
PWLOR/L 3232P-10-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0
PWLOR/L 3232P-13-IQ	TWX 6-IQ	SP 5[a]	SR 10402352	LCL 20C-NX	HW 4.0
PWLOR/L 4040S-13-IQ	TWX 6-IQ	SP 5[a]	SR 10402352	LCL 20C-NX	HW 4.0

[a] Seat Pin

DOVEIQTURN HEAVY DUTY LINE
CAMFIX

C#-PWLOR/L-IQ

Lever Lock and Dovetail Rigid Clamping Pocket with CAMFIX Shank Tools Carrying Unique Double-Sided Trigon Inserts



Designation	DCONMS	WF	LF	GAMF	Insert
C6 PWLOR/L-45065-13-IQ	63.00	45.00	65.00	-6.5	WOMG 1306-IQ

For inserts, see pages: WOMG-13-R3P-IQ (137)

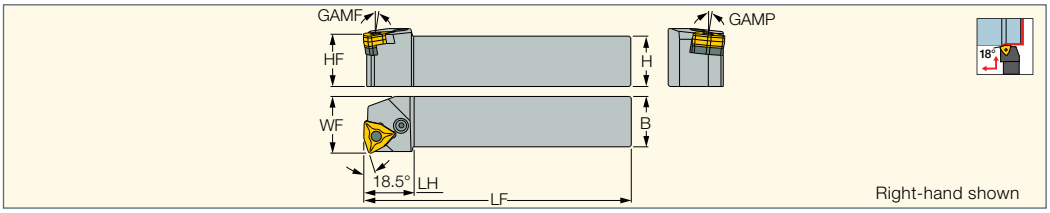
Spare Parts

Designation						
C#-PWLOR/L-IQ	TWX 6-IQ	LCL 20C-NX	SR 10402352	HW 4.0	SP 5	SATZ-M10X1-M5

FEEDTURN
DOVEIQTURN HEAVY DUTY LINE

PWXOR/L-TF-IQ

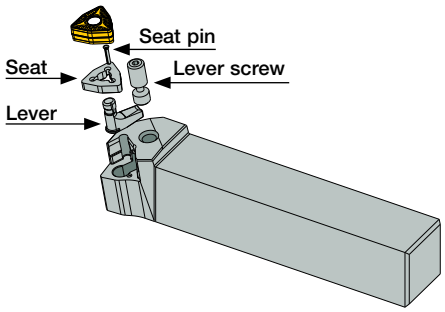
Lever Lock Tools for Fast Feed Longitudinal Turning



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
PWXOR/L 2525M-10-TF-IQ	25.0	25.0	25.0	150.00	31.0	29.00	-6.0	-6.0	WOMG 1007-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0
PWXOR/L 3232P-10-TF-IQ	32.0	32.0	32.0	170.00	31.0	36.00	-6.0	-6.0	WOMG 1007-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0
PWXOR/L 4040S-10-TF-IQ	40.0	40.0	40.0	250.00	31.0	44.00	-6.0	-6.0	WOMG 1007-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0

[a] Seat Pin

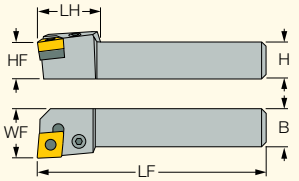
For inserts, see pages: WOMG-10-T3P-IQ (136)



ISOTURN

PCLNR/L

Lever Lock Tools Carrying 80°
Negative Rhombic Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert
PCLNR/L 2020K-12	20.0	20.0	20.0	125.00	27.5	25.00	CNMG 1204..
PCLNR/L 2525M-12	25.0	25.0	25.0	150.00	27.8	32.00	CNMG 1204..
PCLNR/L 3232P-12	32.0	32.0	32.0	170.00	27.6	40.00	CNMG 1204..
PCLNR/L 3232P-19	32.0	32.0	32.0	170.00	38.0	40.00	CNMG 1906..
PCLNR/L 4040S-25	40.0	40.0	40.0	250.00	47.0	50.00	CNMG 2509..
PCLNR 5050T-25	50.0	50.0	50.0	300.00	47.0	60.00	CNMG 2509..

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-CERMET (145) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMM-NR (154) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG-MR (151) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMM-H3P (153) • CNMM-H4P (153) • CNMM-H5P (154) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

Spare Parts

Designation							
PCLNR/L 2020K-12	TCN 423		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4
PCLNR/L 2525M-12	TCN 423		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4
PCLNR/L 3232P-12	TCN 423		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4
PCLNR/L 3232P-19	TCN 63		SP 66	LR 6	SR 10402352	HW 4.0	
PCLNR/L 4040S-25	TCN 84N	TCN 85N*	SP 8	LR 8	SR 10402264		
PCLNR 5050T-25	TCN 84N	TCN 85N*	SP 8	LR 8	SR 10402264		

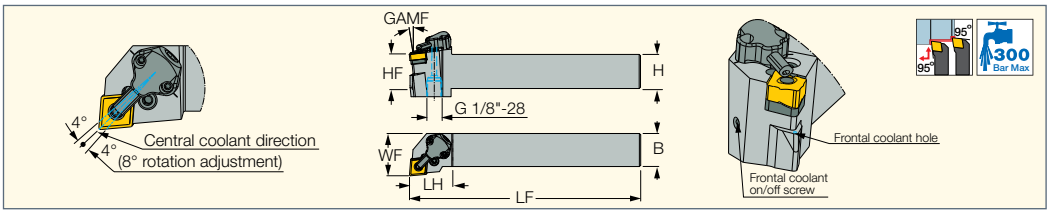
* Optional, should be ordered separately



ISOTURN JETCUT

PCLNR/L-12-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying 80° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMF	Insert
PCLNR/L 2525M-12-JHP	25.0	25.0	25.0	150.00	33.0	32.00	-6.0	CNMG 1204
PCLNR/L 3232P-12-JHP	32.0	32.0	32.0	170.00	33.0	40.00	-6.0	CNMG 1204

• For user guide, see pages 78-84

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

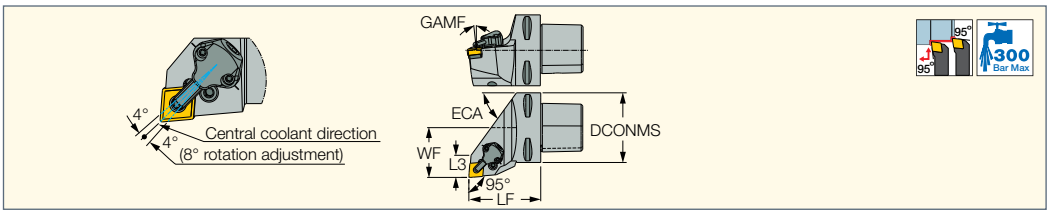
Spare Parts

Designation										
PCLNR/L-12-JHP	TCN 423	SP 4	LR 4	SR 117-2010	PN 3-4	CU-CW-JHP	SR M4X4 DIN913 TL360	HW 2.0	HW 3.0	T-8/5

ISOTURN JETCUT CAMFIX

C#-PCLNR/L-12-JHP

Lever Lock Tools with Channels for High-Pressure Coolant and CAMFIX Shanks Carrying 80° Negative Rhombic Inserts



Designation	DCONMS	WF	LF	L3	ECA	GAMF	Insert	CDI(1)	CP(2)
C6 PCLNR/L-45065-12-JHP	63.00	45.00	65.00	20.00	54.0	-6.0	CNMG 1204	1	300

• For user guide, see pages 78-84

(1) 1 - Hole for data chip, 0 - Without hole for data chip

(2) Coolant pressure (Bar)

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

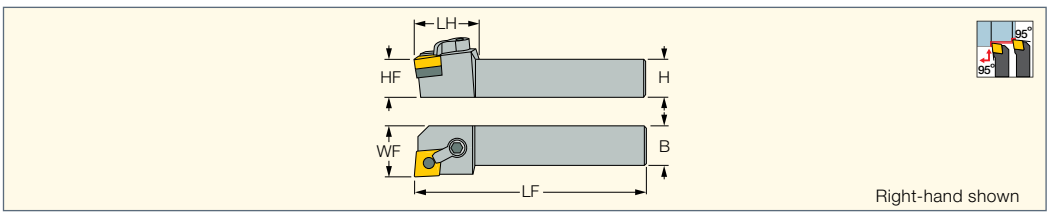
Spare Parts

Designation									
C6 PCLNL-45065-12-JHP	TCN 423	SP 4	LR 4	SR 117-2010	PN 3-4	CU-CW-JHP	HW 3.0	T-8/5	
C6 PCLNR-45065-12-JHP	TCN 423	SP 4	LR 4	SR 117-2010	PN 3-4	CU-CW-JHP	HW 3.0	T-8/5	SR M5X5 DIN913 TL360

ISOTURN

MCLNR/L

Pin and Clamp Tools Carrying 80° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	Insert
MCLNR 2525M-16	25.0	25.0	25.0	150.00	30.0	32.00	CNMG 1606..
MCLNR 3232P-16	32.0	32.0	32.0	170.00	30.0	40.00	CNMG 1606..
MCLNL 3232P-19	32.0	32.0	32.0	170.00	35.0	40.00	CNMG 1906..

For inserts, see pages: CNMG-M3P (144) • CNMM-R3P (153) • CNMG-M3M (146) • CNMG-R3M (147) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMM-NR (154) • CNMG/CNGG-PP (150) • CNMG-MR (151) • CNMM-H3P (153) • CNMM-H4P (153) • CNMA (149)

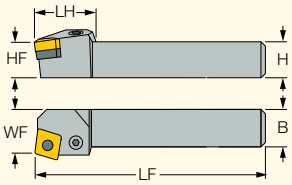
Spare Parts

Designation				
MCLNR 2525M-16	TCT 533	LC 30 SET 1	ZN 54M	HW 3.0
MCLNR 3232P-16	TCT 533	LC 30 SET 1	ZN 54M	HW 3.0
MCLNL 3232P-19	TCT 634	LC80 SET-1	ZN 64	HW 4.0

ISOTURN

PCBNR/L

Lever Lock Tools using the 100° Corner of CNMG Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert
PCBNR/L 2525M-12	25.0	25.0	25.0	150.00	27.7	22.00	CNMG 1204..
PCBNR/L 3232P-19	32.0	32.0	32.0	170.00	37.0	27.00	CNMG 1906..
PCBNR 4040S-19	40.0	40.0	40.0	250.00	37.0	37.00	CNMG 1906..

For inserts, see pages: CNMG-CERMET (145) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMM-NR (154) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG-MR (151) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMM-H3P (153) • CNMM-H4P (153) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216)

Spare Parts

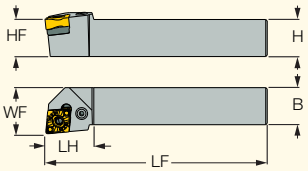
Designation						
PCBNR/L 2525M-12	TCN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
PCBNR/L 3232P-19	TCN 63	SP 66		LR 6	SR 10402352	HW 4.0
PCBNR 4040S-19	TCN 63	SP 66		LR 6	SR 10402352	HW 4.0

HELITURN LD

FLASHTURN ECO LINE

PCLNR/L-X

Lever Lock Tools Carrying CNMX/ CNMG 80° Rhombic Inserts



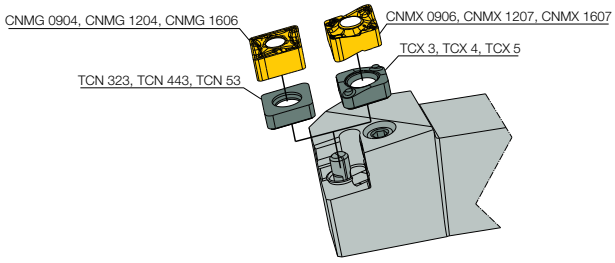


Right-hand shown

Designation	B	H	LF	LH	WF	Insert
PCLNR 1616H-09X	16.0	16.0	150.00	25.0	25.00	CNMX 0906 CNMG 0904
PCLNR/L 2020K-09X	20.0	20.0	125.00	25.0	25.00	CNMX 0906 CNMG 0904
PCLNR/L 2525M-09X	25.0	25.0	150.00	25.0	32.00	CNMX 0906 CNMG 0904
PCLNR/L 2020K-12X	20.0	20.0	125.00	31.0	25.00	CNMX 1207 CNMG 1204
PCLNR/L 2525M-12X	25.0	25.0	150.00	31.0	32.00	CNMX 1207 CNMG 1204
PCLNR/L 3232P-12X	32.0	32.0	170.00	32.0	40.00	CNMX 1207 CNMG 1204
PCLNR/L 3232P-16X	32.0	32.0	170.00	32.0	40.00	CNMX 1607 CNMG 1606

• Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts, TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts, TCX 5 seat for CNMX 1607.. inserts and TCN 53 seat for CNMG 1606.. inserts.

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-F3N (209) • CNGG-J(CBN) (227) • CNGX-M3N (209) • CNMG-CERMET (145) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMX-M3/4PW (152) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMX-M3/4MW (152) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG-MR (151) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)



Spare Parts

Designation								
PCLNR/L 2020K-09X	TCX 3[a]	TCN 323	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4	
PCLNR/L 2525M-09X	TCX 3[a]	TCN 323	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4	
PCLNR/L 2020K-12X	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	LR 4DHTL (MR INJ)*
PCLNR/L 2525M-12X	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	LR 4DHTL (MR INJ)*
PCLNR/L 3232P-12X	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	LR 4DHTL (MR INJ)*
PCLNR/L 3232P-16X	TCX 5	TCN 53	SP 5	LR 5	SR LCS 5	HW 3.0	SPP 5-6	

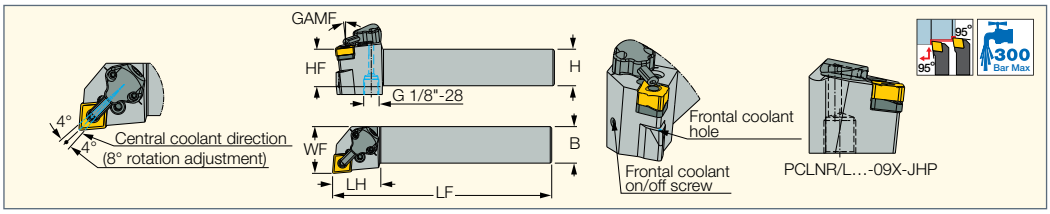
* Optional, should be ordered separately

[a] For CNMX 0906.. (CNMX 34.) inserts

HELITURN LD
JETCUT

PCLNR/L-X-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying CNMX/ CNMG 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMF	Insert
PCLNR/L 1616H-09X-JHP	16.0	16.0	16.0	100.00	20.0	20.00	-6.0	CNMX 0906, CNMG 0904
PCLNR/L 2020K-09X-JHP	20.0	20.0	20.0	125.00	25.0	25.00	-6.0	CNMX 0906, CNMG 0904
PCLNR/L 2525M-09X-JHP	25.0	25.0	25.0	150.00	25.0	32.00	-6.0	CNMX 0906, CNMG 0904
PCLNR/L 2525M-12X-JHP	25.0	25.0	25.0	150.00	25.0	32.00	-6.0	CNMX 1207, CNMG 1204
PCLNR/L 3232P-12X-JHP	32.0	32.0	32.0	170.00	33.0	40.00	-6.0	CNMX 1207, CNMG 1204

- Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts. TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts.
- For user guide, see pages 78-84

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNGX-M3N (209) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMX-M3/4PW (152) • CNMM-M4PW (152) • CNGG-F3N (209) • CNMG-CERMET (145) • CNMG-F3M (146) • CNMG-M3M (146) • CNMX-M3/4MW (152) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

Spare Parts

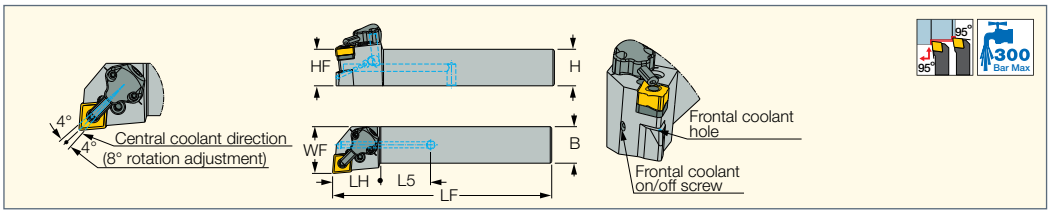
Designation												
PCLNR/L 1616H-09X-JHP	TCX 3[a]	TCN 323[d]	SP 3	LR 3	SR 117-2014	PN 3-4				HW 2.5		
PCLNR/L 2020K-09X-JHP	TCX 3[a]	TCN 323[d]	SP 3	LR 3	SR 117-2014	PN 3-4				HW 2.5		
PCLNR/L 2525M-09X-JHP	TCX 3[a]	TCN 323[d]	SP 3	LR 3	SR 117-2014	PN 3-4				HW 2.5		
PCLNR/L 2525M-12X-JHP	TCX 4[b]	TCN 443[c]	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	LR 4DHTL (MR INJ)*	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360
PCLNR/L 3232P-12X-JHP	TCX 4[b]	TCN 443[c]	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	LR 4DHTL (MR INJ)*	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360

* Optional, should be ordered separately [a] For CNMX 0906.. (CNMX 34.) inserts [b] For CNMX 1207.. (CNMX 45.) inserts
[c] For CNMG 0904.. (CNMG 33.) inserts [d] For CNMG 1204.. (CNMG 43.) inserts

HELITURN LD
JETCUT

PCLNR/L-X-JHP-MC

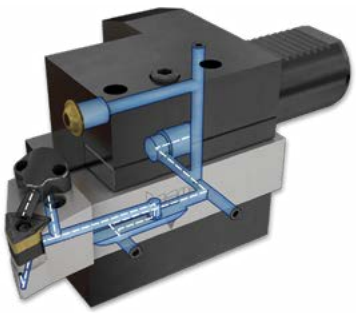
Lever Lock Tools with Bottom Inlets for High-Pressure Coolant Channels Carrying CNMX/CNMG 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	L5	WF	Insert
PCLNR/L 2020X-09X-JHP-MC	20.0	20.0	20.0	97.00	27.0	29.00	25.00	CNMX 0906, CNMG 0904
PCLNR/L 2525X-09X-JHP-MC	25.0	25.0	25.0	118.00	33.0	35.00	32.00	CNMX 0906, CNMG 0904
PCLNR/L 2020X-12X-JHP-MC	20.0	20.0	20.0	97.00	27.0	29.00	25.00	CNMX 1207, CNMG 1204
PCLNR/L 2525X-12X-JHP-MC	25.0	25.0	25.0	118.00	33.0	35.00	32.00	CNMX 1207, CNMG 1204

- Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts. TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts.
- For user guide, see pages 78-84

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMG-CERMET (145) • CNGG-F3N (209) • CNMX-M3/4PW (152) • CNMM-M4PW (152) • CNGX-M3N (209) • CNMG-F3M (146) • CNMG-M3M (146) • CNMX-M3/4MW (152) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)



Spare Parts

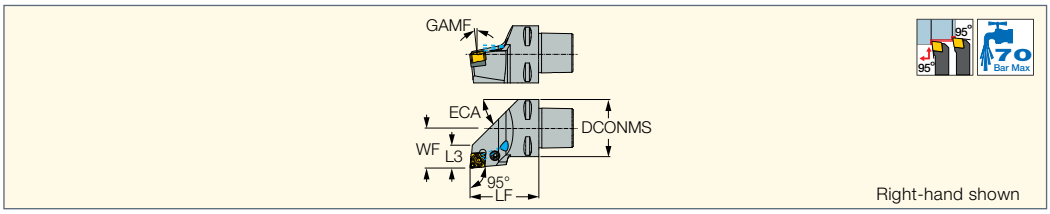
Designation												
PCLNR/L 2020X-09X-JHP-MC	TCX 3[a]	TCN 323[c]	SP 3	LR 3	SR 117-2014	PN 3-4	HW 2.5	CU-CW-JHP	SR M5X5 DIN913 TL360		T-8/5	
PCLNR/L 2525X-09X-JHP-MC	TCX 3[a]	TCN 323[c]	SP 3	LR 3	SR 117-2014	PN 3-4	HW 2.5	CU-CW-JHP	SR M5X5 DIN913 TL360		T-8/5	
PCLNR/L 2020X-12X-JHP-MC	TCX 4[a]	TCN 443[d]	SP 4	LR 4DH	SR 117-2010	PN 3-4L	HW 2.5	CU-CW-JHP	SR M5X5 DIN913 TL360	HW 3.0	T-8/5	LR 4DHTL (MR INJ)*
PCLNR/L 2525X-12X-JHP-MC	TCX 4[a]	TCN 443[d]	SP 4	LR 4DH	SR 117-2010	PN 3-4L	HW 2.5	CU-CW-JHP	SR M5X5 DIN913 TL360	HW 3.0	T-8/5	LR 4DHTL (MR INJ)*

* Optional, should be ordered separately [a] For CNMX 0906.. (CNMX 34.) inserts [b] For CNMX 1207.. (CNMX 45.) inserts
[c] For CNMG 0904.. (CNMG 33.) inserts [d] For CNMG 1204.. (CNMG 43.) inserts

HELITURN LD
CAMFIX

C#-PCLNR/L-X

Lever Lock Tools with CAMFIX Exchangeable Shanks Carrying CNMX and CNMG Rhombic Inserts



Designation	DCONMS	WF	LF	GAMF	L3	ECA	Insert	CDI(2)	CP(3)
C4 PCLNR/L-27050-12X (1)	40.00	27.00	50.00	6.0	20.00	40.0	CNMX 1207, CNMG 1204	1	70
C5 PCLNR/L-35060-12X (1)	50.00	35.00	60.00	6.0	20.00	45.0	CNMX 1207, CNMG 1204	1	70
C6 PCLNR/L-45065-12X (1)	63.00	45.00	65.00	6.0	20.00	54.0	CNMX 1207, CNMG 1204	1	70
C4 PCLNR/L-27050-16X	40.00	27.00	50.00	6.0	21.00	40.0	CNMX 1607, CNMG 1606	1	70
C5 PCLNR/L-35060-16X	50.00	35.00	60.00	6.0	21.00	45.0	CNMX 1607, CNMG 1606	1	70
C6 PCLNR/L-45065-16X	63.00	45.00	65.00	6.0	21.00	54.0	CNMX 1607, CNMG 1606	1	70

(1) Supplied with TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts.
(2) 1 - Hole for data chip, 0 - Without hole for data chip
(3) Coolant pressure (Bar)

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • CNMX-M3/4PW (152) • CNMX-M3/4MW (152) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG-MR (151) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

Spare Parts

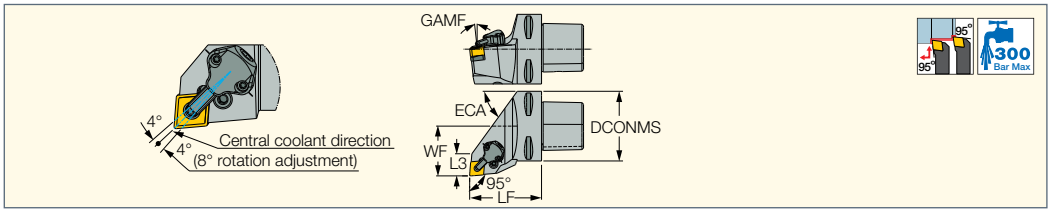
Designation									
C4 PCLNL-27050-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 62	LR 4DHTL (MR INJ)*
C4 PCLNR-27050-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 62	LR 4DHTL (MR INJ)*
C5 PCLNL-35060-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 83	LR 4DHTL (MR INJ)*
C5 PCLNR-35060-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 83	LR 4DHTL (MR INJ)*
C6 PCLNL-45065-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 83	LR 4DHTL (MR INJ)*
C6 PCLNR-45065-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 83	LR 4DHTL (MR INJ)*
C4 PCLNL-27050-16X	TCX 5	TCN 53	SP 5		LR 5	SR LCS 5	HW 3.0	EZ 104	
C4 PCLNR-27050-16X	TCX 5	TCN 53	SP 5		LR 5	SR LCS 5	HW 3.0	EZ 104	
C5 PCLNL-35060-16X	TCX 5	TCN 53	SP 5	SPP 5-6	LR 5	SR LCS 5	HW 3.0	EZ 125	
C5 PCLNR-35060-16X	TCX 5	TCN 53	SP 5		LR 5	SR LCS 5	HW 3.0	EZ 125	
C6 PCLNL-45065-16X	TCX 5	TCN 53	SP 5	SPP 5-6	LR 5	SR LCS 5	HW 3.0	EZ 125	
C6 PCLNR-45065-16X	TCX 5	TCN 53	SP 5	SPP 5-6	LR 5	SR LCS 5	HW 3.0	EZ 125	

* Optional, should be ordered separately

HELITURN LD
JETCUT CAMFIX

C#-PCLNR/L-X-JHP

Lever Lock Tools with CAMFIX Shanks and Channels for High-Pressure Coolant Carrying CNMX or CNMG Inserts



Designation	DCONMS	WF	LF	L3	ECA	GAMF	Insert	CDI(3)	CP(4)
C3 PCLNR-22045-09X-JHP (1)	32.00	22.00	45.00	22.00	45.0	-6.0	CNMX 0906, CNMG 0904	0	300
C4 PCLNR/L-27050-09X-JHP (1)	40.00	27.00	50.00	24.00	45.0	-6.0	CNMX 0906, CNMG 0904	1	300
C5 PCLNR/L-35060-09X-JHP (1)	50.00	35.00	60.00	26.00	45.0	-6.0	CNMX 0906, CNMG 0904	1	300
C4 PCLNR/L-27050-12X-JHP (2)	40.00	27.00	50.00	18.00	54.0	-6.0	CNMX 1207, CNMG 1204	1	300
C5 PCLNR/L-35060-12X-JHP (2)	50.00	35.00	60.00	20.00	50.0	-6.0	CNMX 1207, CNMG 1204	1	300
C6 PCLNR/L-45065-12X-JHP (2)	63.00	45.00	65.00	20.00	54.0	-6.0	CNMX 1207, CNMG 1204	1	300

• For user guide, see pages 78-84
(1) Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts.
(2) Supplied with TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts.
(3) 1 - Hole for data chip, 0 - Without hole for data chip
(4) Coolant pressure (Bar)

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-F3N (209) • CNGG-J(CBN) (227) • CNGX-M3N (209) • CNMG-CERMET (145) • CNMG-F3S (147) • CNMX-M3/4MW (152) • CNMX-M3/4PW (152) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

Spare Parts

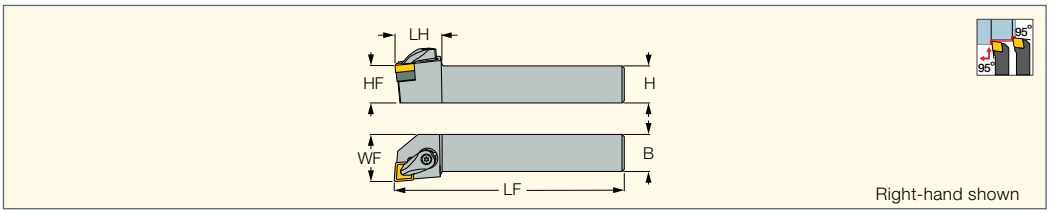
Designation										
C3 PCLNR-22045-09X-JHP	TCX 3(a)	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP		T-8/5	HW 2.5
C4 PCLNL-27050-09X-JHP	TCX 3(a)	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP		T-8/5	HW 2.5
C4 PCLNR-27050-09X-JHP	TCX 3(a)	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP		T-8/5	HW 2.5
C5 PCLNL-35060-09X-JHP	TCX 3(a)	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP		T-8/5	HW 2.5
C5 PCLNR-35060-09X-JHP	TCX 3(a)	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP		T-8/5	HW 2.5
C4 PCLNL-27050-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C4 PCLNR-27050-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C5 PCLNL-35060-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C5 PCLNR-35060-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C6 PCLNL-45065-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0
C6 PCLNR-45065-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	LR 4DHTL (MR INJ)*	T-8/5	HW 3.0

* Optional, should be ordered separately
(a) For CNMX 0906.. (CNMX 34.) inserts

ISOTURN

DCLNR/L

R-Clamp Tools with 95°
Lead Angle Carrying 80°
Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	Insert
DCLNR/L-2020K-09X (1)	20.0	20.0	20.0	125.00	25.0	25.00	CNMG 0904 CNMX 0906
DCLNR/L-2525M-09X (1)	25.0	25.0	25.0	150.00	25.0	32.00	CNMG 0904 CNMX 0906
DCLNR/L 2020K-12 (2)	20.0	20.0	20.0	125.00	35.0	25.00	CNMG 1204 CNMX 1207
DCLNR/L 2525M-12 (2)	25.0	25.0	25.0	150.00	35.0	32.00	CNMG 1204 CNMX 1207
DCLNR/L 3232P-12 (2)	32.0	32.0	32.0	170.00	35.0	40.00	CNMG 1204 CNMX 1207
DCLNR/L 2525M-16	25.0	25.0	25.0	150.00	36.0	32.00	CNMG 1606..
DCLNL 3232P-16	32.0	32.0	32.0	170.00	36.0	40.00	CNMG 1606..
DCLNR 3232P-16	32.0	32.0	32.0	170.00	33.0	40.00	CNMG 1606..
DCLNR/L 3232P-19	32.0	32.0	32.0	170.00	42.0	40.00	CNMG 1906..
DCLNR/L 4040S-19	40.0	40.0	40.0	250.00	42.0	50.00	CNMG 1906..

(1) Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts.
(2) Use TCH 4 seat (optional) for CNMX 1207... insert.

For inserts, see pages: CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMX-M3/4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMX-M3/4MW (152) • CNGG-F3N (209) • CNMG-CERMET (145) • CNGX-M3N (209) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMM-NR (154) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG-MR (151) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMM-H3P (153) • CNMM-H4P (153) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221) • CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-F3S (147)

Spare Parts

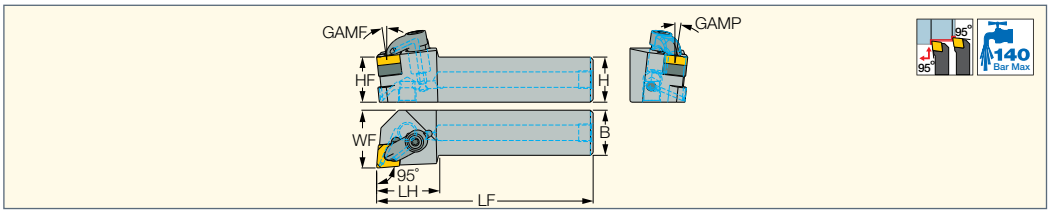
Designation										
DCLNR/L-2525M-09X	TCN 323	TCX 3(a)	HW 2.5	SR RC3	LCGR-3	KSP 3			SP 3	PN 3-4
DCLNR/L 2020K-12	RCT 443	TCH 4(b)*		SR 14-506	LCGR-4		SR 10400270-25.5	T-15/5		
DCLNR/L 2525M-12	RCT 443	TCH 4(b)*		SR 14-506	LCGR-4		SR 10400270-25.5	T-15/5		
DCLNR/L 3232P-12	RCT 443	TCH 4(b)*		SR 14-506	LCGR-4		SR 10400270-25.5	T-15/5		
DCLNR/L 2525M-16	RCT 544		HW 4.0	SR 10402265	LCGR-5	KSP 5	SR 10402267			
DCLNR/L 3232P-16	RCT 544		HW 4.0	SR 10402265	LCGR-5	KSP 5	SR 10402267			
DCLNR/L 3232P-19	TCN 63		HW 4.0	SR 10402266	LCGR-6	KSP 5	SR 10402267			
DCLNR/L 4040S-19	TCN 63		HW 4.0	SR 10402266	LCGR-6	KSP 5	SR 10402267			

* Optional, should be ordered separately
(a) For CNMX 0906.. (CNMX 34.) inserts
(b) TCH 4 seat for CNMX 1207.. (CNMX 45.) insert.

ISOTURN
JETRTURN RIGID CLAMP

DCLNR/L-JHP-MC

Rigid Clamp Tools with Channels
for High-Pressure Coolant
Carrying 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
DCLNR/L 2020X-12-JHP-MC	20.0	20.0	20.0	105.00	35.0	25.00	6.0	6.0	CNMG 1204
DCLNR/L 2525X-12-JHP-MC	25.0	25.0	25.0	120.00	35.0	32.00	6.0	6.0	CNMG 1204

For inserts, see pages: CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGA-Ceramic (217) • CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNGG-M4HF/M4HM (CBN) (226) • CNMA (149) • CNMA (PCD) (221) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMG-Ceramic (216) • CNMG-CERMET (145) • CNMG-F3M (146) • CNMG-F3P (144) • CNMG-F3S (147) • CNMG-GN (151) • CNMG-M3M (146) • CNMG-M3P (144) • CNMG-NF (148) • CNMG-NR (151) • CNMG-VL (147) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMG/CNGG-PP (150) • CNMG/CNGG-SF (148) • CNMG/CNGG-TF (150) • CNMM-M4PW (152) • CNMM-R3P (153) • CNMX-M3/4MW (152) • CNMX-M3/4PW (152)

Spare Parts

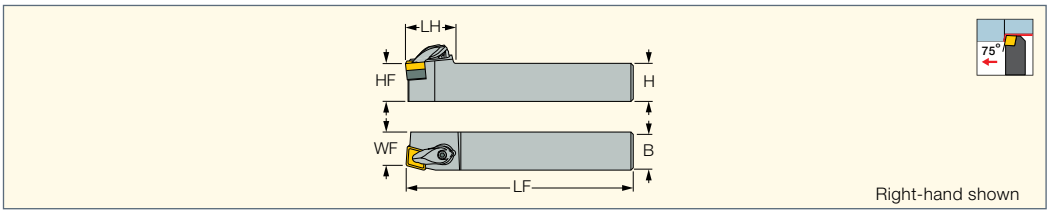
Designation							
DCLNL 2020X-12-JHP-MC	RCT 443	TCH 4(a)*	LCGR/L-4JC SET(b)	PLG G1/8 TL360	OR 4X3 NBR70	SR 14-506	
DCLNR 2020X-12-JHP-MC	RCT 443	TCH 4(a)*	LCGR/L-4JC SET(b)	PLG G1/8 TL360	OR 4X3 NBR70	SR 14-506	LCGR-C-4JC SET
DCLNL 2525X-12-JHP-MC	RCT 443	TCH 4(a)*	LCGL-4JC SET(b)	PLG G1/8 TL360	OR 4X3 NBR70	SR 14-506	
DCLNR 2525X-12-JHP-MC	RCT 443			PLG G1/8 TL360		SR 14-506	LCGR-C-4JC SET

* Optional, should be ordered separately
(a) For CNMX 1207.. (CNMX 45.) inserts
(b) Recommended tightening torque 4Nm for R-Clamp Screw

ISOTURN

DCBNR/L

R-Clamp Tools with 75° Lead Angle Using the 100° Corner of CNMG Inserts



Designation	H	HF	B	LF	LH	WF	Insert
DCBNR/L 2525M-12	25.0	25.0	25.0	150.00	36.0	22.00	CNMG 1204
DCBNR/L 3232P-19	32.0	32.0	32.0	170.00	42.0	27.00	CNMG 1906

For inserts, see pages: CNMG-CERMET (145) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMM-NR (154) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG-MR (151) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMM-H3P (153) • CNMM-H4P (153) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216)

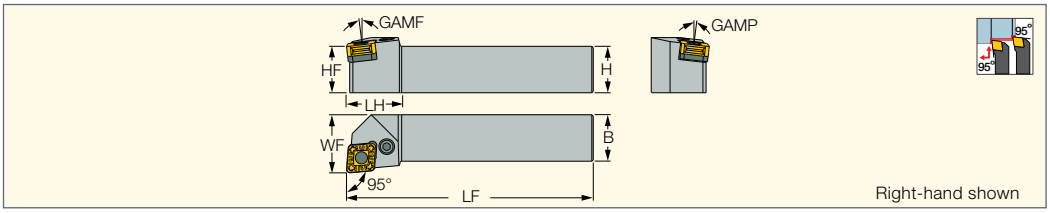
Spare Parts

Designation								
DCBNR/L 2525M-12	RCT 443	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5
DCBNR/L 3232P-19	TCN 63	SR 10402266	LCGR-6		KSP 5	SR 10402267	HW 4.0	

DOVEIQTURN HEAVY DUTY LINE

PCLOR/L-IQ

Lever Lock and Dovetail Pocket Rigid Clamping Toolholders for Unique Double-Sided 80° Rhombic Inserts

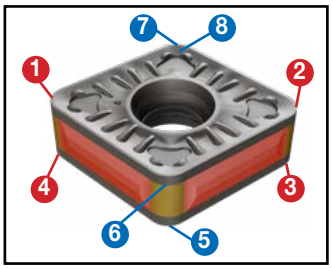


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLOR/L 3232P-16-IQ	32.0	32.0	32.0	170.00	33.0	40.00	-6.0	-6.0	COMG 1606
PCLOR/L 3232P-19-IQ (1)	32.0	32.0	32.0	170.00	38.0	40.00	-6.0	-6.0	COMG 1906
PCLOR/L 4040S-19-IQ (1)	40.0	40.0	40.0	250.00	38.0	50.00	-6.0	-6.0	COMG 1906
PCLOR/L 4040S-25-IQ	40.0	40.0	40.0	250.00	50.0	50.00	-6.0	-6.0	COMG 2509
PCLOR/L 5050T-25-IQ	50.0	50.0	50.0	300.00	50.0	60.00	-6.0	-6.0	COMG 2509

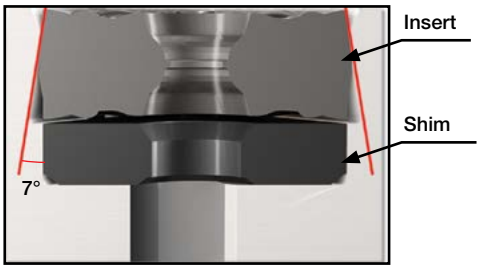
(1) Supplied with TCX 6-IQ seat for COMG inserts, optional TCN 6-IQ seat should be ordered separately for COMM inserts

For inserts, see pages: COMG-R3P-IQ (145) • COMM-R3P-IQ (146)

4 Cutting Edges for 80° and 4 Cutting Edges for 100°



DOVETAIL Clamping



Spare Parts

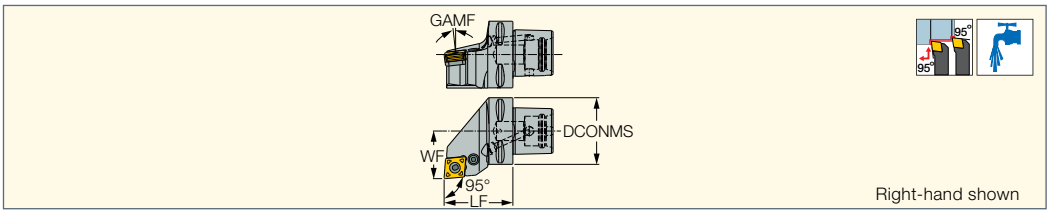
Designation						
PCLOR/L 3232P-16-IQ	TCX 5-IQ		SR LCS 5-L25.5	LCL 16-NX	SP 5	HW 3.0
PCLOR/L 3232P-19-IQ	TCX 6-IQ	TCN 6-IQ*	SR 10402352	LCL 20C-NX	SP 5	HW 4.0
PCLOR/L 4040S-19-IQ	TCX 6-IQ	TCN 6-IQ*	SR 10402352	LCL 20C-NX	SP 5	HW 4.0
PCLOR/L 4040S-25-IQ	TCX 8-IQ		SR LCS 8-L39	LCL 32-NX	SP 8	HW 5.0
PCLOR/L 5050T-25-IQ	TCX 8-IQ		SR LCS 8-L39	LCL 32-NX	SP 8	HW 5.0

* Optional, should be ordered separately

DOVE IQ TURN HEAVY DUTY LINE
CAMFIX

C#-PCLOR/L-IQ

Lever Lock and Dovetail Pocket Tools with CAMFIX Shanks Carrying Unique Double-Sided 80° Rhombic Inserts



Designation	DCONMS	WF	LF	GAMF	Insert
C6 PCLOR/L-45065-16-IQ	63.00	45.00	65.00	-6.0	COMG 1606
C6 PCLOR/L-45065-19-IQ	63.00	45.00	65.00	-6.0	COMG 1906
C8 PCLOR/L-55080-19-IQ	80.00	55.00	80.00	-6.0	COMG 1906
C8 PCLOR/L-55080-25-IQ	80.00	55.00	80.00	-6.0	COMG 2509

For inserts, see pages: COMG-R3P-IQ (145) • COMM-R3P-IQ (146)

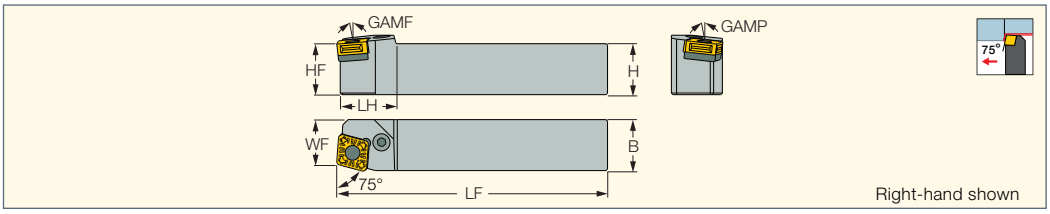
Spare Parts

Designation							
C6 PCLOR/L-45065-16-IQ	TCX 5-IQ	LCL 16-NX	SP 5	SATZ-M10X1-M5	HW 3.0	SR LCS 5-L25.5	SPP 5-6
C6 PCLOR/L-45065-19-IQ	TCX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	
C8 PCLOR/L-55080-19-IQ	TCX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	SPP 5-6
C8 PCLOR/L-55080-25-IQ	TCX 8-IQ	LCL 32-NX	SP 8	SATZ-M12X1-M6	HW 5.0	SR LCS 8-L39	

DOVE IQ TURN HEAVY DUTY LINE

PCBOR/L-IQ

Lever Lock and Dovetail Pocket Rigid Clamping Tools Carrying Unique Double-Sided 80° Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCBOR/L 3232P-16-IQ	32.0	32.0	32.0	170.00	32.0	27.00	-6.0	-6.0	COMG 1606
PCBOR/L 3232P-19-IQ	32.0	32.0	32.0	170.00	38.0	28.00	-6.0	-6.0	COMG 1906
PCBOR/L 4040S-19-IQ	40.0	40.0	40.0	250.00	38.0	37.00	-6.0	-6.0	COMG 1906
PCBOR/L 4040S-25-IQ	40.0	40.0	40.0	250.00	50.0	35.00	-6.0	-6.0	COMG 2509

For inserts, see pages: COMG-R3P-IQ (145) • COMM-R3P-IQ (146)

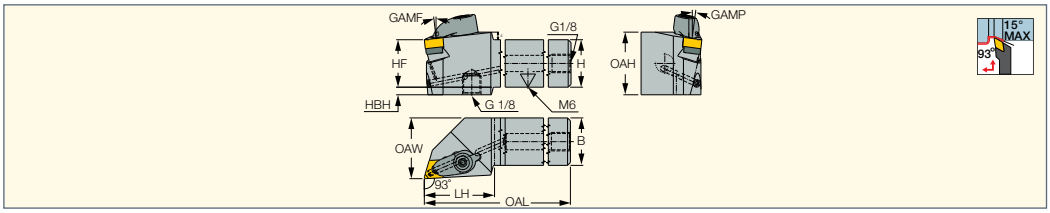
Spare Parts

Designation					
PCBOR/L 3232P-16-IQ	TCX 5-IQ	SP 5	SR LCS 5-L25.5	LCL 16-NX	HW 3.0
PCBOR/L 3232P-19-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCBOR/L 4040S-19-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCBOR/L 4040S-25-IQ	TCX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0

ISOTURN

DXJNR/L-X-JHP-MC

Rigid Clamp Tools with Channels for High-Pressure Coolant Carrying 70° Rhombic Inserts



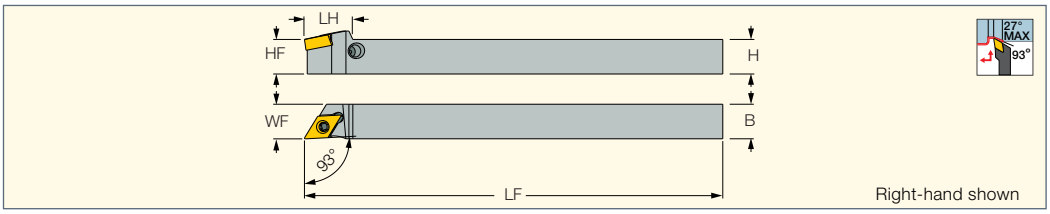
Designation	H	HF	HBH	LH	OAW	OAH	B	OAL	GAMP	GAMF	Insert			
DXJNL 2020X-09-JHP-MC	20.0	20.0	4.0	37.0	25.00	33.00	20.0	107.00	6.0	6.0	XNMG			
DXJNL 2020X-12-JHP-MC	20.0	20.0	4.0	37.0	25.00	33.00	20.0	107.00	6.0	6.0	XNMG			
DXJNR 2020X-09-JHP-MC	20.0	20.0	4.0	37.0	25.00	33.00	25.0	122.00	6.0	6.0	XNMG			
DXJNR 2020X-12-JHP-MC	20.0	20.0	4.0	37.0	25.00	33.00	25.0	122.00	6.0	6.0	XNMG			
DXJNL 2525X-09-JHP-MC	25.0	25.0	9.0	37.0	32.00	33.00	20.0	107.00	6.0	6.0	XNMG	LCGL-3JC-SET	LCGL-3JC-AM	OR 4X3 NBR70
DXJNL 2525X-12-JHP-MC	25.0	25.0	4.0	37.0	32.00	33.00	20.0	107.00	6.0	6.0	XNMG			
DXJNR 2525X-09-JHP-MC	25.0	25.0	9.0	37.0	32.00	33.00	25.0	122.00	6.0	6.0	XNMG			
DXJNR 2525X-12-JHP-MC	25.0	25.0	4.0	37.0	32.00	33.00	25.0	122.00	6.0	6.0	XNMG			
DXJNR/L 3232X-12-JHP-MC	32.0	32.0	0.0	37.0	40.00	33.00	32.0	137.00	6.0	6.0	XNMG			

For inserts, see pages: XNMG-F3M (155) • XNMG-F3P (154) • XNMG-M3M (155) • XNMG-M3P (154)

ISOTURN

PDJNR/L-S

Lever Lock Tools Carrying DNGP 0703.. Double-Sided 55° Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	Insert				
PDJNR/L 1010X-07S	10.0	10.0	10.0	120.00	14.0	10.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1212F-07S	12.0	12.0	12.0	80.00	14.0	12.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1212X-07S	12.0	12.0	12.0	120.00	14.0	12.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1616X-07S	16.0	16.0	16.0	120.00	18.0	16.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN

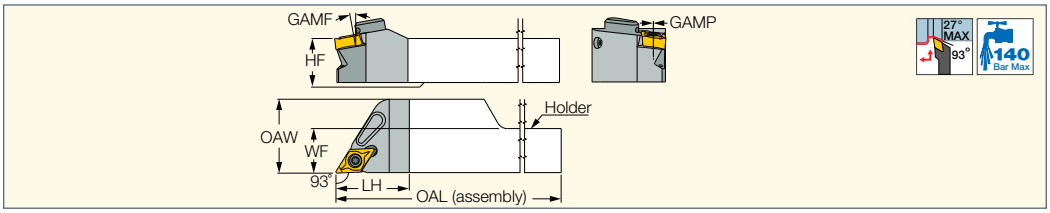
- Use a left-hand insert on a right-hand tool and vice versa.

For inserts, see pages: DNGP-F2M (156) • DNGP-F2P (155)

NEOSWISS INDEXABLE HEADS
MINIPTURN POSITIVE DOUBLE SIDED

NQCH-SDJNR/L-S-JHP

Screw Lock Modular Heads with High-Pressure Coolant, Positive Double-Sided 55° Rhombic Inserts for Swiss-Type Machines



Designation	WF	HF	LH	OAL	OAW	GAMP	GAMF	Insert
NQCH12-SDJNR/L-07S-JHP	12.15	12.0	20.0	120.00	20.15	10.0	0.0	DNGP.. 0703
NQCH16-SDJNR/L-07S-JHP	16.15	16.0	20.0	120.00	20.15	10.0	0.0	DNGP.. 0703

For user guide, see pages 6-7, 78-84

For holders, see pages: NQCH-JHP (61)

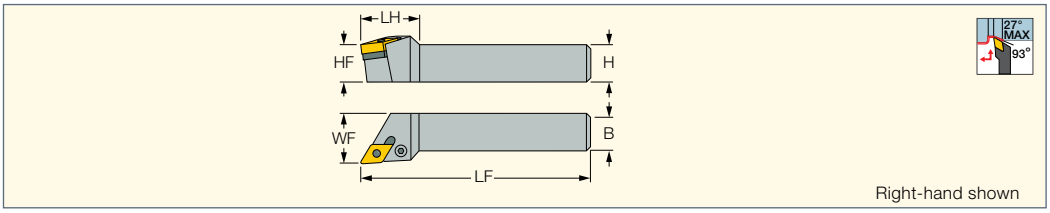
Spare Parts

Designation		
NQCH-SDJNR/L-S-JHP	SR 34-514	T-7/5

ISOTURN

PDJNR/L

Lever Lock Tools Carrying 55° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PDJNR/L 1616H-11	16.0	16.0	16.0	100.00	30.0	20.00	DNMG 1104
PDJNR/L 2020K-11	20.0	20.0	20.0	125.00	30.0	25.00	DNMG 1104
PDJNR/L 2525M-11	25.0	25.0	25.0	150.00	30.0	32.00	DNMG 1104
PDJNR/L 2020K-15	20.0	20.0	20.0	125.00	34.0	25.00	DNMG 1506
PDJNR/L 2525M-15	25.0	25.0	25.0	150.00	34.0	32.00	DNMG 1506
PDJNR/L 3232P-15	32.0	32.0	32.0	170.00	34.0	40.00	DNMG 1506

For inserts, see pages: DNGA-J(CBN) (229) • DNGG-M3N (210) • DNMG-CERMET (158) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMG-WG (159) • DNMS-12 (214) • DNMA (161) • DNGA-Ceramic (218) • DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (CBN) (228)

Spare Parts

Designation							
PDJNR/L 1616H-11	TDN 322		SP 3	PN 3-4	LR 3D	SR 117-2014	HW 2.5/5
PDJNR/L 2020K-11	TDN 322		SP 3	PN 3-4	LR 3D	SR 117-2014	HW 2.5/5
PDJNR/L 2525M-11	TDN 322		SP 3	PN 3-4	LR 3D	SR 117-2014	HW 2.5/5
PDJNR/L 2020K-15	TDN 422	TDN 432[a]*	SP 4	PN 3-4	LR 4D	SR 117-2010	HW 3.0
PDJNR/L 2525M-15	TDN 422	TDN 432[a]*	SP 4	PN 3-4	LR 4D	SR 117-2010	HW 3.0
PDJNR/L 3232P-15	TDN 422	TDN 432[a]*	SP 4	PN 3-4	LR 4D	SR 117-2010	HW 3.0

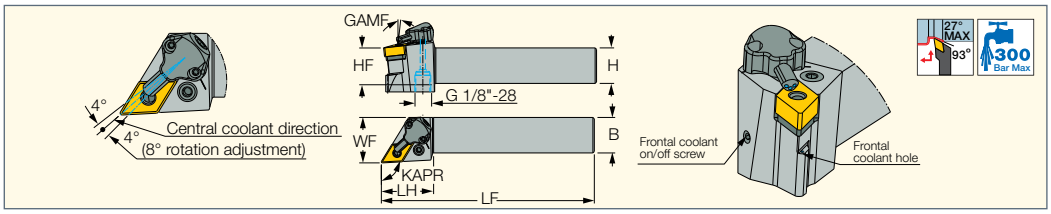
* Optional, should be ordered separately

[a] Use for DNMG 1504.. inserts.

ISOTURN JETCUT

PDJNR/L-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying 55° Negative Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMF	KAPR[1]	Insert
PDJNR/L 2525M-11-JHP	25.0	25.0	25.0	150.00	36.0	32.00	-6.0	93.0	DNMG 1104
PDJNR/L 2525M-15-JHP	25.0	25.0	25.0	150.00	36.0	32.00	-6.0	93.0	DNMG 1506

- For user guide, see pages 78-84

(1) Tool cutting edge angle

For inserts, see pages: DNGA-J(CBN) (229) • DNGG-M3N (210) • DNMG-CERMET (158) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMG-WG (159) • DNMS-12 (214) • DNMA (161) • DNGA-Ceramic (218) • DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (CBN) (228)

Spare Parts

Designation											
PDJNR/L 2525M-11-JHP	TDN 322		PN 3-4	LR 3D	SR 117-2014	SP 3	CU-D-JHP	SR M4X4 DIN913 TL360	T-8/5	HW 2.0	HW 2.5/5
PDJNR/L 2525M-15-JHP	TDN 422	TDN 432[a]*	PN 3-4	LR 4D	SR 117-2010	SP 4	CU-D-JHP	SR M4X4 DIN913 TL360	T-8/5	HW 2.0	HW 3.0

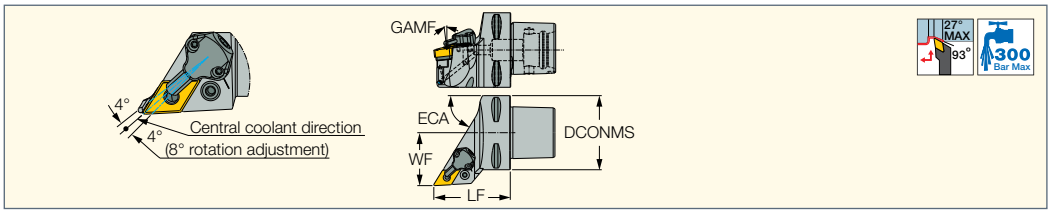
* Optional, should be ordered separately

(a) Use for DNMG 1504.. inserts

ISOTURN JETCUT CAMFIX

C#-PDJNR/L-JHP

Lever Lock Tools with CAMFIX Exchangeable Shanks and Channels for High-Pressure Coolant Carrying Negative 55° Insert



Designation	DCONMS	WF	LF	GAMF	ECA	Insert	CDI[1]	CP[2]
C3 PDJNR-22045-11-JHP	32.00	22.00	45.00	-6.0	58.0	DN.. 11..	0	300
C4 PDJNL 27050-11-JHP	40.00	27.00	55.00	-6.0	58.0	DN.. 11..	1	300
C4 PDJNR 27050-11-JHP	40.00	27.00	50.00	-6.0	58.0	DN.. 11..	1	300
C5 PDJNR/L 35060-11-JHP	50.00	35.00	60.00	-6.0	58.0	DN.. 11..	1	300
C4 PDJNR/L 27055-15-JHP	40.00	27.00	55.00	-6.0	58.0	DN.. 15..	1	300
C5 PDJNR/L 35060-15-JHP	50.00	35.00	60.00	-6.0	58.0	DN.. 15..	1	300
C6 PDJNR/L 45065-15-JHP	63.00	45.00	65.00	-6.0	58.0	DN.. 15..	1	300

- For user guide, see pages 78-84

(1) 1 - Hole for data chip, 0 - Without hole for data chip

(2) Coolant pressure (Bar)

For inserts, see pages: DNGA-J(CBN) (229) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMG-WG (159) • DNMS-12 (214) • DNMA (161) • DNGA-Ceramic (218) • DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (CBN) (228) • DNGG-M3N (210) • DNMG-CERMET (158)

Spare Parts

Designation									
C3 PDJNR-22045-11-JHP	TDN 322		LR 3D	SR 117-2014	SP 3	PN 3-4	CU-D-JHP	T-8/5	HW 2.5/5
C4 PDJNR/L 27050-11-JHP	TDN 322		LR 3D	SR 117-2014	SP 3	PN 3-4	CU-D-JHP	T-8/5	HW 2.5/5
C5 PDJNR/L 35060-11-JHP	TDN 322		LR 3D	SR 117-2014	SP 3	PN 3-4	CU-D-JHP	T-8/5	HW 2.5/5
C4 PDJNR/L 27055-15-JHP	TDN 422	TDN 432[a]*	LR 4D	SR 117-2010	SP 4	PN 3-4	CU-D-JHP	T-8/5	HW 3.0
C5 PDJNR/L 35060-15-JHP	TDN 422	TDN 432[a]*	LR 4D	SR 117-2010	SP 4	PN 3-4	CU-D-JHP	T-8/5	HW 3.0
C6 PDJNR/L 45065-15-JHP	TDN 422	TDN 432[a]*	LR 4D	SR 117-2010	SP 4	PN 3-4	CU-D-JHP	T-8/5	HW 3.0

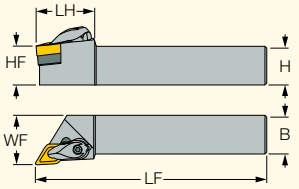
* Optional, should be ordered separately

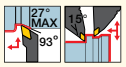
(a) Use for DNMG 1504.. inserts

ISOTURN

DDJNR/L

R-Clamp Tools with 93° Lead Angle Carrying 55° Negative Rhombic Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert
DDJNR/L 1616H-11	16.0	16.0	16.0	100.00	30.0	20.00	DNMG 1104
DDJNR/L 2020K-11	20.0	20.0	20.0	125.00	30.0	25.00	DNMG 1104
DDJNR/L 2525M-11	25.0	25.0	25.0	150.00	30.0	32.00	DNMG 1104
DDJNR/L 2020K-15	20.0	20.0	20.0	125.00	39.0	25.00	DNMG 1506
DDJNR/L 2525M-15	25.0	25.0	25.0	150.00	40.0	32.00	DNMG 1506
DDJNR/L 3232P-15	32.0	32.0	32.0	170.00	41.0	40.00	DNMG 1506

For inserts, see pages: DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-CERMET (158) • DNGG-M3N (210) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMG-WG (159) • DNMA (161) • DNGA-Ceramic (218) • DNGA-4 (CBN) (229) • DNMA (CBN) (228)

Spare Parts

Designation								
DDJNR/L 1616H-11	RDT 3-2		SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3	
DDJNR/L 2020K-11	RDT 3-2		SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3	
DDJNR/L 2525M-11	RDT 3-2		SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3	
DDJNR/L 2020K-15	RDT 433	RDT 443*	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5
DDJNR/L 2525M-15	RDT 433	RDT 443*	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5
DDJNR/L 3232P-15	RDT 433	RDT 443*	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5

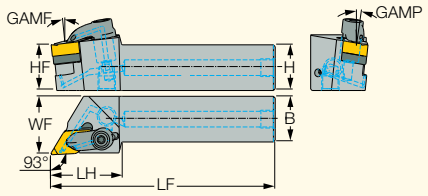
* Optional, should be ordered separately

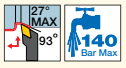
ISOTURN

JETRTURN RIGID CLAMP

DDJNR/L-JHP-MC

Rigid Clamp Tools with Channels for High-Pressure Coolant Carrying 55° Rhombic Inserts





Designation	B	HF	LF	LH	WF	GAMP	GAMF	Insert
DDJNR/L 2020X-15-JHP-MC	20.0	20.0	110.00	40.0	25.00	6.0	6.0	DNMG/X 1506
DDJNR/L 2525X-15-JHP-MC	25.0	25.0	125.00	40.0	32.00	6.0	6.0	DNMG/X 1506

For inserts, see pages: DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGA-Ceramic (218) • DNGA-J(CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (161) • DNMA (CBN) (228) • DNMG-CERMET (158) • DNMG-F3M (157) • DNMG-F3P (156) • DNMG-F3S (157) • DNMG-GN (161) • DNMG-M3M (157) • DNMG-M3P (156) • DNMG-NF (158) • DNMG-NR (161) • DNMG-PF (159) • DNMG-VL (160) • DNMG-WG (159) • DNMG/DNGG-PP (160) • DNMG/DNGG-SF (159) • DNMG/DNGG-TF (160) • DNMM-NM (162) • DNMM-R3P (162) • DNMX-M3P (162)

Spare Parts

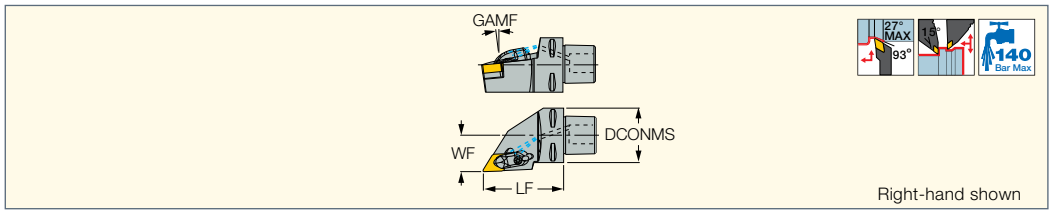
Designation						
DDJNR/L-JHP-MC	RDT 433	RDT 443*	LCGR/L-4JC SET[a]	PLG G1/8 TL360	SR 14-506	OR 4X3 NBR70

* Optional, should be ordered separately

[a] Recommended tightening torque 4Nm for R-Clamp Screw

ISOTURN CAMFIX

C#-DDJNR/L
Tools with CAMFIX Exchangeable Tapered Shanks Carrying Negative 55° Rhombic Inserts



Right-hand shown

Designation	DCONMS	WF	LF	Insert	GAMF	CP(1)	CDI(2)
C4 DDJNR/L-27060-15	40.00	27.00	60.00	DN..15	6.0	140	1
C5 DDJNR/L-35060-15	50.00	35.00	60.00	DN..15	6.0	140	1
C6 DDJNR/L-45065-15	63.00	45.00	65.00	DN..15	6.0	140	1

- Use RDT 443 seat for DN.. 1504.. inserts

(1) Coolant pressure (Bar)

(2) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: DNGA-J(CBN) (229) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMG-WG (159) • DNMA (161) • DNGA-Ceramic (218) • DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (CBN) (228) • DNMG-CERMET (158)

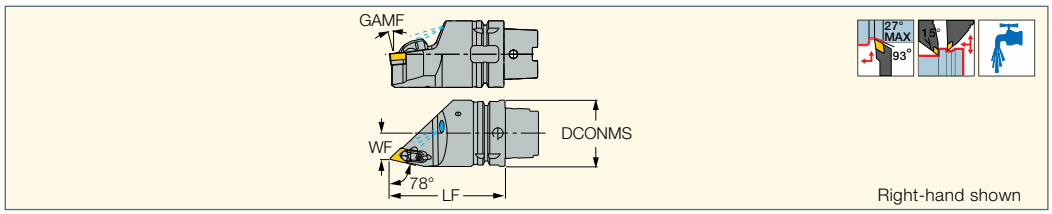
Spare Parts

Designation							
C4 DDJNL-27060-15	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506 M4X0.7	EZ 62
C4 DDJNR-27060-15	RDT 433		T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506 M4X0.7	EZ 62
C5 DDJNL-35060-15	RDT 433		T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506 M4X0.7	EZ 83
C5 DDJNR-35060-15	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506 M4X0.7	EZ 83
C6 DDJNR/L-45065-15	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506 M4X0.7	EZ 104

* Optional, should be ordered separately

R-CLAMP HSK

HSK A63WH-DDJNR/L
R-Clamp Turning Tools with HSK Taper Shank Carrying Negative DNMG Inserts for 15° Mounting on Turn-Mill Machines



Right-hand shown

Designation	DCONMS	LF	WF	Insert	CDI(2)	GAMF							
HSK A63WH DDJNR/L J15 (1)	63.00	110.00	25.00	DN.. 15	0	7.5	RDT 433	RDT 443*	SR 14-506 M4X0.7	LCGR-4	SR 10400270-25.5	T-15/5	EZ 104

- Complies with ICTM standard (ISO 12164-3). • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately).
- For shank dimensions, see page 735

(1) RDT 443 for DN__ 1504.. insert.

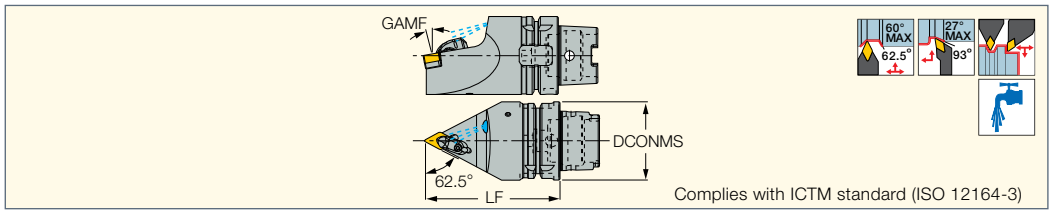
(2) 1 - Hole for data chip, 0 - Without hole for data chip

* Optional, should be ordered separately

For inserts, see pages: DNGA-J(CBN) (229) • DNMG-CERMET (158) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMA (161) • DNGA-Ceramic (218) • DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (CBN) (228)

R-CLAMP HSK

HSK A63WH-DDNNN
R-Clamp Turning Tools with HSK Taper Shank Carrying Negative DNMG Inserts



Complies with ICTM standard (ISO 12164-3)

Designation	LF	Insert	DCONMS	GAMF	CDI(2)							
HSK A63WH DDNNN J15 (1)	110.00	DN.. 15	63.00	10.0	0	RDT 433	RDT 443*	SR 14-506 M4X0.7	LCGR-4	SR 10400270-25.5(a)	T-15/5	EZ 104

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately). • For shank dimensions, see page 735

(1) RDT 443 for DN__ 1504.. insert.

(2) 1 - Hole for data chip, 0 - Without hole for data chip

* Optional, should be ordered separately

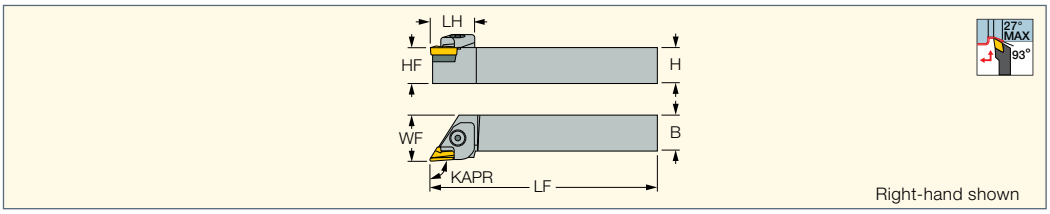
(a) Recommended tightening torque:3 N*m

For inserts, see pages: DNGA-J(CBN) (229) • DNMG-CERMET (158) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMG-WG (159) • DNMA (161) • DNGA-Ceramic (218) • DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (CBN) (228)

ISOTURN

CKJNR/L

Top Clamp Tools with 93° Lead Angle Carrying 55° Negative Parallelogram Inserts



Designation	H	HF	B	LF	LH	WF	KAPR(1)	Insert
CKJNR/L 2020K-16	20.0	20.0	20.0	125.00	32.0	25.00	93.0	KNMX/KNUX 1604
CKJNR/L 2525M-16	25.0	25.0	25.0	150.00	32.0	32.00	93.0	KNMX/KNUX 1604
CKJNR/L 3232P-16	32.0	32.0	32.0	170.00	32.0	40.00	93.0	KNMX/KNUX 1604

(1) Tool cutting edge angle

For inserts, see pages: KNMX (163) • KNUX (163)

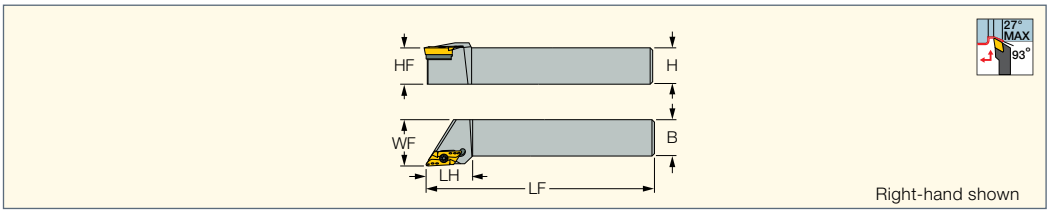
Spare Parts

Designation								
CKJNR/L	CSK 1604 R/L	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KR/L	CLS 16K	HW 4.0

ISOTURN

SKJNR/L

Screw Clamp Tools with 93° Lead Angle Carrying 55° Negative Parallelogram Inserts



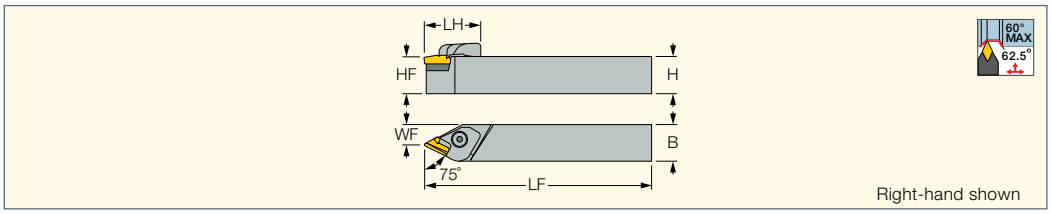
Designation	H	HF	B	LF	LH	WF	Insert					
SKJNR/L 2525M-16	25.0	25.0	25.0	150.00	32.0	32.00	KNMX 1604	TKX 160310R/L	SR TC-3	HW 2.5	SR 16-236 P	T-15/5
SKJNL 3232P-16	32.0	32.0	32.0	170.00	32.0	40.00	KNMX 1604	TKX 160310L	SR TC-3	HW 2.5	SR 16-236 P	T-15/5

For inserts, see pages: KNMX (163)

ISOTURN

CKNNR/L

Top Clamp Tools with 63° Lead Angle Carrying 55° Negative Parallelogram Inserts



Designation	H	HF	B	LF	LH	WF	Insert
CKNNR 2525M-16	25.0	25.0	25.0	150.00	33.0	14.40	KNUX/KNMX 1604

For inserts, see pages: KNMX (163) • KNUX (163)

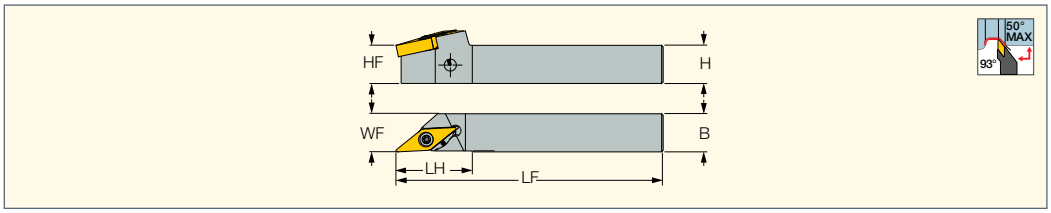
Spare Parts

Designation								
CKNNR/L	CSK 1604 R	CL 16KR	CLS 16K	KSP 90	KSP 48	KSP 48S	SR M3X0.5X10DIN7991 10.9	HW 4.0

ISOTURN

SVANR/L-FS

Screw Lock Holders for Negative, 35° Inserts with a Wedge for High Rigidity in Profiling Applications



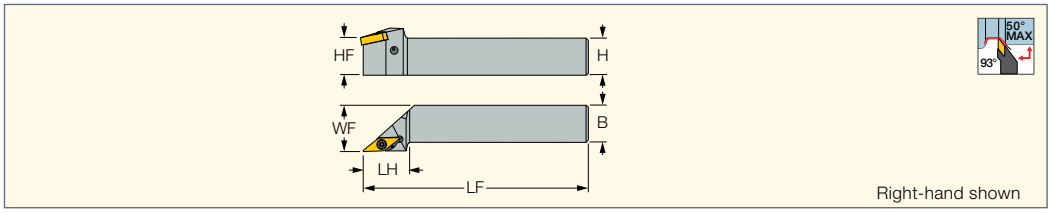
Designation	H	HF	B	LF	LH	WF				
SVANR/L 1212K-12FS	12.0	12.0	12.0	125.00	25.4	12.20	AV 12	PA 12	SR 14-551	T-9/5
SVANR/L 1616K-12FS	16.0	16.0	16.0	125.00	25.4	16.20	AV 12	PA 12	SR 14-551	T-9/5

For inserts, see pages: VNMG-F3M (164) • VNMG-F3P (163) • VNMG-F3S (164) • VNMG-FNF-CERMET (165) • VNMG-M3M (164) • VNMG-SF (165) • VNMG/VNGG-NF (165) • VNMM-PP (166)

ISOTURN

SVJNR/L-F

Screw Lock Tools with a Wedge for High Rigidity Carrying 35° Negative Inserts for Profiling Applications



Designation	H	HF	B	LF	LH	WF	Insert				
SVJNR/L 1616H-12F	16.0	16.0	16.0	100.00	25.0	20.00	VNMG 12T3	SR 14-551	T-9/5	AV 12	PA 12
SVJNR/L 2020K-12F	20.0	20.0	20.0	125.00	25.0	25.00	VNMG 12T3	SR 14-551	T-9/5	AV 12	PA 12
SVJNR/L 2525M-12F	25.0	25.0	25.0	150.00	25.0	32.00	VNMG 12T3	SR 14-551	T-9/5	AV 12	PA 12

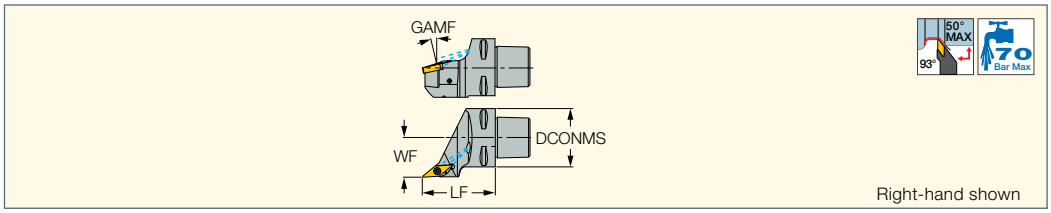
- Repeatability: for VNMG is ±0.06 mm, for VNGG is ±0.02 mm

For inserts, see pages: VNMG-F3M (164) • VNMG-F3P (163) • VNMG-F3S (164) • VNMG-FNF-CERMET (165) • VNMG-M3M (164) • VNMG-SF (165) • VNMG/VNGG-NF (165) • VNMM-PP (166)

ISOTURN CAMFIX

C#-SVJNR/L-F

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 35° Negative Rhombic Inserts



Designation	DCONMS	WF	LF	Insert	GAMF	CDI[1]	CP[2]					
C4 SVJNR/L-27050-12F	40.00	27.00	50.00	VN.. 12T3	12.0	1	70	AV 12	PA 12	SR 14-551	T-9/5	EZ 83

[1] 1 - Hole for data chip, 0 - Without hole for data chip

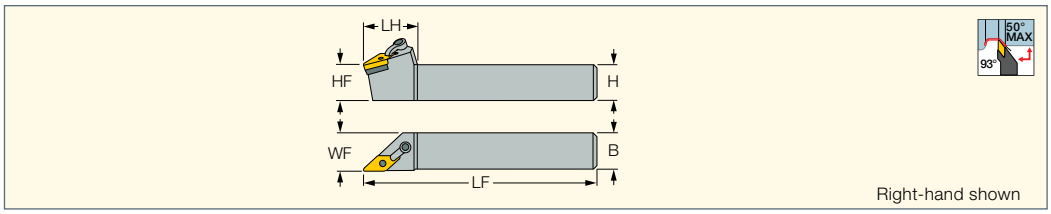
[2] Coolant pressure (Bar)

For inserts, see pages: VNMG-F3M (164) • VNMG-F3P (163) • VNMG-F3S (164) • VNMG-FNF-CERMET (165) • VNMG-M3M (164) • VNMG-SF (165) • VNMG/VNGG-NF (165) • VNMM-PP (166)

ISOTURN

MVJNR/L

Pin and Clamp Tools Carrying 35° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	Insert
MVJNR/L 2020K-16	20.0	20.0	20.0	125.00	41.0	25.00	VNMG 1604
MVJNR/L 2525M-16	25.0	25.0	25.0	150.00	41.0	32.00	VNMG 1604

For inserts, see pages: VNGG-M3N (210) • VNMG-F3M (164) • VNMG-F3P (163) • VNMG-M3M (164) • VNMG-TF (166) • YNMG-F3P (166) • VNMG/VNGG-NF (165) • VNMS-12 (214) • VNGA-Ceramic (219) • VNGA-2 (CBN) (231) • VNGA-4 (CBN) (231) • VNGG-M4HM (CBN) (231)

Spare Parts

Designation								
MVJNR/L	IVSN 322	IVSN 323[a]*	IYSN 322[b]*	NL 34-L	HW 5/32"	CL 30-INJ	XNS 510	HW 5/64"

* Optional, should be ordered separately

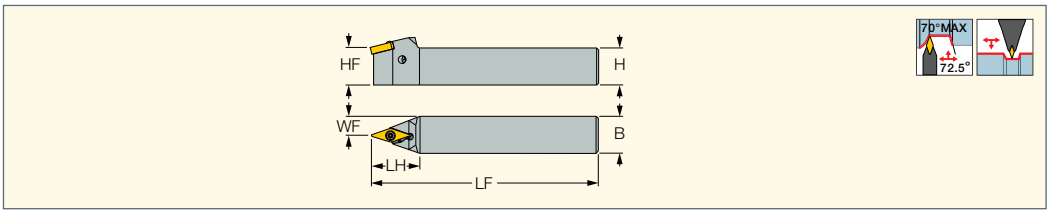
[a] Use for VNMG 160412 inserts

[b] Use for YNMG inserts

ISOTURN

SVVNN-F

Screw Lock Tools with a Wedge for High Rigidity in Profiling Applications Carrying 35° Negative Inserts

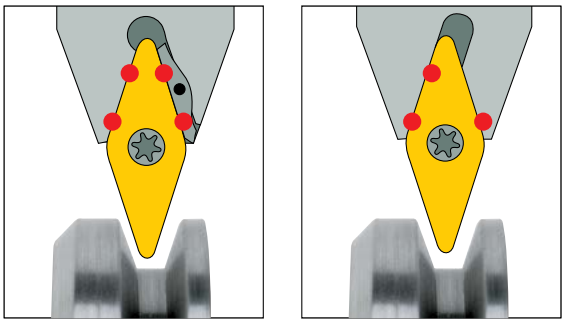


Designation	H	HF	B	LF	LH	WF	Insert				
SVVNN 1616H-12F	16.0	16.0	16.0	100.00	26.0	8.00	VNMG 12T3	SR 14-551	T-9/5	PA 12	AV 12
SVVNN 2020K-12F	20.0	20.0	20.0	125.00	26.0	10.00	VNMG 12T3	SR 14-551	T-9/5	PA 12	AV 12
SVVNN 2525M-12F	25.0	25.0	25.0	150.00	26.0	12.50	VNMG 12T3	SR 14-551	T-9/5	PA 12	AV 12

- Repeatability: for VNMG is ±0.06 mm, for VNGG is ± 0.02 mm

For inserts, see pages: VNMG-F3M (164) • VNMG-F3P (163) • VNMG-F3S (164) • VNMG-FNF-CERMET (165) • MG-M3M (164) • VNMG-SF (165) • VNMG/VNGG-NF (165) • VNMM-PP (166)

4 contact points ensure secure and precise clamping

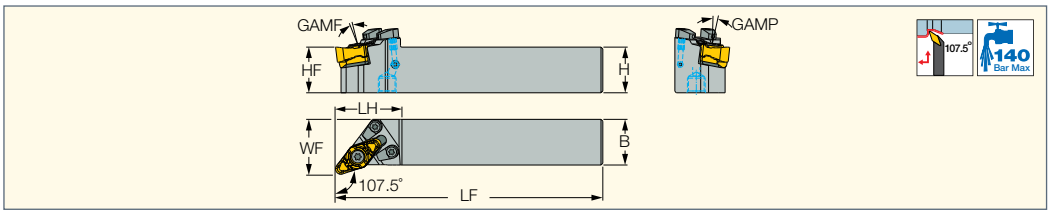


Conventional clamping

ISOTURN JETCUT

SVHNR/L-AL-JHP

Screw Lock Tools with Channels for High-Pressure Coolant Carrying 35° Rhombic Inserts



Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	MIID[1]
SVHNR/L 2525M-22-AL-JHP	25.0	25.0	25.0	146.34	36.3	30.03	7.0	6.0	VNGU 220630-R3N

- For user guide, see pages 78-84

(1) Master insert identification

For inserts, see pages: VNGU-R3N (210)

Spare Parts

Designation									
SVHNR/L 2525M-22-AL-JHP	TVX 2230[a]	SR 14-591/L-SN	SW6-T-SH	BLD T20/S7	HW 3.0	SR TC-4	CH-1.9D-JHP-A SET	TVX 2212[b]*	TVX 2216[c]*

* Optional, should be ordered separately

(a) For VNGU 220630-R3N insert

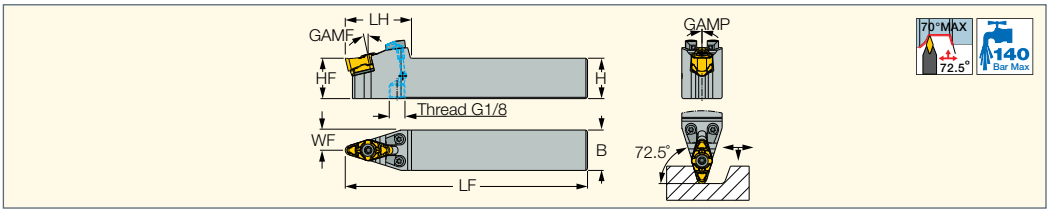
(b) For VNGU 220612-R3N insert

(c) For VNGU 220616-R3N insert

ISOTURN JETCUT

SVVNN-AL-JHP

Screw Lock Tools with Channels for High-Pressure Coolant Carrying 35° Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	MIID[1]
SVVNN 2525M-22-AL-JHP	25.0	25.0	25.0	150.00	41.0	12.50	0.0	-13.5	VNGU 220630-R3N

(1) Master insert identification

For inserts, see pages: VNGU-R3N (210)

Spare Parts

Designation									
SVVNN 2525M-22-AL-JHP	TVX 2230[a]	HW 3.0	BLD T20/S7	SW6-T-SH	SR TC-4	SR 14-591/L-SN	CH-1.9D-JHP-A SET	TVX 2212[b]*	TVX 2216[c]*

* Optional, should be ordered separately

(a) For VNGU 220630-R3N insert

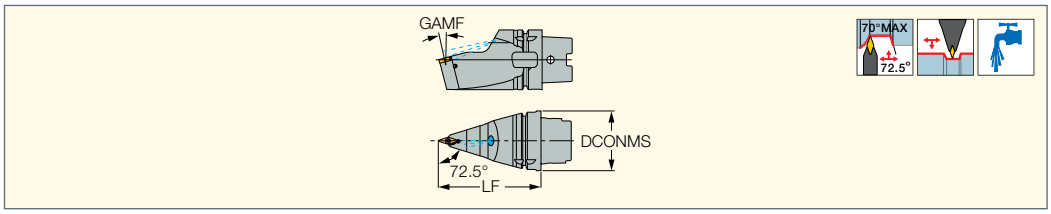
(b) For VNGU 220612-R3N insert

(c) For VNGU 220616-R3N insert

ISOTURN HSK

HSK A63WH-SVVNN-F

72.5° Lead Angle Tools with HSK Exchangeable Tapered Shanks Carrying 35° Negative Inserts



Designation	DCONMS	LF	Insert	GAMF	CDI[1]					
HSK A63WH-SVVNN-J12F	63.00	110.00	VNM. 12T3	14.0	0	SR 14-551	T-9/5	AV 12	PA 12	EZ 104

- Complies with ICTM standard (ISO 12164-3)
- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)
- For shank dimensions, see page 735

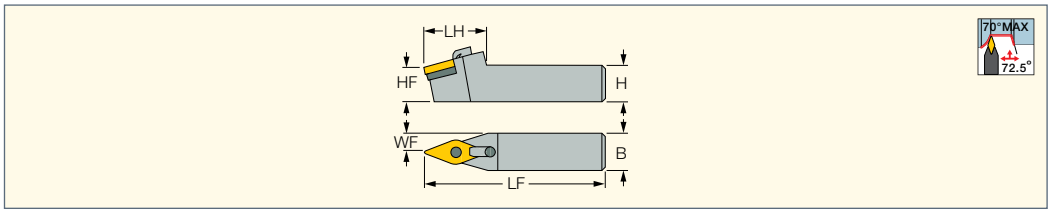
[1] 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: VNMG-F3M (164) • VNMG-F3P (163) • VNMG-F3S (164) • VNMG-FNF-CERMET (165) • VNMG-M3M (164) • VNMG-SF (165) • VNMG/VNGG-NF (165) • VNMM-PP (166)

ISOTURN

MVVNN

Pin and Clamp Tools Carrying 35° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	Insert
MVVNN 2020K-16	20.0	20.0	20.0	125.00	48.0	10.00	VNMG 1604..
MVVNN 2525M-16	25.0	25.0	25.0	150.00	48.0	12.50	VNMG 1604..

For inserts, see pages: VNGA-J(CBN) (231) • VNGG-M3N (210) • VNMG-F3M (164) • VNMG-F3P (163) • VNMG-M3M (164) • VNMG-TF (166) • YNMG-F3P (166) • VNMG/VNGG-NF (165) • VNMS-12 (214) • VNGA-Ceramic (219) • VNGA-2 (CBN) (231) • VNGA-4 (CBN) (231) • VNGG-M4HM (CBN) (231)

Spare Parts

Designation								
MVVNN	IVSN 322	IVSN 323[a]*	IYSN 322[b]*	NL 34-L	CL 30-INJ	XNS 510	HW 5/32"	HW 5/64"

* Optional, should be ordered separately

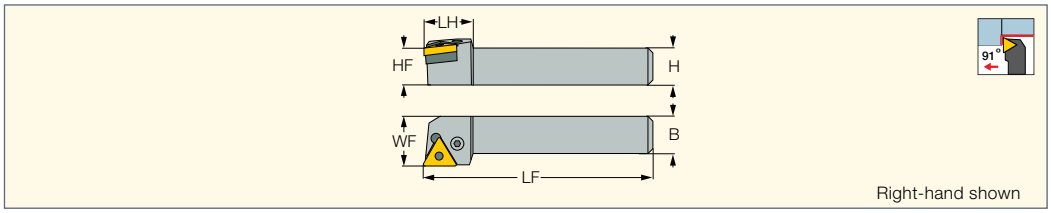
[a] Use for VNMG 160412 inserts

[b] Use for YNMG inserts

ISOTURN

PTGNR/L

91° Lead Angle Lever Lock External Turning Tools Carrying Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PTGNR/L 2020K-16	20.0	20.0	20.0	125.00	22.0	25.00	TNMG 16..
PTGNR/L 2525M-16	25.0	25.0	25.0	150.00	22.0	32.00	TNMG 16..
PTGNR/L 2525M-22	25.0	25.0	25.0	150.00	32.0	32.00	TNMG 2204
PTGNR 3232P-22	32.0	32.0	32.0	170.00	32.0	40.00	TNMG 2204

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMS-12 (214) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

Spare Parts

Designation							
PTGNR/L 2020K-16	TTN 322	TTN 332[a]*	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
PTGNR/L 2525M-16	TTN 322	TTN 332[a]*	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
PTGNR/L 2525M-22	TTN 422		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4
PTGNR 3232P-22	TTN 422		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4

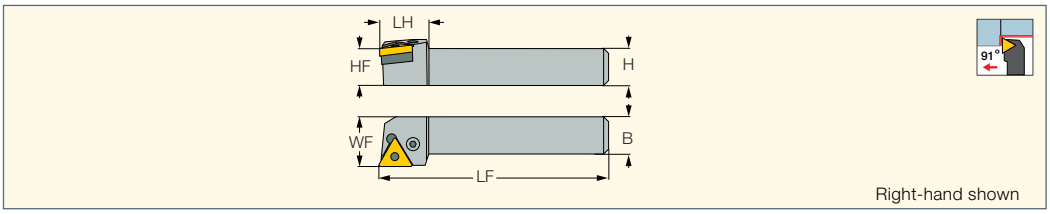
* Optional, should be ordered separately

[a] TTN 332 for inserts 3.18 mm thick

HELITURN LD

PTGNR/L-X

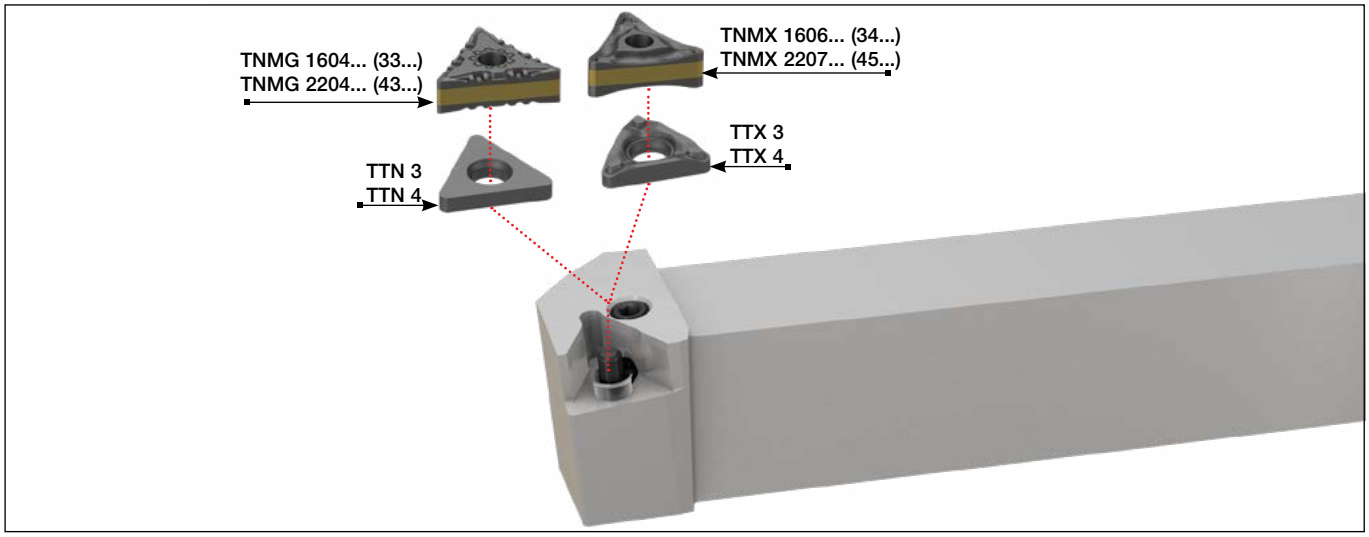
91° Lead Angle Lever Lock External Turning Tools Carrying Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PTGNR/L 2020K-16X	20.0	20.0	20.0	125.00	20.0	25.00	TNMX 1606, TNMG 1604
PTGNR/L 2525M-16X	25.0	25.0	25.0	150.00	20.0	32.00	TNMX 1606, TNMG 1604
PTGNR/L 2525M-22X	25.0	25.0	25.0	150.00	32.0	32.00	TNMX 2207, TNMG 2204
PTGNR/L 3232P-22X	32.0	32.0	32.0	170.00	32.0	40.00	TNMX 2207, TNMG 2204

- Use TTX 3 seat for TNMX 1606.. inserts and TTN 3 seat for TNMG 1604.. inserts

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMX-M3/4PW (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMX-M3/4MW (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMS-12 (214) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)



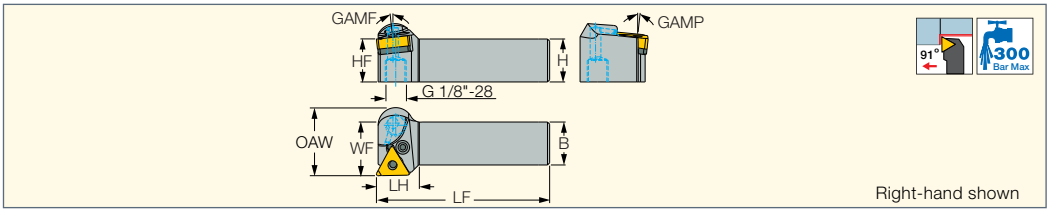
Spare Parts

Designation							
PTGNR/L 2020K-16X	TTX 3	TTN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4
PTGNR/L 2525M-16X	TTX 3	TTN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4
PTGNR/L 2525M-22X	TTX-4	TTN-4	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L
PTGNR/L 3232P-22X	TTX-4	TTN-4	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L

HELITURN LD
JETCUT

PTGNR/L-X-JHP

91° Lead Lever Lock Tools with Channels for High-Pressure Coolant Carrying Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	OAW	GAMP	GAMF	Insert
PTGNR/L 2020K-16X-JHP	20.0	20.0	20.0	125.00	20.0	25.00	31.7	-6.0	-6.0	TNMX 1606, TNMG 1604
PTGNR/L 2525M-16X-JHP	25.0	25.0	25.0	150.00	20.0	32.00	-	-6.0	-6.0	TNMX 1606, TNMG 1604

- Supplied with TTX 3 seat for TNMX 1606.. inserts and TTN 3 seat for TNMG 1604.. inserts • For user guide, see pages 78-84

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMX-M3/4PW (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMX-M3/4MW (168) • TNMG-TF (170) • TNMG-GN (171) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMS-12 (214) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

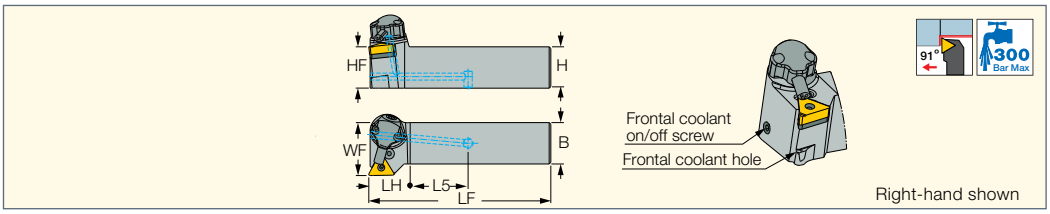
Spare Parts

Designation							
PTGNR/L-X-JHP	TTX 3	TTN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4

HELITURN LD
JETCUT

PTGNR/L-X-JHP-MC

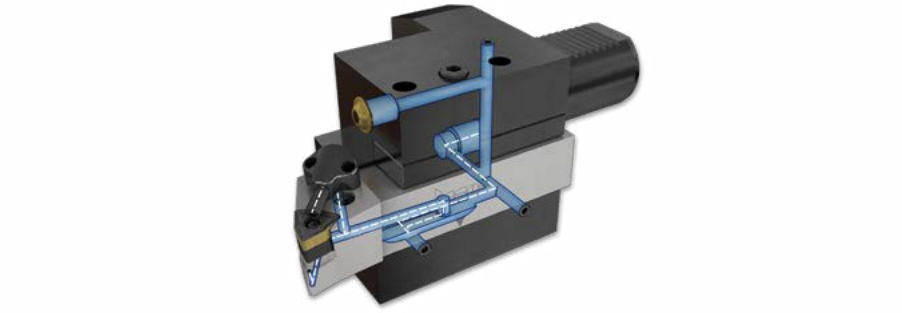
Tools with Bottom Inlets for High-Pressure Coolant Carrying TNMX and TNMG Triangular Inserts



Designation	H	HF	B	LF	LH	L5	WF	Insert
PTGNR/L 2020X-16X-JHP-MC	20.0	20.0	20.0	95.00	25.0	29.00	25.00	TNMX 1606, TNMG 1604
PTGNR/L 2525X-16X-JHP-MC	25.0	25.0	25.0	110.00	25.0	35.00	32.00	TNMX 1606, TNMG 1604

• Supplied with TTX 3 seat for TNMX 1606.. inserts and TTN 3 seat for TNMG 1604.. inserts. • For user guide, see pages 78-84

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMX-M3/4PW (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMX-M3/4MW (168) • TNMG-TF (170) • TNMG-GN (171) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMS-12 (214) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)



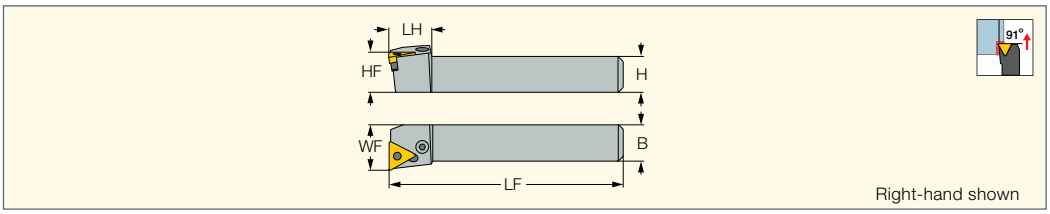
Spare Parts

Designation										
PTGNR/L-X-JHP-MC	TTX 3	TTN 3	SP 3	LR 3	SR 117-2014	T-8/5	SR M5X5 DIN913 TL360	PN 3-4	HW 2.5	CU-S-JHP

ISOTURN

PTFNR/L

91° Lead Angle Lever Lock Face Turning Tools Carrying Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PTFNR/L 2020K-16	20.0	20.0	20.0	125.00	20.0	25.00	TNMG 16..
PTFNR/L 2525M-16	25.0	25.0	25.0	150.00	20.0	32.00	TNMG 16..
PTFNR/L 2525M-22	25.0	25.0	25.0	150.00	26.0	32.00	TNMG 2204

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMS-12 (214) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

Spare Parts

Designation							
PTFNR/L 2020K-16	TTN 322	TTN 332[(a)]*	LR 3	SR 117-2014	HW 2.5/5	SP 3	PN 3-4
PTFNR/L 2525M-16	TTN 322	TTN 332[(a)]*	LR 3	SR 117-2014	HW 2.5/5	SP 3	PN 3-4
PTFNR/L 2525M-22	TTN 422		LR 4	SR 117-2010	HW 3.0	SP 4	PN 3-4

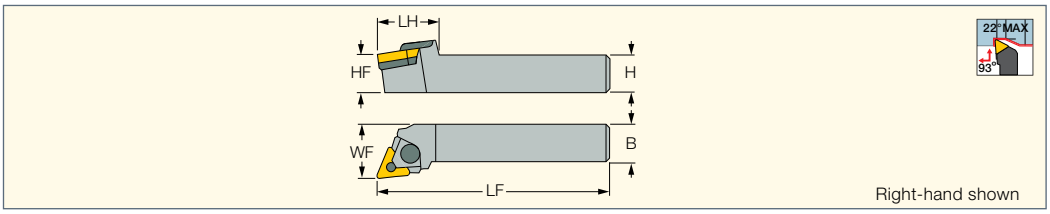
* Optional, should be ordered separately

(a) TTN 332 for inserts 3.18 mm thick.

ISOTURN

MTJNR/L-W

93° Lead Angle Wedge Lock Turning Tools Carrying Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	Insert
MTJNR/L 1616H-16W-M	16.0	16.0	16.0	100.00	32.0	20.00	TNMG 1604
MTJNR/L 2020K-16W-M	20.0	20.0	20.0	125.00	32.0	25.00	TNMG 1604
MTJNR/L 2525M-16W-M	25.0	25.0	25.0	150.00	32.0	32.00	TNMG 1604
MTJNR/L 2525M-22W	25.0	25.0	25.0	150.00	38.0	32.00	TNMG 2204
MTJNR/L 3225P-22W	32.0	32.0	25.0	170.00	38.0	32.00	TNMG 2204

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

Spare Parts

Designation										
MTJNR/L 1616H-16W-M	TTT 322N	TTT 332N[a]*	ZNW 3WNS			LC 291N CLAMP		E RING N	SR 17-317NS	HW 3.0
MTJNR/L 2020K-16W-M	TTT 322N	TTT 332N[a]*	ZNW 3WN	HW 2.5		LC 291N CLAMP		E RING N	SR 17-317N	HW 3.0
MTJNR/L 2525M-16W-M	TTT 322N	TTT 332N[a]*	ZNW 3WN			LC 291N CLAMP		E RING N	SR 17-317N	HW 3.0
MTJNR/L 2525M-22W	TTT 434		ZNW 4	HW 2.5	LC 281 SET 1		SR 17-295			HW 3.0
MTJNR/L 3225P-22W	TTT 434		ZNW 4	HW 2.5	LC 281 SET 1		SR 17-295			HW 3.0

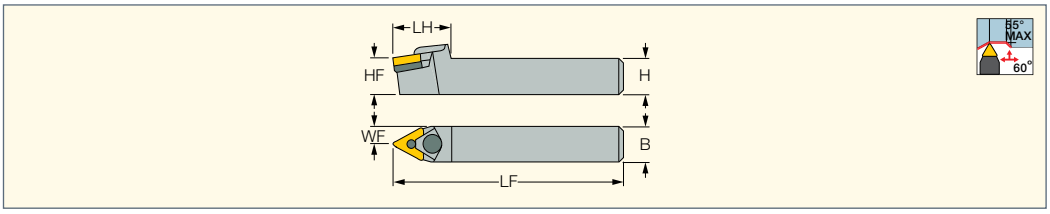
* Optional, should be ordered separately

[a] Use for inserts TNMG 1603.. 3.18 mm thick

ISOTURN

MTENN-W

Neutral Wedge Lock Turning Tools Carrying Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	Insert
MTENN 1618H-16W-M	16.0	16.0	18.0	100.00	32.0	9.00	TNMG 1604
MTENN 2020K-16W-M	20.0	20.0	20.0	125.00	35.0	10.00	TNMG 1604
MTENN 2525M-16W-M	25.0	25.0	25.0	150.00	32.0	12.50	TNMG 1604
MTENN 2525M-22W	25.0	25.0	25.0	150.00	40.0	12.50	TNMG 2204
MTENN 3232P-22W	32.0	32.0	32.0	170.00	40.0	16.00	TNMG 2204

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

Spare Parts

Designation										
MTENN 1618H-16W-M	TTT 322N	TTT 332N[a]*	ZNW 3WNS			LC 291N CLAMP		E RING N	SR 17-317NS	HW 3.0
MTENN 2020K-16W-M	TTT 322N	TTT 332N[a]*	ZNW 3WN			LC 291N CLAMP		E RING N	SR 17-317N	HW 3.0
MTENN 2525M-16W-M	TTT 322N	TTT 332N[a]*	ZNW 3WN			LC 291N CLAMP		E RING N	SR 17-317N	HW 3.0
MTENN 2525M-22W	TTT 434		ZNW 4	HW 2.5	LC 281 SET 1		SR 17-295			HW 3.0
MTENN 3232P-22W	TTT 434		ZNW 4	HW 2.5	LC 281 SET 1		SR 17-295			HW 3.0

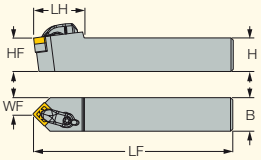
* Optional, should be ordered separately

[a] Use for inserts TNMG 1603.. 3.18 mm thick

ISOTURN

DSDNN

45° Lead Angle R-Clamp External Turning Tools Carrying ISO Negative SNMG Inserts





Designation	H	HF	B	LF	LH	WF	Insert
DSDNN 2525M-12	25.0	25.0	25.0	150.00	38.0	12.80	SNMG 1204
DSDNN 2525M-15	25.0	25.0	25.0	150.00	42.0	12.50	SNMG 1506
DSDNN 3232P-19	32.0	32.0	32.0	170.00	44.0	16.00	SNMG 1906

For inserts, see pages: SNMG-F3S (175) • SNMG-R3M (174) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMM-NR (179) • SNMG-PP (175) • SNMG-VL (175) • SNMG-EM-M/R (176) • SNMM-NM (179) • SNMM-H3P (178) • SNMM-H4P (178) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

Designation									
DSDNN 2525M-12	RST 443	RST 443R/L SET[a]*	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5
DSDNN 2525M-15	RST 54		SR 10402265	LCGR-5		SR 10402267	KSP 5	HW 4.0	
DSDNN 3232P-19	RST 634		SR 10402266	LCGR-6		SR 10402267	KSP 5	HW 4.0	

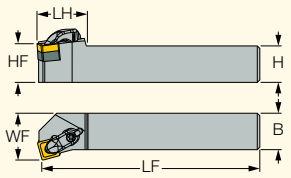
* Optional, should be ordered separately

[a] Optional, required for SNMG ...-EM-R/M inserts

ISOTURN

DSKNR/L

75° Lead Angle R-Clamp Face Turning Tools Carrying ISO Negative SNMG Inserts





Right-hand shown

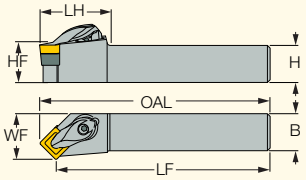
Designation	H	HF	B	LF	LH	WF	Insert					
DSKNR/L 2525M-12	25.0	25.0	25.0	150.00	31.0	32.00	SNMG 1204	RST 443	T-15/5	SR 10400270-25.5	LCGR-4	SR 14-506

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

ISOTURN

DSSNR/L

45° Lead Angle R-Clamp Tools Carrying Negative Square Inserts for Longitudinal and Facing Applications





Right-hand shown

Designation	H	HF	B	LF	LH	WF	OAL	Insert
DSSNR/L 2020K-12 [1]	20.0	20.0	20.0	125.00	38.0	25.00	133.30	SNMG 1204
DSSNR/L 2525M-12 [1]	25.0	25.0	25.0	150.00	39.0	32.00	158.30	SNMG 1204
DSSNR/L 3232P-15	32.0	32.0	32.0	170.00	34.0	40.00	170.00	SNMG 1506
DSSNR/L 3232P-19	32.0	32.0	32.0	170.00	38.0	40.00	170.00	SNMG 1906

[1] Using SNMG.....-EM-M/R inserts requires the use of RST 443R/L SET.

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMM-NR (179) • SNMG-PP (175) • SNMG-R3M (174) • SNMG-VL (175) • SNMG-EM-M/R (176) • SNMM-NM (179) • SNMM-H3P (178) • SNMM-H4P (178) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

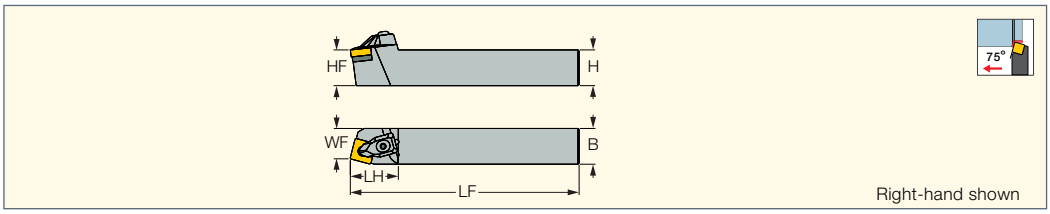
Spare Parts

Designation								
DSSNR/L 2020K-12	RST 443	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5
DSSNR/L 2525M-12	RST 443	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5
DSSNR/L 3232P-15	RST 54	SR 10402265	LCGR-5		SR 10402267	KSP 5	HW 4.0	
DSSNR/L 3232P-19	RST 634	SR 10402266	LCGR-6		SR 10402267	KSP 5	HW 4.0	

ISOTURN

DSBNR/L

75° Lead Angle R-Clamp Tools Carrying Negative Square Inserts



Designation	H	HF	B	LF	LH	WF	Insert
DSBNR/L 2525M-12	25.0	25.0	25.0	150.00	38.0	22.00	SNMG 1204
DSBNL 3232P-12	32.0	32.0	32.0	170.00	38.0	27.00	SNMG 1204
DSBNR/L 2525M-15	25.0	25.0	25.0	150.00	40.0	22.00	SNMG 1506
DSBNR/L 3232P-19	32.0	32.0	32.0	170.00	43.0	27.00	SNMG 1906
DSBNR/L 4040S-19	40.0	40.0	40.0	250.00	43.0	37.00	SNMG 1906

For inserts, see pages: SNMG-F3S (175) • SNMG-R3M (174) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMM-NR (179) • SNMG-PP (175) • SNMG-VL (175) • SNMM-NM (179) • SNMM-H3P (178) • SNMM-H4P (178) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

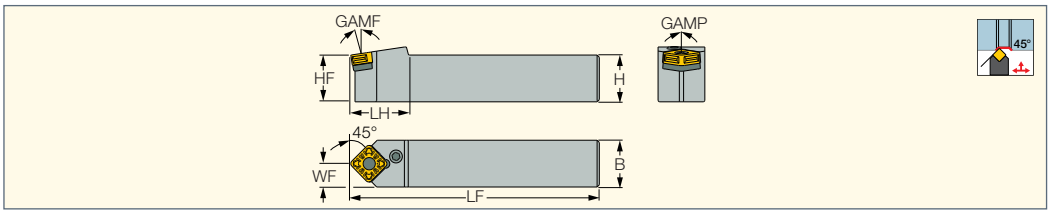
Spare Parts

Designation								
DSBNR/L 2525M-12	RST 443	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5
DSBNL 3232P-12	RST 443	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5
DSBNR/L 2525M-15	RST 54	SR 10402265	LCGR-5		SR 10402267	KSP 5	HW 4.0	
DSBNR/L 3232P-19	RST 634	SR 10402266	LCGR-6		SR 10402267	KSP 5	HW 4.0	
DSBNR/L 4040S-19	RST 634	SR 10402266	LCGR-6		SR 10402267	KSP 5	HW 4.0	

DOVEIQTURN HEAVY DUTY LINE

PSDON-IQ

Lever Lock and Dovetail Pocket Rigid Clamping Tools Carrying Unique Double-Sided Square Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSDON 3232P-15-IQ	32.0	32.0	32.0	170.00	35.0	17.00	0.0	-8.5	SOMG 1506
PSDON 3232P-19-IQ	32.0	32.0	32.0	170.00	39.5	17.00	0.0	-8.5	SOMG 1906
PSDON 4040S-19-IQ	40.0	40.0	40.0	250.00	39.5	21.00	0.0	-8.5	SOMG 1906

For inserts, see pages: SOMG-R3P-IQ (173)

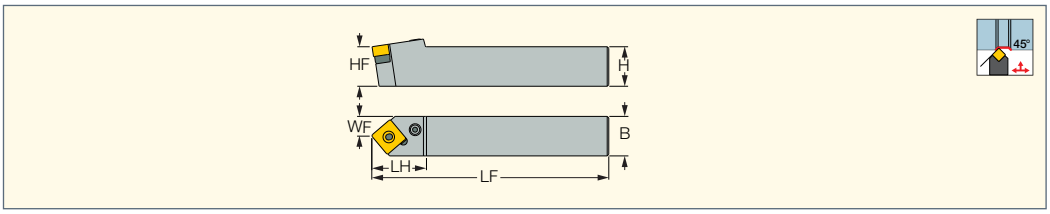
Spare Parts

Designation					
PSDON 3232P-15-IQ	TSX 5-IQ	SP 5	SR LCS 5-L25.5	LCL 16-NX	HW 3.0
PSDON 3232P-19-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PSDON 4040S-19-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0

ISOTURN

PSDNN

45° Lead Angle Lever Lock External Turning Tools Carrying ISO Negative SNMG Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PSDNN 2020K-12	20.0	20.0	20.0	125.00	27.0	10.00	SNMG 1204/SNGA 1204
PSDNN 2525M-12	25.0	25.0	25.0	150.00	27.0	12.50	SNMG 1204/SNGA 1204
PSDNN 3232P-19	32.0	32.0	32.0	170.00	41.0	16.00	SNMG 1906
PSDNN 4040S-25 (1)	40.0	40.0	40.0	250.00	49.0	20.00	SNMG 2507

(1) For SN.. 2509... inserts, use TSN 84 seat

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMM-NR (179) • SNMG-EM-M/R (176) • SNMG-PP (175) • SNMG-R3M (174) • SNMG-VL (175) • SNMM-NM (179) • SNMM-H3P (178) • SNMM-H4P (178) • SNMM-H5P (179) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

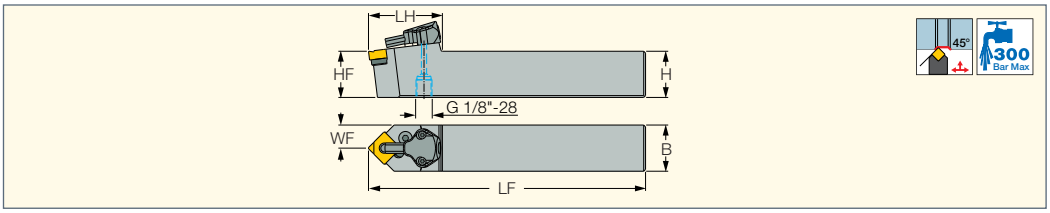
Designation							
PSDNN 2020K-12	TSN 423		SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
PSDNN 2525M-12	TSN 423		SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
PSDNN 3232P-19	RST 634		SP 66		LR 6	SR 10402352	HW 4.0
PSDNN 4040S-25	TSN 84N	TSN 85N*	SP 8		LR 8	SR 10402264	

* Optional, should be ordered separately

ISOTURN JETCUT

PSDNN-JHP

45° Lead Angle Lever Lock Tools with Channels for High-Pressure Coolant Carrying ISO Negative SNMG Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PSDNN 2525M-12-JHP	25.0	25.0	25.0	150.00	40.0	12.50	SNMG 1204

• For user guide, see pages 78-84

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMG-EM-M/R (176) • SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

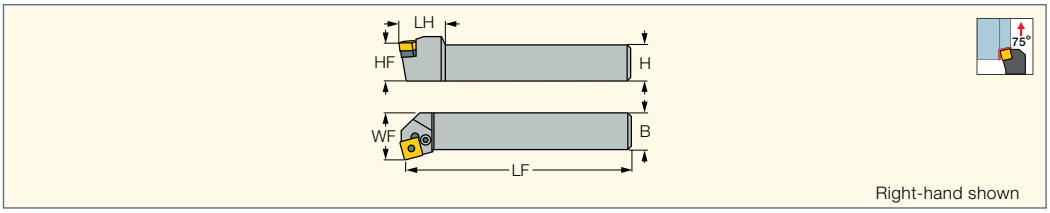
Designation									
PSDNN 2525M-12-JHP	TSN 423	TSN 423M SET(a)	SP 4	PN 3-4	LR 4	SR 117-2010	CU-CW-JHP	HW 3.0	T-8/5

(a) When SNMG-EM-M/-R inserts are used, replace the standard seat.

ISOTURN

PSKNR/L

75° Lead Angle Lever Lock Tools Carrying ISO Negative Square Inserts for Face Turning



Designation	H	HF	B	LF	LH	WF	Insert
PSKNR/L 2525M-12	25.0	25.0	25.0	150.00	23.5	32.00	SNMG 1204/SNGA 1204

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

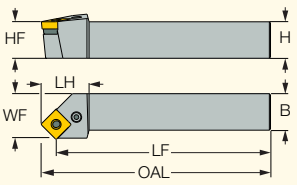
Spare Parts

Designation						
PSKNR/L	TSN 423	LR 4	SR 117-2010	HW 3.0	SP 4	PN 3-4

ISOTURN

PSSNR/L

45° Lead Angle Lever Lock Tools Carrying Negative Square Inserts for Longitudinal and Facing Applications





Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert	OAL
PSSNR/L 2020K-09	20.0	20.0	20.0	125.00	25.0	25.00	SNMG 0904	131.40
PSSNR/L 2525M-09	25.0	25.0	25.0	150.00	25.0	32.00	SNMG 0904	156.40
PSSNR/L 2020K-12	20.0	20.0	20.0	125.00	29.0	25.00	SNMG 1204	133.30
PSSNR/L 2525M-12	25.0	25.0	25.0	150.00	29.0	32.00	SNMG 1204	158.30
PSSNR/L 3232P-19	32.0	32.0	32.0	157.50	42.0	40.00	SNMG 1906	170.00
PSSNR/L 4040S-19	40.0	40.0	40.0	237.50	42.0	50.00	SNMG 1906	250.00
PSSNR/L 4040S-2507 (1)	40.0	40.0	40.0	234.00	53.0	50.00	SNMG 2507	250.00

(1) For SN.. 2509... inserts, use TSN 84 seat

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMM-NR (179) • SNMG-EM-M/R (176) • SNMG-PP (175) • SNMG-R3M (174) • SNMG-VL (175) • SNMM-NM (179) • SNMM-H3P (178) • SNMM-H4P (178) • SNMM-H5P (179) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

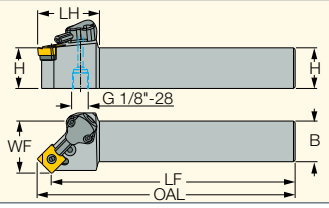
Designation							
PSSNR/L 2020K-09	TSN 323	TSN 333	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-3L
PSSNR/L 2525M-09	TSN 323	TSN 333	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-3L
PSSNR/L 2020K-12	TSN 423		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4
PSSNR/L 2525M-12	TSN 423		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4
PSSNR/L 3232P-19	RST 634		SP 66	LR 6	SR 10402352	HW 4.0	
PSSNR/L 4040S-19	RST 634		SP 66	LR 6	SR 10402352	HW 4.0	
PSSNR/L 4040S-2507	TSN 85	TSN 84*	SP 8	LR 8	SR 10402264	HW 5.0	

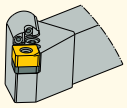
* Optional, should be ordered separately

ISOTURN JETCUT

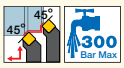
PSSNR/L-JHP

45° Tools with Channels for High-Pressure Coolant Carrying Negative Square Inserts for Longitudinal and Facing Turning





Inside coolant for PSSNR/L... 09

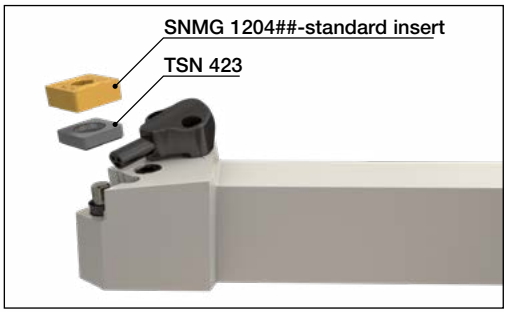


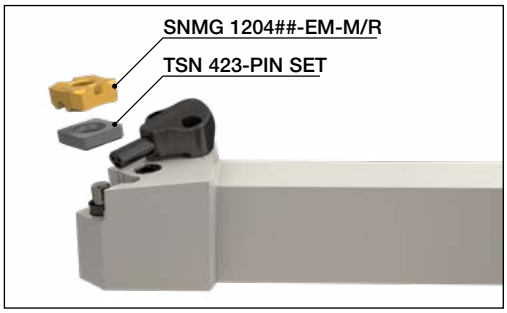
Right-hand shown

Designation	H	B	LF	LH	WF	OAL	Insert
PSSNR/L 2020K-09-JHP	20.0	20.0	125.00	35.0	25.00	131.40	SNMG 09..
PSSNR/L 2525M-12-JHP	25.0	25.0	150.00	38.0	32.00	158.40	SNMG 1204

• For user guide, see pages 78-84

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMG-EM-M/R (176) • SNMG-PP (175) • SNMG-VL (175) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)





Spare Parts

Designation										
PSSNR/L 2020K-09-JHP	TSN 323	TSN 333	SP 3	PN 3-3L	LR 3	SR 117-2014			HW 2.5	
PSSNR/L 2525M-12-JHP	TSN 423	TSN 423M SET[a]*	SP 4	PN 3-4	LR 4	SR 117-2010	OR 6.4X0.9N	CU-S-JHP	HW 3.0	T-8/5

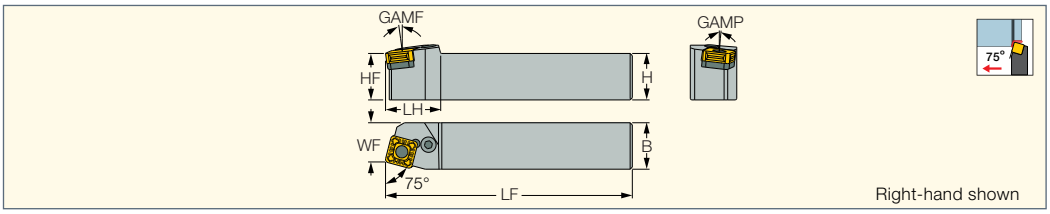
* Optional, should be ordered separately

(a) When SNMG-EM-M/-R inserts are used, replace the standard seat.

DOVE IQ TURN HEAVY DUTY LINE

PSBOR/L-IQ

Lever Lock and Dovetail
Pocket Rigid Clamping Tools
Carrying Unique SOMG
Double-Sided Square Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSBOR/L 3232P-15-IQ	32.0	32.0	32.0	170.00	35.0	27.00	-4.7	-7.5	SOMG 1506
PSBOR/L 3232P-19-IQ	32.0	32.0	32.0	170.00	38.0	27.00	-4.7	-7.5	SOMG 1906
PSBOR/L 4040S-19-IQ	40.0	40.0	40.0	250.00	38.0	35.00	-4.7	-7.5	SOMG 1906
PSBOR/L 4040S-25-IQ	40.0	40.0	40.0	250.00	50.0	35.00	-4.7	-7.5	SOMG 2509

For inserts, see pages: SOMG-R3P-IQ (173)

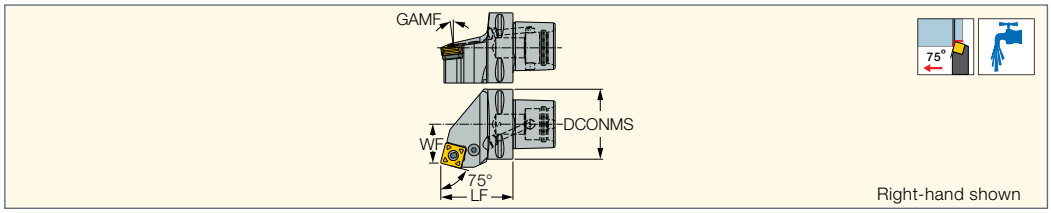
Spare Parts

Designation					
PSBOR/L 3232P-15-IQ	TSX 5-IQ	SP 5	SR LCS 5-L25.5	LCL 16-NX	HW 3.0
PSBOR/L 3232P-19-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PSBOR/L 4040S-19-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PSBOR/L 4040S-25-IQ	TSX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0

DOVE IQ TURN HEAVY DUTY LINE
CAMFIX

C#-PSROR/L-IQ

Lever Lock and Dovetail
Pocket Tools with CAMFIX
Shanks Carrying Unique SOMG
Double-Sided Square Inserts



Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C6 PSROR/L-35065-15-IQ	63.00	35.00	65.00	-4.7	-7.5	SOMG 1506
C6 PSROR/L-35065-19-IQ	63.00	35.00	65.00	-4.7	-7.5	SOMG 1906
C8 PSROR/L-45080-19-IQ	80.00	55.00	80.00	-4.7	-7.5	SOMG 1906
C8 PSROR/L-45085-25-IQ	80.00	55.00	80.00	-4.7	-7.5	SOMG 2509

For inserts, see pages: SOMG-R3P-IQ (173)

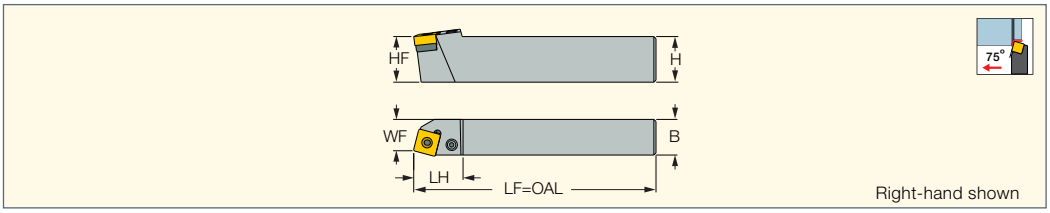
Spare Parts

Designation							
C6 PSROR/L-35065-15-IQ	TSX 5-IQ	LCL 16-NX	SP 5	SATZ-M10X1-M5	HW 3.0	SR LCS 5-L25.5	
C6 PSROR/L-35065-19-IQ	TSX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	
C8 PSROR/L-45080-19-IQ	TSX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	SPP 5-6
C8 PSROR/L-45085-25-IQ	TSX 8-IQ	LCL 32-NX	SP 8	SATZ-M12X1-M6	HW 5.0	SR LCS 8-L39	

ISOTURN

PSBNR/L

Lever Lock 75° Lead Angle
Turning Tools Carrying ISO
Negative Square Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PSBNR/L 2020K-09	20.0	20.0	20.0	125.00	20.0	17.00	SNMG 0904
PSBNR/L 2525M-09	25.0	25.0	25.0	150.00	20.0	22.00	SNMG 0904
PSBNR 2525M-12	25.0	25.0	25.0	150.00	26.8	22.00	SNMG 1204
PSBNR/L 3232P-19	32.0	32.0	32.0	170.00	39.0	27.00	SNMG 1906
PSBNR/L 4040S-25 (1)	40.0	40.0	40.0	250.00	48.0	35.00	SNMG 2507

(1) For SN.. 2509... inserts, use TSN 84 seat

For inserts, see pages: SNMG-F3S (175) • SNMG-R3M (174) • SNMG-F3P (173) • SNMG-M3P (173) • SNMM-R3P (178) • SNMG-F3M (174) • SNMG-M3M (174) • SNMG-TF (176) • SNMG-GN (177) • SNMG-NR (177) • SNMM-NR (179) • SNMG-PP (175) • SNMG-VL (175) • SNMM-NM (179) • SNMM-H3P (178) • SNMM-H4P (178) • SNMM-H5P (179) • SNMA (177) • SNGA-Ceramic (218) • SNMA (CBN) (235)

Spare Parts

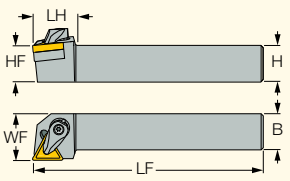
Designation							
PSBNR/L 2020K-09	TSN 323	TSN 333	SP 3	PN 3-3L	LR 3	SR 117-2014	HW 2.5
PSBNR/L 2525M-09	TSN 323	TSN 333	SP 3	PN 3-3L	LR 3	SR 117-2014	HW 2.5
PSBNR 2525M-12	TSN 423		SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
PSBNR/L 3232P-19	RST 634		SP 66		LR 6	SR 10402352	HW 4.0
PSBNR/L 4040S-25	TSN 84N	TSN 85N*	SP 8		LR 8	SR 10402264	HW 5.0

* Optional, should be ordered separately

ISOTURN

DTGNR/L

91° Lead Angle R-Clamp External Turning Tools Carrying Negative Triangular Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert
DTGNR/L 2020K-16	20.0	20.0	20.0	125.00	25.0	25.00	TNMG 1604
DTGNR/L 2525M-16	25.0	25.0	25.0	150.00	25.0	32.00	TNMG 1604
DTGNR 2525M-22	25.0	25.0	25.0	150.00	32.0	32.00	TNMG 2204

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

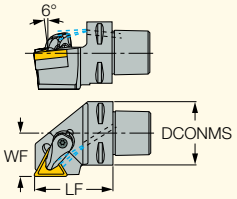
Spare Parts

Designation								
DTGNR/L 2020K-16	RTT 322	SR 35080I	LCGR-3		SR RC3	KSP 3	HW 2.5	
DTGNR/L 2525M-16	RTT 322	SR 35080I	LCGR-3		SR RC3	KSP 3	HW 2.5	
DTGNR 2525M-22	RTT 443	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5

ISOTURN CAMFIX

C#-DTGNR/L

91° Lead R-Clamp External Turning Tools with CAMFIX Exchangeable Shanks Carrying Negative Triangular Inserts





Right-hand shown

Designation	DCONMS	WF	LF	Insert	CP[1]	CDI[2]						
C6 DTGNR/L-45065-22	63.00	45.00	65.00	TN.. 22	70	1	RTT 443	SR 14-506 M4X0.7	LCGR-4	SR 10400270-25.5	T-15/5	EZ 104

[1] Coolant pressure (Bar)

[2] 1 - Hole for data chip, 0 - Without hole for data chip

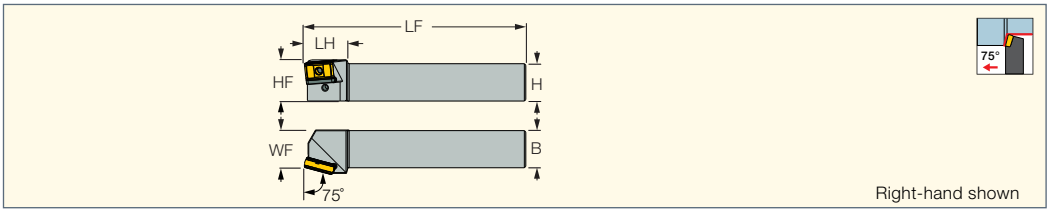
For inserts, see pages: TNMG-F3S (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMA (172) • TNGA-Ceramic (219)



HEAVY SUPER TURN

PLBOR/L

Lever Lock Tools Carrying
LOMX Tangentially Clamped
Super Heavy Turning Inserts

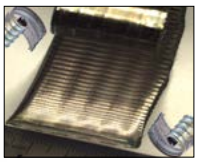


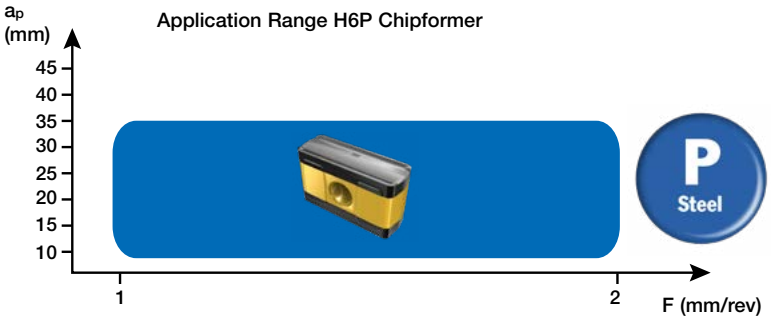
Designation	H	HF	B	LF	LH	WF	Insert
PLBOR/L 5050T-40	50.0	50.0	50.0	300.00	60.0	50.00	LOMX 4022
PLBOR/L 6060V-40	60.0	60.0	60.0	400.00	60.0	60.00	LOMX 4022

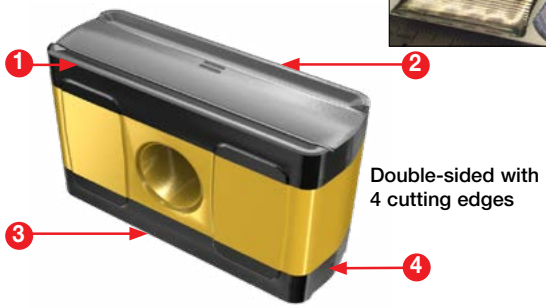
For inserts, see pages: LOMX-H6P (180)

ISCAR's tangential LOMX 402224-H6P insert for very heavy turning applications.

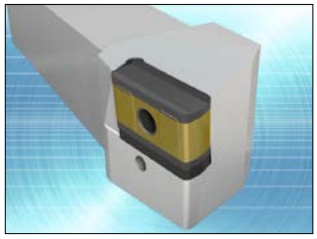
This tangentially clamped insert with 4 cutting edges is made from the tough grade IC8250. It can machine at up to 35 mm depth of cut and up to 2 mm/rev feed. The insert is clamped on a very rigid lever lock pocket equipped with a protective seat.



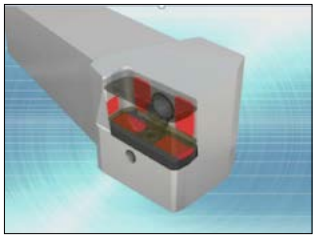




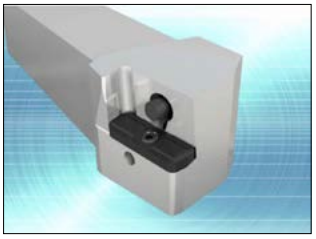
Tangentially Clamped Insert



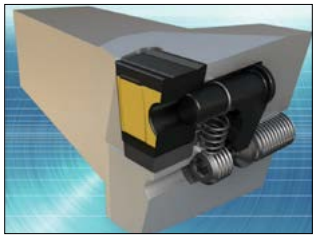
Clamping Surfaces



Protective Seat

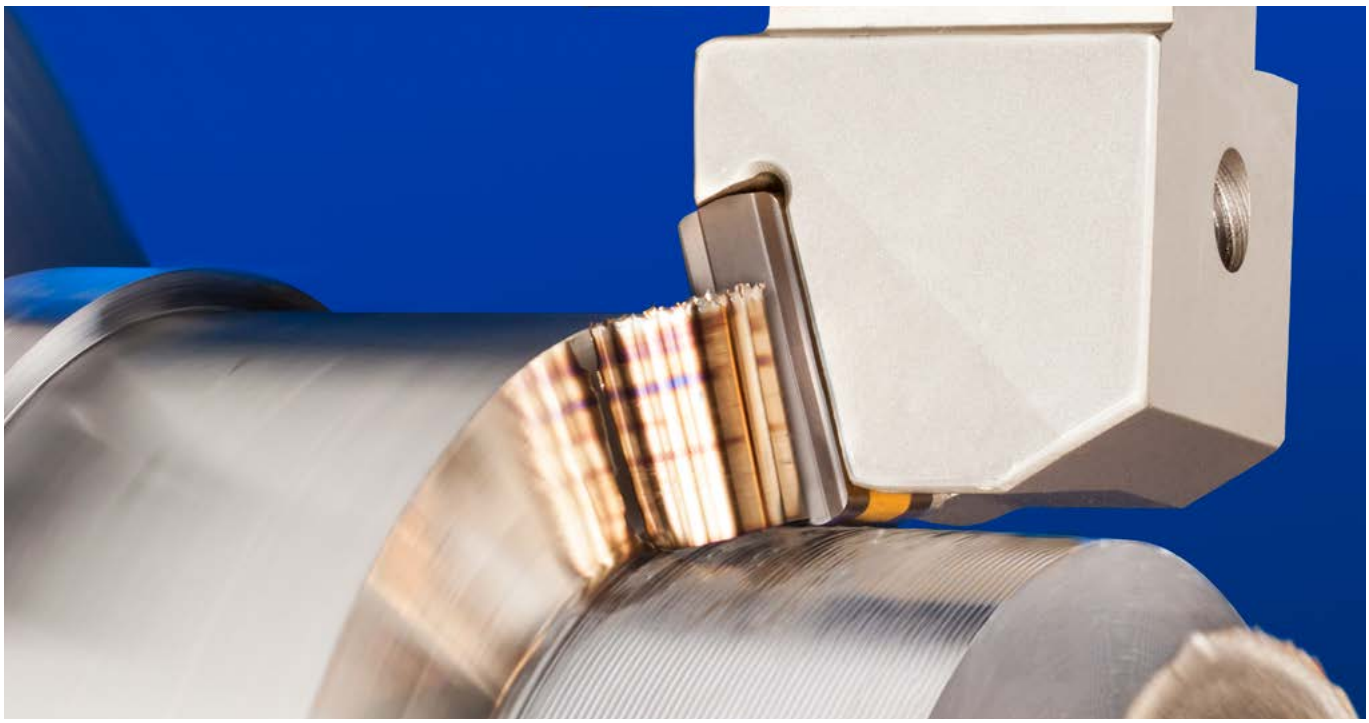


Lever Lock Accessible from Both Tool Sides



Spare Parts

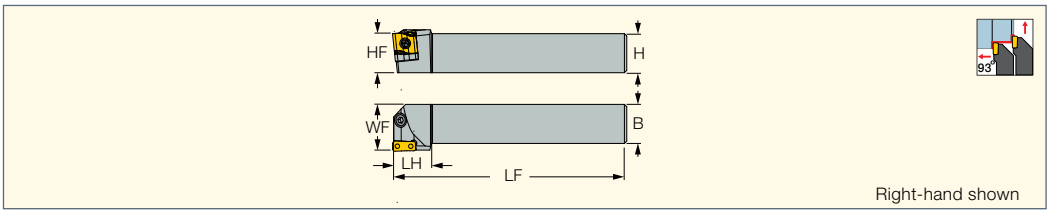
Designation							
PLBOR/L	TLN 40	SR 10402265	LR 8	SR 10643960	SP D7.5XL23	T-20/5	HW 6.0



HELITURN TANGENTIAL LINE

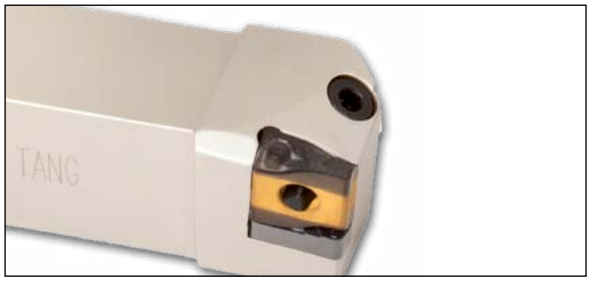
PLANR/L-TANG

Lever Lock Tools Carrying LNMX..
Tangentially Clamped Inserts



Designation	H	HF	B	LF	LH	WF	Insert
PLANR/L 2525M-15 TANG	25.0	25.0	25.0	150.00	25.0	30.00	LNMX 1506..R/L
PLANR/L 3232P-15 TANG	32.0	32.0	32.0	170.00	32.0	37.00	LNMX 1506..R/L
PLANR/L 3232P-22 TANG	32.0	32.0	32.0	170.00	32.0	37.00	LNMX 2210..R/L
PLANR/L 4040R-22 TANG	40.0	40.0	40.0	200.00	40.0	47.00	LNMX 2210..R/L

For inserts, see pages: LNMX-HM (181) • LNMX-HT (180) • LNMX-WG (181)





Spare Parts

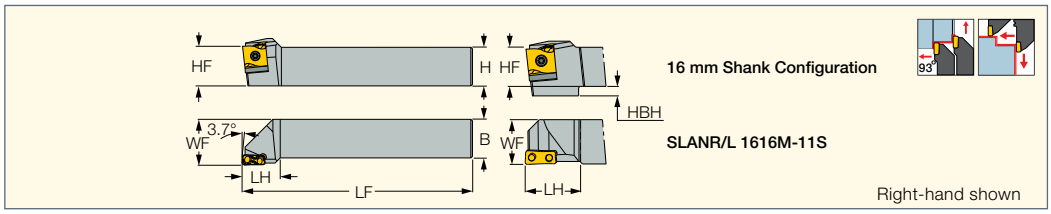
Designation						
PLANR/L 2525M-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	LR T15	SR TL-15	HW 3.5
PLANR/L 3232P-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	LR T15	SR TL-15	HW 3.5
PLANR/L 3232P-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	LR T22	SR TL22	HW 5.0
PLANR/L 4040R-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	LR T22	SR TL22	HW 5.0



HELITURN TANGENTIAL LINE

SLANR/L-TANG

Screw-Lock Tools Carrying the LNMX.. Tangentially Clamped Inserts



Designation	H	HF	B	LF	LH	WF	Insert	HBH
SLANR/L 1616H-11 TANG	16.0	16.0	16.0	100.00	20.0	20.00	LNMX 1104..	4.0
SLANR/L 1616M-11S TANG	16.0	16.0	16.0	150.00	20.0	16.20	LNMX 1104..	4.0
SLANR/L 2020K-11 TANG	20.0	20.0	20.0	125.00	20.0	25.00	LNMX 1104..	4.0
SLANR/L 2525M-11 TANG	25.0	25.0	25.0	150.00	25.0	30.00	LNMX 1104..	4.0
SLANR/L 2020K-15 TANG	20.0	20.0	20.0	125.00	25.0	25.00	LNMX 1506..	4.0
SLANR/L 2525M-15 TANG	25.0	25.0	25.0	150.00	25.0	30.00	LNMX 1506..	4.0
SLANR/L 3232P-15 TANG	32.0	32.0	32.0	170.00	35.0	37.00	LNMX 1506..	4.0
SLANR/L 4040R-15 TANG	40.0	40.0	40.0	200.00	35.0	45.00	LNMX 1506..	4.0
SLANR/L 3232P-22 TANG	32.0	32.0	32.0	170.00	35.0	38.00	LNMX 2210..	4.0
SLANR/L 4040R-22 TANG	40.0	40.0	40.0	200.00	40.0	47.00	LNMX 2210..	4.0

• a_p max for facing: LNMX 11-2.8 mm, LNMX 15-3.8 mm, LNMX 22-5.8 mm

For inserts, see pages: LNMX-HM (181) • LNMX-HT (180) • LNMX-WG (181)

The **HELITURN** system features a unique, double-sided insert with 4 cutting edges for Fast Metal Removal (FMR) turning.
HELITURN is a tangentially clamped insert with a unique helical shaped cutting edge, useful for large depths of cut and higher than normal feed rates.
The LNMX...-HT **HELITURN** insert is a screw clamped into the SLANR toolholder and supported by the TLN ..-HT carbide seat. This seat has ground surfaces on the top and bottom to ensure perfect contact of the insert with the toolholder.
The upper rake face of this insert is mounted level with the top of the toolholder to enable chips to flow across the insert without being disturbed by clamps or the toolholder body.
The 4 curved helical cutting edges ensure positive radial rake angles and soft penetration into the material being cut.
The lower forces and smaller loads ensure better tool life, higher stability and the ability to use very large depths of cut and higher feeds.
The chipformer (with small bumps), deforms and breaks the chip into rib type curved segments which can easily be removed from the cutting area.
The insert has a frontal clearance angle of 3.7° with a 6° side clearance angle to enable machining at a 90° shoulder.
Depths of cut up to 8 mm and facing depths up to 3.2 mm and up to 1.2 mm/rev are achievable with **HELITURN**.
The high positive rake angle of these tools allows 10-15% less power usage than conventional tools with the same parameters.
By using **HELITURN** tools, huge cost savings and profitability in lathe operations are guaranteed.

Spare Parts

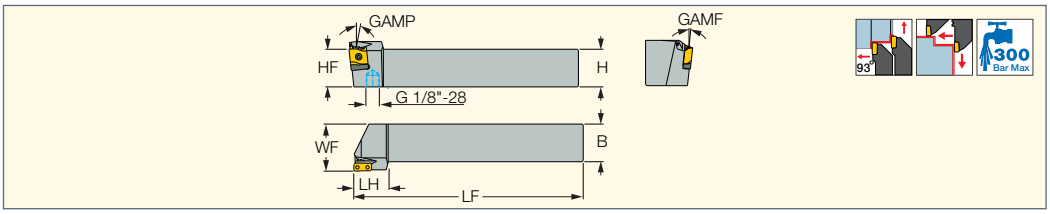
Designation							
SLANL 1616H-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANL 1616M-11S TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANR 1616H-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANR 1616M-11S TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANL 2020K-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANR 2020K-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANL 2525M-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANR 2525M-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
SLANL 2020K-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANR 2020K-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANL 2525M-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANR 2525M-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANL 3232P-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANR 3232P-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANL 4040R-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANR 4040R-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
SLANL 3232P-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH	
SLANR 3232P-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH	
SLANL 4040R-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH	
SLANR 4040R-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH	



HELITURN JETCUT TANGENTIAL LINE

SLANR/L-15-TANG-JHP

Screw-Lock Tools with Channels for High-Pressure Coolant Carrying LNMX Tangentially Clamped Inserts

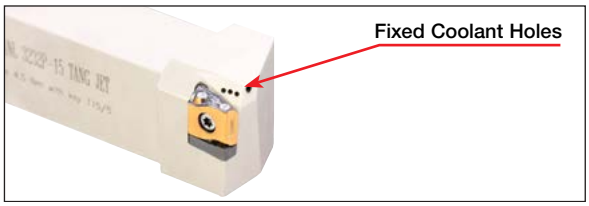


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SLANR/L 3232P-15 TANG-JHP	32.0	32.0	32.0	170.00	30.0	40.00	-6.0	-6.0	LNMX 1506

• a_p max for facing 3.8 mm • For user guide, see pages 78-84

For inserts, see pages: LNMX-HM (181) • LNMX-HT (180) • LNMX-WG (181)

The tools with LNMX 1506... inserts feature fixed coolant holes





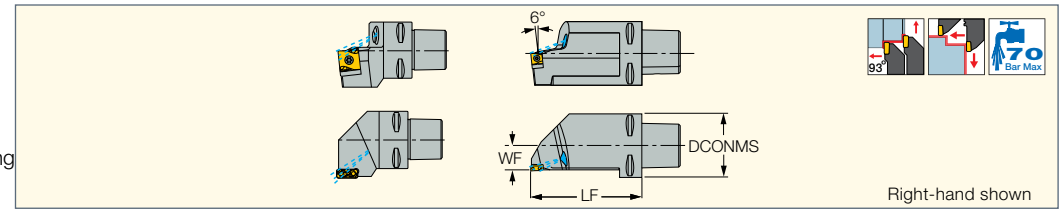
Spare Parts

Designation						
SLANR/L 3232P-15 TANG-JHP	TLN 15R/L-HT	SR RS4	SR 34-535-SN	BLD T15/S7	SW6-T-SH	T-6/5

HELITURN CAMFIX TANGENTIAL LINE

C#-SLANR/L-TANG

Tools with CAMFIX Shanks Carrying the LNMX-HT Tangentially Screw Clamped Inserts for High Production Cutting



Designation	DCONMS	LF	WF	Insert	CP[2]	CDI[3]
C4 SLANR-27050-11 TANG	40.00	50.00	27.00	LNMX 1104..	70	1
C6 SLANR 25110-11 TANG [1]	63.00	110.00	25.00	LNMX 1104..	70	1
C4 SLANR/L-27050-15 TANG	40.00	50.00	27.00	LNMX 1506..	70	1
C5 SLANR/L-35060-15 TANG	50.00	60.00	35.00	LNMX 1506..	70	1
C6 SLANR 25110-15 TANG [1]	63.00	110.00	25.00	LNMX 1506..	70	1
C6 SLANR/L-45065-15 TANG	63.00	65.00	45.00	LNMX 1506..	70	1
C6 SLANR/L-45065-22 TANG	63.00	65.00	45.00	LNMX 2210..	70	1

• a_p max for facing: LNMX 11-2.8 mm, LNMX 15-3.8 mm

[1] Designed for mill-turn machines

[2] Coolant pressure (Bar)

[3] 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: LNMX-HM (181) • LNMX-HT (180) • LNMX-WG (181)

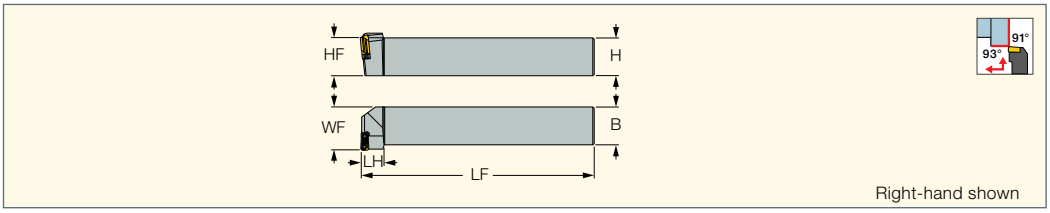
Spare Parts

Designation								
C4 SLANR-27050-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD	EZ 83
C6 SLANR 25110-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD	EZ 146
C4 SLANL-27050-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C4 SLANR-27050-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C5 SLANL-35060-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C5 SLANR-35060-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C6 SLANR 25110-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 146
C6 SLANL-45065-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C6 SLANR-45065-15 TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C6 SLANL-45065-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH		EZ 104
C6 SLANR-45065-22 TANG	TLN 22R/L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH		EZ 104

HELITURN TANGENTIAL LINE

SLFNR/L-TANG

Tools Carrying LNMX
Tangentially Clamped Inserts



Designation	H	HF	B	LF	LH	WF	Insert(1)
SLFNR/L 2525M-15 TANG	25.0	25.0	25.0	150.00	20.0	30.00	LNMX 1506..L/R
SLFNR/L 3232P-15 TANG	32.0	32.0	32.0	170.00	20.0	37.00	LNMX 1506..L/R

- a_p max for longitudinal turning is 5.8 mm

(1) Right-hand insert for left-hand holder, left-hand insert for right-hand holder

For inserts, see pages: LNMX-HM (181) • LNMX-HT (180) • LNMX-WG (181)

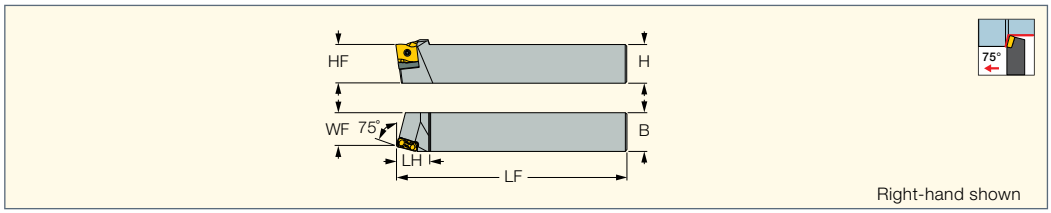
Spare Parts

Designation						
SLFNR/L-TANG	TLN 15R/L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH

HELITURN TANGENTIAL LINE

SLBNR/L-TANG

External 75° Lead Tools
Carrying Tangentially
Screw Clamped Inserts



Designation	H	HF	B	LF	LH	WF	Insert
SLBNR/L 4040R-22 TANG	40.0	40.0	40.0	200.00	35.0	35.00	LNMX 2210..R/L

For inserts, see pages: LNMX-HT (180)

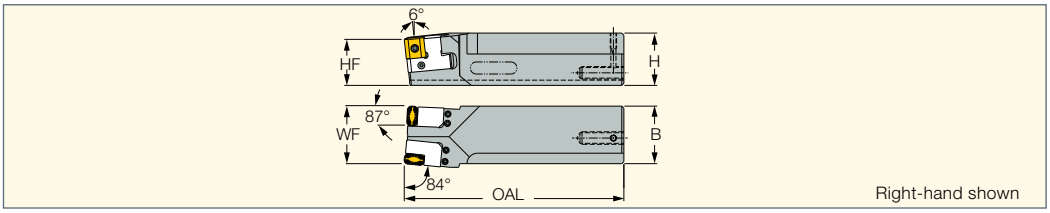
Spare Parts

Designation						
SLBNR/L-TANG	TLN 22R/L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH

ISOTURN

PRWR/L

Toolholders with Cartridges for
Under Floor Railroad Wheel
Re-Turning Lathes (Model 106
Thread Profile Machine)



Designation	H	HF	B	OAL	WF		
PRWR/L 50-55	50.0	44.0	55.0	210.00	55.00	SR M6X1X16	HW 3.0

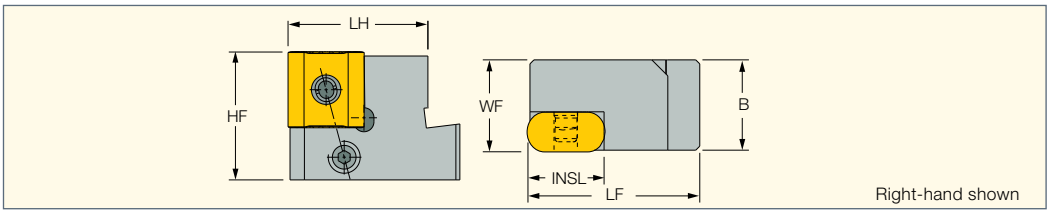
- Cartridges should be ordered separately

For tools, see pages: PRWR/L 175-CA (50) • PRWR/L 177-CA (50)

ISOTURN

PRWR/L 175-CA

Cartridges for PRWR/L 50-55
Railroad Wheel Re-Turning Tools



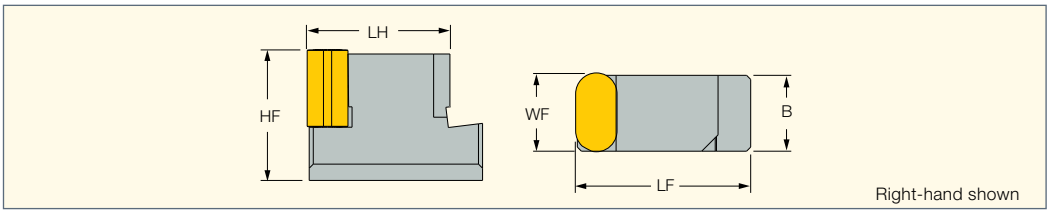
Designation	HF	B	LF	LH	WF	INSL	Insert			
PRWR/L 175-CA-19	32.0	22.6	43.00	35.0	23.00	19.00	LNMX 191940	SR LCS 5	LR 5	HW 3.0
PRWR/L 175-CA-30	32.0	22.6	43.00	35.0	23.00	30.00	LNMX 301940	SR LCS 5	LR 5	HW 3.0

For inserts, see pages: LNMX 19/30 (182)

ISOTURN

PRWR/L 177-CA

Cartridges for PRWR/L 50-55
Railroad Wheel Re-Turning Tools



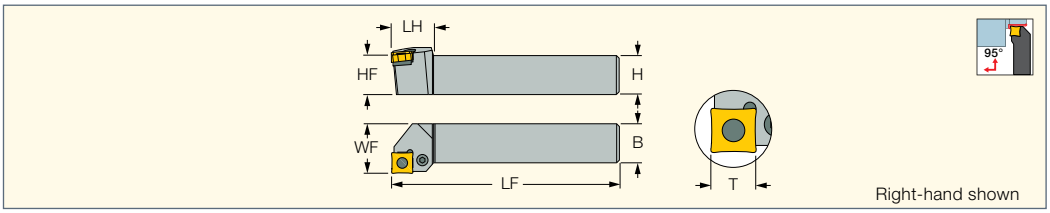
Designation	HF	B	LF	LH	WF	Insert			
PRWR/L 177-CA-19	32.0	18.6	43.00	35.0	19.10	LNMX 191940	SR LCS 5	LR 5	HW 3.0

For inserts, see pages: LNMX 19/30 (182)

ISOTURN

PQLNR/L

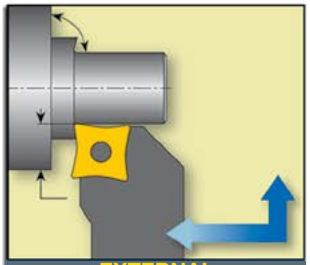
Lever Lock Tools Carrying
Negative Inserts with
Four 80° Corners



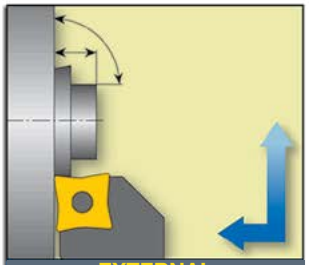
Designation	H	HF	B	LF	LH	WF	T(1)	Insert
PQLNR/L 1616H-09	16.0	16.0	16.0	100.00	21.0	20.00	8	QNMG 0904
PQLNR/L 2020K-09	20.0	20.0	20.0	125.00	26.6	25.00	8	QNMG 0904
PQLNR/L 2525M-09	25.0	25.0	25.0	150.00	26.6	32.00	8	QNMG 0904
PQLNR/L 2020K-12	20.0	20.0	20.0	125.00	26.6	25.00	10	QNMG 1204
PQLNR/L 2525M-12	25.0	25.0	25.0	150.00	26.6	32.00	10	QNMG 1204

(1) T for r 0.8

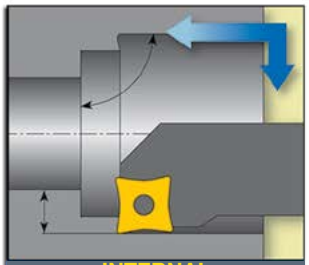
For inserts, see pages: QNMG-GN (183) • QNMG-NF (182) • QNMG-PP (182) • QNMG-TF (182)



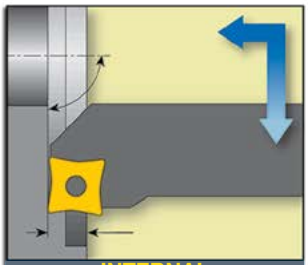
EXTERNAL
LONGITUDINAL TURNING
PQLNR/L PQLCR/L
TOOLHOLDERS



EXTERNAL
FACE TURNING
PQFNR/L
TOOLHOLDERS



INTERNAL
LONGITUDINAL TURNING
S...PQLNR/L S...SQLCR/L
BORING BARS



INTERNAL
FACE TURNING
S...PQFNR/L
BORING BARS

Depth of shoulder T with angles over 92° is unlimited in both directions.

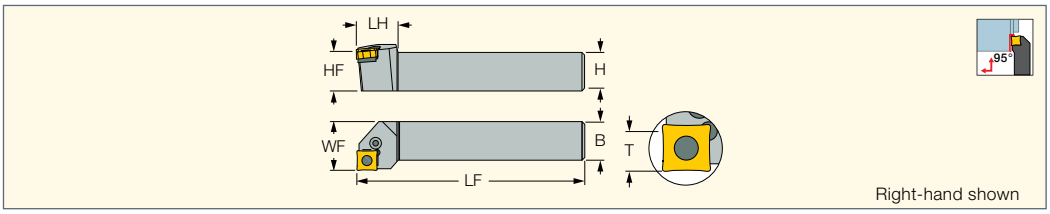
Spare Parts

Designation						
PQLNR/L 1616H-09	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
PQLNR/L 2020K-09	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
PQLNR/L 2525M-09	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
PQLNR/L 2020K-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
PQLNR/L 2525M-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

PQFNR/L

Lever Lock Face Turning Tools
Carrying Negative Inserts
with Four 80° Corners



Designation	H	HF	B	LF	LH	WF	T(1)	Insert
PQFNR/L 2020K-09	20.0	20.0	20.0	125.00	26.0	25.00	8	QNMG 0904
PQFNR/L 2020K-12	20.0	20.0	20.0	125.00	26.0	25.00	10	QNMG 1204
PQFNR/L 2525M-12	25.0	25.0	25.0	150.00	26.0	25.00	10	QNMG 1204

(1) T for r 0.8

For inserts, see pages: QNMG-GN (183) • QNMG-NF (182) • QNMG-PP (182) • QNMG-TF (182)

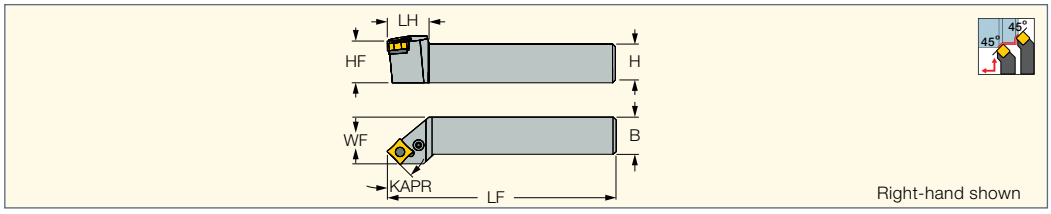
Spare Parts

Designation						
PQFNR/L 2020K-09	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
PQFNR/L 2020K-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
PQFNR/L 2525M-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

PQSNR/L

External 45° Lead Tools
Carrying Negative Inserts
with Four 80° Corners



Designation	H	HF	B	LF	LH	WF	Insert	KAPR(1)
PQSNR/L 2525M-12	25.0	25.0	25.0	150.00	30.0	32.00	QNMG 1204	45.0

(1) Tool cutting edge angle

For inserts, see pages: QNMG-GN (183) • QNMG-NF (182) • QNMG-PP (182) • QNMG-TF (182)

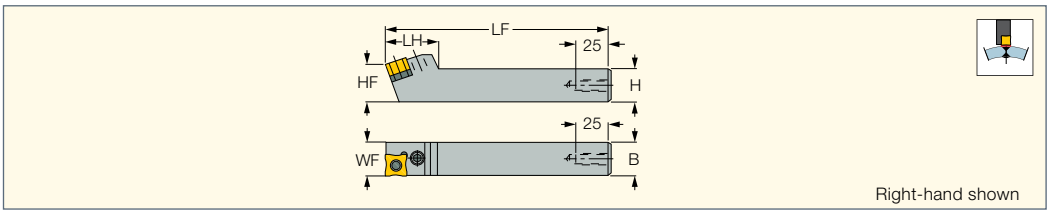
Spare Parts

Designation						
PQSNR/L	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

PSANR/L

Lever Lock Tools Carrying
Negative Square Pipe
Skiving Inserts



Designation	H	B	HF	LF	LH	WF	Insert
PSANR/L 2525M-15 (1)	25.0	25.0	26.0	150.00	38.0	25.00	SNMX 1507

(1) TXN 5-2 for SNMX 150608R-.. inserts without chipbreaker for hard materials.

For inserts, see pages: SNMX 150608R-.. (215) • SNMX 150708R-.. (215)

Spare Parts

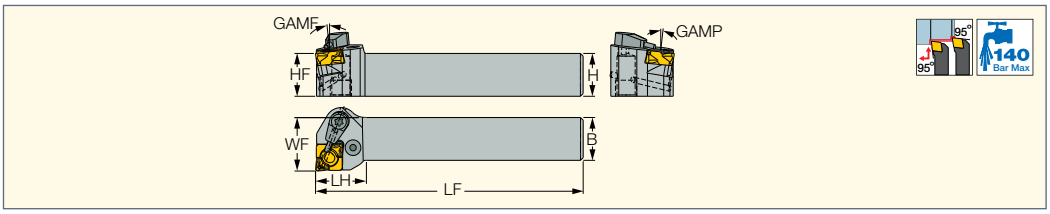
Designation					
PSANR/L 2525M-15	TXN 532	TXN 5-2*	SR 117-2020	LR 5S	HW 3.0

* Optional, should be ordered separately

LOGIQ4TURN POSITIVE DOUBLE SIDED
JETCUT

PCLXR/L-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying CXMG 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
PCLXR/L 1212F-09X-JHP	12.0	12.0	12.0	80.00	20.0	16.00	6.0	6.0	CXMG 09...
PCLXR/L 1616H-09X-JHP	16.0	16.0	16.0	100.00	20.0	20.00	6.0	6.0	CXMG 09...
PCLXR/L 2020K-12X-JHP	20.0	20.0	20.0	125.00	25.0	25.00	6.0	6.0	CXMG 12...
PCLXR/L 2525M-12X-JHP	25.0	25.0	25.0	150.00	25.0	32.00	6.0	6.0	CXMG 12...

• For user guide, see pages 78-84

For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)

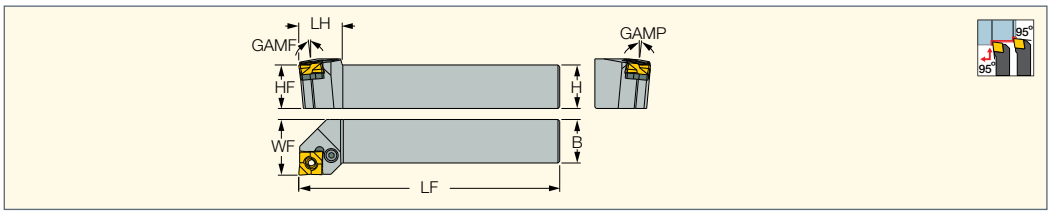
Spare Parts

Designation								
PCLXR/L 1212F-09X-JHP		LR 3X SET	SR M6XL11.5V			T-8/5		S-CU-JHP-A SET
PCLXR/L 1616H-09X-JHP		LR 3X SET	SR M6XL11.5V			T-8/5		S-CU-JHP-A SET
PCLXR/L 2020K-12X-JHP	TCNX 423	LR 4X	SR LCS 5	HW 3.0	PN 3-4		SP 4	CH-1.9D-JHP-A SET
PCLXR/L 2525M-12X-JHP	TCNX 423	LR 4X	SR LCS 5	HW 3.0	PN 3-4		SP 4	CH-1.9D-JHP-A SET

LOGIQ4TURN POSITIVE DOUBLE SIDED

PCLXR/L

Lever Lock Tools Carrying CXMG 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
PCLXR/L 1212F-09X	12.0	12.0	12.0	80.00	19.0	16.00	6.0	6.0	CXMG 09...
PCLXR/L 1616H-09X	16.0	16.0	16.0	100.00	19.0	20.00	6.0	6.0	CXMG 09...
PCLXR/L 2020K-12X	20.0	20.0	20.0	125.00	25.0	25.00	6.0	6.0	CXMG 12...
PCLXR/L 2525M-12X	25.0	25.0	25.0	150.00	25.0	32.00	6.0	6.0	CXMG 12...

For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)

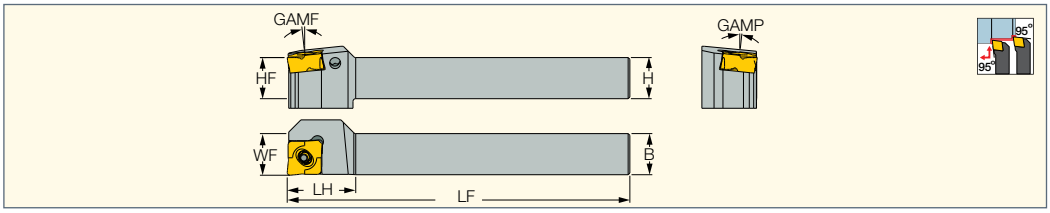
Spare Parts

Designation							
PCLXR/L 1212F-09X		LR 3X SET	SR M6XL11.5V				T-8/5
PCLXR/L 1616H-09X		LR 3X SET	SR M6XL11.5V				T-8/5
PCLXR/L 2020K-12X	TCNX 423	LR 4X	SR LCS 5	HW 3.0	PN 3-4	SP 4	
PCLXR/L 2525M-12X	TCNX 423	LR 4X	SR LCS 5	HW 3.0	PN 3-4	SP 4	

LOGIQ4TURN POSITIVE DOUBLE SIDED

PCLXR/L-S

Lever Lock Tools Carrying CXMG 80° Rhombic Inserts for Swiss-Type Automatic Lathes



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	MIID[1]
PCLXR/L 1212H-09XS	12.0	12.0	12.0	100.00	20.0	12.15	6.0	6.0	CXMG 090402-F3P
PCLXL 1616K-09XS	16.0	16.0	16.0	125.00	20.0	16.00	6.0	6.0	CXMG 090402-F3P
PCLXR 1616K-09XS	16.0	16.0	16.0	125.00	20.0	16.15	6.0	6.0	CXMG 090402-F3P

[1] Master insert identification

For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)

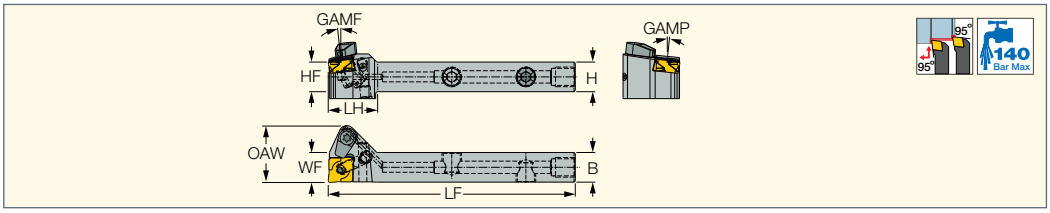
Spare Parts

Designation						
PCLXR/L-S	LR 3X SET	SR-SW-M4X0.7	PIN-SW LR-3X	SR M5X5 SPR	T-8/5	SPRING-.55X2.9X6X6.8

LOGIQ4TURN POSITIVE DOUBLE SIDED
JETCUT

PCLXR/L-S-JHP

Lever Lock Tools with JETCUT Coolant System Carrying CXMG 80° Rhombic Inserts for Swiss-Type Automatic Lathes



Designation	B	H	HF	LF	LH	WF	OAW	GAMP	GAMF	MIID(1)
PCLXR/L 1212H-09XS-JHP	12.0	12.0	12.0	100.00	20.0	12.15	23.00	6.0	6.0	CXMG 090402-F3P
PCLXR/L 1616K-09XS-JHP	16.0	16.0	16.0	125.00	20.0	16.15	23.00	6.0	6.0	CXMG 090402-F3P

• For user guide, see pages 78-84
(1) Master insert identification
For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)

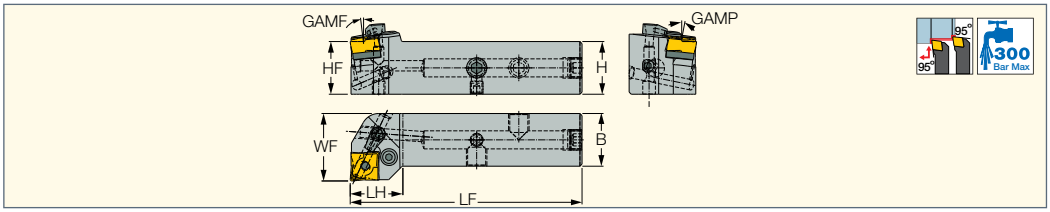
Spare Parts

Designation									
PCLXR/L-S-JHP	LR 3X SET	SR-SW-M4X0.7	PIN-SW LR-3X	SR M5X5 SPR	SR 5/16UNF TL360	T-8/5	SPRING-.55X2.9X6X6.8	CH-1.9D-JHP-A SET	SR M3X3 DIN913 TL360

LOGIQ4TURN POSITIVE DOUBLE SIDED
JETCUT

PCLXR/L-JHP-MC

Lever Lock Tools with Channels for High-Pressure Coolant Carrying CXMG 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert	MIID(1)
PCLXR/L 2020X-09X-JHP-MC	20.0	20.0	20.0	90.00	20.0	25.00	6.0	6.0	CXMG 09...	CXMG 09...
PCLXR/L 2525X-09X-JHP-MC	25.0	25.0	25.0	105.00	20.0	32.00	6.0	6.0	CXMG 09...	CXMG 09...
PCLXR/L 2020X-12X-JHP-MC	20.0	20.0	20.0	95.00	25.0	25.00	6.0	6.0	CXMG 12...	CXMG 12...
PCLXR/L 2525X-12X-JHP-MC	25.0	25.0	25.0	110.00	25.0	32.00	6.0	6.0	CXMG 12...	CXMG 12...

• For user guide, see pages 78-84
(1) Master insert identification
For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)

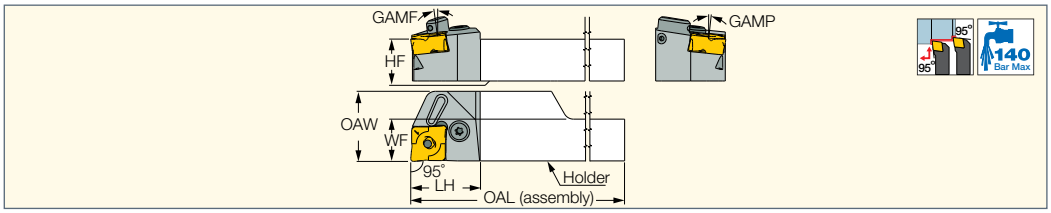
Spare Parts

Designation												
PCLXL 2020X-09X-JHP-MC	TSN 323	S-CU-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR 117-2014		PN 3-4	SP 3	HW 2.5/5
PCLXR 2020X-09X-JHP-MC	TSN 323	S-CU-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR 117-2014		PN 3-4	SP 3	HW 2.5/5
PCLXL 2525X-09X-JHP-MC	TSN 323	S-CU-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR 117-2014	LR 3XL	PN 3-4	SP 3	HW 2.5/5
PCLXR 2525X-09X-JHP-MC	TSN 323	S-CU-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR 117-2014	LR 3XL	PN 3-4	SP 3	HW 2.5/5
PCLXL 2020X-12X-JHP-MC	TCNX 423	CH-1.9D-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR LCS 5	LR 4X	PN 3-4	SP 4	HW 3.0
PCLXR 2020X-12X-JHP-MC	TCNX 423	CH-1.9D-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR LCS 5	LR 4X	PN 3-4	SP 4	HW 3.0
PCLXL 2525X-12X-JHP-MC	TCNX 423	CH-1.9D-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR LCS 5	LR 4X	PN 3-4	SP 4	HW 3.0
PCLXR 2525X-12X-JHP-MC	TCNX 423	CH-1.9D-JHP-A SET	SR M5X5 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SR LCS 5	LR 4X	PN 3-4	SP 4	HW 3.0

NEOSWISS INDEXABLE HEADS
LOGIQ4TURN POSITIVE DOUBLE SIDED

NQCH-PCLXR/L-S-JHP

Lever Lock Modular Heads with High-Pressure Coolant, Positive Double-Sided 80° Rhombic Inserts for SwissType Machines



Designation	WF	HF	LH	OAL	OAW	GAMP	GAMF	Insert
NQCH12-PCLXR/L-09X-JHP	12.15	12.0	20.0	120.00	20.15	6.0	6.0	CXMG.. 0904
NQCH16-PCLXR/L-09X-JHP	16.15	16.0	20.0	120.00	20.15	6.0	6.0	CXMG.. 0904

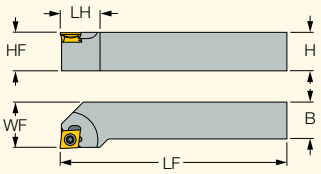
• For user guide, see pages 6-7, 78-84
For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)
For holders, see pages: NQCH-JHP (61)

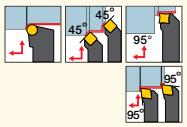
Spare Parts

Designation			
NQCH-PCLXR/L-S-JHP	LR 3X SET	SR M6XL11.5V	T-8/5

CHAMTURN

SUXCR/L-CM
Screw Lock Tools Carrying Four Different 7° Clearance Geometries



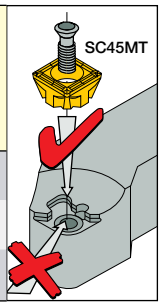


Right-hand shown

Designation	H	HF	B	LF	LH	WF
SUXCR/L 1616H-10 CM	16.0	16.0	16.0	100.00	24.0	20.00
SUXCR/L 2020K-10 CM	20.0	20.0	20.0	125.00	25.0	25.00
SUXCR/L 2525M-10 CM	25.0	25.0	25.0	150.00	25.0	32.00

For inserts, see pages: CC95MT-SM (208) • SC45MT-SM (209)

Designation	H	HF	LF	LH	WF	Inserts
SUXCR/L 1616H-10 CM	16.0	16.0	100.00	24.0	20 21.2	CC95MT... SC45MT...
SUXCR/L 2020K-10 CM	20.0	20.0	125.00	25.0	25 26.2	CC95MT... SC45MT...
SUXCR/L 2525M-10 CM	25.0	25.0	150.00	25.0	32 33.2	CC95MT... SC45MT...



Multifunction Tool Can Carry Two Different Inserts

- Unique, versatile **ISCAR** pocket
- For external applications
- Covers most common operations
- Simplifies tool selection
- Simple screw clamping
- Minimum spare parts

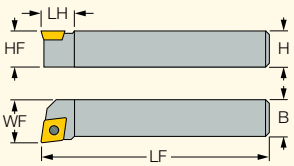
Clamping direction for SC45MT...

Spare Parts

Designation		
SUXCR/L-CM	SR 14-544/S	T-15/5

ISOTURN

SCLCR/L
Screw Lock Tools Carrying 80° Diamond Inserts with 7° Clearance Angle





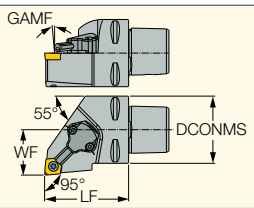
Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert					
SCLCR/L 0808F-06	8.0	8.0	8.0	80.00	10.0	10.00	CC.. 0602	SR 14-548	T-7/5			
SCLCR/L 1010F-06	10.0	10.0	10.0	80.00	10.0	12.00	CC.. 0602	SR 14-548	T-7/5			
SCLCR/L 1212F-09	12.0	12.0	12.0	80.00	14.0	16.00	CC.. 09T3	SR 16-236	T-15/5			
SCLCR/L 1616H-09	16.0	16.0	16.0	100.00	14.0	20.00	CC.. 09T3	SR 16-236	T-15/5			
SCLCR/L 2020K-12	20.0	20.0	20.0	125.00	18.0	25.00	CC.. 1204	SR 16-212	T-20/5			
SCLCR/L 2525M-12	25.0	25.0	25.0	150.00	20.0	32.00	CC.. 1204	SR 16-212	T-20/5	TCC 4-2	SR TC-4	HW 3.0

For inserts, see pages: CCMT-CERMET (187) • CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCGT-AF (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222)

ISOTURN JETCUT CAMFIX

C#-SCLCR/L-JHP
Screw Clamp Tools with CAMFIX Shanks and Channels for High-Pressure Coolant Carrying Positive 80° Rhombic Inserts





Right-hand shown

Designation	DCONMS	WF	LF	GAMF	Insert	CDI(1)	CP(2)					
C3 SCLCR-22045-09-JHP	32.00	22.00	45.00	0.0	CC.. 09T3	0	300	SR 16-236	T-15/5	CU-CW-JHP		T-8/5
C4 SCLCR/L 27050-09-JHP	40.00	27.00	50.00	0.0	CC.. 09T3	1	300	SR 16-236	T-15/5	CU-CW-JHP	SR M5X5 DIN913 TL360	T-8/5
C5 SCLCR/L 35060-09-JHP	50.00	35.00	60.00	0.0	CC.. 09T3	1	300	SR 16-236	T-15/5	CU-CW-JHP	SR M5X5 DIN913 TL360	T-8/5

- For user guide, see pages 78-84

(1) 1 - Hole for data chip, 0 - Without hole for data chip

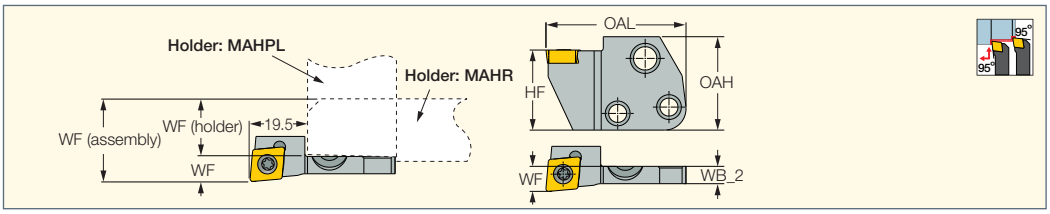
(2) Coolant pressure (Bar)

For inserts, see pages: CCMT-CERMET (187) • CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCGT-AF (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222)

ISOTURN
MODULARGRIP

SCLCR-PAD

Screw Lock Adapter Carrying 80° Diamond Inserts with 7° Clearance Angle



Designation	HF	OAL	OAH	WF	WB_2	Insert		
SCLCR-09-PAD	24.0	42.00	28.0	7.50	5.2	CCGT/CCMT 09T3	SR 16-236	T-15/5

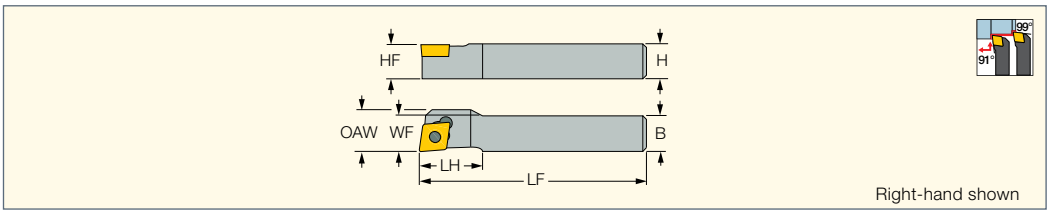
For inserts, see pages: CCMT-CERMET (187) • CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCGT-AF (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222)

For holders, see pages: C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • C#-MAHD-JHP (624) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633) • HMSN-New Britain (478) • DGHAL-DECO (478)

ISOTURN

SCACR/L-S

Screw Lock Tools for Swiss-Type Machines Carrying 7° Clearance 80° Diamond Inserts



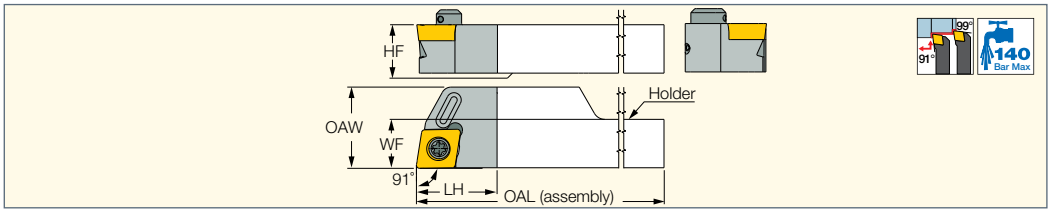
Designation	H	HF	B	LF	LH	WF	OAW	Insert		
SCACR/L 0808K-06S	8.0	8.0	8.0	125.00	8.0	8.20	-	CC.. 0602	SR 14-548	T-7/5
SCACR 1010K-06S	10.0	10.0	10.0	150.00	-	10.00	-	CC.. 0602	SR 14-548	T-7/5
SCACR/L 1616K-06S	16.0	16.0	16.0	125.00	-	16.20	-	CC.. 0602	SR 14-548	T-7/5
SCACR/L 1010K-09S	10.0	10.0	10.0	125.00	15.2	10.20	-	CC.. 09T3	SR 16-236	T-15/5
SCACR 1212K-09S	12.0	12.0	12.0	125.00	14.0	12.15	12.5	CC.. 09T3	SR 16-236	T-15/5
SCACR/L 1616K-09S	16.0	16.0	16.0	125.00	-	16.20	-	CC.. 09T3	SR 16-236	T-15/5

For inserts, see pages: CCMT-CERMET (187) • CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222)

NEOSWISS INDEXABLE HEADS
ISOTURN

NQCH-SCACR/L-JHP

Screw Lock Modular Heads with High-Pressure Coolant - 7° Clearance 80° Rhombic Inserts for SwissType Machines



Designation	WF	HF	LH	OAL	OAW	Insert		
NQCH12-SCACR/L-09S-JHP	12.15	12.0	20.0	120.00	20.15	CC.. 09T3	SR 16-236	T-15/5
NQCH16-SCACR/L-09S-JHP	16.15	16.0	20.0	120.00	20.15	CC.. 09T3	SR 16-236	T-15/5

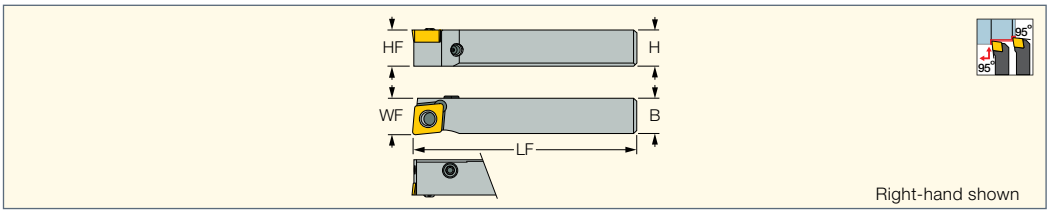
For user guide, see pages 6-7, 78-84

For holders, see pages: NQCH-JHP (61)

ISOTURN

PCLCR/L-S

Side Lever Lock Tools Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	WF	Insert				
PCLCR 0808M-06S	8.0	8.0	8.0	150.00	8.00	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1010M-06S	10.0	10.0	10.0	150.00	10.20	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1212M-06S	12.0	12.0	12.0	150.00	12.20	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1616M-06S	16.0	16.0	16.0	150.00	16.20	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1012M-09S	10.0	10.0	12.0	150.00	12.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 1212M-09S	12.0	12.0	12.0	150.00	12.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 1616M-09S	16.0	16.0	16.0	150.00	16.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 2020K-09S	20.0	20.0	20.0	125.00	20.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

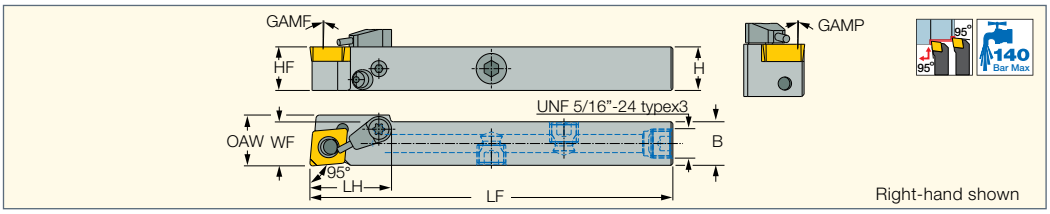
- The clamping screw may by transferred to the opposite side if needed

For inserts, see pages: CCMT-CERMET (187) • CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCGT-AF (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222)

ISOTURN JETCUT

PCLCR/L-S-JHP

Tools with Channels for High-Pressure Coolant Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines



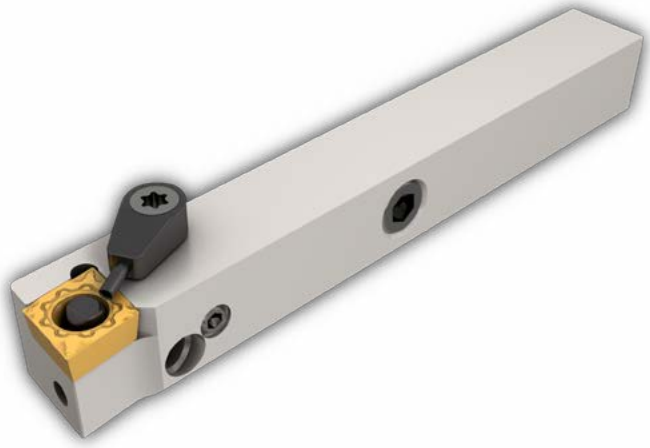
Designation	H	HF	B	LF	LH	WF	OAW	GAMP	GAMF	Insert
PCLCR/L 1010H-06S-JHP	10.0	10.0	10.0	100.00	22.3	10.20	-	0.0	0.0	CC.. 0602
PCLCR/L 1212H-09S-JHP	12.0	12.0	12.0	100.00	22.3	12.20	14.0	0.0	0.0	CC.. 09T3
PCLCR/L 1616K-09S-JHP	16.0	16.0	16.0	125.00	22.3	16.20	-	0.0	0.0	CC.. 09T3
PCLCR/L 2020K-09S-JHP	20.0	20.0	20.0	125.00	22.3	20.20	-	0.0	0.0	CC.. 09T3

• For user guide, see pages 78-84

For inserts, see pages: CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCGT-AF (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222) • CCMT-CERMET (187)

Spare Parts

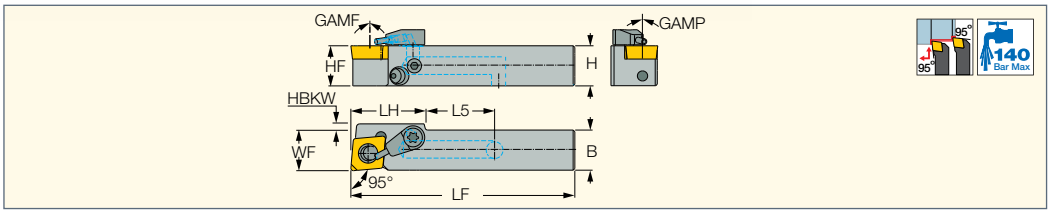
Designation						
PCLCR/L-S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET



ISOTURN JETCUT

PCLCR/L-JHP-MC

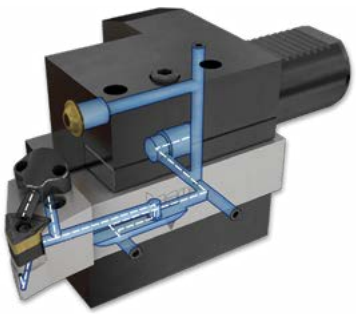
Tools with Channels for High-Pressure Coolant Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	LH	L5	WF	HBKW	GAMP	GAMF	Insert
PCLCR/L 1212X-09S-JHP-MC	12.0	12.0	12.0	67.00	23.0	20.00	12.20	1.80	0.0	0.0	CC.. 09T3
PCLCR/L 1616X-09S-JHP-MC	16.0	16.0	16.0	71.00	23.0	17.00	16.20	-	0.0	0.0	CC.. 09T3

• For user guide, see pages 78-84

For inserts, see pages: CCET-WF (189) • CCGT-AF (212) • CCGT-AS (212) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222) • CCMT-14 (188) • CCMT-CERMET (187) • CCMT-F3M (186) • CCMT-F3P (185) • CCMT-M3M (186) • CCMT-M3P (185) • CCMT-PF (188) • CCMT-WG (189) • CCMT/CCGT (188) • CCMT/CCGT-SM (187)



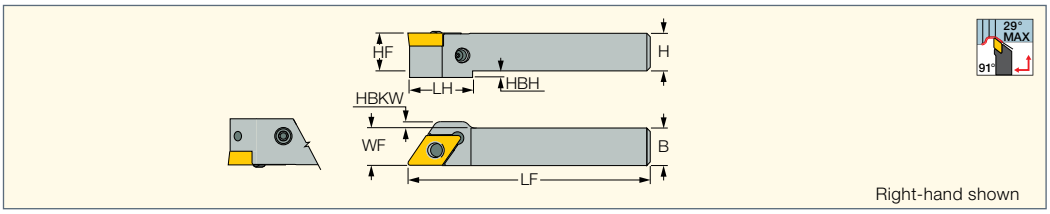
Spare Parts

Designation						
PCLCR/L-JHP-MC	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN

PDACR/L-S

Side Lever Lock Tools Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	LH	HBH	B	LF	WF	HBKW	Insert				
PDACR/L 0808M-07S	8.0	8.0	16.0	2.0	8.0	150.00	8.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1010M-07S	10.0	10.0	-	-	10.0	150.00	10.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1212M-07S	12.0	12.0	-	-	12.0	150.00	12.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1616M-07S	16.0	16.0	-	-	16.0	150.00	16.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1012M-11S	10.0	10.0	22.0	2.5	12.0	150.00	12.00	2.00	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 1212M-11S	12.0	12.0	-	-	12.0	150.00	12.00	2.00	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 1616M-11S	16.0	16.0	-	-	16.0	150.00	16.00	-	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 2020K-11S	20.0	20.0	-	-	20.0	125.00	20.00	-	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

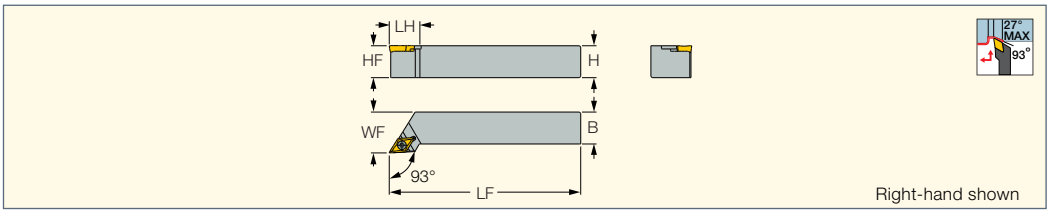
- The clamping screw may by transferred to the opposite side if needed

For inserts, see pages: DCGT-F1M-20P (192) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

T-LOCK ISOTURN

SDJCR/L-13-SL

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



Designation	H	HF	B	LF	LH	WF	Insert		
SDJCR/L 1616H-13-SL	16.0	16.0	16.0	100.00	24.0	21.00	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45
SDJCR/L 2020K-13-SL	20.0	20.0	20.0	125.00	24.0	27.00	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45
SDJCR/L 2525M-13-SL	25.0	25.0	25.0	150.00	24.0	32.00	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45

- Insert clamping torque 3 Nxm

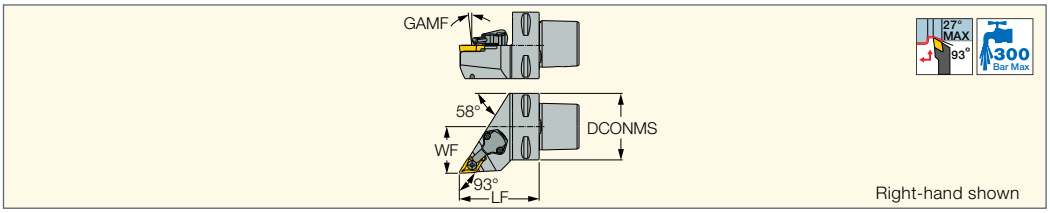
For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

T-LOCK JETCUT

CAMFIX

C#-SDJCR/L-13-SL-JHP

Screw Clamp Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying Positive 55° Rhombic Inserts



Designation	DCONMS	WF	LF	GAMF	Insert	CDI[1]
C3 SDJCR-22040-13-SL-JHP	32.00	22.00	40.00	0.0	DCMT 13T5-SL	0
C4 SDJCR/L-27055-13-SL-JHP	40.00	27.00	55.00	0.0	DCMT 13T5-SL	1
C5 SDJCR/L-35060-13-SL-JHP	50.00	35.00	60.00	0.0	DCMT 13T5-SL	1

- For user guide, see pages 78-84

[1] 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

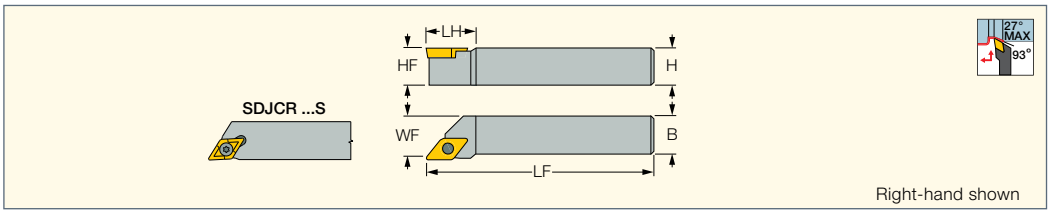
Spare Parts

Designation					
C3 SDJCR-22040-13-SL-JHP	CH-1.9D-JHP	SR M4X4 DIN913 TL360		SR M4X0.7-L9.5 IP15	
C4 SDJCR/L-27055-13-SL-JHP	CU-D-JHP	SR M5X5 DIN913 TL360	TORX PLUS IP15X45	SR M4X0.7-L9.6 IP15	T-8/5
C5 SDJCR/L-35060-13-SL-JHP	CU-D-JHP	SR M5X5 DIN913 TL360	TORX PLUS IP15X45	SR M4X0.7-L9.6 IP15	T-8/5

ISOTURN

SDJCR/L

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	Insert					
SDJCR/L 0808F-07	8.0	8.0	8.0	80.00	11.5	10.00	DC..0702	SR 14-548	T-7/5			
SDJCR/L 1010F-07	10.0	10.0	10.0	80.00	11.5	12.00	DC..0702	SR 14-548	T-7/5			
SDJCR/L 1212K-07S (1)	12.0	12.0	12.0	125.00	-	12.20	DC..0702	SR 14-548	T-7/5			
SDJCR/L 1616K-07S (1)	16.0	16.0	16.0	125.00	-	16.20	DC..0702	SR 14-548	T-7/5			
SDJCR/L 1010K-11S (1)	10.0	10.0	10.0	125.00	21.4	10.20	DC..11T3	SR 16-236	T-15/5			
SDJCR/L 1212F-11	12.0	12.0	12.0	80.00	20.0	16.00	DC..11T3	SR 16-236 P	T-15/5			
SDJCR/L 1616H-11	16.0	16.0	16.0	100.00	20.0	20.00	DC..11T3	SR 16-236 P	T-15/5			
SDJCR/L 2020K-11	20.0	20.0	20.0	125.00	20.0	25.00	DC..11T3	SR 16-236 P	T-15/5			
SDJCR/L 2525M-11	25.0	25.0	25.0	150.00	20.0	32.00	DC..11T3	SR 16-236 P	T-15/5	TDC 3-1P	SR TC-3P	HW 4.0

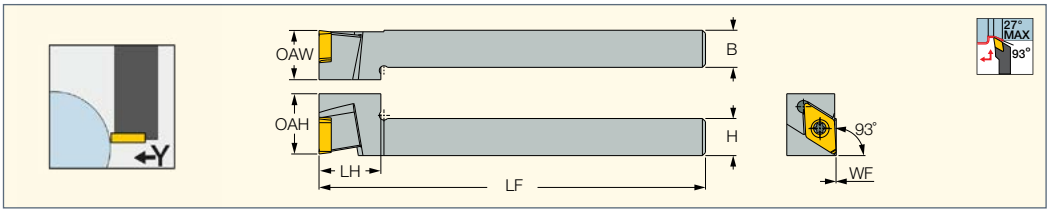
(1) For Swiss-type machines

For inserts, see pages: DCGT-F1M-20P (192) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

NEOYSWISS AXIS

Y-SDJCR

Y-Axis Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for Swiss-Type Machines



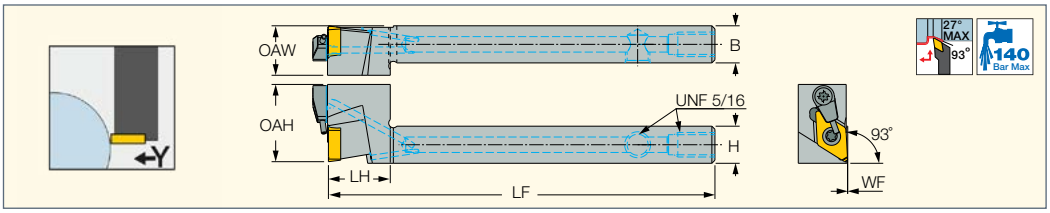
Designation	H	B	LF	LH	OAH	OAW	WF	Insert
Y-SDJCR 1212K-11S	12.0	12.0	125.00	21.0	20.00	16.00	0.00	DCMT 11T3..
Y-SDJCR 1616K-11S	16.0	16.0	125.00	21.0	20.00	16.00	0.00	DCMT 11T3..

For inserts, see pages: DCET-WF (195) • DCGT-AF (213) • DCGT-AS (213) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-14 (194) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT (194) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194)

NEOYSWISS AXIS

Y-SDJCR-JHP

Y-Axis Screw Lock Tools with High-Pressure Coolant Carrying 55° Diamond Inserts with 7° Clearance Angle



Designation	H	B	LF	LH	OAH	OAW	WF	Insert
Y-SDJCR 1212K-11S-JHP	12.0	12.0	125.00	21.0	25.50	16.00	0.00	DCMT 11T3..
Y-SDJCR 1616K-11S-JHP	16.0	16.0	125.00	21.0	25.50	16.00	0.00	DCMT 11T3..

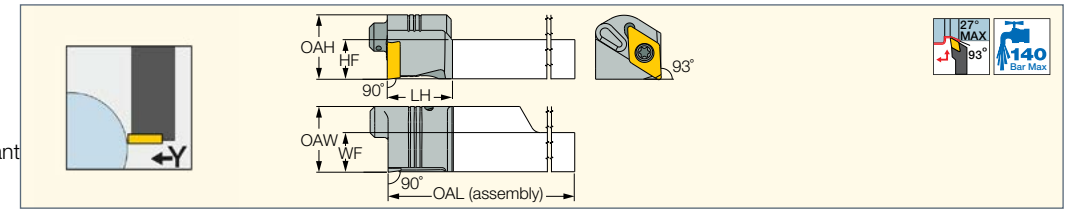
For inserts, see pages: DCET-WF (195) • DCGT-AF (213) • DCGT-AS (213) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-14 (194) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT (194) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194)

NEOSWISS INDEXABLE HEADS

ISOTURN

NQCH-Y-SDJCR-S-JHP

Y-Axis Screw Lock Modular Heads with High-Pressure Coolant - 7° Clearance 55° Rhombic Inserts for SwissType Machines



Designation	WF	HF	LH	OAL	OAW	Insert		
NQCH12-Y-SDJCR-11S-JHP	12.15	12.2	20.0	120.00	20.00	DC.. 11T3	SR 16-236 P	T-15/5
NQCH16-Y-SDJCR-11S-JHP	16.15	16.2	20.0	120.00	20.00	DC.. 11T3	SR 16-236 P	T-15/5

For user guide, see pages 6-7, 78-84

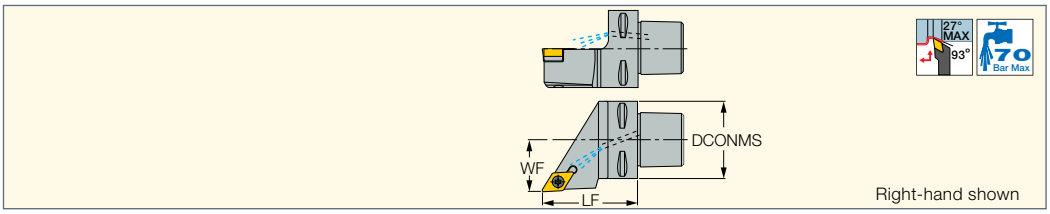
For inserts, see pages: DCET-WF (195) • DCGT-AF (213) • DCGT-AS (213) • DCGT-F1M-20P (192) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-14 (194) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT (194) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194)

For holders, see pages: NQCH-JHP (61)

ISOTURN CAMFIX

C#-SDJCR/L

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 55° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	WF	LF	Insert	CDI(1)	CP(2)						
C4 SDJCR-27050-11	40.00	27.00	50.00	DC.. 11T3	1	70	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 83
C5 SDJCR-35060-11	50.00	35.00	60.00	DC.. 11T3	1	70	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

(1) 1 - Hole for data chip, 0 - Without hole for data chip

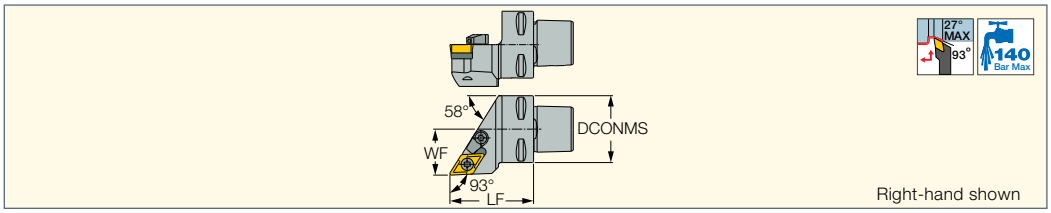
(2) Coolant pressure (Bar)

For inserts, see pages: DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

ISOTURN JETCUT CAMFIX

C#-SDJCR-JHP

Screw Clamp Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying Positive 55° Rhombic Inserts



Designation	DCONMS	WF	LF	Insert	CDI(1)	CP(2)
C3 SDJCR-22040-11-JHP	32.00	22.00	40.00	DC.. 11T3	0	140

- For user guide, see pages 78-84

(1) 1 - Hole for data chip, 0 - Without hole for data chip

(2) Coolant pressure (Bar)

For inserts, see pages: DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

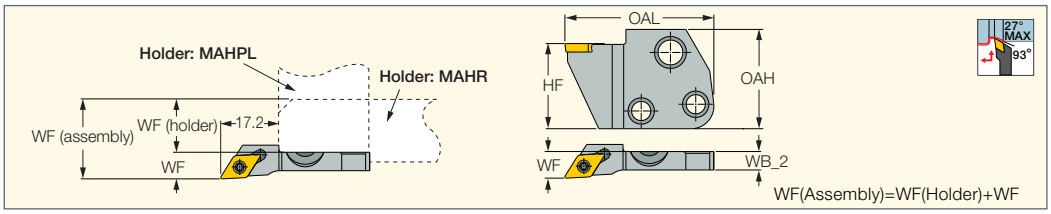
Spare Parts

Designation								
C3 SDJCR-22040-11-JHP	TDC 3-1P	SR TC-3P	SR 16-236 P	T-15/5	CH-1.9D-JHP	WASHER 4.2X5.6X0.5	SR M4X4 DIN913 TL360	HW 4.0

ISOTURN MODULARGRIP

SDJCR-PAD

Screw Lock Adapter Carrying 55° Diamond Inserts with 7° Clearance Angle



Designation	HF	OAH	OAL	WF	WB_2	Insert		
SDJCR-07-PAD	24.0	28.0	42.00	7.50	5.2	DCMT/DCGT 0702	SR 14-548	T-7/5

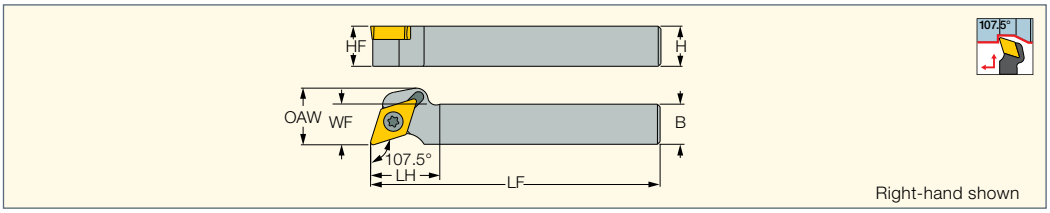
For inserts, see pages: • DCGT-F1M-20P (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230)

For holders, see pages: C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • C#-MAHD-JHP (624) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633) • HMSN-New Britain (478) • DGHAL-DECO (478)

ISOTURN

SDHCR/L

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for Swiss-Type Machines



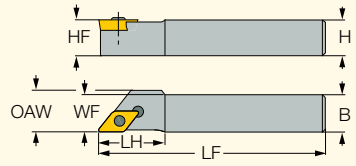
Designation	H	HF	B	LF	LH	WF	OAW	Insert		
SDHCR/L 1010K-07S	10.0	10.0	10.0	125.00	12.5	10.20	-	DC..0702	SR 14-548	T-7/5
SDHCR/L 1212K-07S	12.0	12.0	12.0	125.00	12.0	12.20	-	DC..0702	SR 14-548	T-7/5
SDHCR/L 1616K-07S	16.0	16.0	16.0	125.00	12.0	16.20	-	DC..0702	SR 14-548	T-7/5
SDHCR/L 1212K-11S	12.0	12.0	12.0	125.00	19.0	12.20	17.0	DC..11T3	SR 16-236	T-15/5
SDHCR/L 1616K-11S	16.0	16.0	16.0	125.00	20.0	16.20	-	DC..11T3	SR 16-236	T-15/5

For inserts, see pages: DCGT-F1M-20P (192) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

ISOTURN

SDACR/L

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle





Right-hand shown

Designation	H	HF	B	LF	LH	WF	OAW	Insert		
SDACR/L 1010K-07S	10.0	10.0	10.0	125.00	-	10.00	-	DC..0702	SR 14-548	T-7/5
SDACR/L 1212K-07S	12.0	12.0	12.0	125.00	-	12.00	-	DC..0702	SR 14-548	T-7/5
SDACR/L 1212K-11S	12.0	12.0	12.0	125.00	20.0	12.00	14.0	DC..11T3	SR 16-236 P	T-15/5
SDACR/L 1616K-11S	16.0	16.0	16.0	125.00	-	16.00	-	DC..11T3	SR 16-236 P	T-15/5

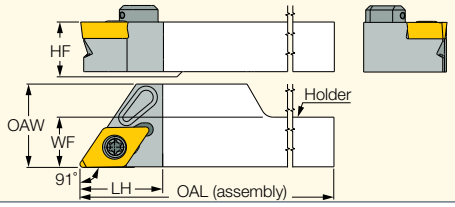
For inserts, see pages: DCGT-F1M-20P (192) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

NEOSWISS INDEXABLE HEADS

ISOTURN

NQCH-SDACR/L-S-JHP

Screw Lock Modular Heads with High-Pressure Coolant - 7° Clearance 55° Rhombic Inserts for SwissType Machines





Designation	WF	HF	LH	OAL	OAW	Insert
NQCH12-SDACR/L-11S-JHP	12.15	12.0	20.0	120.00	20.15	DC.. 11T3
NQCH16-SDACR/L-11S-JHP	16.15	16.0	20.0	120.00	20.15	DC.. 11T3

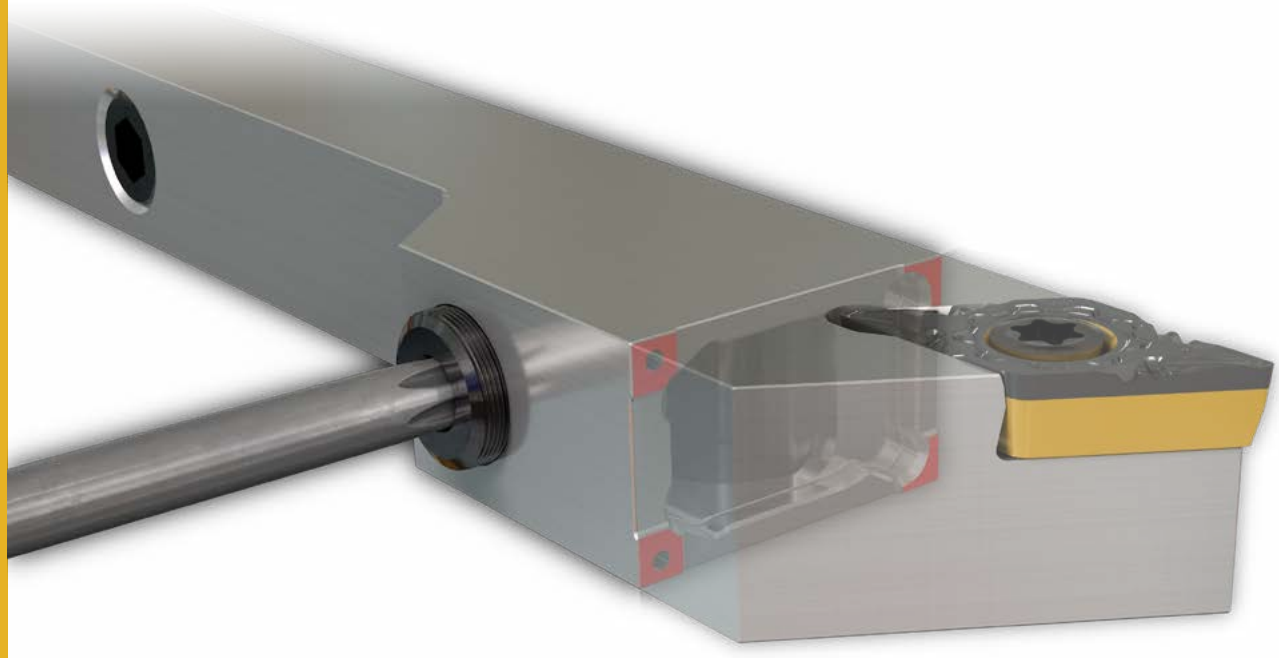
- For user guide, see pages 6-7, 78-84

For inserts, see pages: DCET-WF (195) • DCGT-AF (213) • DCGT-AS (213) • DCGT-F1M-20P (192) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-14 (194) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT (194) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194)

For holders, see pages: NQCH-JHP (61)

Spare Parts

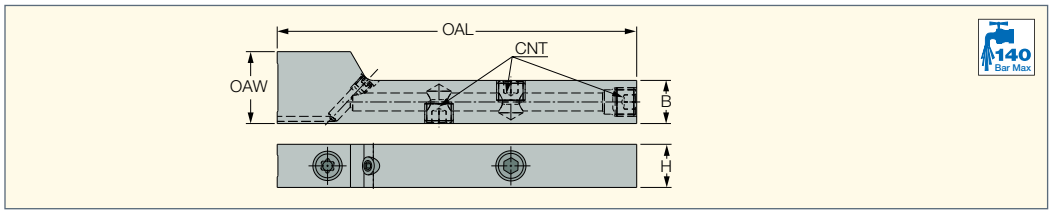
Designation		
NQCH-SDACR/L-S-JHP	SR 16-236 P	T-15/5



NEOSWISS JETCUT
INDEXABLE HEADS

NQCH-JHP

Square Shank with High-Pressure Coolant for NEOSWISS Modular Heads - Swiss Type Machines

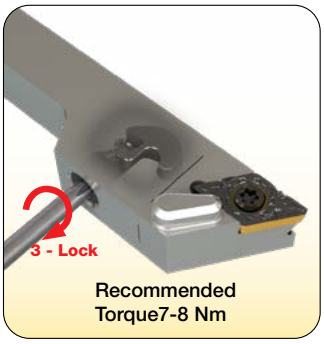


Designation	B	H	OAL	OAW	CNT
NQCH-1212-JHP	12.0	12.0	100.00	20.00	UNF 5/16-24
NQCH-1616-JHP	16.0	16.0	100.00	20.00	UNF 5/16-24

For tools, see pages: NQCH-DGTR/L-D-SH-JHP (472) • NQCH-GHSR/L-JHP (374) • NQCH-PCHR/L-S-JHP (378) • NQCH-PCLXR/L-S-JHP (53) • NQCH-SCACR/L-JHP (55) • NQCH-SCHR/L-BF-JHP (364) • NQCH-SDACR/L-S-JHP (60) • NQCH-SDJNR/L-S-JHP (28) • NQCH-SVACR/L-S-JHP (67) • NQCH-SWLNR/L-S-JHP (8) • NQCH-Y-SCHR-BF-JHP (364) • NQCH-Y-SDJCR-S-JHP (58) • NQCH-Y-SVJCR-S-JHP (65)

Clamping Operation Steps







Attention: The clamping screw is not removable. To avoid undesired damage, do not apply excessive force when opening or clamping.

Supplied Accessories	**Item No: 7003805** SW6-T-SH	
	Item No: 7002553 BLD IP20/S7	
Recommended (Optional) Accessories	**Item No: 7007221** TSA 6 44.1-123.5 LBF.IN (TSA 6 5-14NM)	
	Item No: 7007027 BLD 6 T20IP	

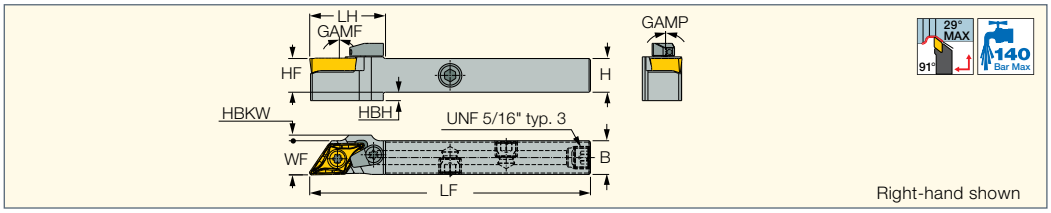
Spare Parts

Designation				
NQCH-JHP	SR 5/16UNF TL360	SW6-T-SH	BLD IP20/S7	SR M4X4 DIN913 TL360

ISOTURN T-LOCK
JETCUT

SDACR/L-13S-SL-JHP

Tools with Channels for High-Pressure Coolant Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	LH	WF	HBKW	HBH	GAMP	GAMF	Insert	CNT
SDACR/L 1212H-13S-SL-JHP	12.0	12.0	12.0	100.00	27.0	12.15	2.35	3.0	0.0	0.0	DCMT 13T5-SL	UNF 5/16 "
SDACR/L 1616K-13S-SL-JHP	16.0	16.0	16.0	125.00	27.0	16.15	-	-	0.0	0.0	DCMT 13T5-SL	UNF 5/16 "

• For user guide, see pages 78-84

For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

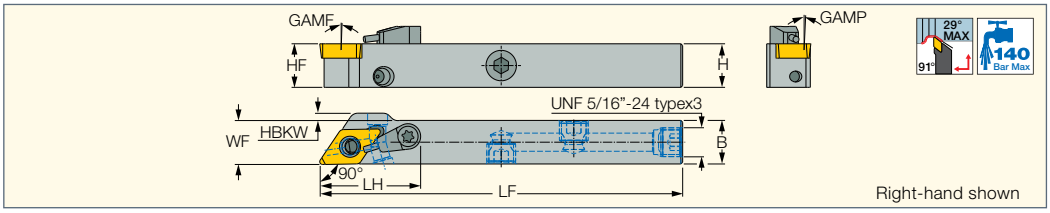
Spare Parts

Designation					
SDACR/L-13S-SL-JHP	CH-1.9D-JHP	SR 5/16UNF TL360	TORX PLUS IP15X45	SR M3 CONE	SR M4X0.7-L9.6 IP15

ISOTURN JETCUT

PDACR/L-JHP

Tools with Channels for High-Pressure Coolant Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	LH	WF	HBKW	GAMP	GAMF	Insert
PDACR/L 1010H-07S-JHP	10.0	10.0	10.0	100.00	20.4	10.20	6.10	0.0	0.0	DC..0702
PDACR/L 1212H-11S-JHP	12.0	12.0	12.0	100.00	28.0	12.20	2.00	0.0	0.0	DC..11T3
PDACR/L 1616K-11S-JHP	16.0	16.0	16.0	125.00	28.0	16.20	-	0.0	0.0	DC..11T3
PDACR/L 2020K-11S-JHP	20.0	20.0	20.0	125.00	28.0	20.20	-	0.0	0.0	DC..11T3

• For user guide, see pages 78-84

For inserts, see pages: DCGT-F1M-20P (192) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

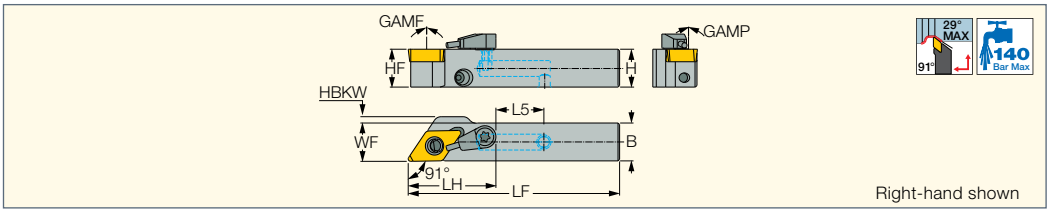
Spare Parts

Designation						
PDACR/L 1010H-07S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16XUNF-TL-S	S-CU-JHP-A SET
PDACR/L 1212H-11S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PDACR/L 1616K-11S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PDACR/L 2020K-11S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN JETCUT

PDACR/L-JHP-MC

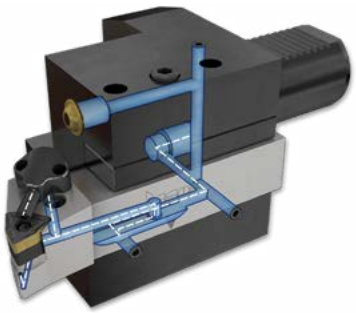
Tools with Channels for High-Pressure Coolant Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	LH	L5	WF	HBKW	GAMP	GAMF	Insert
PDACR/L 1212X-11S-JHP-MC	12.0	12.0	12.0	67.00	28.0	15.00	12.20	2.00	0.0	0.0	DC..11T3
PDACR/L 1616X-11S-JHP-MC	16.0	16.0	16.0	76.00	28.0	17.00	16.20	-	0.0	0.0	DC..11T3

• For user guide, see pages 78-84

For inserts, see pages: DCET-WF (195) • DCGT-AF (213) • DCGT-AS (213) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-14 (194) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT (194) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194)



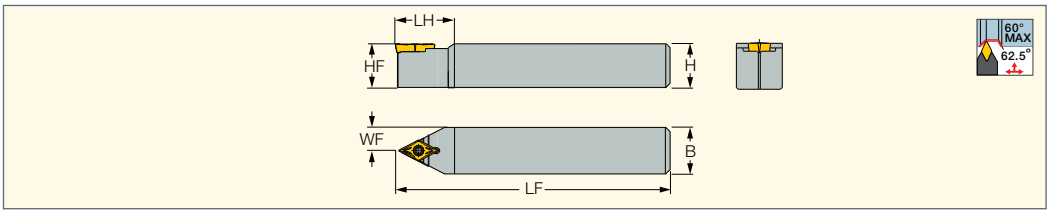
Spare Parts

Designation						
PDACR/L 1212X-11S-JHP-MC	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PDACR/L 1616X-11S-JHP-MC	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

T-LOCK ISOTURN

SDNCN-13-SL

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



Designation	H	HF	B	LF	LH	WF	Insert		
SDNCN 1616H-13-SL	16.0	16.0	16.0	100.00	25.0	8.00	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45
SDNCN 2020K-13-SL	20.0	20.0	20.0	125.00	25.0	10.00	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45
SDNCN 2525M-13-SL	25.0	25.0	25.0	150.00	25.0	12.50	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45

- Insert clamping torque 3 Nxm

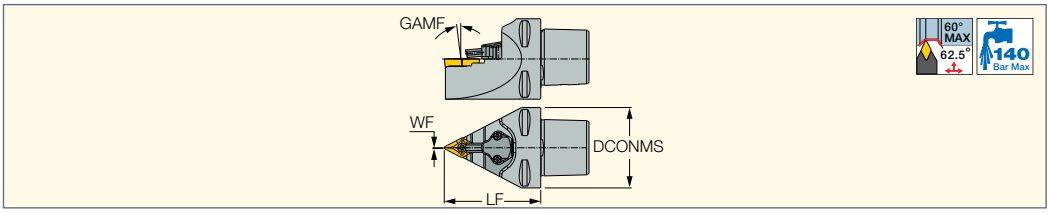
For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

T-LOCK JETCUT

CAMFIX

C#-SDNCN-13-SL-JHP

Screw Clamp Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying Positive 55° Rhombic Inserts



Designation	DCONMS	WF	LF	GAMF	Insert	CDI(1)	CP(2)
C3 SDNCN-00045-13-SL-JHP	32.00	0.50	45.00	0.0	DCMT 13T5-SL	0	140
C4 SDNCN-00060-13-SL-JHP	40.00	0.50	60.00	0.0	DCMT 13T5-SL	1	140
C5 SDNCN-00060-13-SL-JHP	50.00	0.50	60.00	0.0	DCMT 13T5-SL	1	140

- For user guide, see pages 78-84

(1) 1 - Hole for data chip, 0 - Without hole for data chip

(2) Coolant pressure (Bar)

For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

Spare Parts

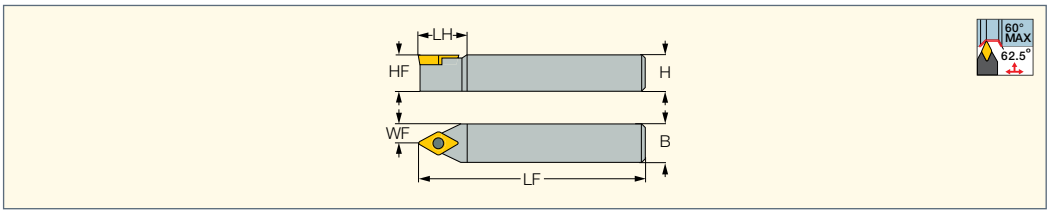
Designation						
C3 SDNCN-00045-13-SL-JHP	CH-1.9D-JHP	WASHER 4.2X5.6X0.5		SR M4X4 DIN913 TL360	SR M4X0.7-L9.5 IP15	
C4 SDNCN-00060-13-SL-JHP	CU-D-JHP		TORX PLUS IP15X45		SR M4X0.7-L9.6 IP15	T-8/5
C5 SDNCN-00060-13-SL-JHP	CU-D-JHP		TORX PLUS IP15X45		SR M4X0.7-L9.6 IP15	T-8/5



ISOTURN

SDNCN

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	Insert					
SDNCN 0808F-07	8.0	8.0	8.0	80.00	14.0	4.00	DC..0702	SR 14-548	T-7/5			
SDNCN 1010F-07	10.0	10.0	10.0	80.00	14.5	5.00	DC..0702	SR 14-548	T-7/5			
SDNCN 1010K-11S [1]	10.0	10.0	10.0	120.00	20.0	5.00	DC..11T3	SR 16-236	T-15/5			
SDNCN 1212F-11	12.0	12.0	12.0	80.00	21.3	6.00	DC..11T3	SR 16-236 P	T-15/5			
SDNCN 1616H-11	16.0	16.0	16.0	100.00	21.0	8.00	DC..11T3	SR 16-236 P	T-15/5			
SDNCN 2020K-11	20.0	20.0	20.0	125.00	21.0	10.00	DC..11T3	SR 16-236 P	T-15/5			
SDNCN 2525M-11	25.0	25.0	25.0	150.00	30.0	12.50	DC..11T3	SR 16-236 P	T-15/5	TDC 3-1P	SR TC-3P	HW 4.0

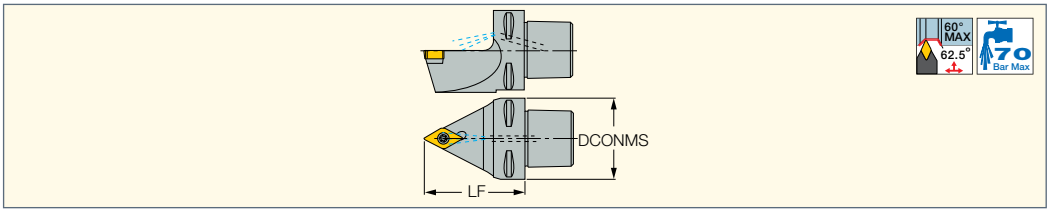
[1] For Swiss-type machines

For inserts, see pages: DCGT-F1M-20P (192) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

ISOTURN CAMFIX

C#-SDNCN

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 55° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	LF	Insert	CDI[1]	CP[2]						
C4 SDNCN-00050-11	40.00	50.00	DC.. 11T3	1	70	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

[1] 1 - Hole for data chip, 0 - Without hole for data chip

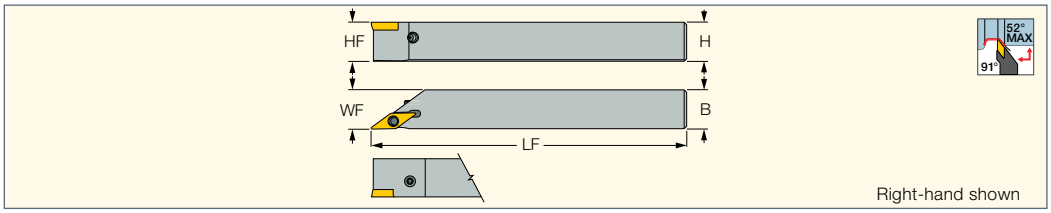
[2] Coolant pressure (Bar)

For inserts, see pages: DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222)

ISOTURN

PVACR/L-S

Side Lever Lock Tools Carrying 35° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	WF	Insert				
PVACR/L 0808M-11S	8.0	8.0	8.0	150.00	8.00	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1010M-11S	10.0	10.0	10.0	150.00	10.20	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1212M-11S	12.0	12.0	12.0	150.00	12.20	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1616M-11S	16.0	16.0	16.0	150.00	16.20	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR 2020K-11S	20.0	20.0	20.0	125.00	20.20	VC..1103				

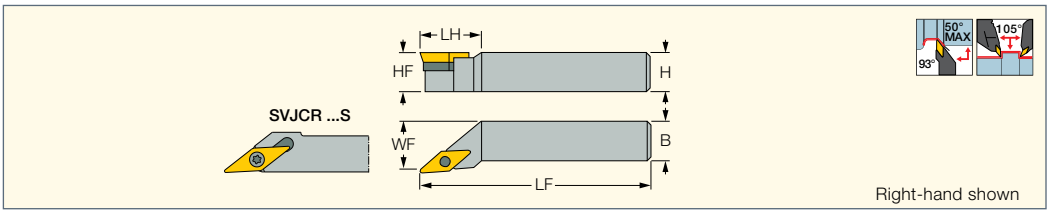
- The clamping screw may by transferred to the opposite side if needed

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-F3P (195) • VCMT-F3M (195) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211)

ISOTURN

SVJCR/L

93° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	Insert					
SVJCR/L 0808K-11S (1)	8.0	8.0	8.0	125.00	11.5	8.20	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1010K-11S (1)	10.0	10.0	10.0	125.00	22.0	10.20	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1212K-11S (1)	12.0	12.0	12.0	125.00	-	12.20	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1616K-11	16.0	16.0	16.0	125.00	25.0	20.00	VC..1103	SR 14-560	T-8/5			
SVJCR/L 2020K-11	20.0	20.0	20.0	125.00	30.0	25.00	VC..1103	SR 14-560	T-8/5			
SVJCR/L 2525M-11	25.0	25.0	25.0	150.00	30.0	32.00	VC..1103	SR 14-560	T-8/5			
SVJCR/L 2020K-16	20.0	20.0	20.0	125.00	30.0	25.00	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5
SVJCR/L 2525M-16	25.0	25.0	25.0	150.00	30.0	32.00	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5

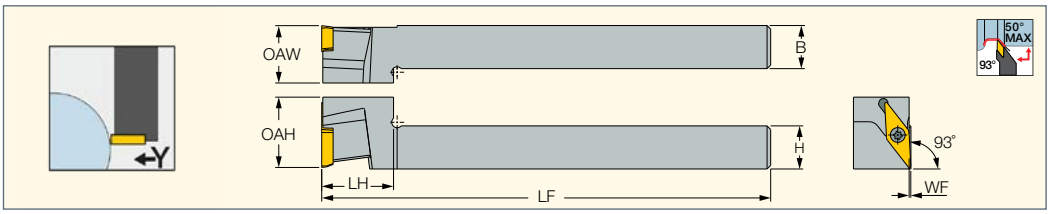
(1) For Swiss-type machines

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

NEOSWISS AXIS

Y-SVJCR

Y-Axis 93° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle for Swiss-Type Machines



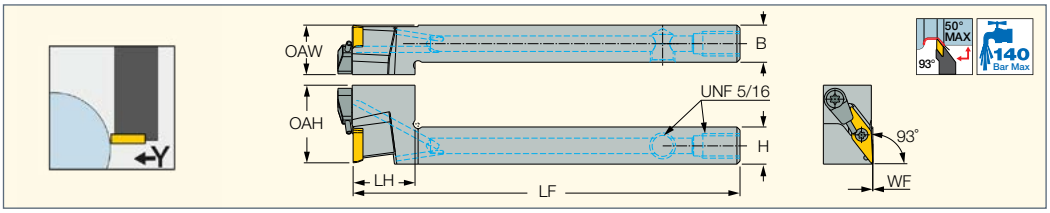
Designation	H	B	LF	LH	OAH	OAW	WF	Insert
Y-SVJCR 1212K-11S	12.0	12.0	125.00	21.0	20.00	16.00	0.00	VCMT 1103..
Y-SVJCR 1616K-11S	16.0	16.0	125.00	21.0	20.00	16.00	0.00	VCMT 1103..

For inserts, see pages: VCET-WF (197) • VCGT-AS (211) • VCGT-F1M-20P (196) • VCMT-F3M (195) • VCMT-F3P (195) • VCMT-SM (197)

NEOSWISS AXIS

Y-SVJCR-JHP

Y-Axis 93° Lead Angle Screw Lock Tools with High-Pressure Coolant Carrying 35° Diamond Inserts with 7° Clearance Angle



Designation	H	B	LF	LH	OAH	OAW	WF	Insert
Y-SVJCR 1212K-11S-JHP	12.0	12.0	125.00	21.0	25.50	16.00	0.00	VCMT 1103..
Y-SVJCR 1616K-11S-JHP	16.0	16.0	125.00	21.0	25.50	16.00	0.00	VCMT 1103..

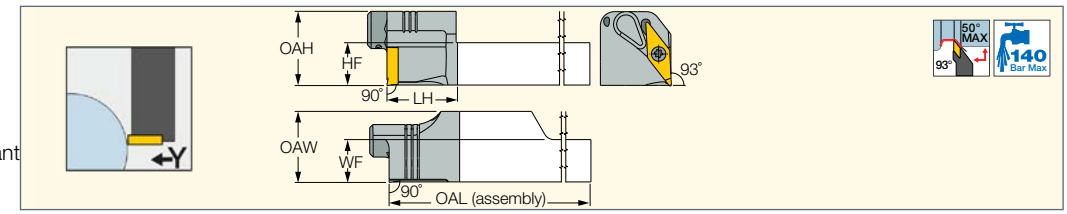
For inserts, see pages: VCET-WF (197) • VCGT-AS (211) • VCGT-F1M-20P (196) • VCMT-F3M (195) • VCMT-F3P (195) • VCMT-SM (197)

NEOSWISS INDEXABLE HEADS

ISOTURN

NQCH-Y-SVJCR-S-JHP

Y-Axis Screw Lock Modular Heads with High-Pressure Coolant - 7° Clearance 35° Rhombic Inserts for SwissType Machines



Designation	WF	HF	LH	OAL	OAW	Insert
NQCH12-Y-SVJCR-11S-JHP	12.15	12.2	20.0	120.00	20.15	VC.. 1103
NQCH16-Y-SVJCR-11S-JHP	16.15	16.2	20.0	120.00	20.15	VC.. 1103

• For user guide, see pages 6-7, 78-84

For inserts, see pages: VCET-WF (197) • VCGT (PCD) (223) • VCGT-AS (211) • VCGT-DW (PCD) (223) • VCGT-F1M-20P (196) • VCGW-2 (CBN) (232) • VCMT (CBN) (222) • VCMT-14 (198) • VCMT-F3M (195) • VCMT-F3P (195) • VCMT-FPC-CERMET (196) • VCMT-M3M (196) • VCMT-SM (197) • VCMW (198)

For holders, see pages: NQCH-JHP (61)

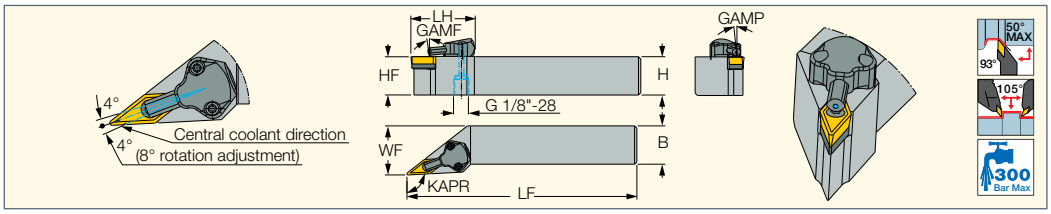
Spare Parts

Designation		
NQCH-Y-SVJCR-S-JHP	SR 14-560	T-8/5

ISOTURN JETCUT

SVJCR/L-16-JHP

Screw Lock Tools with Channels for High-Pressure Coolant Carrying 35° Rhombic Inserts with 7° Clearance Angle



Designation	H	B	HF	LF	LH	WF	KAPR(1)	GAMP	GAMF	Insert
SVJCR/L 2525M-16-JHP	25.0	25.0	25.0	150.00	42.0	32.00	93.0	0.0	0.0	VCMT 1604

- For user guide, see pages 78-84

(1) Tool cutting edge angle

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

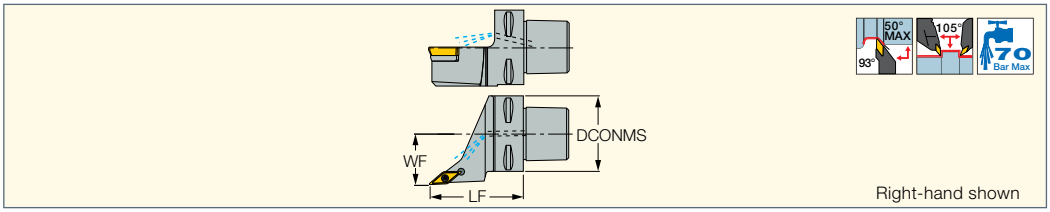
Spare Parts

Designation							
SVJCR/L 2525M-16-JHP	TVC 3-1	SR TC-3	SR 16-236 P	CU-V-JHP	T-15/5	HW 2.5	T-8/5

ISOTURN CAMFIX

C#-SVJCR/L

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 35° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	WF	LF	Insert	CDI(1)	CP(2)						
C4 SVJCR/L-27050-11	40.00	27.00	50.00	VC.. 1103	1	70				SR 14-560/S M2.5X0.45	T-8/5	EZ 83
C4 SVJCR/L-27050-16	40.00	27.00	50.00	VC.. 1604	1	70	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 83
C5 SVJCR-35060-11	50.00	35.00	60.00	VC.. 1103	1	70				SR 14-560/S M2.5X0.45	T-8/5	EZ 104
C5 SVJCR/L-35060-16	50.00	35.00	60.00	VC.. 1604	1	70	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 104
C6 SVJCR/L-45065-16	63.00	45.00	65.00	VC.. 1604	1	70	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 125

(1) 1 - Hole for data chip, 0 - Without hole for data chip

(2) Coolant pressure (Bar)

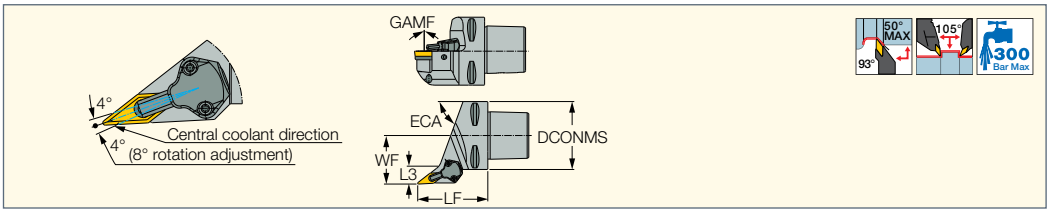
For inserts, see pages: VCGT-F1M-20P (196) • VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN JETCUT

CAMFIX

C#-SVJCR/L-JHP

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 35° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	WF	LF	GAMF	ECA	L3	Insert	CDI(1)	CP(2)
C3 SVJCR-22040-11-JHP	32.00	22.00	40.00	0.0	55.0	-	VCMT 1103	0	300
C4 SVJCR/L-27055-16-JHP	40.00	27.00	55.00	0.0	55.0	-	VCMT 1604	1	300
C5 SVJCR/L-35060-16-JHP	50.00	35.00	60.00	0.0	55.0	-	VCMT 1604	1	300
C6 SVJCR-45065-16-JHP	63.00	45.00	65.00	0.0	70.0	16.80	VCMT 1604	1	300

- For user guide, see pages 78-84

(1) 1 - Hole for data chip, 0 - Without hole for data chip

(2) Coolant pressure (Bar)

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

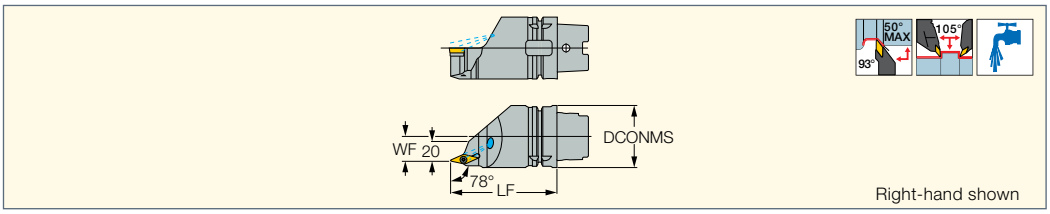
Spare Parts

Designation								
C3 SVJCR-22040-11-JHP				SR 14-560	CH-1.9D-JHP		T-8/5	
C4 SVJCR/L-27055-16-JHP	TVC 3-1	SR TC-3	T-15/5	SR 16-236 P	CU-V-JHP		T-8/5	HW 2.5
C5 SVJCR/L-35060-16-JHP	TVC 3-1	SR TC-3	T-15/5	SR 16-236 P	CU-V-JHP	OR 6.4X0.9N	T-8/5	HW 2.5
C6 SVJCR-45065-16-JHP	TVC 3-1	SR TC-3	T-15/5	SR 16-236 P	CU-V-JHP		T-8/5	HW 2.5

ISOTURN HSK

HSK A63WH-SVJCR/L

Tools with HSK Exchangeable Tapered Shanks Carrying Positive 35° Inserts for 15° Mounting on Turn-Mill Machines



Designation	DCONMS	LF	WF	Insert	CDI(1)						
HSK A63WH-SVJCR/L-J16	63.00	110.00	25.00	VC.. 1604	0	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 104

- Complies with ICTM standard (ISO 12164-3). • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately).
- For shank dimensions, see page 735

(1) 1 - Hole for data chip, 0 - Without hole for data chip

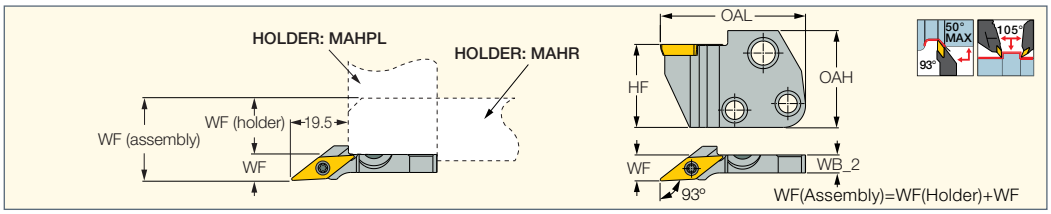
For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN

MODULARGRIP

SVJCR-PAD

93° Lead Angle Screw Lock Adapters Carrying 35° Diamond Inserts with 7° Clearance Angle



Designation	HF	OAH	OAL	WF	WB_2	Insert		
SVJCR-11-PAD	24.0	28.0	42.00	7.50	5.2	VC.. 1103	SR 14-560	T-8/5

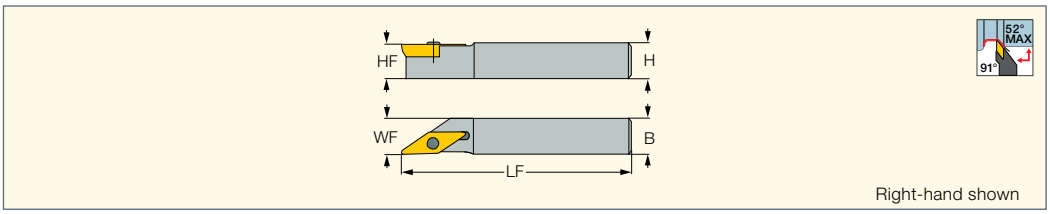
For inserts, see pages: VCGT-F1M-20P (196) • VCMT-F3P (195) • VCMT-F3M (195) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211)

For holders, see pages: C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • C#-MAHD-JHP (624) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633) • HMSN-New Britain (478) • DGHAL-DECO (478)

ISOTURN

SVACR/L

91° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle



Designation	H	B	HF	LF	WF	Insert		
SVACR/L 1212K-11S	12.0	12.0	12.0	125.00	12.00	VC..11..	SR 14-560	T-8/5
SVACR 1616K-11S	16.0	16.0	16.0	125.00	16.00	VC..11..	SR 14-560	T-8/5
SVACR/L 1212K-13S	12.0	12.0	12.0	125.00	12.00	VC..13..	SR 14-513	T-8/5
SVACR/L 1616K-13S	16.0	16.0	16.0	125.00	16.00	VC..13..	SR 14-513	T-8/5
SVACR/L 2020K-13S	20.0	20.0	20.0	125.00	20.00	VC..13..	SR 14-513	T-8/5

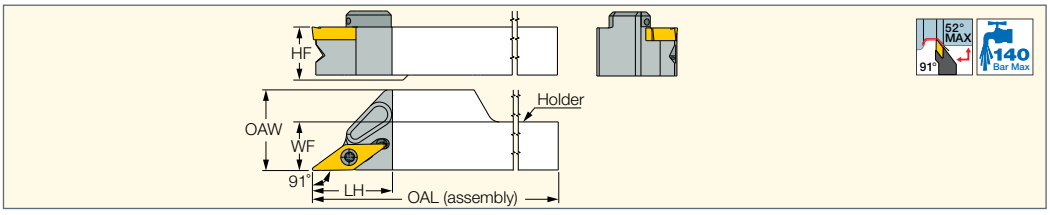
For inserts, see pages: VCGT-F1M-20P (196) • VCMT-F3P (195) • VCMT-F3M (195) • VCGT-MD/PF (197) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211)

NEOSWISS INDEXABLE HEADS

ISOTURN

NQCH-SVACR/L-S-JHP

Screw Lock Modular Heads with High-Pressure Coolant Carrying 7° Clearance 35° Rhombic Inserts for SwissType Machines



Designation	WF	HF	LH	OAL	OAW	Insert		
NQCH12-SVACR/L-11S-JHP	12.15	12.0	20.0	120.00	20.15	VC.. 1103	SR 14-560	T-8/5
NQCH16-SVACR/L-11S-JHP	16.15	16.0	20.0	120.00	20.15	VC.. 1103	SR 14-560	T-8/5

- For user guide, see pages 6-7, 78-84

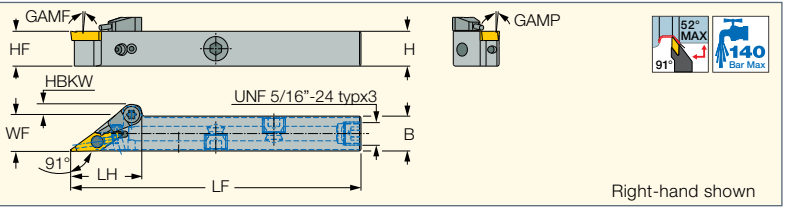
For inserts, see pages: VCET-WF (197) • VCGT (PCD) (223) • VCGT-AS (211) • VCGT-DW (PCD) (223) • VCGT-F1M-20P (196) • VCGT-MD/PF (197) • VCGW-2 (CBN) (232) • VCMT (CBN) (222) • VCMT-14 (198) • VCMT-F3M (195) • VCMT-F3P (195) • VCMT-FPC-CERMET (196) • VCMT-M3M (196) • VCMT-SM (197) • VCMW (198)

For holders, see pages: NQCH-JHP (61)

ISOTURN JETCUT

PVACR/L-JHP

Tools with Channels for High-Pressure Coolant Carrying 35° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	LH	WF	HBKW	GAMP	GAMF	Insert
PVACR 1010H-11S-JHP	10.0	10.0	10.0	100.00	20.0	10.20	5.80	0.0	0.0	VC..1103
PVACR/L 1212H-11S-JHP	12.0	12.0	12.0	100.00	20.0	12.20	3.80	0.0	0.0	VC..1103
PVACR/L 1616K-11S-JHP	16.0	16.0	16.0	125.00	20.0	16.20	-	0.0	0.0	VC..1103
PVACR/L 2020K-11S-JHP	20.0	20.0	20.0	125.00	25.0	20.20	-	0.0	0.0	VC..1103

• For user guide, see pages 78-84

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-F3P (195) • VCMT-F3M (195) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211)

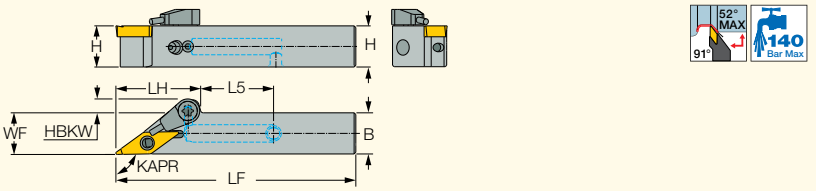
Spare Parts

Designation						
PVACR/L 1212H-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PVACR/L 1616K-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PVACR 2020K-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN JETCUT

PVACR/L-JHP-MC

Tools with Channels for High-Pressure Coolant Carrying 35° Positive Rhombic Inserts for Swiss Automatic Machines

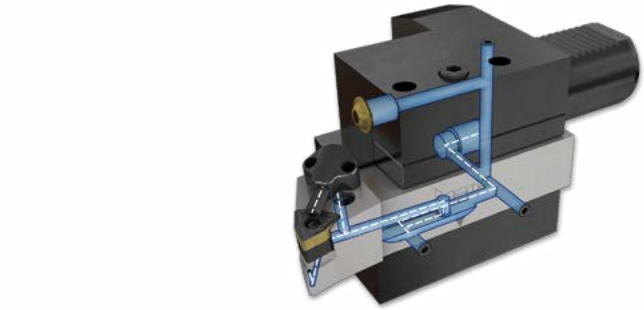


Designation	H	B	LF	LH	L5	WF	HBKW	Insert	KAPR[1]
PVACR/L 1212X-11S-JHP-MC	12.0	12.0	70.00	25.0	21.00	12.20	3.80	VC..1103	91.0
PVACR/L 1616X-11S-JHP-MC	16.0	16.0	73.00	26.0	16.00	16.20	-	VC..1103	91.0

• For user guide, see pages 78-84

[1] Tool cutting edge angle

For inserts, see pages: VCET-WF (197) • VCGT-AS (211) • VCGT-F1M-20P (196) • VCMT-F3M (195) • VCMT-F3P (195) • VCMT-SM (197)



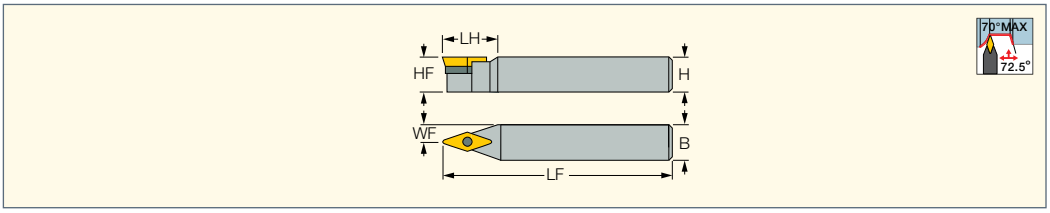
Spare Parts

Designation						
PVACR/L-JHP-MC	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN

SVVCN

72.5° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	Insert					
SVVCN 0808K-11S (1)	8.0	8.0	8.0	125.00	-	4.30	VC..1103	SR 14-560	T-8/5			
SVVCN 1010K-11S (1)	10.0	10.0	10.0	125.00	-	5.30	VC..1103	SR 14-560	T-8/5			
SVVCN 1212K-11S (1)	12.0	12.0	12.0	125.00	-	6.30	VC..1103	SR 14-560	T-8/5			
SVVCN 1616K-11S (1)	16.0	16.0	16.0	125.00	-	8.30	VC..1103	SR 14-560	T-8/5			
SVVCN 2020K-16	20.0	20.0	20.0	125.00	34.0	10.00	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5
SVVCN 2525M-16	25.0	25.0	25.0	150.00	38.1	12.50	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5

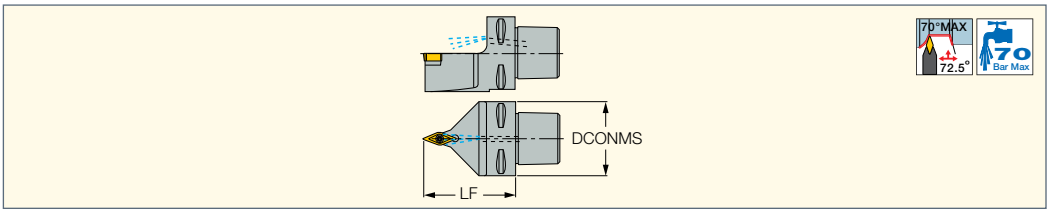
(1) For Swiss-type machines

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN CAMFIX

C#-SVVCN

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 35° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	LF	Insert	CDI(1)	CP(2)						
C4 SVVCN-00050-16	40.00	40.00	VC.. 1604	1	70	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 83
C5 SVVCN-00060-16	50.00	50.00	VC.. 1604	1	70	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 125

(1) 1 - Hole for data chip, 0 - Without hole for data chip

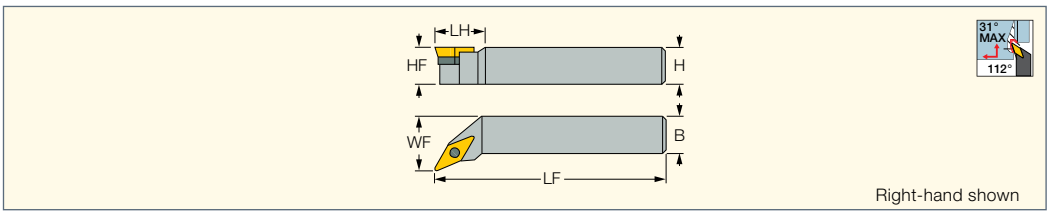
(2) Coolant pressure (Bar)

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN

SVXCR/L

112° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle



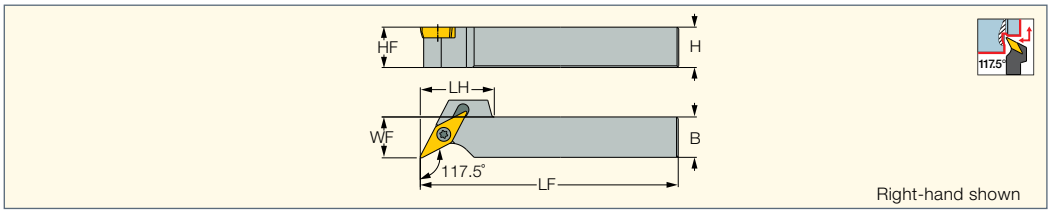
Designation	H	HF	B	LF	LH	WF	Insert					
SVXCR/L 2020K-16	20.0	20.0	20.0	125.00	25.0	25.00	VC..1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5
SVXCR/L 2525M-16	25.0	25.0	25.0	150.00	30.0	32.00	VC..1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN

SVPCR/L

117° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle



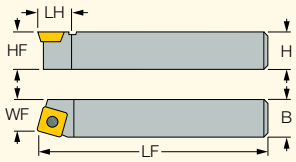
Designation	H	HF	B	LF	LH	WF	Insert		
SVPCR/L 1212K-11S	12.0	12.0	12.0	125.00	19.0	12.20	VC..1103	SR 14-560	T-8/5
SVPCR/L 1616K-11S	16.0	16.0	16.0	125.00	-	16.20	VC..1103	SR 14-560	T-8/5

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-F3P (195) • VCMT-F3M (195) • VCMT-SM (197) • VCGT-AS (211)

ISOTURN

SSBCR/L

75° Lead Angle Screw Lock Tools Carrying Square Inserts with 7° Clearance Angle





Right-hand shown

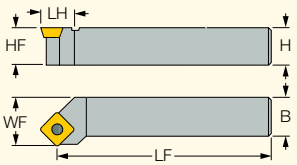
Designation	H	HF	B	LF	LH	WF	Insert					
SSBCR/L 1616H-09	16.0	16.0	16.0	100.00	15.0	13.00	SC.. 09T3	SR 16-236	T-15/5			
SSBCR/L 2020K-12	20.0	20.0	20.0	125.00	19.0	17.00	SC..1204	SR 16-212	T-20/5			
SSBCR/L 2525M-12	25.0	25.0	25.0	150.00	19.0	22.00	SC..1204	SR 16-212	T-20/5	TSC 4-2	SR TC-4	HW 3.0

For inserts, see pages: SCMT-F3P (198) • SCMT-M3P (199) • SCMT-F3M (199) • SCMT-M3M (199) • SCMT-SM (200) • SCGT-AS (211) • SCMT-14 (200) • SCMT-19 (200)

ISOTURN

SSSCR/L

45° Lead Angle Screw Lock Tools Carrying Square Inserts with 7° Clearance Angle





Right-hand shown

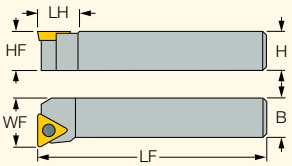
Designation	H	HF	B	LF	LH	WF	Insert					
SSSCR/L 1212F-09	12.0	12.0	12.0	80.00	18.0	16.00	SC.. 09T3	SR 16-236	T-15/5			
SSSCR/L 1616H-09	16.0	16.0	16.0	100.00	18.0	20.00	SC.. 09T3	SR 16-236	T-15/5			
SSSCR/L 2020K-12	20.0	20.0	20.0	125.00	22.0	25.00	SC.. 1204	SR 16-212	T-20/5			
SSSCR/L 2525M-12	25.0	25.0	25.0	150.00	25.0	32.00	SC.. 1204	SR 16-212	T-20/5	TSC 4-2	SR TC-4	HW 3.0

For inserts, see pages: SCMT-F3P (198) • SCMT-M3P (199) • SCMT-F3M (199) • SCMT-M3M (199) • SCMT-SM (200) • SCGT-AS (211) • SCMT-14 (200) • SCMT-19 (200)

ISOTURN

STFCR/L

Screw Lock Tools Carrying Triangular Inserts with 7° Clearance Angle for Face Turning





Right-hand shown

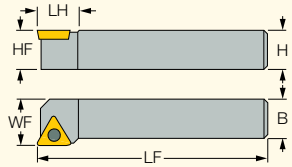
Designation	H	HF	B	LF	LH	WF	Insert					
STFCR/L 1212F-11	12.0	12.0	12.0	80.00	13.0	16.00	TC.. 1102	SR 14-548	T-7/5			
STFCR/L 2020K-16	20.0	20.0	20.0	125.00	18.0	25.00	TC.. 16T3	SR 16-236	T-15/5			
STFCR/L 2525M-16	25.0	25.0	25.0	150.00	20.0	32.00	TC.. 16T3	SR 16-236	T-15/5	TTC 3-2	SR TC-3	HW 2.5

For inserts, see pages: TCMT-F3P (201) • TCMT-M3M (201) • TCMT-PF (201) • TCMT-SM (202) • TCGT-AS (211) • TCMT (CBN) (234) • TCMT (PCD) (223)

ISOTURN

STGCR/L

91° Lead Angle Screw Lock Tools Carrying Triangular Inserts with 7° Clearance Angle





Right-hand shown

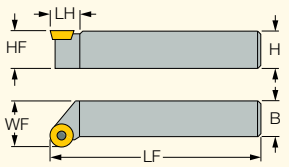
Designation	H	HF	B	LF	LH	WF	Insert					
STGCR/L 1212F-11	12.0	12.0	12.0	80.00	13.0	16.00	TC.. 1102				SR 14-548	T-7/5
STGCR/L 1616H-11	16.0	16.0	16.0	100.00	13.0	20.00	TC.. 1102				SR 14-548	T-7/5
STGCR/L 2020K-16	20.0	20.0	20.0	125.00	18.0	25.00	TC.. 16T3				SR 16-236	T-15/5
STGCR/L 2525M-16	25.0	25.0	25.0	150.00	18.0	32.00	TC.. 16T3	SR 16-236	T-15/5	TTC 3-2	SR TC-3	HW 2.5

For inserts, see pages: TCMT-F3P (201) • TCMT-M3M (201) • TCMT-PF (201) • TCMT-SM (202) • TCGT-AS (211) • TCMT (CBN) (234) • TCMT (PCD) (223)

ISOTURN

SRGCR/L

Screw Lock Tools Carrying Round Inserts with 7° Clearance Angle



Right-hand shown

Designation	H	HF	B	LF	LH	WF	Insert
SRGCR/L 1616H-08	16.0	16.0	16.0	100.00	11.0	20.00	RCMT 0803MO
SRGCR/L 2020K-10	20.0	20.0	20.0	125.00	14.0	25.00	RCMT 10T3MO
SRGCR 2525M-10	25.0	25.0	25.0	150.00	18.0	32.00	RCMT 10T3MO
SRGCR/L 2525M-12	25.0	25.0	25.0	150.00	18.0	32.00	RCMT 1204MO
SRGCR/L 2525M-16	25.0	25.0	25.0	150.00	20.0	32.00	RCMT 1606MO
SRGCR/L 3232P-20	32.0	32.0	32.0	170.00	25.0	40.00	RCMT 2006MO

For inserts, see pages: RCGT-AS (213) • RCMT-14 (202) • RCMT-SR (202)

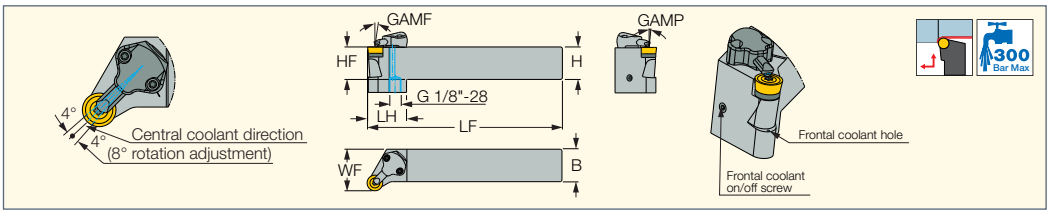
Spare Parts

Designation							
SRGCR/L 1616H-08	SR 14-513			T-8/5			
SRGCR/L 2020K-10				T-15/5			
SRGCR 2525M-10		TRC 3-0	SR TC-3	T-15/5			
SRGCR/L 2525M-12	SR 16-212	TRC 4-0	SR TC-4	T-20/5	HW 3.0		
SRGCR/L 2525M-16	SR 16-212	TRC 5-0	SR TC-4	T-20/5	HW 3.0		
SRGCR/L 3232P-20	SR 14-519	TRC 6-0	SR TC-6		HW 4.0	BLD T20/S7	SW6-T-SH

ISOTURN JETCUT

SRGCR-12-JHP

Screw Lock Tools with Channels for High-Pressure Coolant Carrying Round Inserts with 7° Clearance Angle



Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert
SRGCR 2525M-12-JHP	25.0	25.0	25.0	150.00	30.0	32.00	0.0	0.0	RCMT 1204

• For user guide, see pages 78-84

For inserts, see pages: RCMT-14 (202)

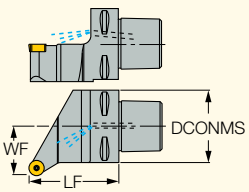
Spare Parts

Designation									
SRGCR 2525M-12-JHP	TRC 4-0	SR TC-4	T-8/5	SR 16-212	T-20/5	CU-R-JHP	SR M4X4 DIN913 TL360	HW 2.0	HW 3.0

ISOTURN CAMFIX

C#-SRGCR/L

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying Round Inserts with 7° Clearance Angle



Right-hand shown

Designation	DCONMS	WF	LF	Insert	CDI(1)	CP(2)						
C5 SRGCR-35060-12	50.00	35.00	60.00	RCMT 1204MO	1	70	TRC 4-0	SR TC-4	HW 3.0	SR 16-212	T-20/5	EZ 104

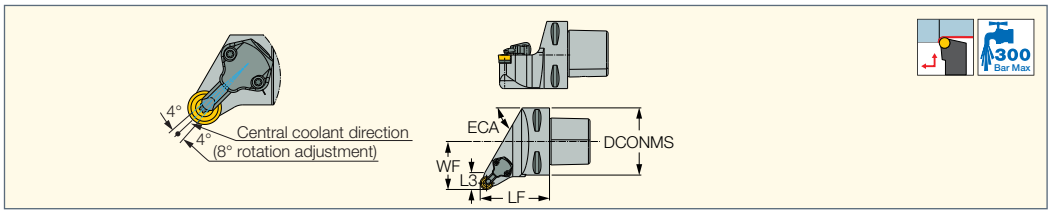
(1) 1 - Hole for data chip, 0 - Without hole for data chip

(2) Coolant pressure (Bar)

For inserts, see pages: RCMT-14 (202)

ISOTURN JETCUT CAMFIX

C#-SRGCR-12-JHP
Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying Round Inserts with 7° Clearance Angle



Designation	DCONMS	WF	LF	ECA	L3	Insert	CDI(2)	CP(1)							
C6 SRGCR-45065-12-JHP	63.00	45.00	65.00	60.0	16.00	RCMT 1204MO	1	300	TRC 4-0	SR TC-4	T-20/5	SR 16-212	HW 3.0	CU-R-JHP	T-8/5

- For user guide, see pages 78-84

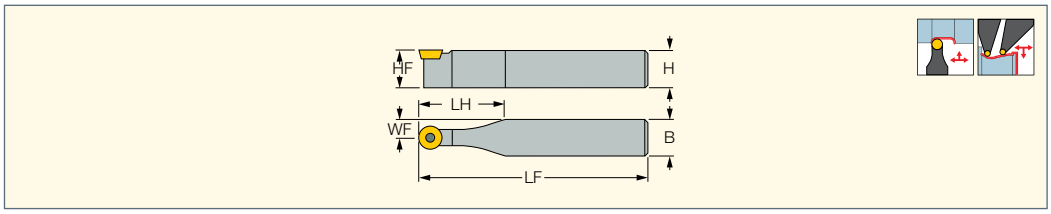
(1) Coolant pressure (Bar)

(2) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: RCMT-14 (202)

ISOTURN

SRDCN
Screw Lock Neutral Tools Carrying Round Inserts with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	Insert
SRDCN 1616H-08	16.0	16.0	16.0	100.00	33.0	8.00	RCMT 0803MO
SRDCN 2020K-10	20.0	20.0	20.0	125.00	38.0	10.00	RCMT 10T3MO
SRDCN 2525M-12	25.0	25.0	25.0	150.00	50.0	12.50	RCMT 1204MO
SRDCN 3225P-12	32.0	32.0	25.0	170.00	50.0	12.50	RCMT 1204MO
SRDCN 3225P-16	32.0	32.0	25.0	170.00	50.0	12.50	RCMT 1606MO
SRDCN 3232P-20	32.0	32.0	32.0	170.00	50.0	16.00	RCMT 2006MO

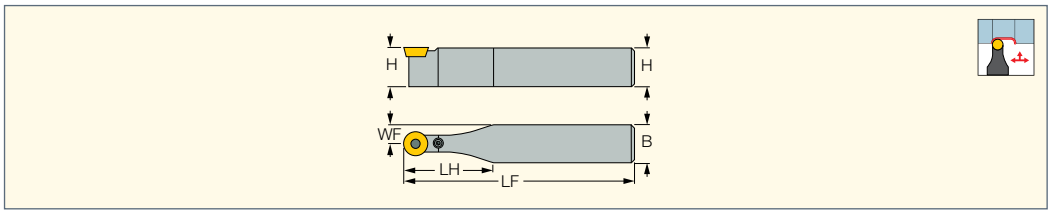
For inserts, see pages: RCGT-AS (213) • RCMT-14 (202) • RCMT-SR (202)

Spare Parts

Designation							
SRDCN 1616H-08	SR 14-513	T-8/5					
SRDCN 2020K-10	SR 16-236	T-15/5					
SRDCN 2525M-12	SR 16-212	T-20/5	TRC 4-0	SR TC-4	HW 3.0		
SRDCN 3225P-12	SR 16-212	T-20/5	TRC 4-0	SR TC-4	HW 3.0		
SRDCN 3225P-16	SR 16-212	T-20/5	TRC 5-0	SR TC-4	HW 3.0		
SRDCN 3232P-20	SR 14-519		TRC 6-0	SR TC-6	HW 4.0	BLD T20/S7	SW6-T-SH

ISOTURN

PRDCN
Lever Lock Tools Carrying RCMX Round Inserts

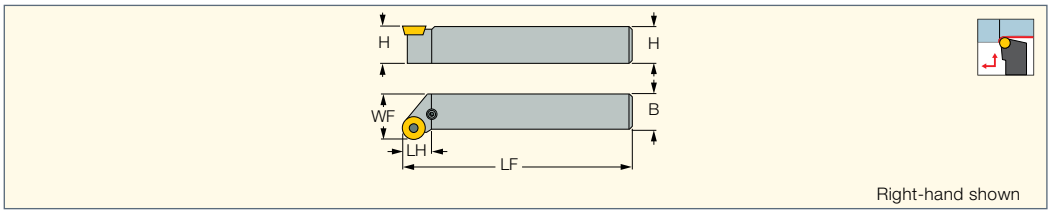


Designation	H	HF	B	LF	LH	WF	Insert					
PRDCN 4040S-25	40.0	40.0	40.0	250.00	80.0	20.00	RCMX 2507	TRC 25	SP 66	HW 4.0	SR 10402289	LR 25C
PRDCN 5050U-32	50.0	50.0	50.0	350.00	90.0	25.00	RCMX 3209	TRC 32	SP 8	HW 5.0	SR 10402264	LR 32C

For inserts, see pages: RCMX-NR (203)

ISOTURN

PRGCR
Lever Lock Tools Carrying RCMX Round Inserts



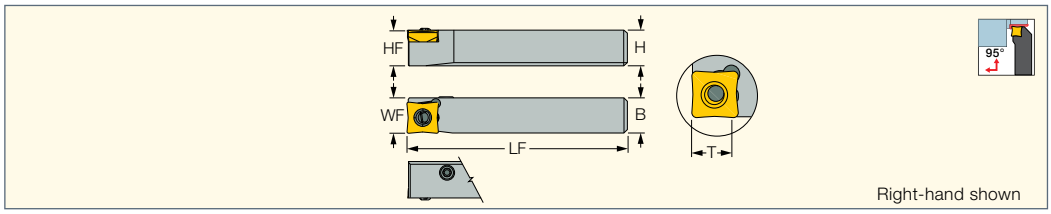
Designation	H	B	HF	LF	LH	WF	Insert					
PRGCR 4040S-25	40.0	40.0	40.0	250.00	30.0	50.00	RCMX 2507	TRC 25	SP 66	SR 10402289	LR 25C	HW 4.0

For inserts, see pages: RCMX-NR (203)

ISOTURN

PQLCR/L-S

Side Lever Lock Tools Carrying 80° Positive 4-Cornered Inserts for Swiss Automatic Machines



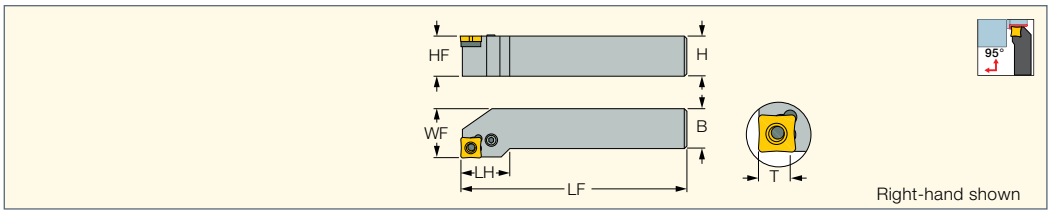
Designation	H	B	HF	LF	WF	T	Insert				
PQLCR/L 1212M-09S	12.0	12.0	12.0	150.00	12.00	8.5	QCMT 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

For inserts, see pages: QCMT-PF (203) • QCMT-SM (203)

ISOTURN

PQLCR/L

Lever Lock Tools Carrying 80° Positive 4-Cornered Inserts



Designation	H	HF	B	LF	LH	WF	T	Insert
PQLCR/L 1616H-09	16.0	16.0	16.0	100.00	22.0	20.00	8.5	QCMT 09T3
PQLCR/L 2020K-09	20.0	20.0	20.0	125.00	25.0	25.00	8.5	QCMT 09T3
PQLCR/L 2525M-09	25.0	25.0	25.0	150.00	26.0	32.00	8.5	QCMT 09T3

For inserts, see pages: QCMT-PF (203) • QCMT-SM (203)

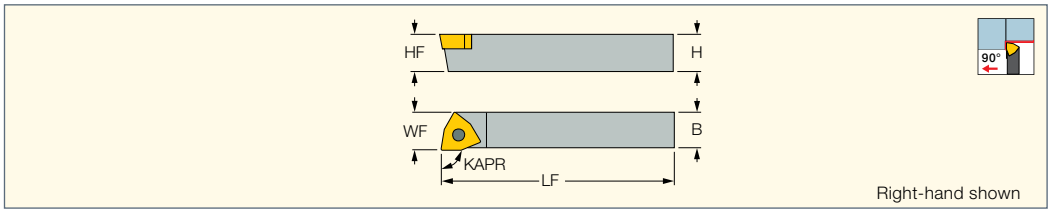
Spare Parts

Designation						
PQLCR/L	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5/5

ISOTURN

SWAPR/L

90° Lead Angle Screw Lock Tools Carrying Trigon Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	WF	KAPR(1)	Insert		
SWAPR/L 0808-04	8.0	8.0	8.0	140.00	8.10	90.0	WPEB/X 04..	T-8/5	SR M3.0R/L
SWAPR 1010-04	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 04..	T-8/5	SR M3.0R
SWAPR/L 1010-05	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 05..	T-8/5	SR M3.5R/L
SWAPL 1212-05	12.0	12.0	12.0	150.00	12.10	90.0	WPEB/X 05..	T-8/5	SR M3.5R/L
SWAPR/L 1212-06	12.0	12.0	12.0	150.00	12.10	90.0	WPEB/X 06..	T-8/5	SR M3.5R/L
SWAPR 1414-06	14.0	14.0	14.0	150.00	14.10	90.0	WPEB/X 06..	T-8/5	SR M3.5R/L
SWAPR/L 1616-06	16.0	16.0	16.0	150.00	16.10	90.0	WPEB/X 06..	T-8/5	SR M3.5R/L

• For R.H. tool use -R screw, for L.H. tool use -L screw.

(1) Tool cutting edge angle

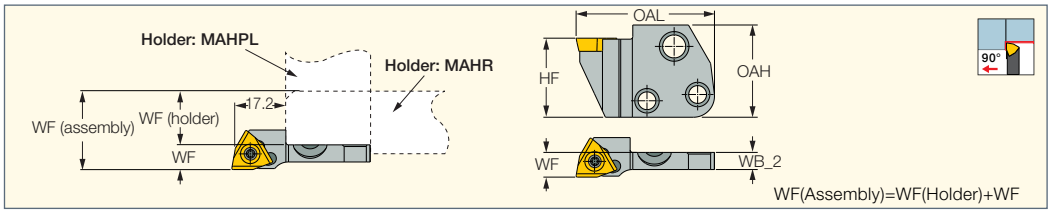
For inserts, see pages: WPEX (208)

ISOTURN

MODULAR-GRIP

SWAPR-PAD

90° Lead Angle Screw Lock Adapters Carrying Trigon Inserts for Swiss Automatic Machines



Designation	HF	OAH	OAL	WF	WB_2	Insert		
SWAPR-06-PAD	24.0	28.0	42.00	7.50	5.2	WPEX/B 0604	SR M3.5R	T-8/5

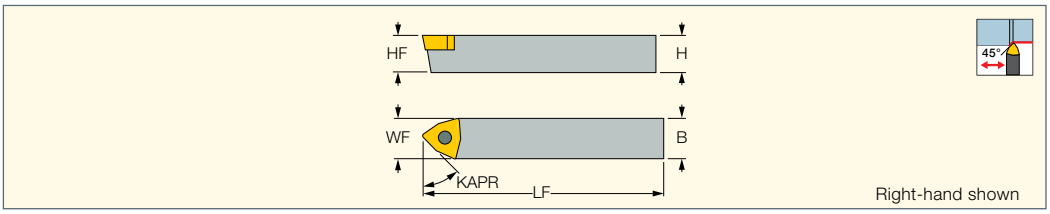
For inserts, see pages: WPEX (208)

For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633) • HMSN-New Britain (478) • DGHAL-DECO (478)

ISOTURN

SWDPR/L

45° Lead Angle Screw Lock Tools Carrying Trigon Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	WF	KAPR(1)	Insert		
SWDPR 1010-04	10.0	10.0	10.0	150.00	10.10	45.0	WPEB/X 04..	T-8/5	SR M3.0R
SWDPR/L 1212-05	12.0	12.0	12.0	150.00	12.10	45.0	WPEB/X 05..	T-8/5	SR M3.5R/L
SWDPR 1616-06	16.0	16.0	16.0	150.00	16.10	45.0	WPEB/X 06..	T-8/5	SR M3.5R

- For R.H. tool use -R screw, for L.H. tool use -L screw

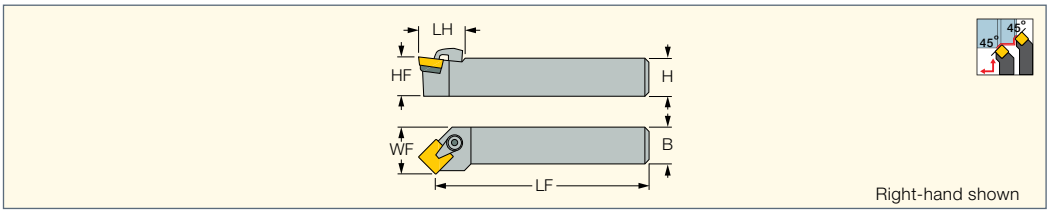
(1) Tool cutting edge angle

For inserts, see pages: WPEX (208)

ISOTURN

CSSPR/L

Clamp Lock Tools Carrying 11° Clearance Square Inserts for Longitudinal and Face Turning



Designation	H	HF	B	LF	LH	WF	Insert				
CSSPR 1212F-09	12.0	12.0	12.0	80.00	21.0	16.00	SPMR 0903			LC 15 SET 1	HW 2.5
CSSPR 1616H-12 (1)	16.0	16.0	16.0	100.00	26.0	20.00	SPMR 1203	ISQP 162	SP 16	LC 30 SET 2	HW 3.0
CSSPR 2020K-12 (1)	20.0	20.0	20.0	125.00	26.0	25.00	SPMR 1203	ISQP 162	SP 16	LC 30 SET 1	HW 3.0
CSSPR/L 2525M-12 (1)	25.0	25.0	25.0	150.00	28.0	32.00	SPMR 1203	ISQP 162	SP 16	LC 30 SET 1	HW 3.0

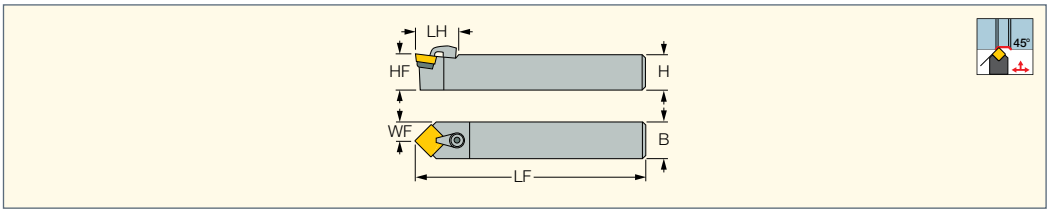
(1) ISQP 163 for inserts with corner radii 1.6-2.4 mm.

For inserts, see pages: SPMR (204)

ISOTURN

CSDPN

45° Lead Angle Clamp Lock Tools Carrying 11° Clearance Square Inserts



Designation	H	HF	B	LF	LH	WF	Insert				
CSDPN 2020K-12	20.0	20.0	20.0	125.00	30.0	10.00	SPMR 1203	ISQP 162(a)	SP 16	LC 30 SET 1	HW 3.0
CSDPN 2525M-12	25.0	25.0	25.0	150.00	30.0	12.50	SPMR 1203	ISQP 162(a)	SP 16	LC 30 SET 1	HW 3.0

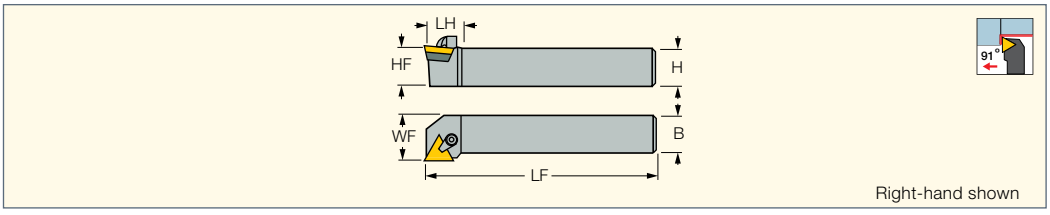
(a) Use ISQP 163 seat for inserts with corner radii 1.6-2.4 mm

For inserts, see pages: SPMR (204)

ISOTURN

CTGPR/L

Clamp Lock Tools Carrying 11° Clearance Triangular Inserts



Designation	H	HF	B	LF	LH	WF	Insert					
CTGPR/L 1212F-11	12.0	12.0	12.0	80.00	17.0	16.00	TPMR/TPGN 1103				LC 15 SET 1	HW 2.5
CTGPR 1616H-11	16.0	16.0	16.0	100.00	16.0	20.00	TPMR/TPGN 1103				LC 15 SET 1	HW 2.5
CTGPR/L 2020K-16	20.0	20.0	20.0	125.00	26.0	25.00	TPMR/TPGN 1603	ITBP 122	ITBP 123*	SP 16(a)	LC 30 SET 1	HW 3.0
CTGPR/L 2525M-16	25.0	25.0	25.0	150.00	26.0	32.00	TPMR/TPGN 1603	ITBP 122	ITBP 123*	SP 16(a)	LC 30 SET 1	HW 3.0

* Optional, should be ordered separately

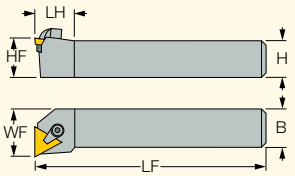
(a) Use ITBP 123 seat for inserts with corner radii 1.6-2.4 mm

For inserts, see pages: TPGN-Ceramic (220) • TPMR (204) • TPMR-FTF (205) • TPMR-PF (204)

ISOTURN

CTFPR/L

Clamp Lock Tools Carrying
11° Clearance Triangular
Inserts for Face Turning





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
CTFPR 1212F-11	12.0	12.0	12.0	80.00	16.0	16.00	0.0	6.0	TPMR/TPGN 1103
CTFPR/L 1616H-11	16.0	16.0	16.0	100.00	16.0	20.00	0.0	6.0	TPMR/TPGN 1103
CTFPR 2020K-16	20.0	20.0	20.0	125.00	22.0	25.00	0.0	6.0	TPMR/TPGN 1603
CTFPR/L 2525M-16	25.0	25.0	25.0	150.00	22.0	32.00	0.0	6.0	TPMR/TPGN 1603

For inserts, see pages: TPGN-Ceramic (220) • TPMR (204) • TPMR-FTF (205) • TPMR-PF (204)

Spare Parts

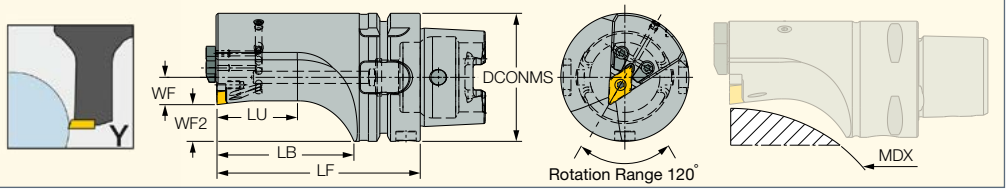
Designation					
CTFPR 1212F-11		HW 2.5		LC 15 SET 1	
CTFPR/L 1616H-11		HW 2.5		LC 15 SET 1	
CTFPR 2020K-16	ITBP 122	HW 3.0	SP 16	LC 30 SET 1	ITBP 123*
CTFPL 2525M-16	ITBP 122	HW 3.0	SP 16	LC 30 SET 1	
CTFPR 2525M-16	ITBP 122	HW 3.0	SP 16	LC 30 SET 1	ITBP 123*

* Optional, should be ordered separately

HSK ISOYTURN AXIS

HSK A63WH-SDJCN-13-Y

Y-Axis Turning Tools Carrying
55° Diamond Inserts with
7° Clearance Angle



Designation	DCONMS	LU	LB	LF	WF	WF2	MDX(1)	MIID(2)	CDI(3)
HSK A63WH-SDJCN-13SL-100Y	63.00	39.60	67.40	100.00	13.44	18.1	215.00	DCMT 13T504-F3P-SL	0
HSK A63WH-SDJCN-13SL-125Y	63.00	64.60	92.40	125.00	13.44	18.1	390.00	DCMT 13T504-F3P-SL	0

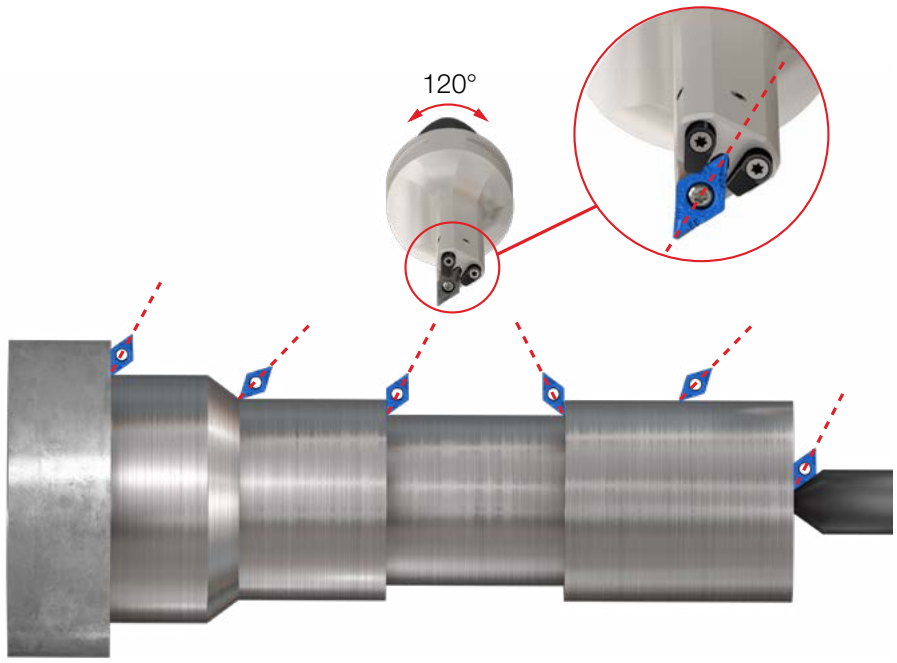
• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately). • For shank dimensions, see page 735

(1) Machinable diameter maximum

(2) Master insert identification

(3) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)



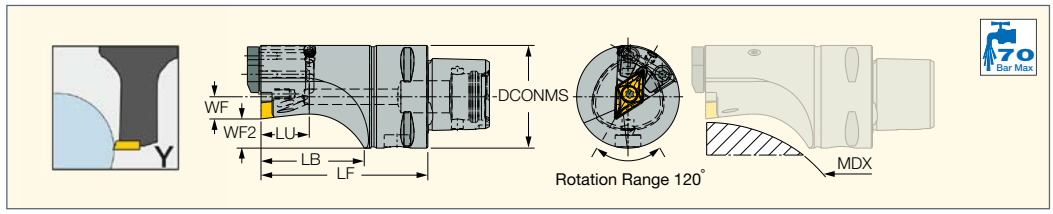
Spare Parts

Designation					
HSK A63WH-SDJCN-13-Y	CH-1.9D-JHP-A SET	BLD IP15/S7	SW6-T-SH	SR M4X4 DIN913 TL360	SR M4X0.7-L9.6 IP15

CAMFIX ISOTURN AXIS

C#-SDJCN-13-Y

Y-Axis Turning Tools Carrying 55° Diamond Inserts with 7° Clearance Angle



Designation	DCONMS	LU	LB	LF	WF	WF2	MDX(1)	MIID(2)	CDI(3)
C4-SDJCN-13-SL-H65-Y	40.00	18.80	40.20	65.00	8.64	11.4	120.00	DCMT 13T504-F3P-SL	0
C4-SDJCN-13-SL-H80-Y	40.00	30.30	54.40	80.00	8.64	11.4	210.00	DCMT 13T504-F3P-SL	0
C5-SDJCN-13-SL-H80-Y	50.00	28.20	53.70	80.00	10.76	14.2	180.00	DCMT 13T504-F3P-SL	0
C5-SDJCN-13-SL-H100-Y	50.00	48.20	73.70	100.00	10.76	14.2	320.00	DCMT 13T504-F3P-SL	0
C6-SDJCN-13-SL-H100-Y	63.00	46.80	73.80	100.00	13.44	18.1	260.00	DCMT 13T504-F3P-SL	0
C6-SDJCN-13-SL-H125-Y	63.00	71.30	98.30	125.00	13.44	18.1	420.00	DCMT 13T504-F3P-SL	0

• For user guide, see page 622

(1) Machinable diameter maximum

(2) Master insert identification

(3) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

Spare Parts

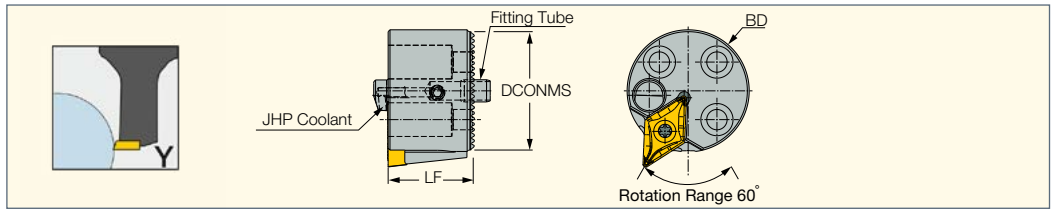
Designation					
C#-SDJCN-13-Y	CH-1.9D-JHP-A SET	BLD IP15/S7	SW6-T-SH	SR M4X4 DIN913 TL360	SR M4X0.7-L9.6 IP15

ISOTURN AXIS

ISOTURN

AVC-SDJCN-Y

Interchangeable Heads Carrying 55° Rhombic Inserts



Designation	DCONMS	BD	LF	MIID(1)	CSP(2)
AVC-D25-SDJCN-13-SL-Y	25.00	26.00	20.00	DCMT 13T504-F3P-SL	1
AVC-D32-SDJCN-13-SL-Y	32.00	33.00	23.00	DCMT 13T504-F3P-SL	1
AVC-D40-SDJCN-13-SL-Y	40.00	41.00	25.00	DCMT 13T504-F3P-SL	1

(1) Master insert identification

(2) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

For holders, see pages: C#-SH-E-JHP (630) • C#-SH-JHP (630)

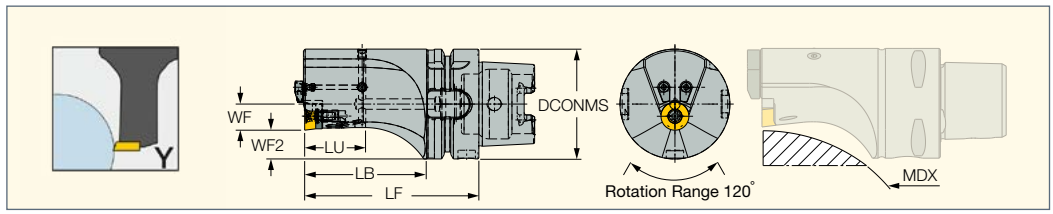
Spare Parts

Designation						
AVC-SDJCN-Y	CH-1.9D-JHP-A SET	SR M5X5 DIN913 TL360	BLD IP15/S7	SW6-T-SH	SR M4X0.7-L9.6 IP15	PIN FT39 D6-5X11

HSK ISOTURN AXIS

HSK A63WH-RCMT-Y

Y-Axis Turning Tools Carrying Round Inserts with 7° Clearance Angle



Designation	DCONMS	LU	LB	LF	WF	WF2	MDX(1)	Insert	CDI(2)
HSK A63WH-SRDCN-16-100Y	63.00	34.90	69.80	100.00	15.00	16.5	240.00	RCMT 1606MO-14	0
HSK A63WH-SRDCN-16-125Y	63.00	60.00	93.40	125.00	15.00	16.5	380.00	RCMT 1606MO-14	0

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately). • For shank dimensions, see page 735

(1) Machinable diameter maximum

(2) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: RCMT-14 (202) • RCMT-SR (202)

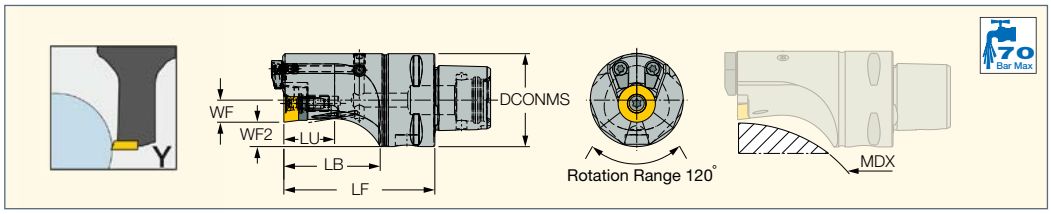
Spare Parts

Designation							
HSK A63WH-RCMT-Y	TRC 5-0	SR TC-4	CH-1.9D-JHP-A SET	SR 16-212	HW 3.0	BLD T20/S7	SW6-T-SH

CAMFIX ISOYTURN AXIS

C#-RCMT-16-Y

Y-Axis Turning Tools
Carrying Round Inserts
with 7° Clearance Angle



Designation	DCONMS	LU	LB	LF	WF	WF2	MDX(1)	Insert	CDI(2)
C4-SRDCN-16-H65-Y	40.00	21.90	41.50	65.00	9.50	10.5	130.00	RCMT 1606M0-14	0
C4-SRDCN-16-H80-Y	40.00	36.80	56.70	80.00	9.50	10.5	210.00	RCMT 1606M0-14	0
C5-SRDCN-16-H80-Y	50.00	27.00	56.20	80.00	12.00	13.0	180.00	RCMT 1606M0-14	0
C5-SRDCN-16-H100-Y	50.00	44.40	76.20	100.00	12.00	13.0	350.00	RCMT 1606M0-14	0
C6-SRDCN-16-H100-Y	63.00	40.50	74.00	100.00	15.00	16.5	260.00	RCMT 1606M0-14	0
C6-SRDCN-16-H125-Y	63.00	65.50	98.90	125.00	15.00	16.5	450.00	RCMT 1606M0-14	0

• For user guide, see page 622

(1) Machinable diameter maximum

(2) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: RCMT-14 (202) • RCMT-SR (202)

Spare Parts

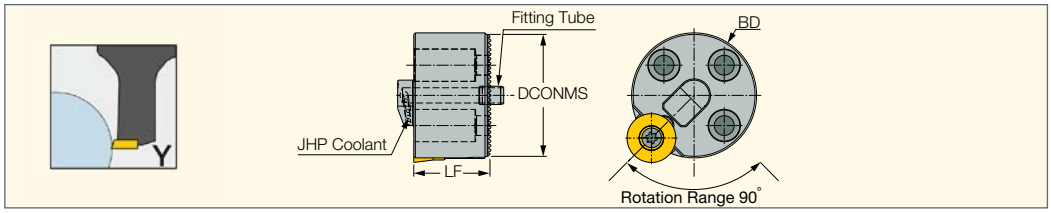
Designation							
C#-RCMT-16-Y	TRC 5-0	SR TC-4	CH-1.9D-JHP-A SET	SR 16-212	HW 3.0	BLD T20/S7	SW6-T-SH

ISOYTURN AXIS

ISOTURN

AVC-SRDCN-Y

Interchangeable Heads
Carrying Round Inserts



Designation	DCONMS	BD	LF	MIID(1)	CSP(2)
AVC-D16-SRDCN-08-Y	16.00	17.00	12.00	RCMT 0803M0-14	1
AVC-D20-SRDCN-10-Y	20.00	21.00	20.00	RCMT 10T3M0-14	1
AVC-D25-SRDCN-12-Y	25.00	26.00	20.00	RCMT 1204M0-14	1
AVC-D32-SRDCN-16-Y	32.00	33.00	23.00	RCMT 1606M0-14	1
AVC-D40-SRDCN-16-Y	40.00	41.00	25.00	RCMT 1606M0-14	1

(1) Master insert identification

(2) 0 - Without coolant supply, 1 - With coolant supply

For holders, see pages: C#-SH-E-JHP (630) • C#-SH-JHP (630)



JET HIGH-PRESSURE TOOLS

High-Pressure Coolant

Important Features

- Up to 200% increased cutting speed when machining titanium and heat resistant alloys.
- Effective chip control on problematic materials.
- Up to 100% increased tool life when machining titanium, heat resistant alloys and alloy steel.

JHP tools are essential and important for the aviation, aerospace and medical industries.

The coolant channels of the JHP tools feature outlets very close to the cutting edges, thus gaining the following advantages:

- Shorter machining time – cutting speed may be increased by up to 200% when machining titanium and heat resistant alloys.
- Longer tool life – increased tool life by up to 100% not only on titanium and heat resistant alloys, but also on stainless and alloy steels.
- Improved chip control – small chips can be obtained even on the most ductile and problematic materials
- Effective cooling down of the cutting edge, reducing sensitivity to heat fluctuations.
- Safer and more stable process.

JHP tools provide advantageous performance, also when conventional pressure is applied.

Pressure vs. Flow

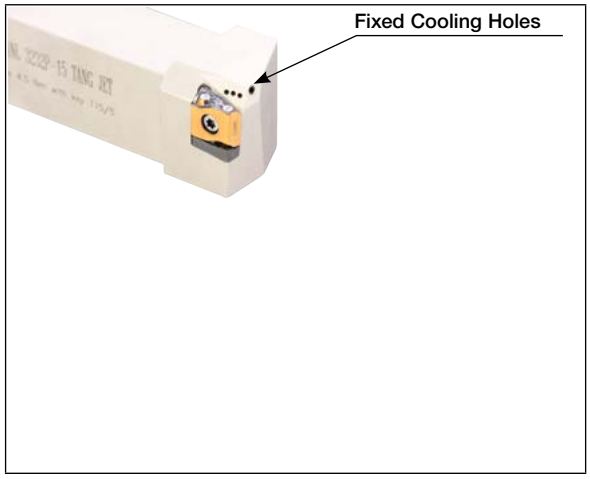
- Each JHP tool is designed to work at a certain flow rate, depending on the pressure. The flow rates are listed in the catalog pages for each tool. The user should verify that the pump can supply the required flow in order to achieve the optimal results. The pump data sheet will usually list the maximum flow rate for each pressure range.

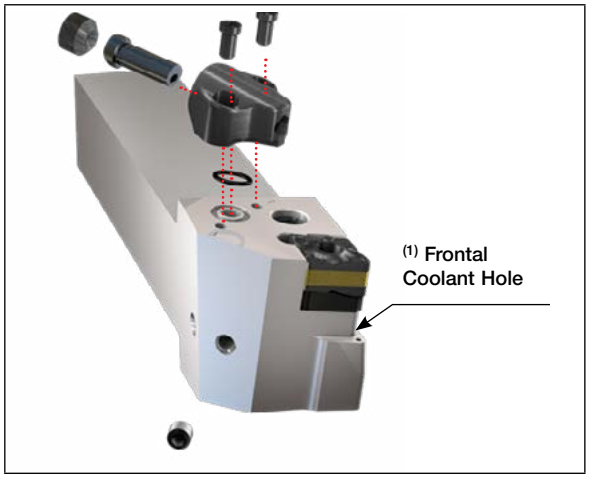
Chips & Pressure

- The coolant flow will start to break the chips at a certain pressure, depending on the specific tool and the workpiece material. If the chips are not breaking, the pressure should be increased until chip control is achieved. As the pressure is increased, the chips become smaller and smaller. It is possible to control the size of the chips by modifying the pressure.



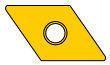
There are 4 various telescopic tubes intended for various insert geometries (see attached table).
Each tube possesses a different profile optimized for the specific geometry of the insert.





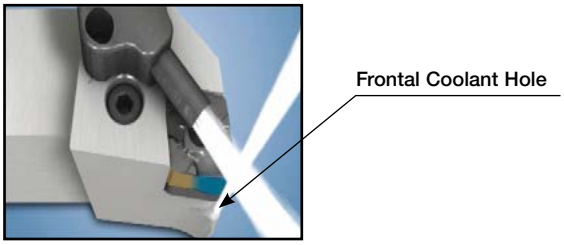
The flow rate for each tube is listed in the table below.

Flow Rate for Various JHP Nozzles

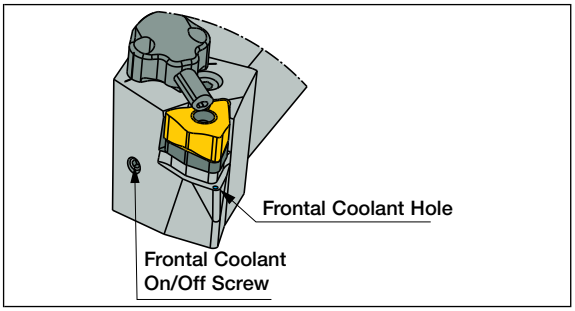
Insert	Channel Shape Inside the Nozzle Tube	Nozzle Tube	Flow Rate liter/min			
			70 Bar	100 Bar	140 Bar	300 Bar
		NZ-CW-JHP	19-23.5	22.5-28	26.5-33	46-52
		NZ-D-JHP	19-23.5	22.5-28	26.5-33	46-52
		NZ-V-JHP	9.5-11.8	11.3-14	13.4-16.7	22-26
		NZ-R-JHP	19-23.5	22.5-28	26.5-33	46-52
		Holes	14-16	18-23	23-26	33-37
Frontal Coolant Hole (1)		Hole	5.4-6.6	6.4-8	7.5-9.5	10-14

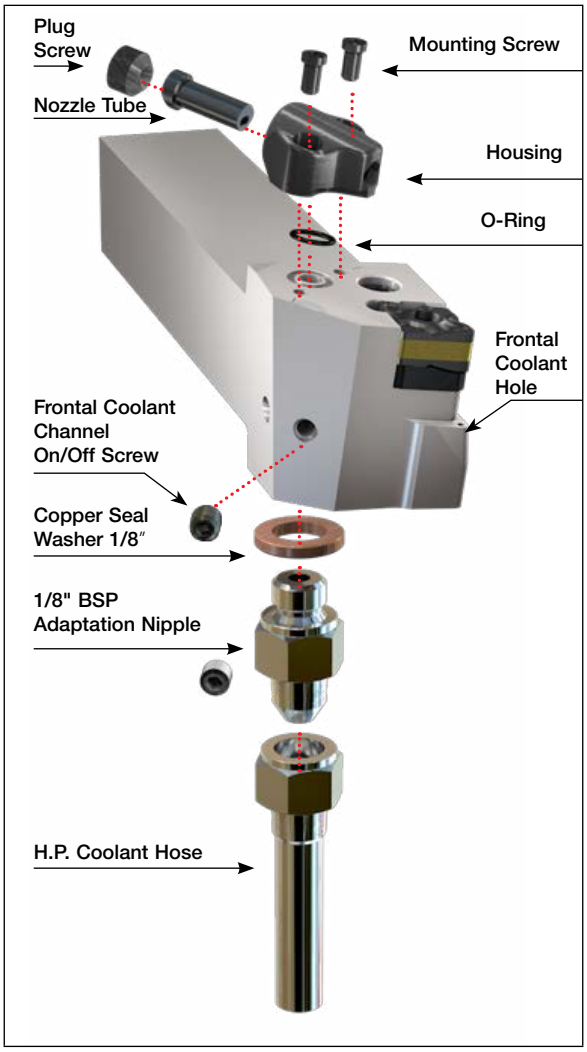
The tools with LNMX 1506… inserts feature fixed cooling channels.

For most of the tools that have a square shank, a frontal coolant hole has been added underneath the seat of the insert to enable coolant flow directed to the flank area of the insert. The frontal coolant jet increases the amount of coolant to the cutting zone. By closing or opening a screw, it acts as a valve that monitors the rate of coolant flow.



SLAN-15-TANG JHP tools for LNMX 1506... inserts, SVJCR/L-16-JHP for VCMT 1604.. inserts and all high-pressire coolant tools with **CAMFIX** shanks do not have the frontal cooling channel option.

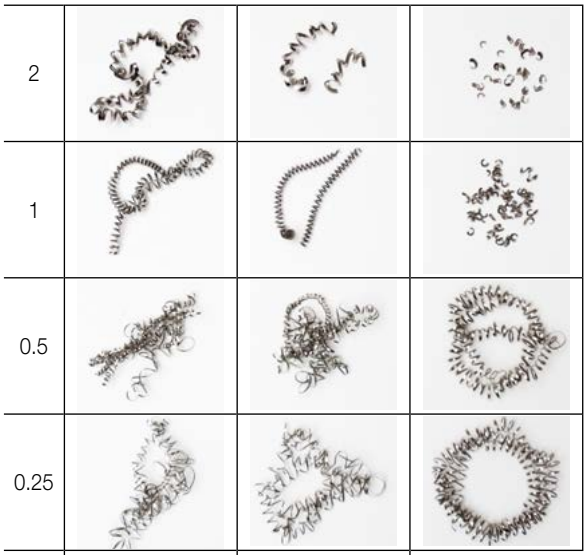




Inconel 718-Chip Control with
CNMX 120708-M4MW IC807 V_c = 70 (mm/min)

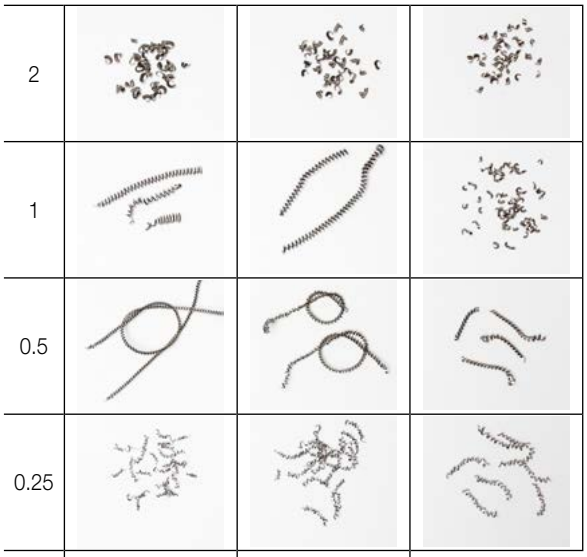
Normal Pressure

a_p (mm)



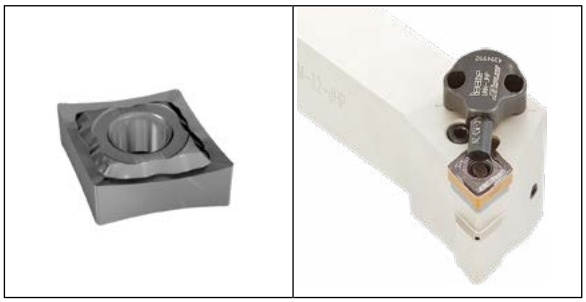
High-Pressure 80 bar

a_p (mm)

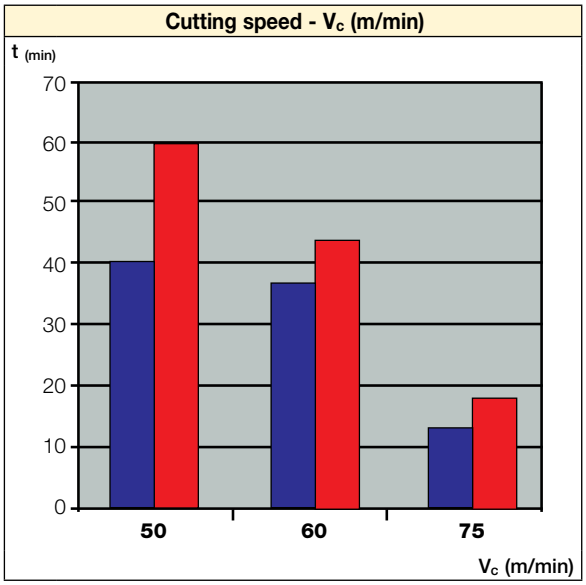


Test Report

Material: Titanium (Ti6Al4V)
Operation: Turning
Tool: PCLNL 2525M-12-JHP
Insert: CNMG 120412-PP IC20
a_p: 2.5 (mm)
f: 0.3 (mm/rev)

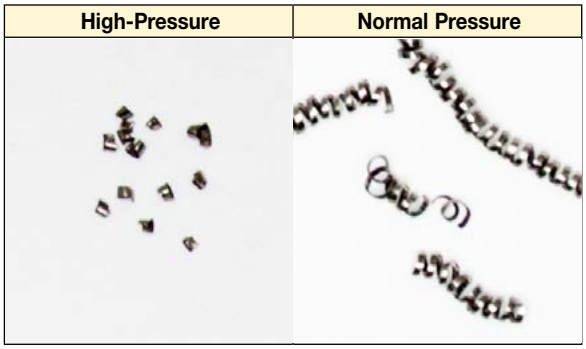


Pressure Influence on Tool Life



Normal pressure (6-8 bars)
High-Pressure (70 bars)

Pressure Influence on Chip Control

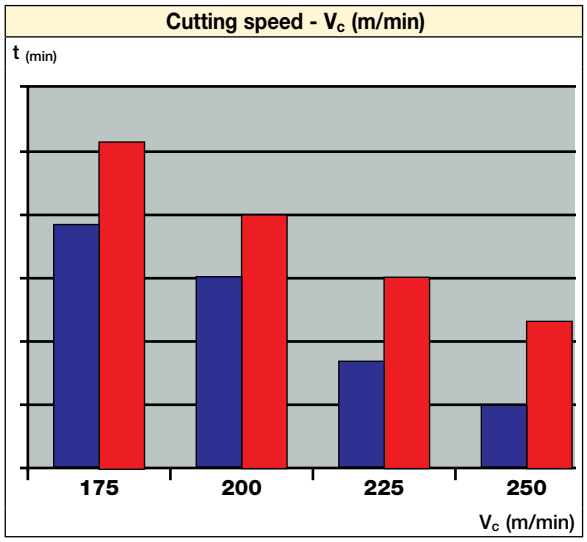


Test Report

Material: Stainless steel 316L
Operation: Turning
Tool: PCLNL 2525M-12-JHP
Insert: CNMG 120408-TF IC908
a_p: 2.5 (mm)
f: 0.3 (mm/rev)



Pressure Influence on Tool Life



Normal pressure (6-8 bars)
High-Pressure (70 bars)

Pressure Influence on Chip Control

High-Pressure	Normal Pressure

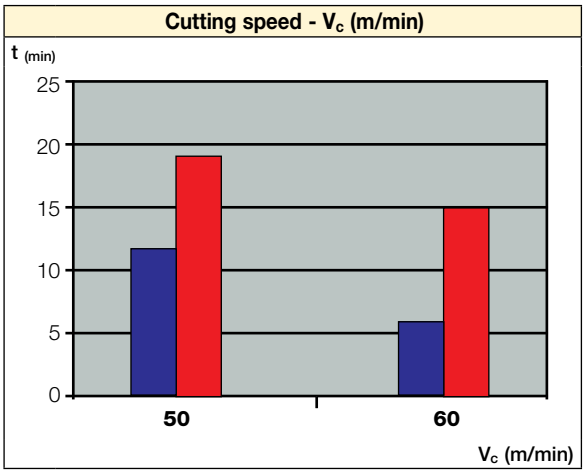


Test Report

Material: Inconel 718 (46 HRC)
Operation: Turning
Tool: PCLNL 2525M-12-JHP
Insert: CNMG 120408-TF IC808
a_p: 2.5 (mm)
f: 0.3 (mm/rev)



Pressure Influence on Tool Life



Normal pressure (6-8 bars)
High-Pressure (70 bars)

Pressure Influence on Chip Control

High-Pressure	Normal Pressure



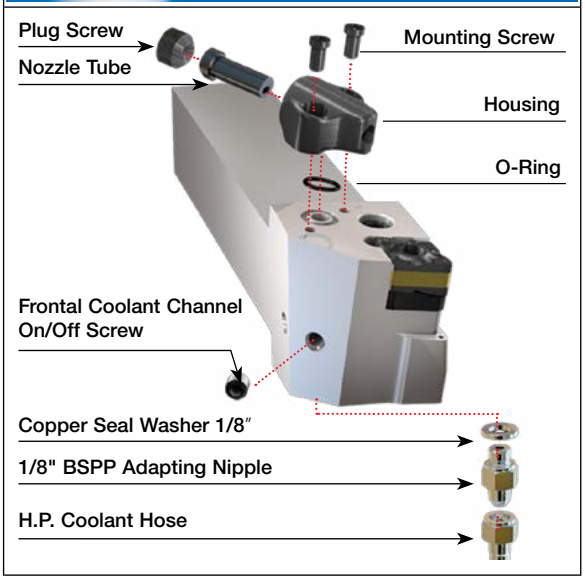
Assembly and Safety Guidelines when using JET HP ISO Turning and Grooving tools.Before use, please ensure that:

- The machine door is in a fully closed position
- The coolant hose is in the correct location and fully tightened with all seals in position
- A blank plug is inserted into the unused coolant hole
- All O-rings and washers are in place
- The coolant hose is tightened securely to the tool holder and tool block to prevent coolant leakage

Important
Always pay attention not to exceed the maximum safe working pressure of 300 bar.

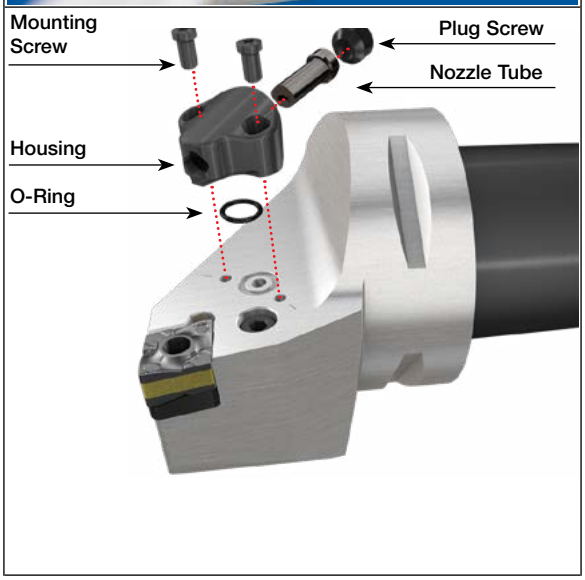
Maximum Pressure 300 Bar





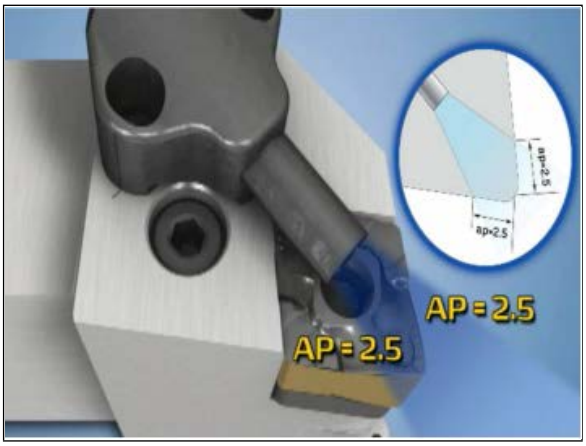
Maximum Pressure 300 Bar





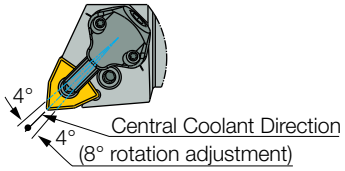
ISOTURN JHP Tools

The unique High-Pressure coolant system is composed of a static housing and telescopic tube to direct the coolant exactly to the cutting edge of the insert. The telescopic tube embedded in the housing skews right and left, according to the working direction of the tool (see drawing). The advantage of this system is that there is no need to detach the housing of the tool when changing an insert. This reduces setup time.



To mount or change an insert, press on the telescopic tube in a backward direction.

After indexing the cutting edge of the insert, starting the coolant will extract the tube automatically to its operating position.



Insert Indexing Procedure

1

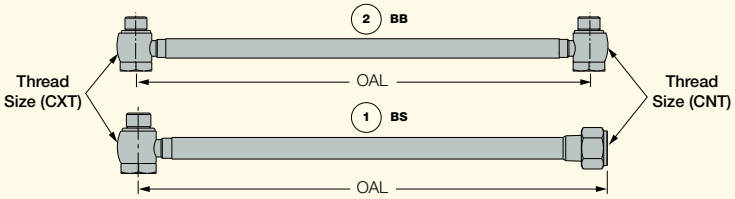

2


3


4


Accessories

JHP HOSE
High-Pressure Coolant Hose



Designation	OAL	Fig.	CXT	CNT
JHP HOSE G1/8-7/16-200BS	200.00	1	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE 5/16-G1/8-200BS	200.00	1	5/16"-24 UNF	G1/8"-28 BSPP
JHP HOSE 5/16-7/16-200BS	200.00	1	5/16"-24 UNF	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-200BB	200.00	2	G1/8"-28 BSPP	G1/8"-28 BSPP
JHP HOSE G1/8-7/16-250BS	250.00	1	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-250BB	250.00	2	G1/8"-28 BSPP	G1/8"-28 BSPP

Spare Parts

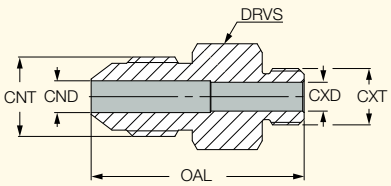
Designation		
JHP HOSE 5/16-7/16-200BS	JHP BANJO BOLT 5/16" UNF	JHP COPPER SEAL 5/16"
JHP HOSE G1/8-G1/8-200BB		JHP COPPER SEAL 1/8"*
JHP HOSE G1/8-G1/8-250BB	JHP BANJO BOLT G1/8"*	JHP COPPER SEAL 1/8"*

* Optional, should be ordered separately

Accessories

JHP NIPPLE
High-Pressure Adaptation Nipple



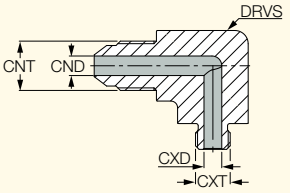


Designation	CXT	CNT	OAL	CND	CXD	DRVS(1)
JHP NIPPLE G1/8"-7/16"UNF	1/8"-28 BSPP	7/16"-20 UNF	28.75	4.00	4.00	14.3
JHP NIPPLE 1/8NPT-7/16UNF	1/8"-27 NPT	7/16"-20 UNF	31.00	4.80	4.40	12.7
JHP NIPPLE 1/4NPT-7/16UNF	1/4"-18 NPT	7/16"-20 UNF	36.00	4.40	4.40	14.3
JHP NIPPLE5/16UNF-7/16UNF	5/16"-24 UNF	7/16"-20 UNF	29.50	4.40	4.00	12.7

(1) Torque key size

Accessories

JHP ELBOW
High-Pressure Adaptation Elbow



Designation	CNT	CND	CXT	CXD	DRVS(2)
JHP ELBOW TUB3/16-5/16UNF (1)	-	3.10	5/16"-24 UNF	4.00	12.7
JHP ELBOW 90-5/16-7/16UNF	7/16"-20 UNF	4.40	5/16"-24 UNF	4.00	12.7
JHP ELBOW 90-G1/8-7/16UNF	7/16"-20 UNF	4.40	1/8"-28 BSPP	4.00	15.9

(1) For connection to a simple 3/16" stainless or copper tube

(2) Torque key size

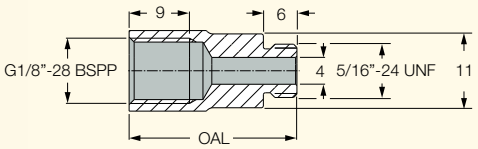
Spare Parts

Designation	
JHP ELBOW 90-5/16-7/16UNF	JHP COPPER SEAL 5/16"-2.5
JHP ELBOW 90-G1/8-7/16UNF	JHP COPPER SEAL 1/8"

Accessories

JHP CONNECTOR
High-Pressure Connector





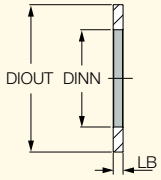
Designation	OAL	DRVS[1]
JHP CONECTOR 5/16"-G1/8"	25.00	12.0

(1) Torque key size

Accessories

JHP COPPER SEAL
High-Pressure Copper Seal



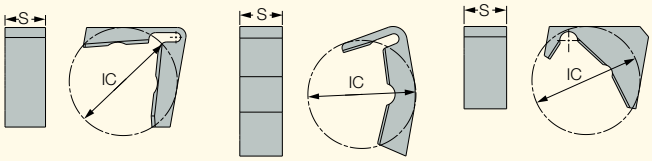


Designation	DIOUT	DINN	LB
JHP COPPER SEAL 5/16"-2.5	9.40	8.00	2.50
JHP COPPER SEAL 5/16"	11.90	8.15	1.35
JHP COPPER SEAL 1/8"	15.00	10.00	1.00



AD-SET
Pocket Reducer Adapter
for Turning Inserts





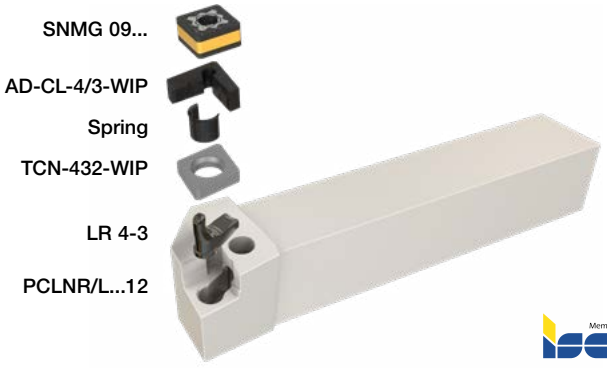
Designation	IC	S
AD-CL-4/3-WIP-SET	12.70	4.76
AD-CL-S-4/3-WIP-SET	12.70	4.76
AD-CL-4/3-SET	12.70	4.76
AD-CL-4/3-W-SET	12.70	4.76
AD-CL-4/3X SET	12.70	4.76
AD-SS-4/3-SET	12.70	4.76
AD-WL-4/3-SET	12.70	4.76
AD-CL-6/5IQ-SET	19.00	5.60

- Tools with K-type coolant cannot be used for facing applications

Toolholder	Set Designation	Item No.	Pocket Size Reducer	
			From	To
 PCLNR/L...12	**AD-CL-4/3-SET**  LR 4-3 + AD-CL-4/3	3351719	 CNMG 12...	 CNMG 09...
 PCLNR/L...12	**AD-CL-4/3-W-SET**  LR 4-3 + AD-CL-W-4/3	3362999	 CNMG 12...	 WNMG 06...
 PCLNR/L...12	**AD-CL-4/3X-SET**  LR 4-3X + AD-CL-4/3X + TCN 4/3X	3362630	 CNMG 12...	 CXMG 09...
 PWLNR/L...08	**AD-WL-4/3-SET**  LR 4-3 + AD-WL-4/3	3363000	 WNMG 08...	 WNMG 06...
 PSKNR/L...12	**AD-SS-4/3-SET**  LR 4-3 + AD-SS-4/3	3364103	 SNMG 12...	 SNMG 09...
 PCLNR/L...19	**AD-CL-6/5IQ-SET**  LR 6/5IQ + AD-CL-6/5IQ + TCX 6/5IQ	3364102	 CNMG 19...	 COMG 16...
 PCLNR/L...12	**AD-CL-4/3-WIP-SET**  LR 4-3 + AD-CL-4/3-WIP + TCN-432-WIP	3373957	 CNMG 12...	 CNMG 09...
 PCLNR/L...12	**AD-CL-S-4/3-WIP-SET**  LR 4-3 + AD-CL-4/3-WIP + TCN-432-WIP	3382096	 SNMG 12...	 SNMG 09...

Spare Parts

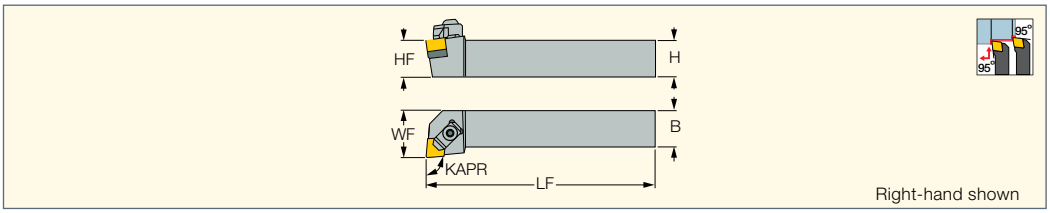
Designation			
AD-CL-4/3-WIP-SET	LR 4/3	HW 3.0/5	TCN-432-WIP
AD-CL-S-4/3-WIP-SET	LR 4/3	HW 3.0/5	TCN-432-WIP
AD-CL-4/3-SET	LR 4/3	HW 3.0/5	
AD-CL-4/3-W-SET	LR 4/3	HW 3.0/5	
AD-CL-4/3X SET	LR 4/3X	HW 3.0/5	TCN 4/3X
AD-WL-4/3-SET	LR 4/3	HW 3.0/5	
AD-CL-6/5IQ-SET	LR 6/5IQ		TCX 6/5IQ



ISOTURN

CCLNR/L

Clamp Lock Tools Carrying Negative 80° Rhombic Ceramic Inserts



Designation	H	HF	B	LF	WF	KAPR(1)	Insert
CCLNR 2020K-12CEA	20.0	20.0	20.0	125.00	25.00	95.0	CNGN 1204
CCLNR/L 2525M-12CEA	25.0	25.0	25.0	150.00	32.00	95.0	CNGN 1204

(1) Tool cutting edge angle

For inserts, see pages: CNGN-Ceramic (216)

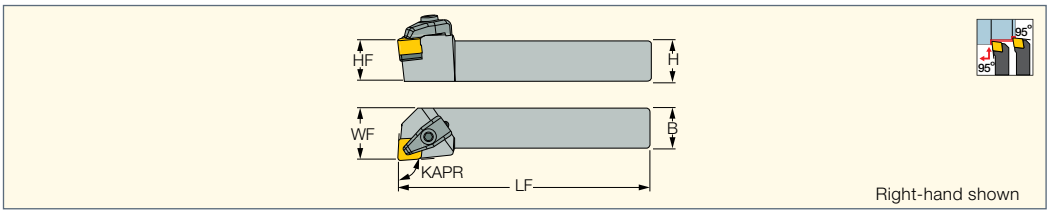
Spare Parts

Designation					
CCLNR/L	S 48	HW 4.0	BCL 6 CLAMP	SR M6X1X25ISO7380	SR M5X0.8X10

ISOTURN

TCLNR/L-CH

95° Lead Angle Tools Carrying Negative CNGX 80° Rhombic Ceramic Dimpled Inserts



Designation	H	HF	B	LF	WF	KAPR(1)	Insert						
								S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0
TCLNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	95.0	CNGX 1207...T						

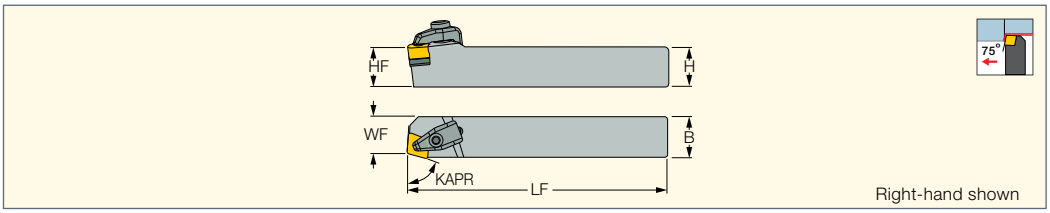
(1) Tool cutting edge angle

For inserts, see pages: CNGX-Ceramic (217)

ISOTURN

TCBNR/L-CH

75° Lead Angle Toolholders Using the 100° Corner of CNGX 80° Negative Rhombic Ceramic Dimpled Inserts



Designation	H	HF	B	LF	WF	KAPR(1)	Insert						
								S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0
TCBNR/L 2525M-12CH	25.0	25.0	25.0	150.00	22.00	75.0	CNGX 1207...T						

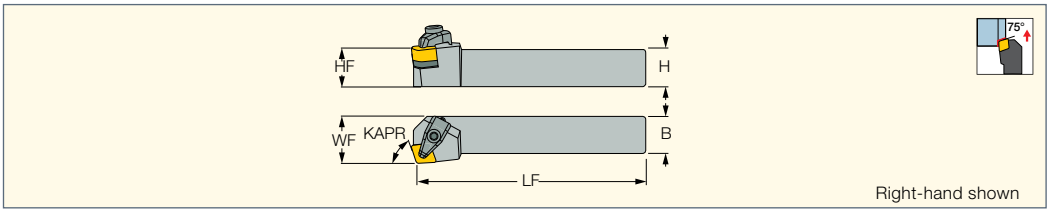
(1) Tool cutting edge angle

For inserts, see pages: CNGX-Ceramic (217)

ISOTURN

TCKNR/L-CH

75° Lead Angle Tools Carrying the 100° Corner of CNGX 80° Negative Rhombic Ceramic Dimpled Inserts for Facing



Designation	H	HF	B	LF	WF	KAPR(1)	Insert						
								S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0
TCKNL 2525M-12CH	25.0	25.0	25.0	150.00	32.00	75.0	CNGX 1207...T						

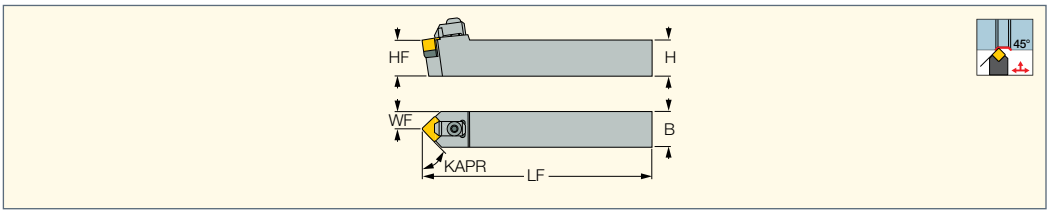
(1) Tool cutting edge angle

For inserts, see pages: CNGX-Ceramic (217)

ISOTURN

CSDNN-CE/CEA

45° Lead Angle Tools Carrying Square Ceramic Inserts



Designation	H	HF	B	LF	WF	KAPR(1)	Insert
CSDNN 2020K-12CEA	20.0	20.0	20.0	125.00	10.00	45.0	SNGN 1204
CSDNN 2525M-12CEA	25.0	25.0	25.0	150.00	12.50	45.0	SNGN 1204

(1) Tool cutting edge angle

For inserts, see pages: SNGN-Ceramic (217)

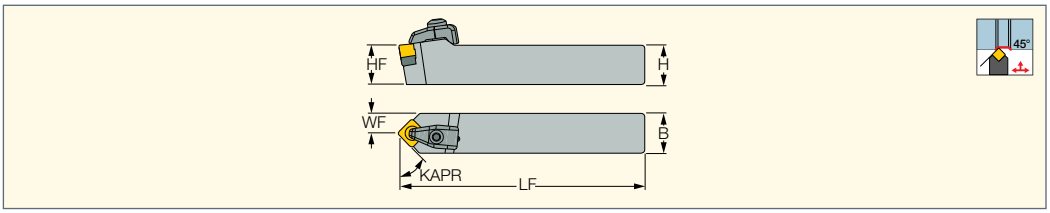
Spare Parts

Designation						
CSDNN 2020K-12CEA	S 40 (SEAT)	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0	
CSDNN 2525M-12CEA	S 40 (SEAT)	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0	HW 3.0

ISOTURN

TSDNN-CH

45° Lead Angle Tools Carrying Square Ceramic Dimpled Inserts



Designation	H	HF	B	LF	WF	KAPR(1)						
TSDNN 2525M-12CH	25.0	25.0	25.0	150.00	12.50	45.0	S 40 (SEAT)	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

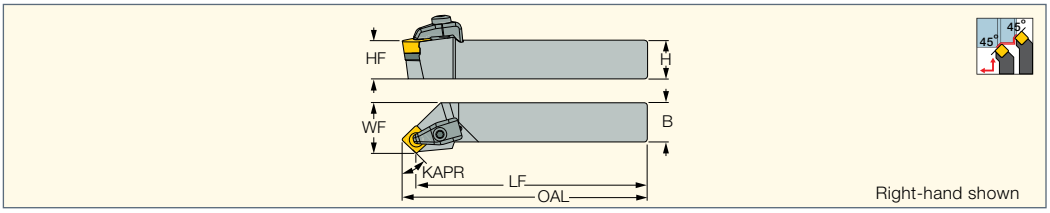
(1) Tool cutting edge angle

For inserts, see pages: SNGX-Ceramic (218)

ISOTURN

TSSNR/L-CH

45° Lead Angle Tools Carrying Square Ceramic Dimpled Inserts for Longitudinal and Face Turning



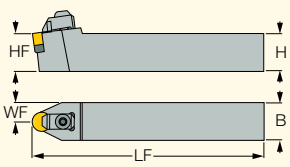
Designation	H	HF	B	OAL	WF	KAPR(1)	Insert	LF						
TSSNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	45.0	SNGX 1207..T	141.52	S 40 (SEAT)	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

(1) Tool cutting edge angle

For inserts, see pages: SNGX-Ceramic (218)

ISOTURN

CRDNN
Clamp Lock Neutral Tools Carrying Round Negative Ceramic Inserts

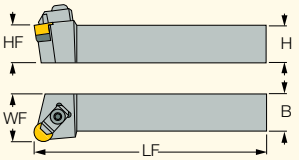


Designation	H	HF	B	LF	WF	Insert					
CRDNN 2525M-12CE	25.0	25.0	25.0	150.00	12.50	RNGN 120700	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0
CRDNN 2525M-12CEA	25.0	25.0	25.0	150.00	12.50	RNGN 120400	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0
CRDNN 3225P-12CE	32.0	32.0	25.0	170.00	12.50	RNGN 120700					

For inserts, see pages: RNGN-Ceramic (220)

ISOTURN

CRGNR/L
Clamp Lock Tools Carrying Round Negative Ceramic Inserts



Right-hand shown

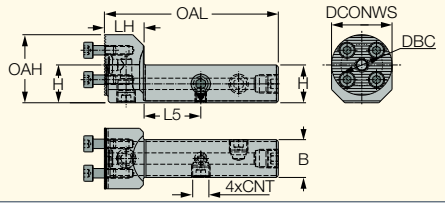
Designation	H	HF	B	LF	WF	Insert					
CRGNR/L 2525M-12CE	25.0	25.0	25.0	150.00	32.00	RNGN 120700	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0
CRGNR/L 2525M-12CEA	25.0	25.0	25.0	150.00	32.00	RNGN 120400	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0
CRGNR/L 3225P-12CE	32.0	32.0	25.0	170.00	32.00	RNGN 120700	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0

For inserts, see pages: RNGN-Ceramic (220)

Straight Shank

ISOTURN

SH-S#-N-AVC
Square shank with serrated connection



Designation	DCONWS	LH	OAH	OAL	H	B	DBC	L5	CNT
SH-S2020-N-AVC-D20-JHP-MC	20.00	21.0	30.00	92.00	20.0	20.0	13.00	30.00	G 1/8
SH-S2020-N-AVC-D25-JHP-MC	25.00	21.0	32.50	92.00	20.0	20.0	16.00	30.00	G 1/8
SH-S2020-N-AVC-D32-JHP-MC	32.00	21.0	36.00	92.00	20.0	20.0	22.00	30.00	G 1/8
SH-S2525-N-AVC-D25-JHP-MC	25.00	21.0	37.50	107.00	25.0	25.0	16.00	36.00	G 1/8
SH-S2525-N-AVC-D32-JHP-MC	32.00	21.0	41.00	107.00	25.0	25.0	22.00	36.00	G 1/8
SH-S2525-N-AVC-D40-JHP-MC	40.00	21.0	45.00	107.00	25.0	25.0	28.00	36.00	G 1/8
SH-S3232-N-AVC-D32-JHP-MC	32.00	21.0	48.00	152.00	32.0	32.0	22.00	-	G 1/8
SH-S3232-N-AVC-D40-JHP-MC	40.00	26.0	52.00	152.00	32.0	32.0	28.00	-	G 1/8
SH-S4040-N-AVC-D40-JHP-MC	40.00	26.0	60.00	200.00	40.0	40.0	28.00	-	G 1/8

For tools, see pages: AVC-DDUNR/L (97) • AVC-DVUNR/L (97) • AVC-GAIR/L (347) • AVC-GEAIR/L (346) • AVC-PCLNR/L (96) • AVC-PCLXR/L (96) • AVC-SCLCR/L (95) • AVC-SDUCR/L (95) • AVC-SVLCR/L (96) • AVC-SVUCR/L (95)

Spare Parts

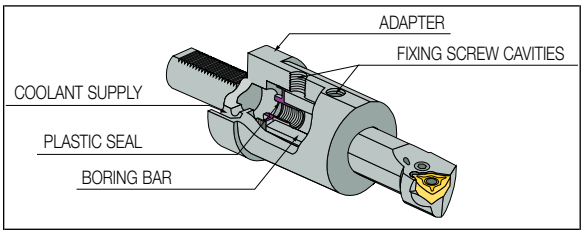
Designation					
SH-S2020-N-AVC-D20-JHP-MC	SR M3.5X10 DIN912	SR M6X6 DIN913 TL360	HW 2.5	OR 5.6X1.8 NBR	PLG G1/8 TL360
SH-S2020-N-AVC-D25-JHP-MC	SR M4X12DIN912	SR M6X6 DIN913 TL360	HW 3.0	OR 5.6X1.8 NBR	PLG G1/8 TL360
SH-S2020-N-AVC-D32-JHP-MC	SR M5X12 DIN912	SR M6X6 DIN913 TL360	HW 4.0	OR 5.6X1.8 NBR	PLG G1/8 TL360
SH-S2525-N-AVC-D25-JHP-MC	SR M4X12DIN912	SR M6X6 DIN913 TL360	HW 3.0	OR 5.6X1.8 NBR	PLG G1/8 TL360
SH-S2525-N-AVC-D32-JHP-MC	SR M5X12 DIN912	SR M6X6 DIN913 TL360	HW 4.0	OR 5.6X1.8 NBR	PLG G1/8 TL360
SH-S2525-N-AVC-D40-JHP-MC	SR M6X16 DIN912	SR M6X6 DIN913 TL360	HW 5.0	OR 5.6X1.8 NBR	PLG G1/8 TL360

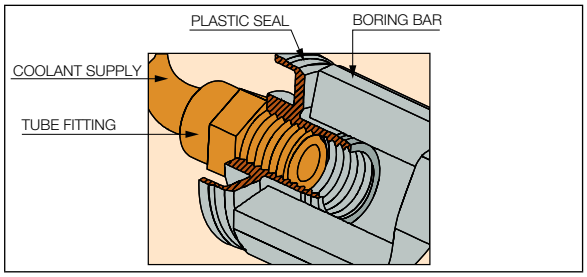
ISOTURN Boring Bars

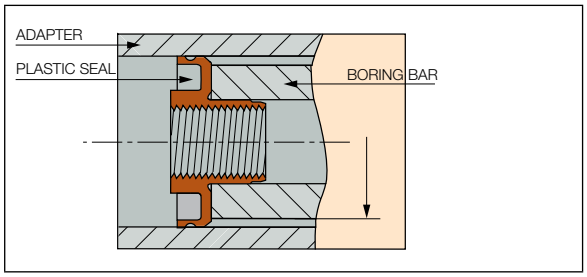
ISCAR boring bars are equipped with internal coolant. A unique plastic seal is supplied for insertion into the channel which:

- Features a threaded tube fitting connection
- Performs a sealing role while clamped in a cylindrical adapter
- Requires no re-threading after shortening the bar

This unique design is a simple and versatile solution for installing coolant supply and extends tool life, improves chip flow and machining reliability.





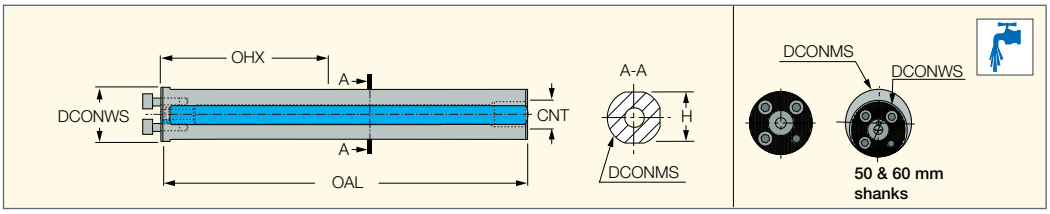




Straight Shank

ISOTURN

SH-D
Steel boring bars with serrated connection for AVC Heads



Designation	DCONWS	DCONMS	OAL	OHX[1]	CNT	H	BMC[2]
SH-D16-4D-A	16.00	16.00	105.00	44.0	UNC-2B 3/8"-16	15.0	S
SH-D20-4D-A	20.00	20.00	140.00	60.0	UNFC-2B 3/8"-24	18.0	S
SH-D25-4D-A	25.00	25.00	200.00	80.0	UNF-2B 1/2"-20	23.0	S
SH-D32-4D-A	32.00	32.00	218.00	96.0	UNF-2B 1/2"-20	29.0	S
SH-D40-4D-A	40.00	40.00	283.00	128.0	UNF-2B 1/2"-20	36.0	S
SH-D50-4D-40-A	40.00	50.00	368.00	168.0	UNF-2B 1/2"-20	46.0	S
SH-D60-4D-40-A	40.00	60.00	468.00	208.0	UNF-2B 1/2"-20	57.0	S

[1] Maximum overhang
[2] S-steel body, H-solid carbide body

For tools, see pages: AVC-D-SIR/L (707) • AVC-DDUNR/L (97) • AVC-DVUNR/L (97) • AVC-GAIR/L (347) • AVC-GEAIR/L (346) • AVC-PCLNR/L (96) • AVC-PCLXR/L (96) • AVC-SCLCR/L (95) • AVC-SDUCR/L (95) • AVC-SVLCR/L (96) • AVC-SVUCR/L (95)

Spare Parts

Designation				
SH-D16-4D-A	SR M3X10DIN912	HW 2.5	PL 16	
SH-D20-4D-A		HW 2.5	PL 20	OR 5.6X1.8 NBR
SH-D25-4D-A	SR M4X12DIN912	HW 3.0	PL 25	OR 5.6X1.8 NBR
SH-D32-4D-A	SR M5X12 DIN912	HW 4.0	PL 32	OR 5.6X1.8 NBR
SH-D40-4D-A	SR M6X16 DIN912	HW 5.0	PL 40	OR 5.6X1.8 NBR
SH-D50-4D-40-A	SR M6X16 DIN912	HW 5.0	PL 40	OR 5.6X1.8 NBR
SH-D60-4D-40-A	SR M6X16 DIN912	HW 5.0	PL 40	OR 5.6X1.8 NBR



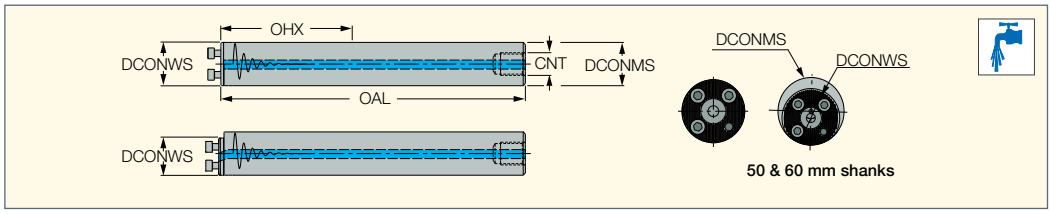
WHISPERLINE ANTI-VIBRATION

Straight Shank

ISOTURN

AV-D

Anti-Vibration Bars with Through Coolant for Interchangeable Turning Heads



Designation	DCONWS	DCONMS	OAL	OHN[1]	OHX[2]	CNT	BMC[3]	CP[4]
AV-D16-7D-C	16.00	16.00	156.30	55.0	92.0	G1/8	S	30
AV-D16-10D-E	16.00	16.00	204.30	96.0	140.0	-	H	30
AV-D20-7D-C	20.00	20.00	200.30	70.0	120.0	G1/4	S	30
AV-D20-10D-E	20.00	20.00	260.30	120.0	180.0	-	H	30
AV-D25-7D-C	25.00	25.00	257.50	88.0	155.0	G1/4	S	40
AV-D25-10D-C	25.00	25.00	332.50	155.0	230.0	G1/4	S	40
AV-D32-7D-C	32.00	32.00	323.00	120.0	192.0	G3/8	S	50
AV-D32-10D-C	32.00	32.00	419.00	192.0	288.0	G3/8	S	50
AV-D40-7D-C	40.00	40.00	411.00	128.0	251.0	G1/2	S	70
AV-D40-10D-C	40.00	40.00	531.00	248.0	368.0	G1/2	S	70
AV-D50-7D-C	40.00	50.00	523.00	168.0	318.0	G1/2	S	70
AV-D50-10D-C	40.00	50.00	673.00	318.0	468.0	G1/2	S	70
AV-D60-7D-C	40.00	60.00	633.00	208.0	388.0	G3/4	S	70
AV-D60-10D-C	40.00	60.00	813.00	388.0	568.0	G3/4	S	70

- The bars can be shortened. For details, see table below

(1) Minimum overhang
(2) Maximum overhang
(3) S-steel body, H-solid carbide body
(4) Coolant pressure (Bar)

For tools, see pages: AVC-D-SIR/L (707) • AVC-DDUNR/L (97) • AVC-DVUNR/L (97) • AVC-GAIR/L (347) • AVC-GEAIR/L (346) • AVC-PCLNR/L (96) • AVC-PCLXR/L (96) • AVC-SCLCR/L (95) • AVC-SDUCR/L (95) • AVC-SVLCR/L (96) • AVC-SVUCR/L (95)

Bar Diameter	Minimum Length After Shortening	
DCONMS (mm)	OAL 7D (mm)	OAL 10D (mm)
16	100	- (1)
20	125	- (1)
25	155	255
32	190	320
40	240	410
50	305	520
60	380	630

(1) Cannot be shortened

Spare Parts

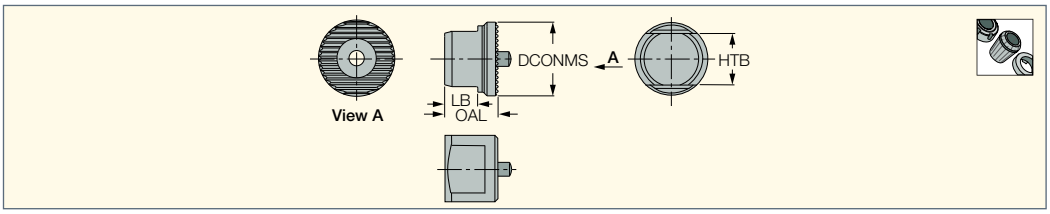
Designation	
AV-D16-7D-C	SR M3X10DIN912
AV-D16-10D-E	SR M3X10DIN912
AV-D20-7D-C	SR M3.5XL10-D5.5
AV-D20-10D-E	SR M3.5XL10-D5.5
AV-D25-7D-C	SR M4X12DIN912
AV-D25-10D-C	SR M4X12DIN912
AV-D32-7D-C	SR M5X12 DIN912
AV-D32-10D-C	SR M5X12 DIN912
AV-D40-7D-C	SR M6X16 DIN912
AV-D40-10D-C	SR M6X16 DIN912
AV-D50-7D-C	SR M6X16 DIN912
AV-D50-10D-C	SR M6X16 DIN912
AV-D60-7D-C	SR M6X16 DIN912
AV-D60-10D-C	SR M6X16 DIN912





ISOTURN
WHISPERLINE ANTI-VIBRATION

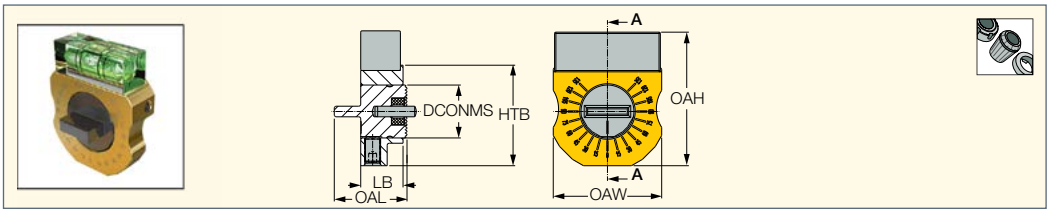
AVC-SET
Center Height Set Up Device



Designation	DCONMS	HTB	OAL	LB	Shank
AVC-SET 16-25	20.00	15.0	14.50	9.00	16, 20, 25
AVC-SET 32-60	29.00	16.0	17.50	11.50	32, 40, 50, 60

ISOTURN
WHISPERLINE ANTI-VIBRATION

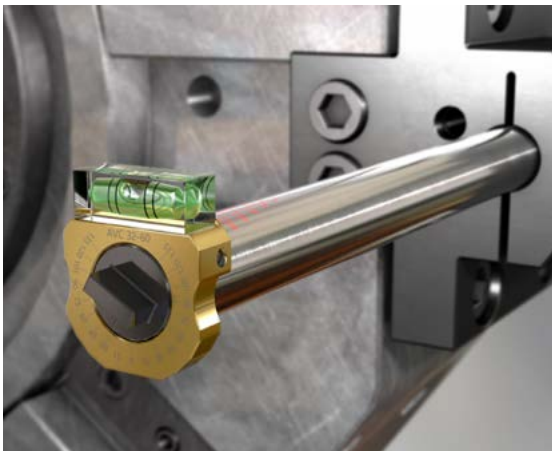
AVC-SET-LEV
Center Height Set Up Device



Designation	DCONMS	HTB	OAL	LB	Shank	OAH	OAW
AVC-SET 16-25-LEV	20.00	38.0	27.50	16.00	16, 20, 25	50.50	41.00
AVC-SET 32-60-LEV	29.00	49.0	28.00	16.00	32, 40, 50, 60	59.00	49.00

Features

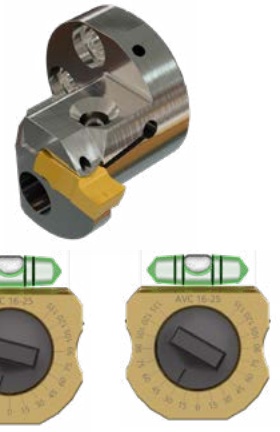
- Serrated head with magnetic core ensures fixed position of the shank.
- The setting head is simply connected to the shank without screws.
- The bubble level indicates the tool position and easily enables adjustment of the boring bar to the center.
- Significant time saving can be achieved by using this unique setting head.
- High setting accuracy can be easily attained and ensure excellent performance for ***WHISPERLINE*** boring bars.
- During tool assembly and the positioning process on the machine, please pay attention to the angle position selector. It must be set to the angle that is defined for each head - while most ISO turning heads have a 0° angle, **CUT-GRIP** heads need to be set to 15° or 30°.



ISO turning head



CUT-GRIP head



Spare Parts

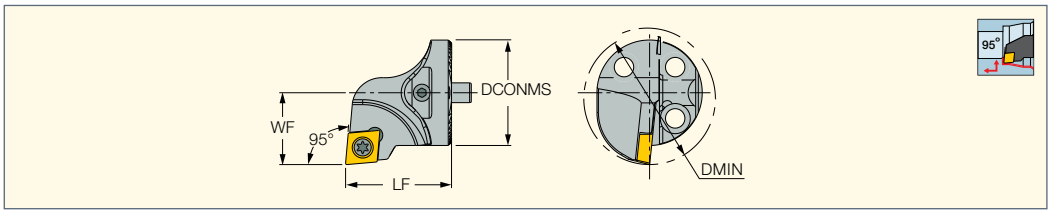
Designation		
AVC-SET-LEV	SR M6X10 DIN1835B	HW 3.0

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WHISPERLINE ANTI-VIBRATION

AVC-SCLCR/L

Interchangeable Boring Heads Carrying 80° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP[2]	MIID[3]				
AVC-D16-SCLCR/L-06	11.00	16.00	20.00	20.00	0	CCMT 2-1-14	SR 14-548*	T-7/5*		
AVC-D20-SCLCR/L-09	13.00	20.00	25.00	20.00	0	CCMT 3-2-M3M	SR 16-236*	T-15/5*		
AVC-D25-SCLCR/L-09	17.00	25.00	32.00	20.00	1	CCMT 3-2-M3M	SR 16-236*	T-15/5*		
AVC-D32-SCLCR/L-09	22.00	32.00	40.00	32.00	1	CCMT 3-2-M3M	SR 16-236*	T-15/5		
AVC-D40-SCLCR/L-12T [1]	27.00	40.00	50.00	38.00	1	CCMT 432-SM	SR 16-212*	T-20/5*	SR TC-4*	TCC 4-2*

[1] DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm
[2] 0 - Without coolant supply, 1 - With coolant supply
[3] Master insert identification
* Optional, should be ordered separately

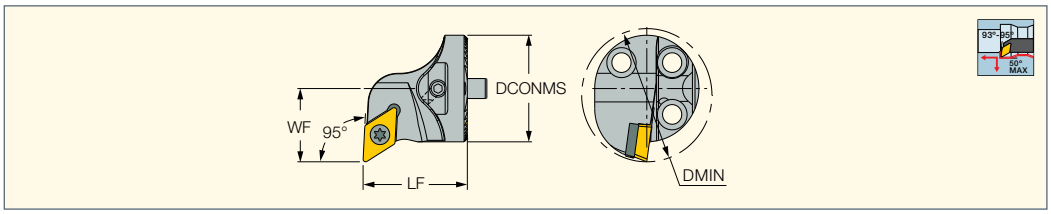
For inserts, see pages: CCET-WF (189) • CCGT-AF (212) • CCGT-AS (212) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222) • CCMT-14 (188) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-M3P (185) • CCMT-PF (188) • CCMT-WG (189) • CCMT/CCGT (188) • CCMT/CCGT-SM (187)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-SDUCR/L

Interchangeable Boring Heads Carrying 55° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP[2]	MIID[3]				
AVC-D16-SDUCR/L-07	11.00	16.00	20.00	20.00	0	DCMT 2-1	SR 14-548*	T-7/5*		
AVC-D20-SDUCR/L-11	13.00	20.00	25.00	20.00	0	DCMT 3-2-14	SR 16-236 P*	T-15/5*		
AVC-D25-SDUCR/L-11	17.00	25.00	32.00	20.00	1	DCMT 3-2-14	SR 16-236 P*	T-15/5*		
AVC-D32-SDUCR/L-11T	22.00	32.00	40.00	32.00	1	DCMT 3-2-14	SR 16-236 P*	T-15/5*	SR TC-3P*	TDC 3-1P*
AVC-D40-SDUCR/L-11T [1]	27.00	40.00	50.00	32.00	1	DCMT 3-2-14	SR 16-236 P*	T-15/5*	SR TC-3P*	TDC 3-1P*

[1] DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm
[2] 0 - Without coolant supply, 1 - With coolant supply
[3] Master insert identification
* Optional, should be ordered separately

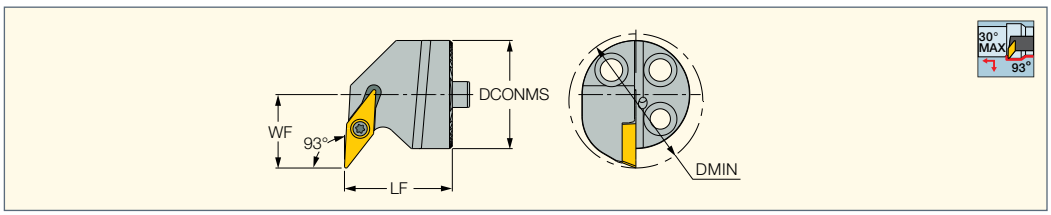
For inserts, see pages: DCET-WF (195) • DCGT-AF (213) • DCGT-AS (213) • DCGT-F1M-20P (192) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-14 (194) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT (194) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-SVUCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP[1]	MIID[2]		
AVC-D20-SVUCR/L-11	16.00	20.00	27.00	20.00	0	CVMT 221-F3P	SR 14-560*	T-8/5*
AVC-D25-SVUCR/L-11	17.00	25.00	32.00	25.00	1	CVMT 221-F3P	SR 14-560*	T-8/5*

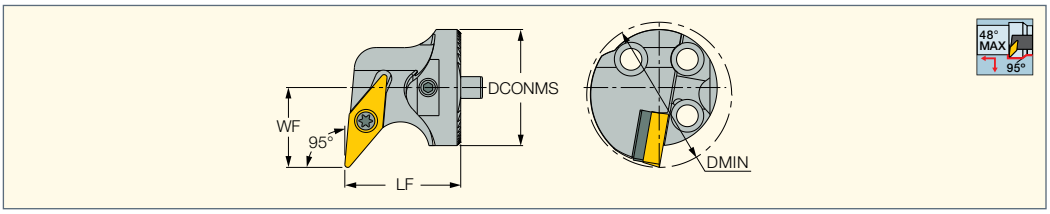
[1] 0 - Without coolant supply, 1 - With coolant supply
[2] Master insert identification
* Optional, should be ordered separately

For inserts, see pages: VCGT-AS (211) • VCGT-F1M-20P (196) • VCMT-F3M (195) • VCMT-SM (197)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

ISOTURN
WHISPERLINE ANTI-VIBRATION

AVC-SVLCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP[2]	MIID[3]				
AVC-D32-SVLCR/L-16T	22.00	32.00	40.00	32.00	1	VCMT 332-F3M	SR 16-236 P*	T-15/5*	SR TC-3P*	TVC 3-1P*
AVC-D40-SVLCR/L-16T [1]	27.00	40.00	50.00	32.00	1	VCMT 332-F3M	SR 16-236 P*	T-15/5*	SR TC-3P*	TVC 3-1P*

- For positive "V" insert geometry with radius 1.2mm please use set: TVC 3-76 * 3312824

* Optional, should be ordered separately [1] DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm

[2] 0 - Without coolant supply, 1 - With coolant supply

[3] Master insert identification

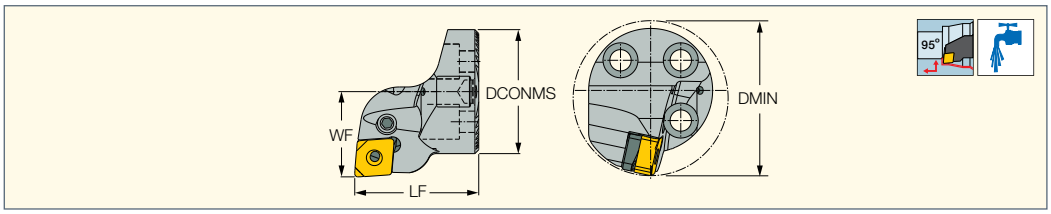
For inserts, see pages: VCGT (PCD) (223) • VCGT-AS (211) • VCGT-DW (PCD) (223) • VCGW-2 (CBN) (232) • VCMT (CBN) (222) • VCMT-14 (198) • VCMT-F3M (195) • VCMT-F3P (195) • VCMT-FPC-CERMET (196) • VCMT-M3M (196) • VCMT-SM (197) • VCMW (198)

For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

FLASHTURN ECO LINE
WHISPERLINE ANTI-VIBRATION

AVC-PCLNR/L

Interchangeable Boring Heads Carrying 80° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF	MIID[1]							
AVC-D20-PCLNR/L-09	13.00	20.00	25.00	26.00	CNMG 09			LR 3S	SR 117-2009	HW 2.0		
AVC-D25-PCLNR/L-09	17.00	25.00	32.00	28.00	CNMG 09			LR 3S	SR 117-2009	HW 2.0		
AVC-D32-PCLNR/L-09	22.00	32.00	40.00	32.00	CNMG 09	TCN 323	TCX 3[a]	LR 3	SR 117-2014	HW 2.5	SP 3	PN 3-4

[1] Master insert identification

[a] For CNMX 0906.. (CNMX 34.) inserts

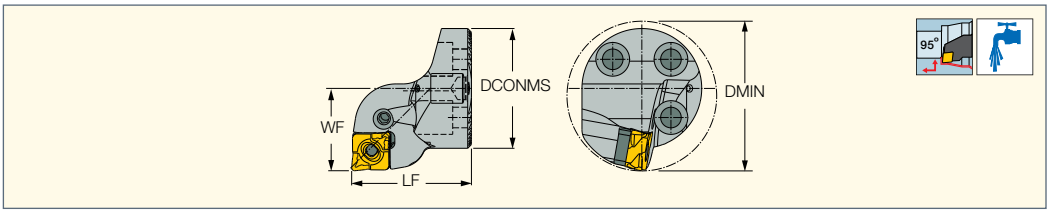
For inserts, see pages: CNMG-F3S (147) • CNGG-F3N (209) • CNMG-F3M (146) • CNMG-F3P (144) • CNMG-M3M (146) • CNMG-M3P (144)

For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

LOGIQ4TURN POSITIVE DOUBLE SIDED
WHISPERLINE ANTI-VIBRATION

AVC-PCLXR/L

Interchangeable Boring Heads Carrying 80° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF	MIID[2]								
AVC-D20-PCLXR/L-09X	13.00	20.00	25.00	26.00	CXMG 09		LR 3X SET	SR M6XL11.5V		T-8/5			
AVC-D25-PCLXR/L-09X	17.00	25.00	32.00	28.00	CXMG 09		LR 3X SET	SR M6XL11.5V		T-8/5			
AVC-D32-PCLXR/L-09X	22.00	32.00	40.00	32.00	CXMG 09	TSN 323	LR 3XL	SR 117-2014	HW 2.5/5		SP 3	PN 3-4	
AVC-D40-PCLXR/L-12X [1]	27.00	40.00	50.00	35.00	CXMG 12	TCNX 423	LR 4X	SR LCS 5	HW 3.0		SP 4	PN 3-4	

[1] DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm

[2] Master insert identification

For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)

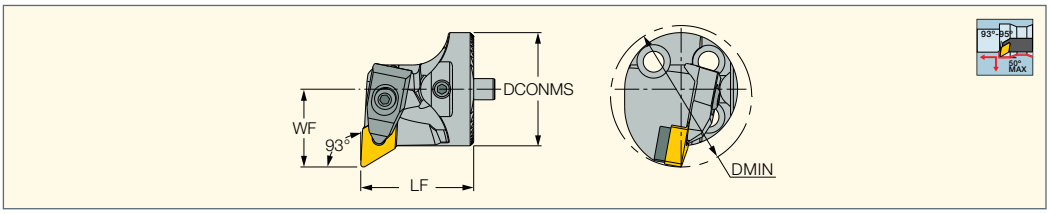
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-DDUNR/L

Interchangeable Boring Heads
Carrying 55° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF	MIID[2]	CSP[3]							
AVC-D32-DDUNR/L-11T	22.00	32.00	40.00	32.00	DNMG 332-NF	1	RDT 3-2*	SR RC3*	SR 40085I*	HW 2.5*	T-15/5*	LCGR-3*	KSP 3*
AVC-D40-DDUNR/L-15T [1]	27.00	40.00	50.00	38.00	DNMG 442-F3M	1	RDT 433*	DLS 4*	SR 14-506*		T-15/5*	DLM 4*	DSP 4*

* Optional, should be ordered separately [1] DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm
[2] Master insert identification
[3] 0 - Without coolant supply, 1 - With coolant supply

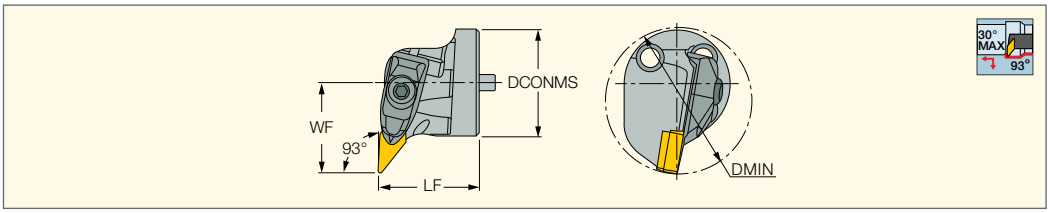
For inserts, see pages: DNGA-4 (CBN) (229) • DNGA-Ceramic (218) • DNGG-M3N (210) • DNMA (161) • DNMA (CBN) (228) • DNMG-F3M (157) • DNMG-F3P (156) • DNMG-F3S (157) • DNMG-GN (161) • DNMG-M3M (157) • DNMG-M3P (156) • DNMG-NF (158) • DNMG-NR (161) • DNMG-PF (159) • DNMG-VL (160) • DNMG-WG (159) • DNMG/DNGG-PP (160) • DNMG/DNGG-SF (159) • DNMG/DNGG-TF (160) • DNMM-NM (162) • DNMM-R3P (162)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-DVUNR/L

Interchangeable Boring Heads
Carrying 35° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF	CSP	MIID[3]
AVC-D40-DVUNR/L-16T [1]	34.00	40.00	56.00	38.00	1	VNMG 332-F3M

[1] DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm
[2] 0 - Without coolant supply, 1 - With coolant supply
[3] Master insert identification

For inserts, see pages: VNGG-M3N (210) • VNMG-F3M (164) • VNMG-F3P (163) • VNMG-M3M (164) • VNMG-TF (166) • VNMG/VNGG-NF (165)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

Spare Parts

Designation						
AVC-D40-DVUNL-16T	DLM 3V	SR 10402267	HW 4.0	KSP 5	T-15/5	SR 35080I
AVC-D40-DVUNR-16T	DLM 3V*	SR 10402267*	HW 4.0*	KSP 5*	T-15/5*	SR 35080I*

* Optional, should be ordered separately

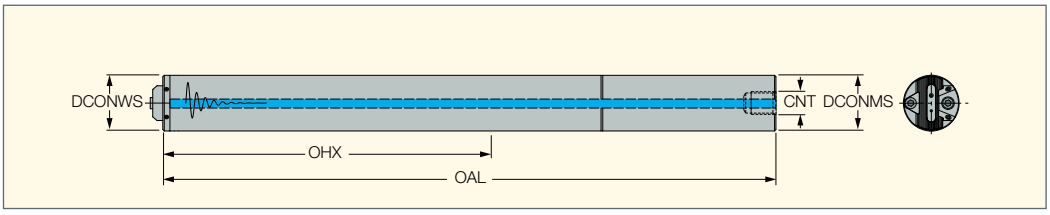
WHISPERLINE ANTI-VIBRATION

Straight Shank

ISOTURN

AV-D-VH

Anti-Vibration Bars with
Through Coolant for
Interchangeable Turning Heads



Designation	DCONMS	DCONWS	OAL	OHX[1]	CNT	CP[2]
AV-D80-7D-C-VH	80.00	80.00	880.00	515.0	G3/4"	70
AV-D80-10D-C-VH	80.00	80.00	1200.00	755.0	G3/4"	70

• The bars can be shortened. For details, see table below
[1] Maximum overhang
[2] Coolant pressure (Bar)

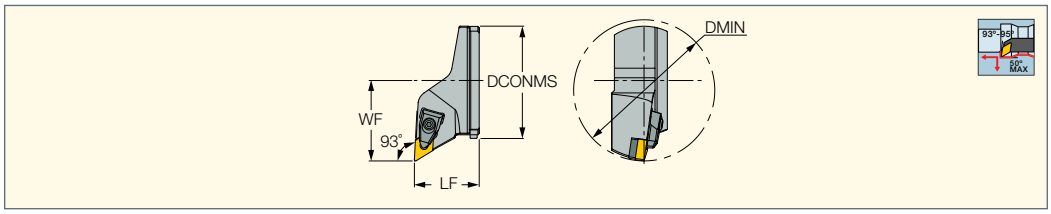
For tools, see pages: AVC-DDUNR/L-VH (98) • AVC-SDUCR/L-VH (98) • AVC-SVLCR/L-VH (98)

Bar Diameter	Minimum Length After Shortening	
DCONMS (mm)	AV-D80-7D-C-VH	AV-D80-10D-V-AV
80	630	630

ISOTURN
WHISPERLINE ANTI-VIBRATION

AVC-DDUNR/L-VH

Interchangeable Boring Heads Carrying 55° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF	MIID[1]
AVC-D80-DDUNR/L-15T-VH	57.00	77.00	100.00	46.00	DNMG 442-F3M

[1] Master insert identification

For inserts, see pages: DNGA-4 (CBN) (229) • DNGA-Ceramic (218) • DNMA (161) • DNMA (CBN) (228) • DNMG-F3M (157) • DNMG-F3P (156) • DNMG-F3S (157) • DNMG-GN (161) • DNMG-M3M (157) • DNMG-M3P (156) • DNMG-NF (158) • DNMG-NR (161) • DNMG-PF (159) • DNMG-WG (159) • DNMG/DNGG-PP (160) • DNMG/DNGG-TF (160) • DNMM-NM (162) • DNMM-R3P (162)

For holders, see pages: AV-D-VH (97)

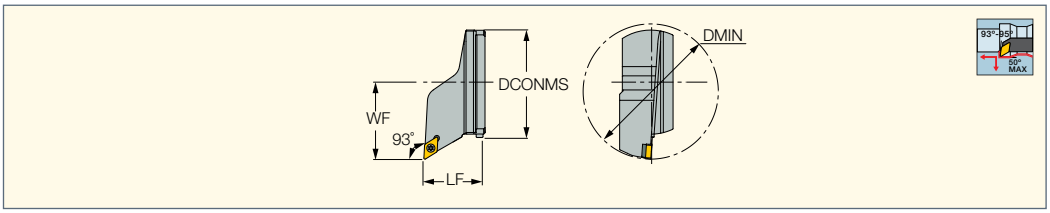
Spare Parts

Designation								
AVC-D80-DDUNL-15T-VH	RDT 443	RDT 433	HW 3.0	SR 14-506	T-15/5	DSP 4	DLS 4	DLM 4

ISOTURN
WHISPERLINE ANTI-VIBRATION

AVC-SDUCR/L-VH

Interchangeable Boring Heads Carrying 55° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	MIID[1]
AVC-D80-SDUCR/L-11T-VH	57.00	77.00	100.00	45.00	DCMT 11T304

[1] Master insert identification

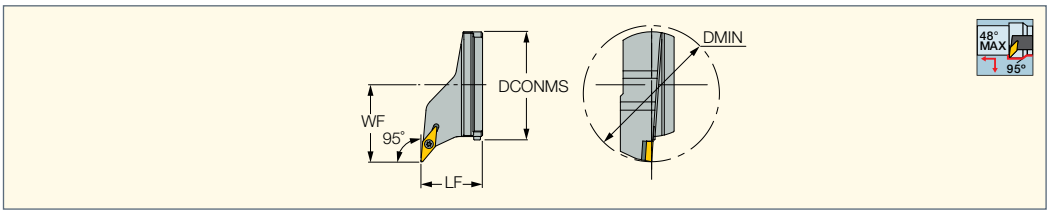
For inserts, see pages: DCET-WF (195) • DCGT-AF (213) • DCGT-AS (213) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-14 (194) • DCMT-CERMET (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT (194) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194)

For holders, see pages: AV-D-VH (97)

ISOTURN
WHISPERLINE ANTI-VIBRATION

AVC-SVLCR/L-VH

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	MIID[1]				
AVC-D80-SVLCR/L-16T-VH	57.00	77.00	100.00	45.00	VCMT 160404	T-15/5	SR 16-236 P	TVC 3-1P	SR TC-3P

[1] Master insert identification

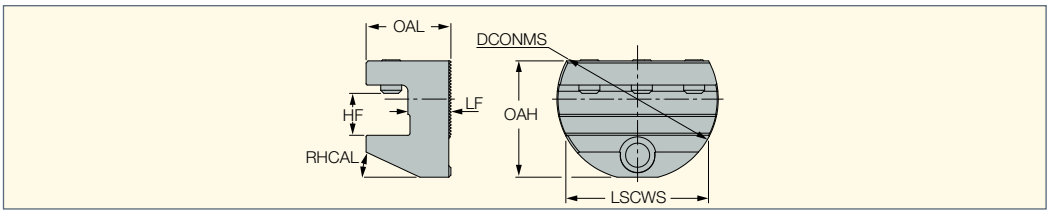
For inserts, see pages: VCGT (PCD) (223) • VCGT-AS (211) • VCGT-DW (PCD) (223) • VCGW-2 (CBN) (232) • VCMT (CBN) (222) • VCMT-14 (198) • VCMT-F3M (195) • VCMT-F3P (195) • VCMT-FPC-CERMET (196) • VCMT-M3M (196) • VCMT-SM (197) • VCMW (198)

For holders, see pages: AV-D-VH (97)

ISOTURN
WHISPERLINE ANTI-VIBRATION

AVC-D80-VH

Perpendicular Adaptor for External Square-Shank Tools



Designation	LSCWS	OAH	DCONMS	LF	HF	OAL	RHCAL
AVC-D80-2020-80-VH	67.80	55.50	77.00	20.50	20.0	40.50	25.0

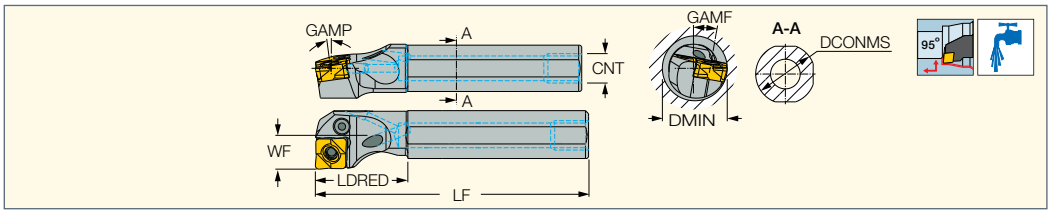
Spare Parts

Designation	
AVC-D80-VH	SR M10X16 DIN913

LOGIQ4TURN POSITIVE DOUBLE SIDED

A-PCLXR/L

Lever Lock Boring Bars
Carrying Negative CXMG
80° Rhombic Inserts



Designation	DCONMS	LF	LDRED	WF	GAMP	GAMF	DMIN	CNT	Insert
A16Q PCLXR/L-09X	16.00	180.00	30.0	11.00	8.0	10.0	20.00	UNC 3/8"-16	CXMG 09..
A20R PCLXR/L-09X	20.00	200.00	30.0	13.00	5.0	10.0	25.00	UNC 3/8"-24	CXMG 09..
A25S PCLXR/L-09X	25.00	250.00	40.0	17.00	5.0	10.0	32.00	UNC 1/2"-20	CXMG 09..
A25R PCLXR/L-12X	25.00	200.00	40.0	17.00	6.0	9.0	32.00	UNF-2B 1/2"-20	CXMG 12..
A32T PCLXR/L-12X	32.00	300.00	48.0	22.00	6.0	9.0	40.00	UNF-2B 1/2"-20	CXMG 12..
A40U PCLXR/L-12X	40.00	350.00	50.0	27.00	6.0	10.0	50.00	UNF-2B 1/2"-20	CXMG 12..

For inserts, see pages: CXMG-F3M (184) • CXMG-F3P (183) • CXMG-M3M (184) • CXMG-M3P (183)

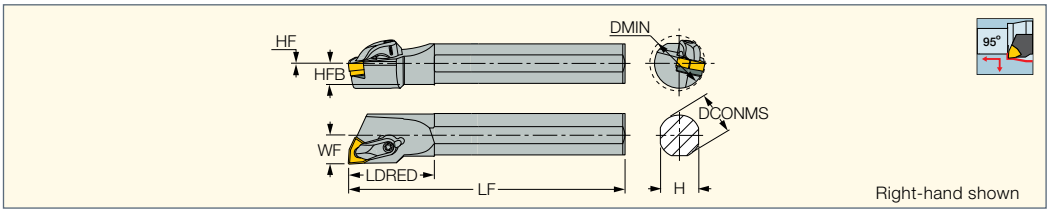
Spare Parts

Designation								
A16Q PCLXR/L-09X	LR 3X SET	PL 16	SR M6XL11.5V	T-8/5				
A20R PCLXR/L-09X	LR 3X SET	PL 20	SR M6XL11.5V	T-8/5				
A25S PCLXR/L-09X	LR 3X SET	PL 25	SR M6XL11.5V	T-8/5				
A25R PCLXR/L-12X	LR 4MX	PL 25	SR 117-2010-S		HW 3.0			
A32T PCLXR/L-12X	LR 4MX	PL 32	SR 117-2010-S		HW 3.0			
A40U PCLXR/L-12X	LR 4X	PL 40	SR LCS 5		HW 3.0	TCNX 423	PN 3-4	SP 4

ISOTURN

S-DWLNR/L

R-Clamp Boring Bars Carrying
Negative Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	DMIN	Insert
S25T DWLNR/L-08	25.00	300.00	50.0	23.0	12.3	0.8	17.00	32.00	WNMG 0804
S32U DWLNR/L-08	32.00	350.00	55.0	29.0	15.8	1.3	22.00	40.00	WNMG 0804
S40V DWLNR/L-08	40.00	400.00	55.0	36.0	19.8	1.8	27.00	60.00	WNMG 0804

For inserts, see pages: WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138)
• WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142)
• WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224)

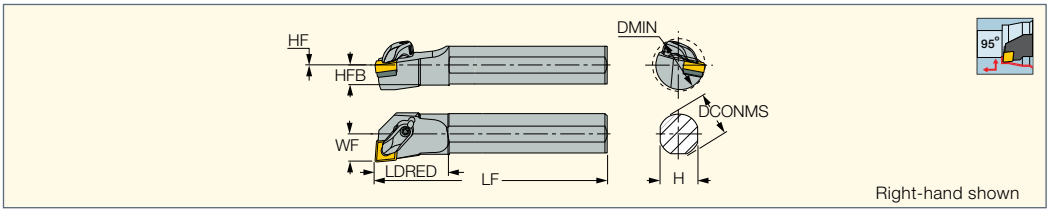
Spare Parts

Designation					
S-DWLNR/L	TWN 423	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

ISOTURN

S-DCLNR/L

R-Clamp Boring Bars Carrying
Negative 80° Diamond Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	Insert
S25R DCLNR-12	25.00	200.00	45.0	23.0	12.3	17.00	32.00	0.8	CNMG 1204..
S32T DCLNR/L-12	32.00	300.00	45.0	28.0	15.8	22.00	40.00	1.8	CNMG 1204..
S40U DCLNR/L-12	40.00	350.00	55.0	36.0	19.8	27.00	48.00	1.8	CNMG 1204..

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144)
• CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151)
• CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMA (149)
• CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226)
• CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

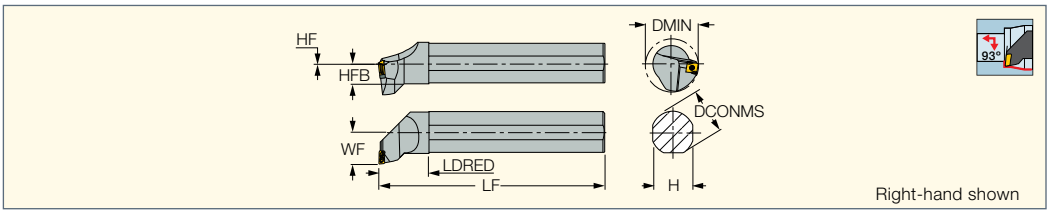
Spare Parts

Designation					
S-DCLNR/L	TCN 423	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

HELITURN TANGENTIAL LINE

S-SLANR/L-TANG

Boring Bars Carrying LNMX Tangentially Screw Clamped Inserts with 4 Cutting Edges for High Metal Removal Rates



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	Insert
S25T SLANR/L-11 TANG	25.00	300.00	40.0	23.0	1.0	17.00	53.00	1.0	LNMX 1104..
S32U SLANR-11 TANG	32.00	350.00	45.0	30.0	1.0	22.00	53.00	1.0	LNMX 1104..
S40V SLANR/L-11 TANG	40.00	400.00	60.0	37.0	1.5	27.00	53.00	1.5	LNMX 1104..
S50U SLANR/L-15 TANG	50.00	350.00	60.0	47.0	1.5	37.00	85.00	1.5	LNMX 1506..

• Right-hand inserts for left-hand bars. Left-hand inserts for right-hand bars. • a_p max for facing: LNMX 11-2.8 mm, LNMX 15-3.8 mm.

For inserts, see pages: LNMX-HM (181) • LNMX-HT (180) • LNMX-WG (181)

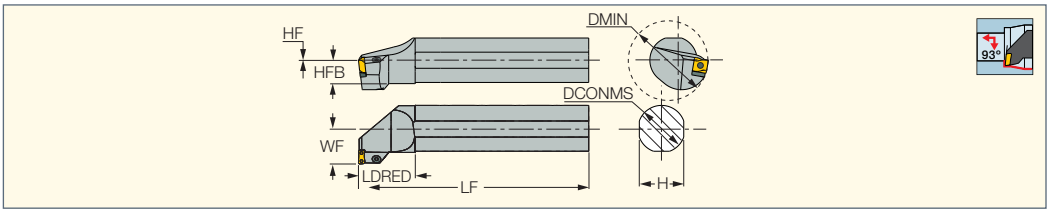
Spare Parts

Designation							
S25T SLANR/L-11 TANG	TLN 11R/L-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
S32U SLANR-11 TANG	TLN 11R/L-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
S40V SLANR/L-11 TANG	TLN 11R/L-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
S50U SLANR/L-15 TANG	TLN 15R/L-HTI	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	

HELITURN TANGENTIAL LINE

S-PLANR-TANG

Boring Bars Carrying LNMX ... Tangentially Clamped Inserts with 4 Cutting Edges for High Production Rates



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	Insert
S50U PLANR-15 TANG	50.00	350.00	60.0	47.0	1.5	37.00	85.00	1.5	LNMX 1506...

• Right-hand inserts for left-hand bars. Left-hand inserts for right-hand bars. • a_p max for facing 3.8 mm.

For inserts, see pages: LNMX-HM (181) • LNMX-HT (180) • LNMX-WG (181)

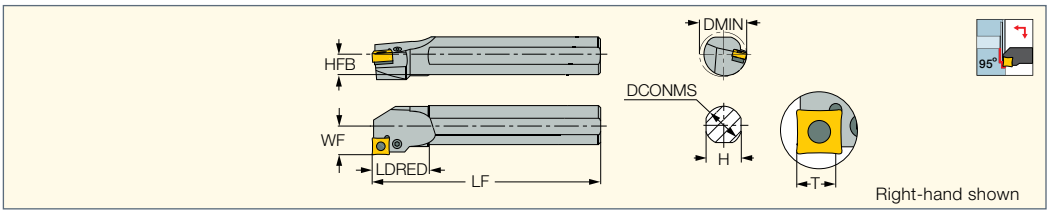
Spare Parts

Designation						
S50U PLANR-15 TANG	TLN 15L-HTI	SR RS4	T-6/5	LR T15	SR TL-15	HW 3.5

ISOTURN

S-PQFNR/L

Lever Lock Boring Bars Carrying Negative Square Inserts with 80° Corners for Internal Facing



Designation	DCONMS	LF	LDRED	H	HFB	WF	T	DMIN	Insert
S20Q PQFNR/L-09	20.00	180.00	40.0	18.0	9.0	13.00	7.5	28.00	QNMG 0904...
S32R PQFNR-09	32.00	200.00	45.0	29.0	14.5	22.00	7.5	40.00	QNMG 0904...
S25R PQFNL-12	25.00	200.00	40.0	23.0	11.5	17.00	9.0	32.00	QNMG 1204...
S32R PQFNR-12	32.00	200.00	45.0	29.0	14.5	22.00	9.0	40.00	QNMG 1204...
S40S PQFNL-12	40.00	250.00	50.0	36.0	18.0	27.00	9.0	50.00	QNMG 1204...

For inserts, see pages: QNMG-GN (183) • QNMG-NF (182) • QNMG-PP (182) • QNMG-TF (182)

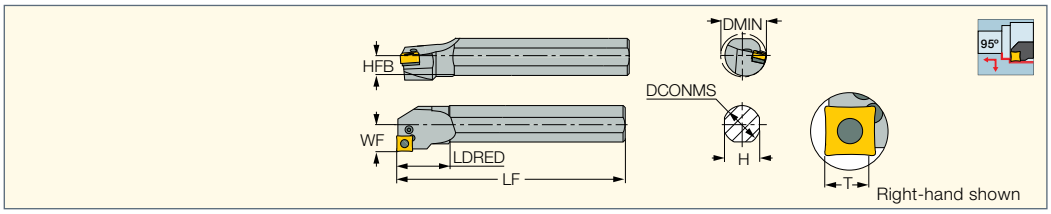
Spare Parts

Designation						
S20Q PQFNR/L-09				LR 3S	SR 117-2016	HW 2.0
S32R PQFNR-09	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
S25R PQFNL-12				LR 4M	SR 117-2011	HW 2.5/5
S32R PQFNR-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
S40S PQFNL-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

S-PQLNR/L

Lever Lock Boring Bars
Carrying Negative Square
Inserts with 80° Corners



Designation	DCONMS	LF	LDRED	H	HFB	WF	T	DMIN	Insert
S20S PQLNR/L-09	20.00	250.00	40.0	18.0	9.0	13.00	6.5	25.00	QNMG 0904
S25T PQLNR-09	25.00	300.00	40.0	23.0	11.5	17.00	6.5	32.00	QNMG 0904
S32U PQLNR-09	32.00	350.00	45.0	29.0	14.5	22.00	6.5	40.00	QNMG 0904
S25T PQLNR/L-12	25.00	300.00	40.0	23.0	11.5	17.00	8.5	32.00	QNMG 1204
S32U PQLNR/L-12	32.00	350.00	45.0	29.0	14.5	22.00	8.5	40.00	QNMG 1204
S40V PQLNR/L-12	40.00	400.00	50.0	36.0	18.0	27.00	8.5	50.00	QNMG 1204

For inserts, see pages: QNMG-GN (183) • QNMG-NF (182) • QNMG-PP (182) • QNMG-TF (182)

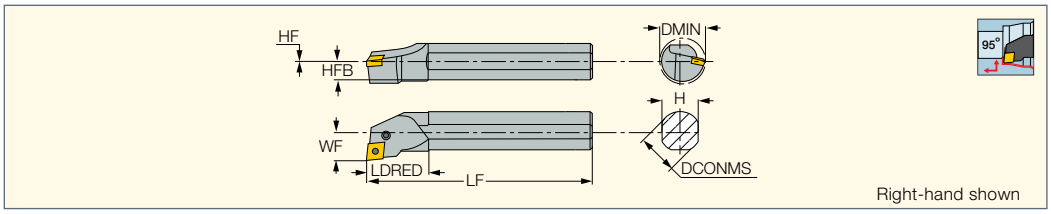
Spare Parts

Designation						
S20S PQLNR/L-09				LR 3S	SR 117-2016	HW 2.0
S25T PQLNR-09				LR 3S	SR 117-2016	HW 2.0
S32U PQLNR-09	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
S25T PQLNR/L-12				LR 4M	SR 117-2011	HW 2.5/5
S32U PQLNR/L-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0
S40V PQLNR/L-12	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

A/S-PCLNR/L

Lever Lock Boring Bars Carrying
Negative 80° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	CSP[1]	DMIN	Insert
A25R PCLNR/L-12	25.00	200.00	40.0	23.0	11.5	17.00	0.0	1	32.00	CNMG 1204..
S25S PCLNR/L-12	25.00	250.00	48.0	23.0	11.5	17.00	0.0	0	32.00	CNMG 1204..
A32T PCLNR/L-12	32.00	300.00	45.0	30.0	14.5	22.00	-0.5	1	40.00	CNMG 1204..
S32T PCLNR/L-12	32.00	300.00	51.0	30.0	14.5	22.00	-0.5	0	40.00	CNMG 1204..
S40U PCLNR/L-12	40.00	350.00	51.0	36.0	18.0	27.00	0.0	0	49.00	CNMG 1204..
S50W PCLNR-19	50.00	450.00	70.0	47.0	23.5	35.00	0.0	0	63.00	CNMG 1906..

[1] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMS-12 (214) • CNMM-H3P (153) • CNMM-H4P (153) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

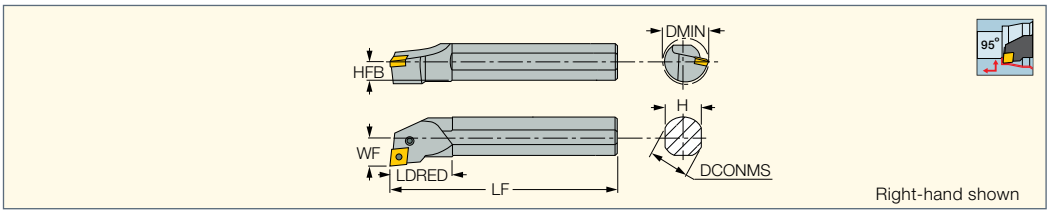
Spare Parts

Designation								
A25R PCLNR/L-12				LR 4M	SR 117-2011	HW 2.5/5	HW 2.0	PL 25
S25S PCLNL-12				LR 4M	SR 117-2011	HW 2.5/5	HW 2.5	
S25S PCLNR-12				LR 4M	SR 117-2011	HW 2.5/5		
A32T PCLNR/L-12	TCN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 2.0	HW 3.0	PL 32
S32T PCLNR/L-12	TCN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0		
S40U PCLNR/L-12	TCN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0		
S50W PCLNR-19	TCN 63	SP 66		LR 6	SR 10402352	HW 4.0		

HELITURN LD

A/S-PCLNR/L-X/G

Lever Lock Boring Bars Carrying Negative CNMX/CNMG 80° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	CSP[5]	Insert
A16M PCLNR/L-09G [1]	16.00	150.00	30.0	15.0	7.5	11.00	21.00	1	CNMG 0904..
A20Q PCLNR/L-09G [1]	20.00	180.00	30.0	18.0	9.0	13.00	25.00	1	CNMG 0904..
A25R PCLNR/L-09X [2]	25.00	200.00	35.0	23.0	11.5	17.00	32.00	1	CNMX 0906, CNMG 0904
A32S PCLNR/L-09X [2]	32.00	250.00	40.0	29.0	14.5	22.00	40.00	1	CNMX 0906, CNMG 0904
A25R PCLNR/L-12X [3]	25.00	200.00	51.0	23.0	11.5	21.00	50.00	1	CNMX 1207, CNMG 1204
A32S PCLNR/L-12X [3]	32.00	250.00	51.0	29.0	14.5	21.00	54.00	1	CNMX 1207, CNMG 1204
S50W PCLNR-16X [4]	50.00	450.00	70.0	47.0	23.5	35.00	63.00	0	CNMX 1607, CNMG 1606

[1] For CNMG 0904.. inserts only

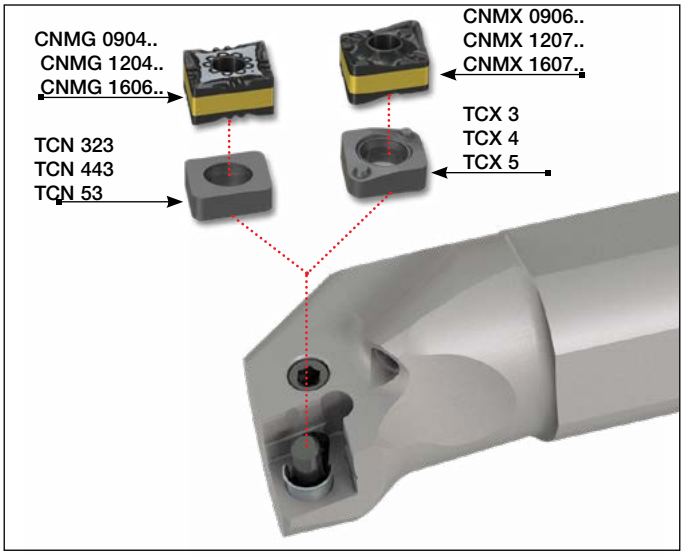
[2] Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts.

[3] Supplied with TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts.

[4] Supplied with TCN 53 seat for CNMG 1606.. inserts. Use TCX 5 seat (optional) for CNMX 1607.. inserts.

[5] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNGX-M3N (209) • CNMG-F3S (147) • CNMX-M3/4MW (152) • CNMX-M3/4PW (152) • CNMG-F3P (144) • CNMG-M3P (144) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG-R3M (147) • CNMM-R3P (153) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGA-Ceramic (217) • CNGG-M4HF/M4HM (CBN) (226) • CNMA (149) • CNMA (PCD) (221) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMG-Ceramic (216) • CNMG-GN (151) • CNMG-MR (151) • CNMG-NF (148) • CNMG-NR (151) • CNMG-VL (147) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMG/CNGG-PP (150) • CNMG/CNGG-SF (148) • CNMG/CNGG-TF (150) • CNMS-12 (214) • CNGG-F3N (209) • CNMG-CERMET (145)



Spare Parts

Designation									
A16M PCLNR/L-09G					LR 3S	SR 117-2009	HW 2.0	PL 16	
A20Q PCLNR/L-09G					LR 3S	SR 117-2009	HW 2.0	PL 20	
A25R PCLNR/L-09X	TCX 3[a]	TCN 323	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	PL 25	
A32S PCLNR/L-09X	TCX 3[a]	TCN 323	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	PL 32	
A25R PCLNR/L-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 25	LR 4DHTL (MR INJ)*
A32S PCLNR/L-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 32	LR 4DHTL (MR INJ)*
S50W PCLNR-16X	TCX 5*	TCN 53	SP 5		LR 5	SR LCS 5	HW 3.0		

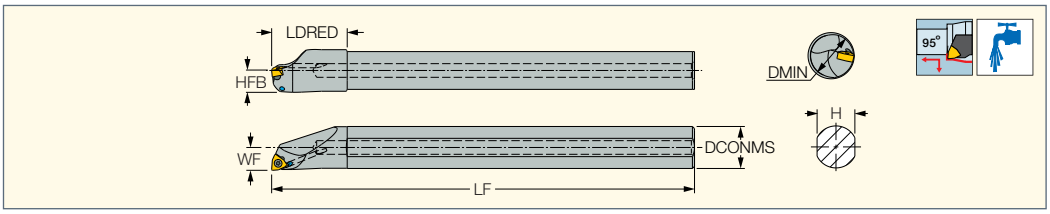
* Optional, should be ordered separately

[a] For CNMX 0906.. (CNMX 34.) inserts

ISOTURN
MINIPTURN POSITIVE DOUBLE SIDED

A/E-SWLNR/L-04

Boring Bars Carrying
WNGP 0403.. Double-Sided
Trigon Inserts for Small Diameters



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	Insert		
A10K SWLNR/L-04	10.00	125.00	20.0	9.0	5.5	6.00	12.00	WNGP 04	SR 34-514	T-7F
A12M SWLNR/L-04	12.00	150.00	24.0	11.0	6.5	7.00	14.00	WNGP 04	SR 34-514	T-7F
A16Q SWLNR/L-04	16.00	180.00	32.0	15.0	8.5	9.00	18.00	WNGP 04	SR 34-514	T-7F
A20R SWLNR/L-04	20.00	200.00	36.0	18.0	10.5	11.00	22.00	WNGP 04	SR 34-514	T-7F
E10M SWLNR/L-04	10.00	150.00	25.0	9.0	5.5	6.00	12.00	WNGP 04	SR 34-514	T-7F
E12Q SWLNR/L-04	12.00	180.00	27.0	11.0	6.5	7.00	14.00	WNGP 04	SR 34-514	T-7F
E16R SWLNR/L-04	16.00	200.00	32.0	15.0	8.5	9.00	18.00	WNGP 04	SR 34-514	T-7F
E20S SWLNR/L-04	20.00	250.00	36.0	18.0	10.5	11.00	22.00	WNGP 04	SR 34-514	T-7F

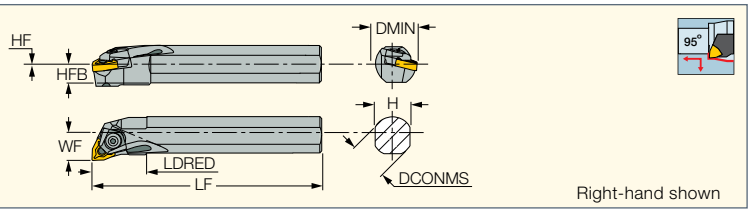
• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

For inserts, see pages: WNGP-F2M (137) • WNGP-F2P (135)

ISOTURN

A/S-MWLNR/L-W

Top Wedge Lock Boring Bars
Carrying Double-Sided
Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	CSP[2]	Insert
A20 MWLNR/L-06W-AD [1]	20.00	100.00	28.0	18.0	9.0	13.00	25.00	0.0	1	WNMG 06T3
A20Q MWLNR/L-06W	20.00	180.00	28.0	18.0	9.2	13.00	25.00	0.2	1	WNMG 06T3
A25R MWLNR/L-06W	25.00	200.00	34.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 06T3
A32S MWLNR/L-06W	32.00	250.00	28.0	29.0	14.7	19.00	36.00	0.2	1	WNMG 06T3
S20S MWLNR/L-06W	20.00	250.00	28.0	18.0	9.2	13.00	25.00	0.2	0	WNMG 06T3
S25T MWLNL-06W	25.00	300.00	28.0	23.0	11.7	17.00	32.00	0.2	0	WNMG 06T3
S25T MWLNR-06W	25.00	300.00	28.0	23.0	11.7	17.00	32.00	0.2	0	WNMG 06T3
S32U MWLNL-06W	32.00	350.00	40.0	29.0	14.7	19.00	36.00	0.2	0	WNMG 06T3
S32U MWLNR-06W	32.00	350.00	28.0	29.0	14.7	19.00	36.00	0.2	0	WNMG 06T3
A25R MWLNR/L-08W	25.00	200.00	40.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 0804
A25 MWLNR-08W-AD [1]	25.00	120.00	35.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 0804
A32S MWLNR/L-08W	32.00	250.00	45.0	29.0	14.7	22.00	40.00	0.2	1	WNMG 0804
A40T MWLNR/L-08W	40.00	300.00	50.0	36.0	18.2	27.00	50.00	0.2	1	WNMG 0804
S25T MWLNR/L-08W	25.00	300.00	35.0	23.0	11.7	17.00	32.00	0.2	0	WNMG 0804
S32U MWLNR/L-08W	32.00	350.00	45.0	28.0	14.7	22.00	40.00	0.7	0	WNMG 0804
S40V MWLNR/L-08W	40.00	400.00	50.0	36.0	18.2	27.00	50.00	0.2	0	WNMG 0804
S50V MWLNR/L-13W	50.00	400.00	63.0	47.0	23.5	35.00	63.00	0.0	0	WNMG 1306

[1] AD - short tool for adapter holders

[2] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3S (138) • WNMG-F3M (137) • WNMG-M3M (138) • WNMM-NM (142) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-SF (138) • WNMG-NF (139) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • WNMG-CERMET (136) • WNGG-F3N (209)

Spare Parts

Designation									
A20 MWLNR/L-06W-AD			ZNW 3WI	LC 250 SET 1				HW 2.5	PL 20
A20Q MWLNR/L-06W			ZNW 3WI	LC 250 SET 1				HW 2.5	PL 20
A25R MWLNR/L-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1				HW 2.5	PL 25
A32S MWLNR/L-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1				HW 2.5	PL 32
S20S MWLNR/L-06W			ZNW 3WI	LC 250 SET 1				HW 2.5	
S25T MWLNR/L-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1				HW 2.5	
S32U MWLNR/L-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1				HW 2.5	
A25R MWLNR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 2				HW 3.0	PL 25
A25 MWLNR-08W-AD	TWN 423		ZNW-4WI	LC 252 SET 2				HW 3.0	PL 25
A32S MWLNR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 1				HW 3.0	PL 32
A40T MWLNR/L-08W	IWSN 433	IWSN 433M[b]*	ZNW 4W	LC 252 SET 1				HW 3.0	PL 40
S25T MWLNR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 2				HW 3.0	
S32U MWLNR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 1				HW 3.0	
S40V MWLNR/L-08W	IWSN 433	IWSN 433M[b]*	ZNW 4W	LC 252 SET 1				HW 3.0	
S50V MWLNL-13W	IWSN 635		ZNW 6W		LC 253	SPR 17-362	WA M8	HW 4P	
S50V MWLNR-13W	IWSN 635		ZNW 6W		LC 253	SPR 17-362	WA M8	HW 4P	

* Optional, should be ordered separately

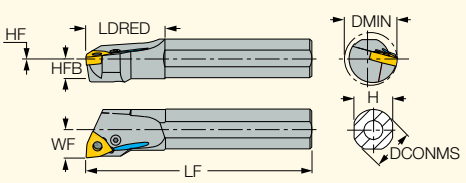
[a] Use IWSN 3-2W optional seat for WNMG 0604.. inserts

[b] Use IWSN 433M optional seat for WNMG 0804..-TNM inserts

ISOTURN

A/S-PWLNR/L

Lever Lock Boring Bars Carrying Double-Sided Trigon Inserts



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	CSP(1)	Insert
A16M PWLNR/L-06	16.00	150.00	27.0	15.0	8.0	11.00	20.00	0.5	1	WNMG 06T3
A20Q PWLNR/L-06	20.00	180.00	36.0	18.0	9.2	13.00	25.00	0.2	1	WNMG 06T3
A25R PWLNR/L-06	25.00	200.00	35.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 06T3
S16Q PWLNR/L-06	16.00	180.00	27.0	15.0	8.0	11.00	20.00	0.5	0	WNMG 06T3
S20R PWLNR/L-06	20.00	200.00	36.0	18.0	9.0	13.00	27.00	0.0	0	WNMG 06T3
S25S PWLNR/L-06	25.00	250.00	40.4	23.0	11.5	17.00	32.00	0.0	0	WNMG 06T3
S32T PWLNR-06	32.00	300.00	50.0	29.0	14.5	19.00	39.00	0.0	0	WNMG 06T3
A25R PWLNL-08	25.00	200.00	47.0	23.0	11.5	17.00	32.00	0.5	1	WNMG 0804
A25R PWLNR-08	25.00	200.00	47.5	23.0	11.7	17.00	32.00	0.2	1	WNMG 0804
A32S PWLNR/L-08	32.00	250.00	50.0	28.0	14.7	22.00	39.00	0.7	1	WNMG 0804
S25S PWLNR/L-08	25.00	250.00	47.0	23.0	11.5	17.00	32.00	0.0	0	WNMG 0804
S32T PWLNR/L-08	32.00	300.00	50.0	29.0	14.5	22.00	39.00	0.0	0	WNMG 0804
S40U PWLNR/L-08	40.00	350.00	59.0	36.0	18.0	27.00	49.00	0.0	0	WNMG 0804

(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-SF (138) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • WNMG-CERMET (136)

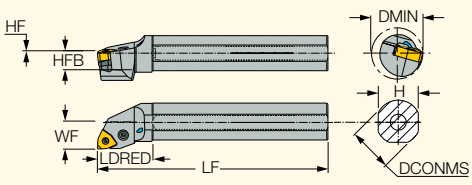
Spare Parts

Designation							
A16M PWLNR/L-06				LR 3S	SR 117-2009	PL 16	HW 2.0/5
A20Q PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3W	SR 117-2014	PL 20	HW 2.5/5
A25R PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014	PL 25	HW 2.5/5
S16Q PWLNR/L-06				LR 3S	SR 117-2009		HW 2.0/5
S20R PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3W	SR 117-2014		HW 2.5/5
S25S PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014		HW 2.5/5
S32T PWLNR-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014		HW 2.5/5
A25R PWLNR/L-08				LR 4M	SR 117-2011	PL 25	HW 2.5/5
A32S PWLNR/L-08	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010	PL 32	HW 3.0
S25S PWLNR/L-08				LR 4M	SR 117-2011		HW 2.5/5
S32T PWLNR/L-08	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010		HW 3.0
S40U PWLNR/L-08	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010		HW 3.0

HELITURN LD

A-PWLNR/L-X/G

Lever Lock Boring Bars with Coolant Holes Carrying HELITURN LD WNMX or WNMG Trigon Inserts



Designation	DCONMS	H	HFB	LF	LDRED	WF	DMIN	HF	Insert
A16M PWLNR/L-06G (1)	16.00	15.0	8.0	150.00	30.0	11.00	25.00	0.5	WNMG 0604
A20Q PWLNR/L-06G (1)	20.00	18.0	9.2	180.00	35.0	13.00	25.00	0.2	WNMG 0604
A25R PWLNR-06G (1)	25.00	23.0	11.5	200.00	35.0	17.00	32.00	0.0	WNMG 0604
A32S PWLNR-06G (1)	32.00	29.0	14.5	250.00	48.0	22.00	40.00	0.0	WNMG 0604
A32S PWLNR/L-08X (2)	32.00	29.0	14.5	250.00	51.0	21.00	54.00	0.0	WNMX 0807, WNMG 0804

(1) For WNMG 0604.. inserts only

(2) Supplied with TWX 4 seat for WNMX 0807.. inserts and TWN 443 seat for WNMG 0804.. inserts

For inserts, see pages: WNGG-F3N (209) • WNMA/WNMA-WG (143) • WNMG-F3M (137) • WNMG-F3P (135) • WNMG-F3S (138) • WNMG-GN (141) • WNMG-M3M (138) • WNMG-M3P (135) • WNMG-NF (139) • WNMG-PP (140) • WNMG-TF (141) • WNMG-WF (140) • WNMG-WG (139) • WNMX-M3/4MW (143) • WNMX-M3/4PW (143)

Spare Parts

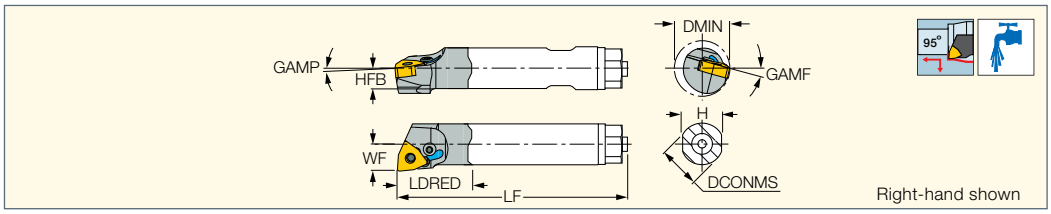
Designation									
A16M PWLNR/L-06G					LR 3S	SR 117-2009	PL 16	HW 2.0	
A20Q PWLNR/L-06G					LR 3S	SR 117-2009	PL 20	HW 2.0	
A25R PWLNR-06G		TWN 3	SP 3	PN 3-4	LR 3W	SR 117-2014	PL 25	HW 2.5	
A32S PWLNR-06G		TWN 3	SP 3	PN 3-4	LR 3W	SR 117-2014	PL 32	HW 2.5	
A32S PWLNR/L-08X	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	PL 32	HW 3.0	LR 4DHTL (MR INJ)*

* Optional, should be ordered separately

ISOTURN

E-PWLNR/L-HEAD

Lever Lock Interchangeable Boring Heads Clamped on a Solid Carbide Shank Carrying Negative WNMG Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
E16 PWLNR-06 HEAD	16.00	200.00	37.0	15.0	8.0	11.00	-14.0	-6.0	20.00	WNMG/WNGG 06T3

For inserts, see pages: WNMG-CERMET (136) • WNMG-M3P (135) • WNMG-TF (141) • WNMG-GN (141) • WNMG-PP (140) • WNMG-VL (139) • WNMG-SF (138) • WNMG-NF (139) • WNMA/WNMA-WG (143) • WNMG-WG (139)

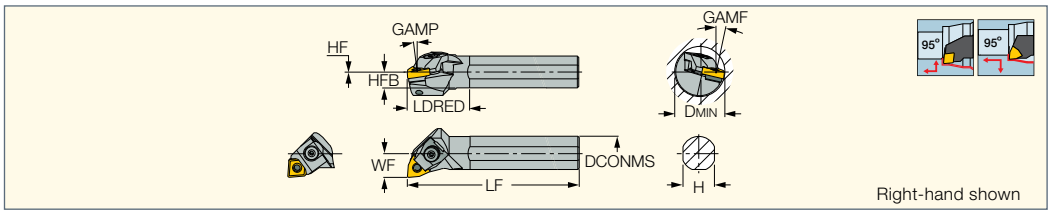
Spare Parts

Designation			
E-PWLNR/L-HEAD	LR 3S	SR 117-2009	HW 2.0/5

MULTI-WEDGE

S-MULNR-MW

MULTI-WEDGE Lock Boring Bars Carrying 80° Negative Rhombic or Trigon or Square Inserts

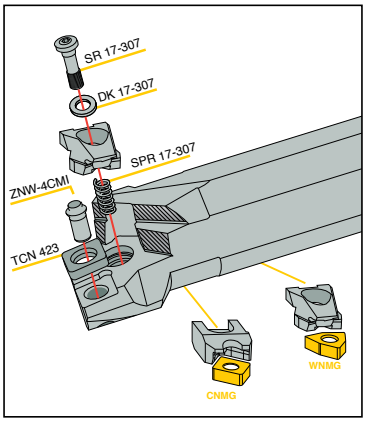


Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert
S25T MULNR-12MW	25.00	300.00	45.0	23.0	11.6	17.00	-11.4	-6.0	-12.0	36.00	WM..0804/CN..1204

• Only LC WN08 is supplied with the boring bar. The other wedge should be ordered separately.

For inserts, see pages: CNGA-J(CBN) (226) • CNGG-J(CBN) (227) • CNMG-CERMET (145) • CNMG-F3S (147) • WNMG-CERMET (136) • WNMG-F3S (138) • WNMG-F3P (135) • WNMG-M3P (135) • WNMG-F3M (137) • WNMG-M3M (138) • WNMG-TF (141) • WNMG-GN (141) • WNMG-NR (142) • WNMG-PP (140) • WNMG-VL (139) • WNMG-TNM (142) • WNMG-NF (139) • WNMM-NM (142) • WNMG-WF (140) • WNMA/WNMA-WG (143) • WNMG-WG (139) • WNGA-Ceramic (216) • WNGA-M3 (CBN) (224) • WNGA-MC/M6 (CBN) (224) • CNMG-F3P (144) • CNMG-M3P (144) • CNMM-R3P (153) • CNMM-M4PW (152) • CNMG-F3M (146) • CNMG-M3M (146) • CNMG/CNGG-TF (150) • CNMG-GN (151) • CNMG-NR (151) • CNMG/CNGG-PP (150) • CNMG-VL (147) • CNMG/CNGG-SF (148) • CNMG-NF (148) • CNMG-WF (148) • CNMG-WG/NRW (149) • CNMA (149) • CNGA-Ceramic (217) • CNMG-Ceramic (216) • CNGA-2 (CBN) (226) • CNGA-4 (CBN) (225) • CNGG-M4HF/M4HM (CBN) (226) • CNMA-MW4 (CBN) (225) • CNMA-T/M1/WG (CBN) (225) • CNMA (PCD) (221)

Toolholder Options



Spare Parts

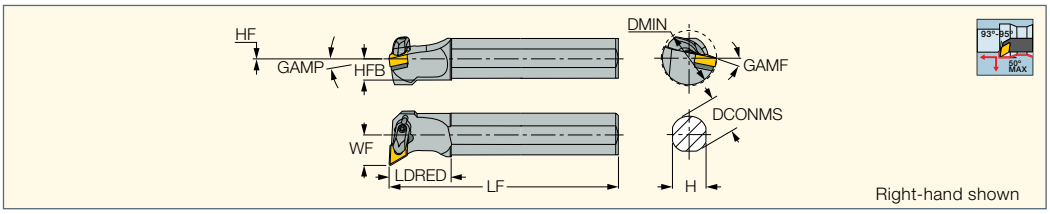
Designation								
S-MULNR-MW	TCN 423	ZNW 4CMI	LC WN08	LCR CN12*	SR 17-307	SPR 17-307	DK 17-307	HW 3.0

* Optional, should be ordered separately

ISOTURN

S-DDUNR/L

R-Clamp Boring Bars Carrying
ISO Negative DNMG Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	GAMP	GAMF	Insert
S32T DDUNR/L-15	32.00	300.00	45.0	29.0	15.8	22.00	42.00	1.3	-6.0	-11.0	DNMG 1506
S40U DDUNR/L-15	40.00	350.00	50.0	36.0	19.8	27.00	48.00	1.8	-6.0	-10.0	DNMG 1506

For inserts, see pages: DNGA-J(CBN) (229) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-CERMET (158) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMA (161) • DNGA-Ceramic (218) • DNGA-2 (CBN) (229) • DNGA-4 (CBN) (229) • DNGG-M4HF/M4HM (CBN) (230) • DNMA (CBN) (228)

Spare Parts

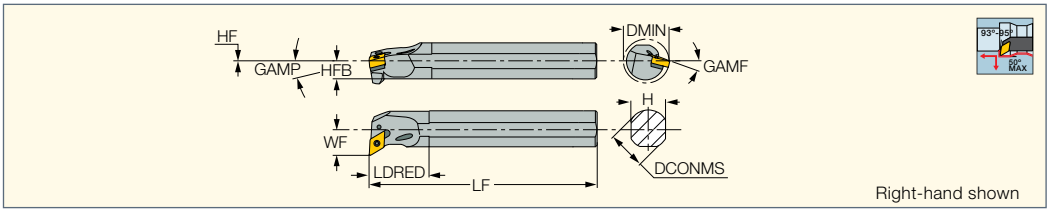
Designation						
S-DDUNR/L	TDN 422[a]	TDN 432[b]*	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

* Optional, should be ordered separately
[a] Use for DNMG 1506.. inserts
[b] Use for DNMG 1504.. inserts

ISOTURN

A/S-PDUNR/L

Lever Lock Boring Bars Carrying
55° Negative Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	GAMP	GAMF	DMIN	CSP[1]	Insert
A20Q PDUNR/L-11	20.00	180.00	35.0	18.0	9.2	0.2	16.00	-6.0	-14.0	27.00	1	DNMG 1104
A25R PDUNR/L-11	25.00	200.00	40.0	23.0	11.5	0.0	17.00	-6.0	-13.0	32.00	1	DNMG 1104
A32S PDUNR/L-11	32.00	250.00	45.0	29.0	14.5	0.0	22.00	-6.0	-11.0	40.00	1	DNMG 1104
S32T PDUNR/L-15	32.00	300.00	51.0	29.0	15.5	1.0	22.00	-6.0	-13.0	40.00	0	DNMG 1506
S40U PDUNR/L-15	40.00	350.00	50.0	36.0	18.0	0.0	27.00	-6.0	-11.5	50.00	0	DNMG 1506

[1] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DNGA-J(CBN) (229) • DNGG-M3N (210) • DNMG-CERMET (158) • DNMG-F3S (157) • DNMG-F3P (156) • DNMG-M3P (156) • DNMX-M3P (162) • DNMM-R3P (162) • DNMG-F3M (157) • DNMG-M3M (157) • DNMG/DNGG-TF (160) • DNMG-GN (161) • DNMG-NR (161) • DNMG/DNGG-PP (160) • DNMG-VL (160) • DNMG-PF (159) • DNMG/DNGG-SF (159) • DNMG-NF (158) • DNMM-NM (162) • DNMG-WG (159) • DNMS-12 (214) • DNMA (161) • DNGA-Ceramic (218) • DNGA-4 (CBN) (229) • DNMA (CBN) (228)

Spare Parts

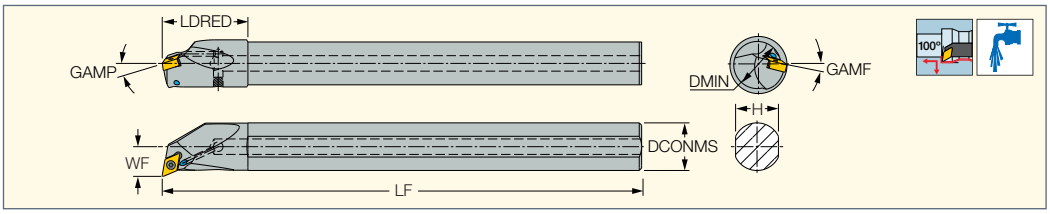
Designation								
A20Q PDUNR/L-11				LR 3DS	SR 117-2011	HW 2.5/5	PL 20	
A25R PDUNR/L-11	TDN 3P2		SP 3	LR 3D	SR 117-2014	HW 2.5/5	PL 25	PN 3-4
A32S PDUNR/L-11	TDN 322		SP 3	LR 3D	SR 117-2014	HW 2.5/5	PL 32	PN 3-4
S32T PDUNR/L-15	TDN 422[a]	TDN 432[b]*	SP 4	LR 4D	SR 117-2010	HW 3.0		PN 3-4
S40U PDUNR/L-15	TDN 422[a]	TDN 432[b]*	SP 4	LR 4D	SR 117-2010	HW 3.0		PN 3-4

* Optional, should be ordered separately
[a] Use for DNMG 1506.. inserts
[b] Use for DNMG 1504.. inserts

ISOTURN

A/E-SDXNR/L-07

Boring Bars Carrying DNGP 0703.. Double-Sided 55° Rhombic Inserts for Small Diameters



Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP	GAMF	Insert		
A10K SDXNR/L-07	10.00	125.00	20.0	9.0	7.60	13.00	-14.0	-16.0	DNGP 07	SR 34-514	T-7F
A12M SDXNR/L-07	12.00	150.00	24.0	11.0	8.60	16.00	-14.0	-14.0	DNGP 07	SR 34-514	T-7F
A16Q SDXNR/L-07	16.00	180.00	32.0	15.0	10.60	20.00	-13.0	-13.0	DNGP 07	SR 34-514	T-7F
A20R SDXNR/L-07	20.00	200.00	36.0	18.0	12.60	24.00	-13.0	-12.0	DNGP 07	SR 34-514	T-7F
E10M SDXNR/L-07	10.00	150.00	20.0	9.0	7.60	13.00	-14.0	-16.0	DNGP 07	SR 34-514	T-7F
E12Q SDXNR/L-07	12.00	180.00	24.0	11.0	8.60	16.00	-14.0	-14.0	DNGP 07	SR 34-514	T-7F
E16R SDXNR/L-07	16.00	200.00	32.0	15.0	10.60	20.00	-13.0	-13.0	DNGP 07	SR 34-514	T-7F
E20S SDXNR/L-07	20.00	250.00	36.0	18.0	12.60	24.00	-13.0	-12.0	DNGP 07	SR 34-514	T-7F

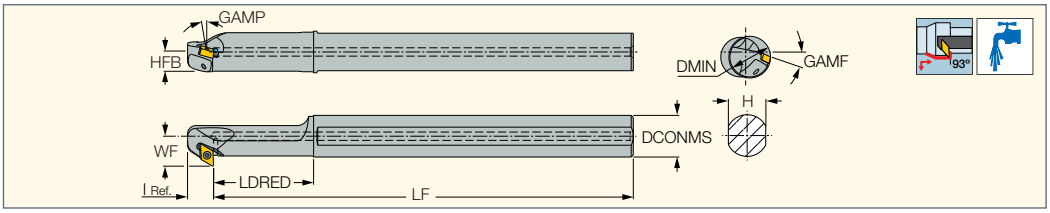
• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

For inserts, see pages: DNGP-F2M (156) • DNGP-F2P (155)

ISOTURN

A/E-SDZNR/L-07

Back Turning Boring Bars Carrying DNGP 0703.. Double-Sided 55° Rhombic Inserts for Small Diameters



Designation	DCONMS	LF	LDRED	l Ref.	H	HFB	WF	DMIN	GAMP	GAMF	Insert		
A12M SDZNR/L-07	12.00	150.00	38.0	13.00	11.0	5.5	10.50	14.00	-10.0	-14.0	DNGP 07	SR 34-514	T-7F
A16Q SDZNR/L-07	16.00	180.00	43.0	13.00	15.0	7.5	12.50	16.00	-10.0	-12.5	DNGP 07	SR 34-514	T-7F
A20R SDZNR/L-07	20.00	200.00	48.0	12.50	18.0	9.0	14.50	20.00	-10.0	-10.5	DNGP 07	SR 34-514	T-7F
E12Q SDZNR/L-07	12.00	180.00	-	13.00	11.0	5.5	10.50	18.00	-11.0	-11.0	DNGP 07	SR 34-514	T-7F
E16R SDZNR/L-07	16.00	200.00	-	13.00	15.0	7.5	12.50	22.00	-11.0	-9.0	DNGP 07	SR 34-514	T-7F

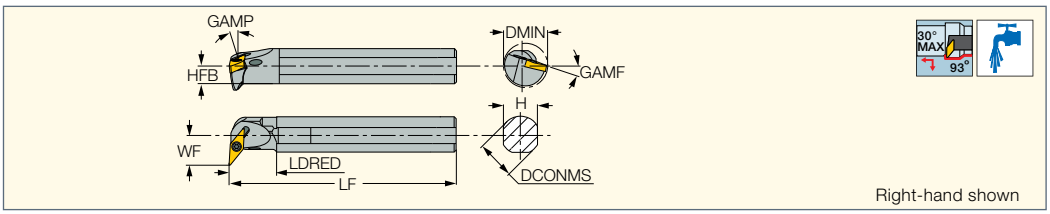
• Use right-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

For inserts, see pages: DNGP-F2M (156) • DNGP-F2P (155)

ISOTURN

A-SVUNR/L

Boring Bars with Internal Coolant Holes Carrying 35° Negative Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF			
A20Q SVUNR/L-12	20.00	180.00	38.0	18.0	9.0	16.00	26.50	-6.5	-14.0	SR 14-551	T-9/5	PL 20
A25R SVUNR/L-12	25.00	200.00	35.0	23.0	11.5	18.50	31.50	-6.5	-14.0	SR 14-551	T-9/5	PL 25
A32S SVUNR/L-12	32.00	250.00	50.0	29.0	14.5	23.00	37.00	-6.5	-14.0	SR 14-551	T-9/5	PL 32

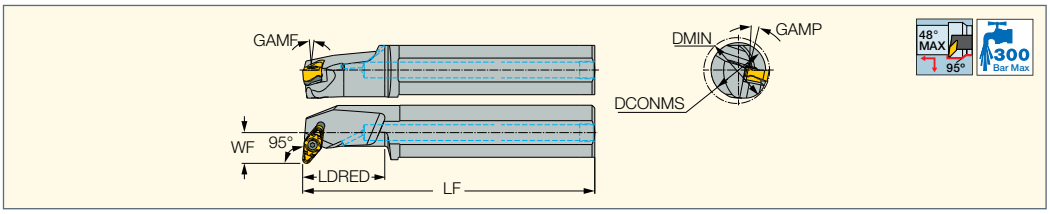
• For inserts with corner radius of 0.8 mm and larger, seat needs to be modified to ensure clearance.

For inserts, see pages: VNMG-F3M (164) • VNMG-F3P (163) • VNMG-F3S (164) • VNMG-FNF-CERMET (165) • VNMG-M3M (164) • VNMG-SF (165) • VNMG/VNGG-NF (165) • VNMM-PP (166)

ISOTURN

A-SVLFNR-AL-JHP

Screw Lock Boring Bars Carrying 35° Rhombic Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP	GAMF	MIID(1)
A40U SVLFNR-22-AL-JHP	40.00	350.00	60.0	36.0	22.50	48.00	4.5	11.0	VNGU 220630-R3N

(1) Master insert identification

For inserts, see pages: VNGU-R3N (210)

Spare Parts

Designation									
A40U SVLFNR-22-AL-JHP	TVX 2230(a)	SR 14-591/L-SN	HW 3.0	PL 40	SW6-T-SH	BLD T20/S7	SR TC-4	TVX 2212(b)*	TVX 2216(c)*

* Optional, should be ordered separately

(a) For VNGU 220630-R3N insert

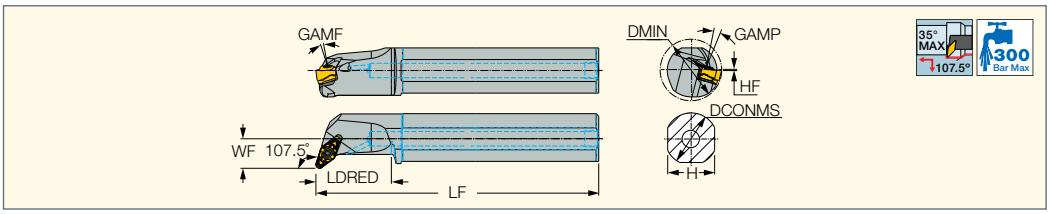
(b) For VNGU 220612-R3N insert

(c) For VNGU 220616-R3N insert

ISOTURN

A-SVQNR/L-AL-JHP

Screw Lock Boring Bars Carrying 35° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HF	WF	DMIN	GAMP	GAMF	MIID(1)
A40U SVQNR/L-22-AL-JHP	40.00	348.10	60.0	36.0	0.1	23.40	49.00	14.5	6.5	VNGU 220630-R3N

(1) Master insert identification

For inserts, see pages: VNGU-R3N (210)

Spare Parts

Designation									
A40U SVQNR/L-22-AL-JHP	TVX 2230(a)	SR 14-591/L-SN	HW 3.0	SW6-T-SH	BLD T20/S7	PL 40	SR TC-4	TVX 2212(b)*	TVX 2216(c)*

* Optional, should be ordered separately

(a) For VNGU 220630-R3N insert

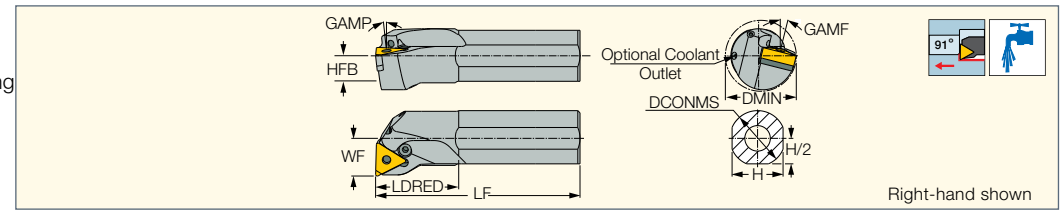
(b) For VNGU 220612-R3N insert

(c) For VNGU 220616-R3N insert

HELITURN LD

A-PTFNR/L-X/G

91° Lead Angle Lever Lock Boring Bars Carrying Negative TNMX or TNMG Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
A16M PTFNR/L-16G	16.00	150.00	31.0	15.0	7.5	11.00	-12.0	-16.0	20.00	TNMG 1604
A20Q PTFNR/L-16G	20.00	180.00	31.0	18.0	9.0	13.00	-6.0	-14.0	25.00	TNMG 1604
A25S PTFNR/L-16X	25.00	250.00	37.5	23.0	11.5	17.00	-6.0	-14.0	32.00	TNMX 1606, TNMG 1604
A32T PTFNR/L-16X	32.00	300.00	48.0	29.0	14.5	22.00	-6.0	-12.0	40.00	TNMX 1606, TNMG 1604
A40U PTFNR/L-16X	40.00	350.00	50.0	36.0	18.0	27.00	-6.0	-12.0	50.00	TNMX 1606, TNMG 1604

- Use TTX 3 seat for TNMX 1606.. inserts and TTN 3 seat for TNMG 1604.. inserts

For inserts, see pages: TNGA-J(CBN) (233) • TNMG-F3S (169) • TNMX-M3/4PW (167) • TNMX-M3/4MW (168) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-FFG-CERMET (169) • TNGG-M3N (210) • TNMG-TF (170) • TNMG-GN (171) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMS-12 (214) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

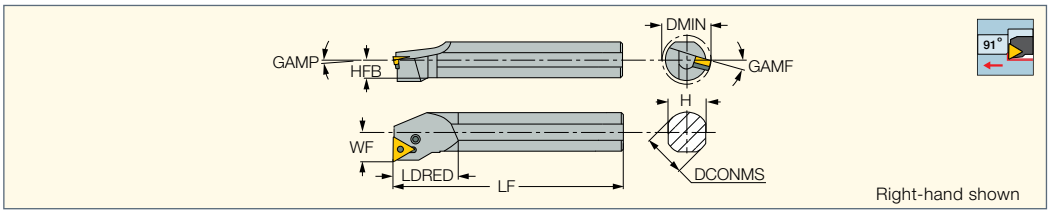
Spare Parts

Designation									
A16M PTFNR/L-16G					LR 3S	SR 117-2009		HW 2.0	PL 16
A20Q PTFNR/L-16G					LR 3S	SR 117-2009	SR M4X4 DIN913 TL360	HW 2.0	PL 20
A25S PTFNR/L-16X	TTX 3	TTN 3	SP 3	PN 3-4	LR 3	SR 117-2014	SR M4X4 DIN913 TL360	HW 2.5	PL 25
A32T PTFNR/L-16X	TTX 3	TTN 3	SP 3	PN 3-4	LR 3	SR 117-2014	SR M4X4 DIN913 TL360	HW 2.5	PL 32
A40U PTFNR/L-16X	TTX 3	TTN 3	SP 3	PN 3-4	LR 3	SR 117-2014	SR M4X4 DIN913 TL360	HW 2.5	PL 40

ISOTURN

S-PTFNR/L

91° Lead Angle Lever
Lock Boring Bars Carrying
Negative Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
S20R PTFNR/L-11	20.00	200.00	32.0	18.0	9.0	13.00	-6.0	-14.0	24.00	TNMG 1103
S25S PTFNR/L-16	25.00	250.00	48.0	23.0	11.5	17.00	-6.0	-13.0	32.50	TNMG 1604
S32T PTFNL-16	32.00	300.00	63.0	30.0	15.0	22.00	-6.0	-13.0	40.00	TNMG 1604
S32T PTFNR-16	32.00	300.00	63.0	30.0	15.0	22.00	-6.0	-10.0	40.00	TNMG 1604
S40U PTFNR-16	40.00	350.00	30.0	36.0	18.0	27.00	-6.0	-10.0	49.00	TNMG 1604
S40U PTFNR-22	40.00	350.00	62.0	36.0	18.0	27.00	-6.0	-10.0	49.00	TNMG 2204

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMS-12 (214) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

Spare Parts

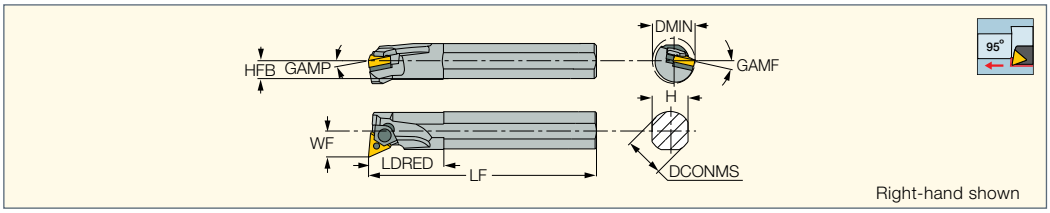
Designation							
S20R PTFNR/L-11				LR 2	SR 117-2015	HW 2.0/5	
S25S PTFNR/L-16	TTN 322	TTN 332*	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
S32T PTFNR/L-16	TTN 322	TTN 332*	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
S40U PTFNR-16	TTN 322		SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
S40U PTFNR-22	TTN 422		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4

* Optional, should be ordered separately

ISOTURN

S-MTLNR/L-W

95° Lead Angle Wedge
Lock Boring Bars Carrying
Negative Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
S25S MTLNR/L-16W-M	25.00	250.00	40.0	23.0	11.5	17.00	-6.0	-12.0	32.00	TNMG 1604
S32T MTLNR/L-16W-M	32.00	300.00	50.0	30.0	15.0	22.00	-6.0	-12.0	40.00	TNMG 1604
S40U MTLNR/L-22W	40.00	350.00	50.0	36.0	18.0	27.00	-6.0	-10.0	49.00	TNMG 2204

For inserts, see pages: TNGA-J(CBN) (233) • TNGG-M3N (210) • TNMG-F3S (169) • TNMG-FFG-CERMET (169) • TNMG-F3P (167) • TNMG-M3P (167) • TNMG-F3M (168) • TNMG-M3M (168) • TNMG-TF (170) • TNMG-GN (171) • TNMM-NR (172) • TNMG/TNGG-PP (171) • TNMG-VL (170) • TNMG-PF (170) • TNMG-SF (169) • TNMG-NF (171) • TNMA (172) • TNGA-Ceramic (219) • TNGA-M3 (CBN) (234) • TNGA-MC/M6 (CBN) (233) • TNMA (CBN) (233)

Spare Parts

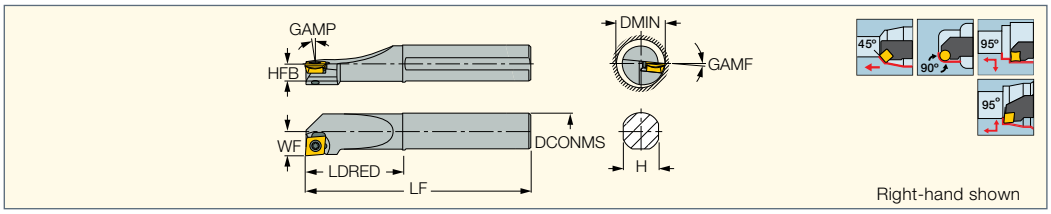
Designation								
S25S MTLNR/L-16W-M			ZNW 3WNS	SR 17-317NS		LC 291N CLAMP	HW 3.0	E RING N
S32T MTLNR/L-16W-M	TTT 322N	TTT 332N[(a)]*	ZNW 3WN	SR 17-317N		LC 291N CLAMP	HW 3.0	E RING N
S40U MTLNR/L-22W		TTT 434	ZNW 4	SR 17-295	HW 2.5	LC 281 SET 1	HW 3.0	

* Optional, should be ordered separately
[(a)] Use for TNMG 1603.. inserts

CHAMTURN

S-SUXCR/L-CM

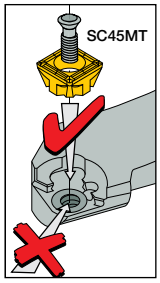
Screw Lock Boring Bars
Carrying Four Different 7°
Clearance Geometries



Designation	DCONMS	LF	LDRED	H	HFB	DMIN	GAMP	GAMF	WF
S16Q SUXCR/L-10 CM	16.00	180.00	45.0	15.0	7.5	20.00	0.0	-12.0	11.00
S20R SUXCR/L-10 CM	20.00	200.00	52.0	18.0	9.0	25.00	0.0	-6.0	13.00
S25S SUXCR/L-10 CM	25.00	250.00	55.0	23.0	11.5	32.00	0.0	-4.0	17.00

For inserts, see pages: CC95MT-SM (208) • SC45MT-SM (209)

Designation	DCONMS	LF	LDRED	H	HEB	DMIN	GAMP	GAMF	WF	Inserts
S16Q SUXCR/L-10 CM	16.00	180.00	45.0	15.0	7.5	20.00	0	-12	11 12.14	CC95MT... SC45MT...
S20R SUXCR/L-10 CM	20.00	200.00	52.0	18.0	9.0	25.00	0	-6	13 14.14	CC95MT... SC45MT...
S25S SUXCR/L-10 CM	25.00	250.00	55.0	23.0	11.5	32.00	0	-4	17 18.14	CC95MT... SC45MT...



Clamping direction for SC45MT...

Multifunction Tool Can Carry Two Different Inserts

- Unique, versatile **ISCAR** pocket
- For external applications
- Covers most common operations
- Simplifies tool selection
- Simple screw clamping
- Minimum spare parts

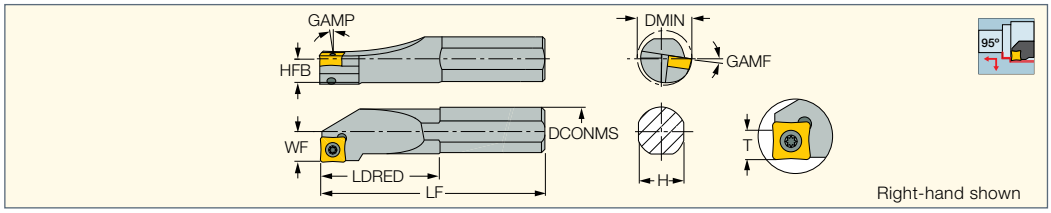
Spare Parts

Designation		
S-SUXCR/L-CM	SR 14-544/S	T-15/5

ISOTURN

S/A-SQLCR/L

Screw Lock Boring Bars
Carrying 80° Square Inserts
with 7° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	WF	T	GAMP	GAMF	DMIN	CSP(1)	Insert
S16Q SQLCR/L-09	16.00	180.00	45.0	15.0	7.5	11.00	8.5	0.0	-12.0	20.00	0	QCMT 09T304
S20R SQLCR-09	20.00	200.00	45.0	15.0	7.5	13.00	8.5	0.0	-6.0	25.00	0	QCMT 09T304
S25S SQLCR-09	25.00	250.00	55.0	15.0	7.5	17.00	8.5	0.0	-6.0	32.00	0	QCMT 09T304

(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: QCMT-PF (203) • QCMT-SM (203)

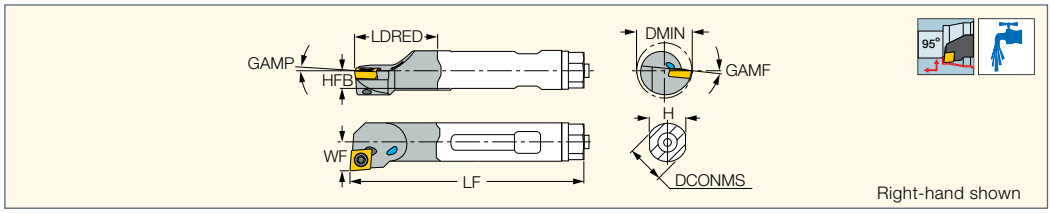
Spare Parts

Designation		
S/A-SQLCR/L	SR 16-236	T-15/5

ISOTURN

E-SCLCR/L-HEAD

Screw Clamped Boring Heads
Carrying 80° Rhombic Inserts
with Positive 7° Clearance
Mounted on Carbide Bars



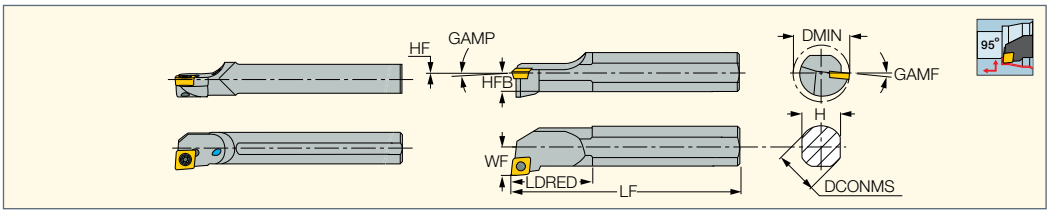
Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert		
E12 SCLCR/L-06 HEAD	12.00	179.00	24.8	11.0	5.5	9.00	0.0	-7.0	15.80	CCMT/CCGT 0602	SR 14-548	T-7/5
E16 SCLCR-09 HEAD	16.00	200.00	37.0	15.0	7.5	11.00	0.0	-9.0	20.00	CCMT/CCGT 09T3	SR 16-236	T-15/5

For inserts, see pages: CCMT-CERMET (187) • CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCGT-AF (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222)

ISOTURN

A/E/S-SCLCR/L

Screw Lock Boring Bars
Carrying 80° Rhombic Inserts
with 7° Clearance for 20 mm
Minimum Bore Diameter



Designation	DCONMS	LF	LDRED	WF	H	HFB	HF	DMIN	CSP(1)	GAMP	GAMF	TQ	Insert
A04F SCLCR/L-03	4.00	80.00	8.0	2.50	3.8	1.9	0.0	5.00	1	0.0	-15.0	0.6	CCGT 03X1
A05F SCLCR/L-03	5.00	80.00	9.0	3.00	4.8	2.4	0.0	6.00	1	0.0	-13.0	0.6	CCGT 03X1
A06G SCLCR/L-04	6.00	90.00	10.0	3.50	5.8	2.9	0.0	7.00	1	0.0	-13.0	0.6	CCGT 04T1
A07G SCLCR/L-04	7.00	90.00	11.0	4.00	6.8	3.4	0.0	8.00	1	0.0	-11.0	0.6	CCGT 04T1
A20R SCLCR/L-09	20.00	200.00	35.0	13.00	18.0	9.0	0.0	25.00	1	0.0	-4.0	3.0	CC.. 09T3
A25S SCLCR/L-09	25.00	250.00	35.0	17.00	23.0	11.5	0.0	32.00	1	0.0	-4.0	3.0	CC.. 09T3
E04G SCLCR/L-03	4.00	90.00	9.0	2.50	3.8	1.9	0.0	5.00	1	0.0	-15.0	0.6	CCGT 03X1
E05G SCLCR/L-03	5.00	90.00	10.0	3.00	4.8	2.4	0.0	6.00	1	0.0	-13.0	0.6	CCGT 03X1
E06H SCLCR/L-04	6.00	100.00	12.0	3.50	5.8	2.9	0.0	7.00	1	0.0	-13.0	0.6	CCGT 04T1
E07H SCLCR/L-04	7.00	100.00	14.0	4.00	6.8	3.4	0.0	8.00	1	0.0	-11.0	0.6	CCGT 04T1
E08K SCLCR/L-06	8.00	125.00	-	5.00	7.6	3.8	0.0	10.00	1	3.0	-11.0	1.0	CC.. 0602
E10M SCLCR/L-06	10.00	150.00	-	7.00	9.2	4.6	0.0	14.00	1	3.0	-7.0	1.0	CC.. 0602
E12Q SCLCR/L-06	12.00	180.00	-	9.00	11.0	5.5	0.0	16.00	1	0.0	-7.0	1.0	CC.. 0602
E16R SCLCR/L-06	16.00	200.00	-	11.00	14.0	7.0	0.0	20.00	1	0.0	-7.0	1.0	CC.. 0602
E16R SCLCR/L-09	16.00	200.00	-	11.00	15.0	7.5	0.0	20.00	1	0.0	-6.0	3.0	CC.. 09T3
S08K SCLCR/L-06	8.00	125.00	12.0	5.00	8.0	3.8	0.0	10.50	0	0.0	-11.0	1.0	CC.. 0602
S10L SCLCL-06	10.00	140.00	20.0	7.00	9.0	4.5	0.0	13.00	0	0.0	-7.0	1.0	CC.. 0602
S10L SCLCR-06	10.00	140.00	20.0	7.00	9.0	4.5	0.0	13.00	0	3.0	-7.0	1.0	CC.. 0602
S12M SCLCR/L-06	12.00	150.00	12.0	9.00	12.0	5.5	0.0	16.00	0	0.0	-7.0	1.0	CC.. 0602
S16Q SCLCR/L-09	16.00	180.00	45.0	11.00	15.0	7.5	0.0	20.00	0	0.0	-6.0	3.0	CC.. 09T3
S20R SCLCR/L-09	20.00	200.00	50.0	13.00	18.0	9.0	0.0	25.00	0	0.0	-4.0	3.0	CC.. 09T3
S25S SCLCR/L-09	25.00	250.00	55.0	17.00	23.0	11.5	0.0	35.00	0	0.0	-4.0	3.0	CC.. 09T3

• S - steel shank, A - steel shank with coolant hole, E - carbide shank with coolant hole

(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: • CCGT-F1M-20P (185) • CCMT-CERMET (187) • CCGT-F1P (184) • CCMT-F3P (185) • CCMT-M3P (185) • CCMT-F3M (186) • CCMT-M3M (186) • CCMT-PF (188) • CCMT/CCGT-SM (187) • CCET-WF (189) • CCMT-WG (189) • CCGT-AS (212) • CCGT-AF (212) • CCMT-14 (188) • CCMT/CCGT (188) • CCGW/CCMT (CBN) (227) • CCGW/CCMW-2 (CBN) (228) • CCMT (PCD) (222)





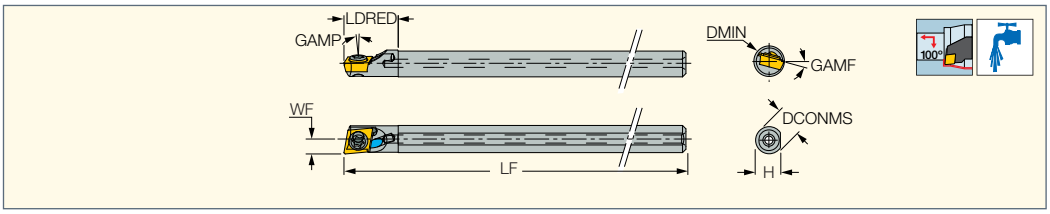
Spare Parts

Designation				
A04F SCLCR/L-03	CSTA-1.6	T-6F		
A05F SCLCR/L-03	CSTA-1.6	T-6F		
A06G SCLCR/L-04	CSTB-2	T-6F		
A07G SCLCR/L-04	CSTB-2	T-6F		
A20R SCLCR/L-09	SR 16-236	T-15/5	HW 2.0	PL 20
A25S SCLCR/L-09	SR 16-236	T-15/5	HW 2.0	PL 25
E04G SCLCR/L-03	CSTA-1.6	T-6F		
E05G SCLCR/L-03	CSTA-1.6	T-6F		
E06H SCLCR/L-04	CSTB-2	T-6F		
E07H SCLCR/L-04	CSTB-2	T-6F		
E08K SCLCR/L-06	SR 14-548	T-7/5		
E10M SCLCR/L-06	SR 14-548	T-7/5		
E12Q SCLCR/L-06	SR 14-548	T-7/5		
E16R SCLCR/L-06	SR 14-548	T-7/5		
E16R SCLCR/L-09	SR 16-236	T-15/5		
S08K SCLCR/L-06	SR 14-548	T-7/5		
S10L SCLCR/L-06	SR 14-548	T-7/5		
S12M SCLCR/L-06	SR 14-548	T-7/5		
S16Q SCLCR/L-09	SR 16-236/L8.6	T-15/5		
S20R SCLCR/L-09	SR 16-236	T-15/5		
S25S SCLCR/L-09	SR 16-236	T-15/5		

ISOTURN

A/E-SEXPR/L-03

Screw Lock Boring Bars Carrying 75° Rhombic Inserts with 11° Clearance for 4.5 mm Minimum Bore Diameter



Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP	GAMF	Insert		
A04F SEXPR/L-03	4.00	80.00	8.0	3.8	2.30	4.50	0.0	-15.0	EPGT03	CSTA-1.6	T-6F
E04G SEXPR/L-03	4.00	90.00	9.0	3.8	2.30	4.50	0.0	-15.0	EPGT03	CSTA-1.6	T-6F

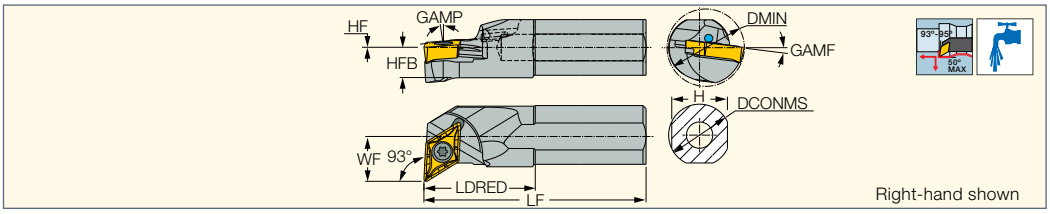
• A - steel shank with coolant hole, E - carbide shank with coolant hole

For inserts, see pages: EPGT-F1P (189)

ISOTURN

A-SDUCR/L-13-SL

Boring Bars Carrying 55° Rhombic Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP	GAMF	Shank m.(1)	Insert
A20R SDUCR/L-13-SL	20.00	200.00	36.0	18.0	9.1	14.50	0.1	25.00	0.0	-7.0	S	DCMT 13T5-SL
A25S SDUCR/L-13-SL	25.00	250.00	45.0	23.0	11.5	17.00	0.0	32.00	0.0	-6.0	S	DCMT 13T5-SL

(1) S-Steel

For inserts, see pages: DCMT-F3P-SL (190) • DCMT-M3M-SL (191) • DCMT-PF-SL (193) • DCMT-SM-SL (193)

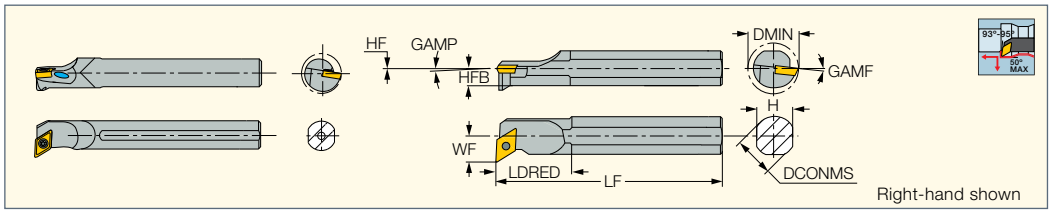
Spare Parts

Designation			
A20R SDUCR/L-13-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45	PL 20
A25S SDUCR/L-13-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45	PL 25

ISOTURN

A/E/S-SDUCR/L

Screw Lock Boring Bars Carrying 55° Rhombic Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP	GAMF	Shank m.(1)	CSP(2)	Insert
A20R SDUCR/L-11	20.00	200.00	50.0	18.0	8.5	14.50	-0.5	25.00	0.0	-6.0	S	1	DC.. 11T3
A25S SDUCR/L-11	25.00	250.00	45.0	23.0	12.0	17.00	0.5	32.00	0.0	-5.0	S	1	DC.. 11T3
E10M SDUCR/L-07	10.00	150.00	25.0	9.2	5.1	8.00	0.5	14.00	3.0	-7.0	C	1	DC.. 0702
E12Q SDUCR/L-07	12.00	180.00	-	11.0	5.5	9.00	0.0	16.00	0.0	-7.0	C	1	DC.. 0702
E16R SDUCR/L-07	16.00	200.00	-	15.0	8.1	11.00	0.6	20.00	0.0	-8.0	C	1	DC.. 0702
S10L SDUCR/L-07	10.00	140.00	18.0	9.2	5.0	8.00	0.4	14.00	-3.0	-9.0	S	0	DC.. 0702
S12M SDUCR/L-07	12.00	150.00	20.0	12.0	5.5	9.00	-0.5	16.00	-7.0	-9.0	S	0	DC.. 0702
S16Q SDUCR/L-07	16.00	180.00	25.0	15.0	8.0	11.00	0.5	20.00	0.0	-8.0	S	0	DC.. 0702
S20R SDUCR/L-11	20.00	200.00	50.0	18.0	8.5	13.00	-0.5	25.00	0.0	-6.0	S	0	DC.. 11T3
S25S SDUCR/L-11	25.00	250.00	55.0	23.0	12.0	17.00	0.5	32.00	0.0	-5.0	S	0	DC.. 11T3

• S - steel shank, A - steel shank with coolant hole, E - carbide shank with coolant hole

(1) S-Steel, C-carbide

(2) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DCGT-F1M-20P (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCGT-AF (213) • DCMT-14 (194) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230) • DCMT (CBN) (230) • DCMT (PCD) (222) • DCMT-CERMET (192)

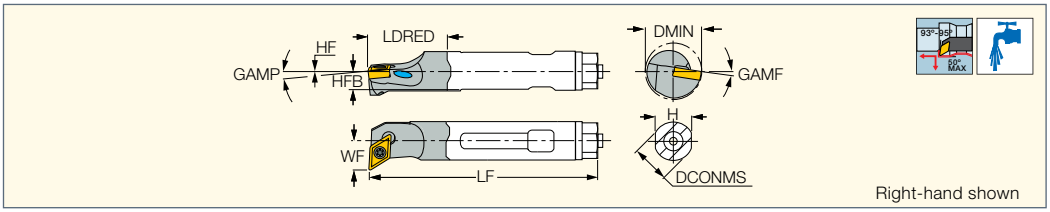
Spare Parts

Designation						
A20R SDUCR/L-11			HW 2.0	SR 16-236 P	T-15/5	PL 20
A25S SDUCR/L-11			HW 2.0	SR 16-236 P	T-15/5	PL 25
E10M SDUCR/L-07				SR 14-548	T-7/5	
E12Q SDUCR/L-07				SR 14-548	T-7/5	
E16R SDUCR/L-07				SR 14-548	T-7/5	
S10L SDUCR/L-07				SR 14-548	T-7/5	
S12M SDUCR/L-07				SR 14-548	T-7/5	
S16Q SDUCR/L-07				SR 14-548	T-7/5	
S20R SDUCR/L-11				SR 16-236 P	T-15/5	
S25S SDUCR/L-11	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	

ISOTURN

E-SDUCR/L-HEAD

Interchangeable Screw Clamped Boring Heads Carrying Positive 7° Clearance 55° Rhombic Inserts Mounted on Carbide Bars



Right-hand shown

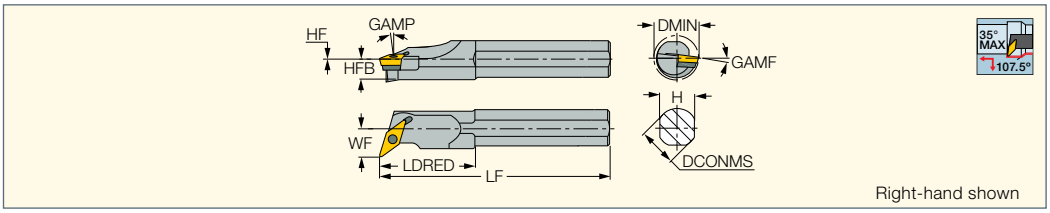
Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert		
E12 SDUCR/L-07 HEAD	12.00	179.00	24.8	11.0	5.5	9.00	0.0	0.0	-9.0	15.80	DCMT/DCGT 0702	SR 14-548	T-7/5
E16 SDUCR/L-07 HEAD	16.00	200.00	29.7	15.0	8.0	11.00	0.5	0.0	-9.0	20.00	DCMT/DCGT 0702	SR 14-548	T-7/5

For inserts, see pages: • DCGT-F1M-20P (192) • DCMT-F3P (190) • DCMT-M3M (191) • DCMT/DCGT-PF (193) • DCMT/DCGT-SM (194) • DCET-WF (195) • DCGT-AS (213) • DCMT/DCGT (194) • DCGW/DCMW-2 (CBN) (230)

ISOTURN

A/S-SVQCR/L

Screw Lock Boring Bars Carrying 35° Rhombic Inserts with 7° Clearance



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP	GAMF	CSP(1)	Insert
S25S SVQCR/L-16	25.00	250.00	61.0	23.0	12.0	17.00	0.5	32.00	0.0	-5.0	0	VC.. 1604
S32T SVQCR/L-16	32.00	300.00	70.0	30.0	15.0	22.00	0.0	40.00	0.0	-5.0	0	VC.. 1604
A40U SVQCR/L-22	40.00	350.00	64.0	36.0	18.0	27.00	0.0	47.50	0.0	-8.0	1	VCGT 2205

(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCGT-AF (212) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

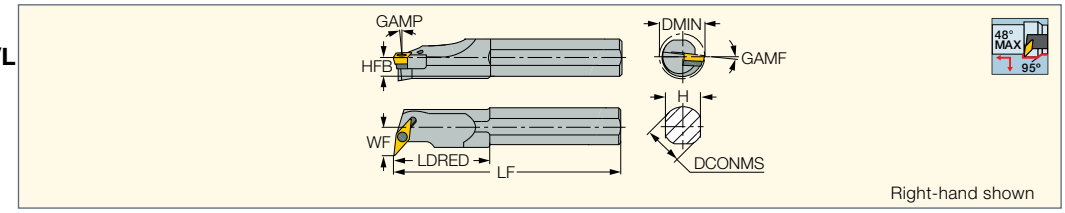
Spare Parts

Designation						
S25S SVQCR/L-16	SR 16-236 P	T-15/5				
S32T SVQCR/L-16	SR 16-236 P	T-15/5	TVC 3-1P	SR TC-3P	HW 4.0	
A40U SVQCR/L-22	SR 14-536	T-20/5	TVC 22T330	SR TC-3	HW 2.5	PL 40

ISOTURN

A/S-SVLFCR/L; A-SVUCR/L

Screw Lock Boring Bars Carrying 35° Rhombic Inserts with 7° Clearance



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	CSP(2)	Insert
A32T SVUCR/L-16 (1)	32.00	300.00	50.0	29.0	14.5	22.00	40.00	0.0	-8.0	1	VC.. 1604
S32T SVLFCR/L-16	32.00	300.00	56.0	29.0	14.5	22.00	39.50	0.0	-8.0	0	VC.. 1604
S40U SVLFCR/L-16	40.00	350.00	-	36.0	18.0	27.00	49.00	0.0	-5.0	0	VC.. 1604
A40U SVLFCR/L-22	40.00	350.00	70.0	36.0	18.0	27.00	48.00	0.0	-8.0	1	VC.. 2205

(1) 93° approach angle

(2) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: VCMT-F3P (195) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCGT-AF (212) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223) • VCMT-FPC-CERMET (196) • VCGW-2 (CBN) (232)

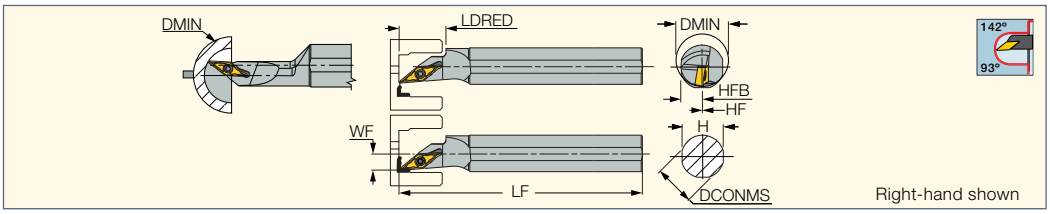
Spare Parts

Designation							
A32T SVUCR/L-16	TVC 3-1P	SR TC-3P	HW 1.5	HW 4.0	SR 16-236 P	PL 32	T-15/5
S32T SVLFCR/L-16	TVC 3-1P	SR TC-3P	HW 4.0		SR 16-236 P		T-15/5
S40U SVLFCR/L-16	TVC 3-1P	SR TC-3P	HW 4.0		SR 16-236 P		T-15/5
A40U SVLFCR/L-22	TVC 22T330	SR TC-3	HW 2.5		SR 14-536	PL 40	T-20/5

ISOTURN

S/A-SVJCR/L

Screw Lock Boring Bars Carrying 35° Rhombic Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	CSP(2)	Insert
A16R SVJCR/L-11	16.00	200.00	47.5	15.0	7.5	8.50	0.0	20.00	1	VC.. 1103
S16R SVJCR/L-11 (1)	16.00	200.00	20.0	15.0	8.0	7.00	0.5	19.00	0	VC.. 1103
A20R SVJCR/L-11	20.00	200.00	43.0	18.0	9.0	11.00	0.0	25.00	1	VC.. 1103
S20R SVJCR/L-11	20.00	200.00	37.0	19.0	9.5	2.00	0.0	25.00	0	VC.. 1103

(1) Cannot be used for internal sphere turning • Center height - 0.5mm above the center

(2) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-F3P (195) • VCMT-F3M (195) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211)

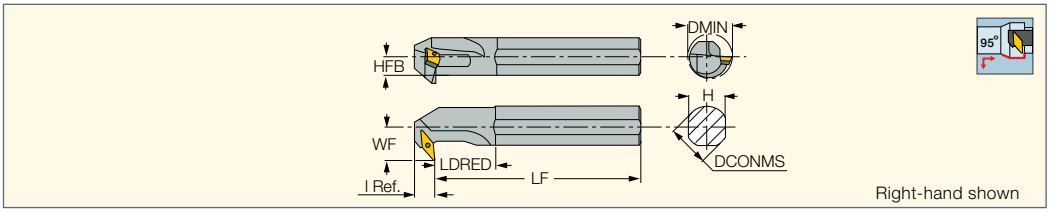
Spare Parts

Designation			
A16R SVJCR/L-11	SR 14-560/S	T-8/5	PL 16
S16R SVJCR/L-11	SR 14-560/S	T-8/5	
A20R SVJCR/L-11	SR 14-560	T-8/5	PL 20
S20R SVJCR/L-11	SR 14-560	T-8/5	

ISOTURN

A/S-SVLBCR/L

Screw Lock Back Boring Bars Carrying 35° Rhombic Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	l Ref.	H	HFB	WF	DMIN	CSP(1)	Insert
A32T SVLBCL-16	32.00	300.00	76.5	18.50	29.0	14.5	27.50	40.00	1	VC.. 1604
A32T SVLBCR-16	32.00	300.00	76.5	18.50	29.0	14.5	27.50	40.00	0	VC.. 1604
S32T SVLBCR/L-16	32.00	300.00	63.2	18.50	29.0	14.5	22.00	40.00	0	VC.. 1604
S40U SVLBCR/L-16	40.00	350.00	60.0	20.00	36.0	18.0	27.00	49.50	0	VC.. 1604

(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

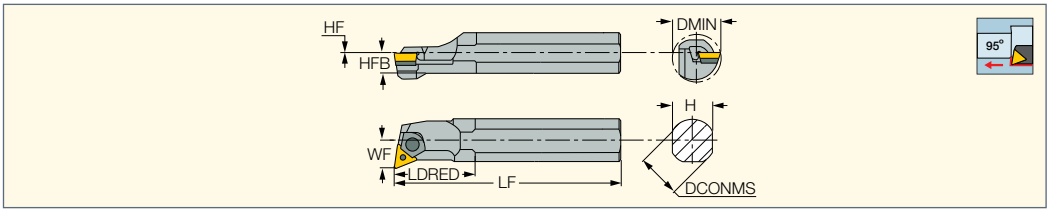
Spare Parts

Designation					
A/S-SVLBCR/L	TVC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5

ISOTURN

S-MTLCR/L-W

Wedge Lock Boring Bars Carrying 7° Clearance Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	Insert
S25S MTLCR/L-16W	25.00	250.00	43.0	23.0	13.1	17.00	1.6	34.00	TC.. 16T3
S32T MTLCR/L-16W	32.00	300.00	45.0	29.0	14.5	22.00	0.0	39.00	TC.. 16T3

For inserts, see pages: TCMT-F3P (201) • TCMT-M3M (201) • TCMT-SM (202) • TCGT-AS (211)

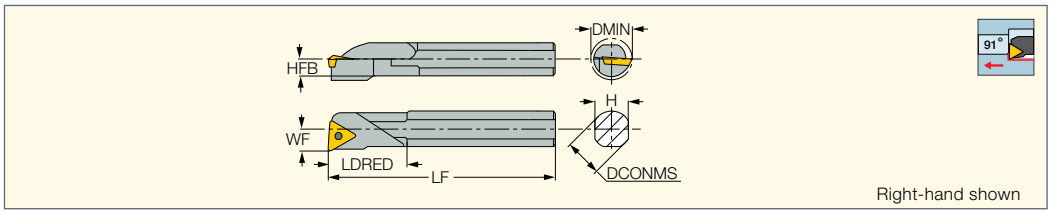
Spare Parts

Designation						
S-MTLCR/L-W	TTC 331	HW 2.0	ZNW 3C	LC 291-MIM SET 1	SR 17-319	HW 2.5

ISOTURN

S-STFCR/L

Screw Lock Boring Bars Carrying 7° Clearance Triangular Inserts



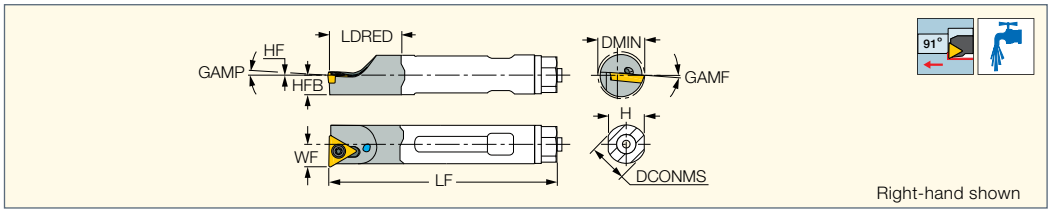
Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	Insert		
S10K STFCR/L-11	10.00	125.00	29.0	9.0	4.5	7.00	13.00	TC.. 1102	SR 14-548	T-7/5
S12M STFCR/L-11	12.00	150.00	30.0	11.0	5.5	9.00	15.80	TC.. 1102	SR 14-548	T-7/5

For inserts, see pages: TCMT-F3P (201) • TCMT-M3M (201) • TCMT-PF (201) • TCMT-SM (202) • TCGT-AS (211) • TCMT (CBN) (234) • TCMT (PCD) (223)

ISOTURN

E-STFCR-HEAD

Interchangeable Screw Clamped Boring Heads Carrying Positive 7° Clearance Triangular Inserts Mounted on Carbide Bars



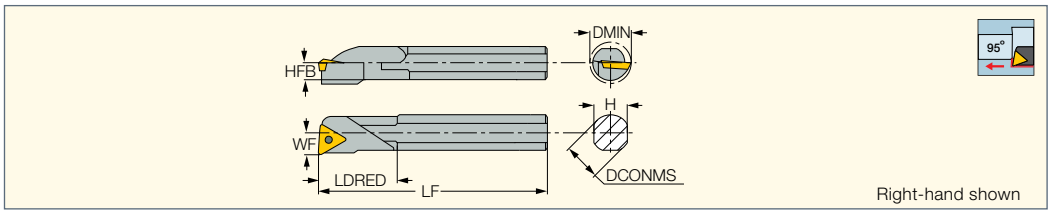
Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert		
E12 STFCR-11 HEAD	12.00	179.00	24.8	11.0	6.0	6.80	0.0	0.0	-6.0	13.80	TCMT 1102	SR 14-548	T-7/5
E16 STFCR-11 HEAD	16.00	200.00	37.0	15.0	8.0	9.00	0.0	0.0	-6.0	20.00	TCMT 1102	SR 14-548	T-7/5

For inserts, see pages: TCMT-F3P (201) • TCMT-M3M (201) • TCMT-PF (201) • TCMT-SM (202) • TCGT-AS (211) • TCMT (CBN) (234) • TCMT (PCD) (223)

ISOTURN

S-STLCR/L

Screw Clamp Boring Bars Carrying 7° Clearance Triangular Inserts



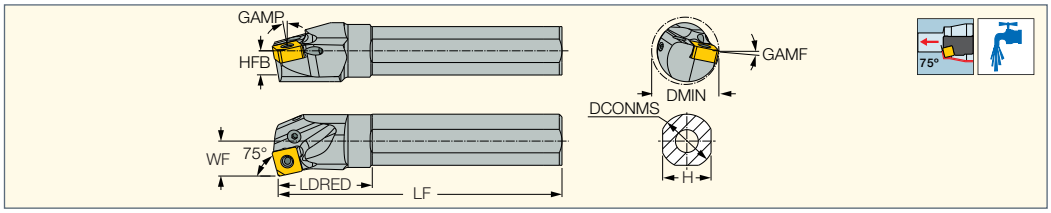
Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	Insert		
S16Q STLCR/L-11	16.00	180.00	45.0	15.0	7.5	11.00	20.00	TC.. 1102	SR 14-548	T-7/5
S20R STLCR/L-16	20.00	200.00	50.0	18.0	9.0	13.00	25.00	TC.. 16T3	SR 16-236	T-15/5

For inserts, see pages: TCMT-F3P (201) • TCMT-M3M (201) • TCMT-PF (201) • TCMT-SM (202) • TCGT-AS (211) • TCMT (CBN) (234) • TCMT (PCD) (223)

ISOTURN

A-PSKNR/L-09

Lever Lock Boring Bars Carrying 90° Negative Square Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
A25R PSKNR/L-09	25.00	200.00	35.0	23.0	11.5	17.00	-6.0	-15.0	32.00	SNMG 0903 SNMG 0904
A32S PSKNR/L-09	32.00	250.00	43.0	30.0	15.0	22.00	-6.0	-13.0	40.00	SNMG 0903 SNMG 0904

For inserts, see pages: SNMG-F3S (175) • SNMG-F3P (173) • SNMG-M3P (173) • SNMG-F3M (174) • SNMG-M3M (174)

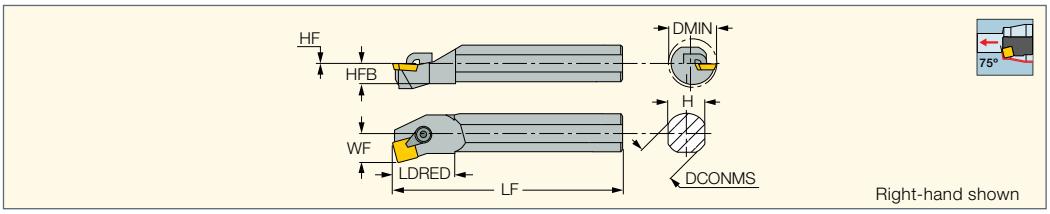
Spare Parts

Designation								
A25R PSKNR/L-09	TSN 323	TSN 333	SP 3	PN 3-3L	LR 3	SR 117-2014	HW 2.5	PL 25
A32S PSKNR/L-09	TSN 323	TSN 333	SP 3	PN 3-3L	LR 3	SR 117-2014	HW 2.5	PL 32

ISOTURN

S-CSKPR

Clamp Lock Boring Bars Carrying 11° Clearance Square Inserts



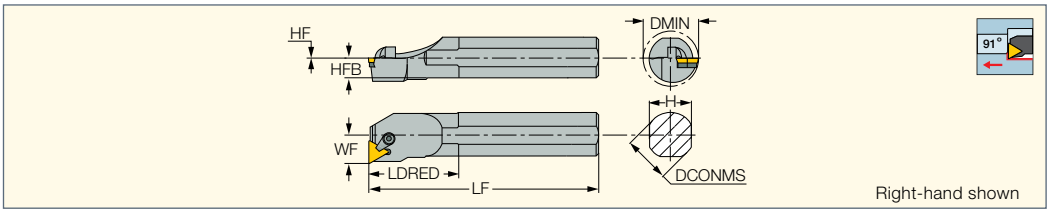
Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	Insert		
S16Q CSKPR-09	16.00	180.00	34.0	15.0	8.0	11.00	0.5	20.00	SPMR 0903	LC 15 SET 1	HW 2.5
S25S CSKPR-12	25.00	250.00	48.0	23.0	11.5	17.00	0.0	30.00	SPMR 1203	LC 30 SET 2	HW 3.0

For inserts, see pages: SPMR (204)

ISOTURN

S-CTFPR/L

Clamp Lock Boring Bars Carrying 11° Clearance Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	Insert
S12L CTFPR/L-09	12.00	140.00	34.0	11.0	6.0	9.00	0.5	15.60	TPMR 0902
S16Q CTFPR/L-11	16.00	180.00	38.0	15.0	8.0	11.00	0.5	20.00	TPMR 1103
S20Q CTFPR-16	20.00	180.00	38.0	18.0	9.5	13.00	0.5	24.00	TPMR 1603
S20R CTFPR/L-16	20.00	200.00	46.0	18.0	9.5	13.00	0.5	24.00	TPMR 1603
S25R CTFPR-16	25.00	200.00	48.0	23.0	11.5	17.00	0.0	31.00	TPMR 1603
S25S CTFPR-16	25.00	250.00	48.0	23.0	11.5	17.00	0.0	31.00	TPMR 1603
S32T CTFPR/L-16	32.00	300.00	62.0	29.0	14.5	22.00	0.0	40.00	TPMR 1603
S40T CTFPR-16	40.00	300.00	62.0	36.0	18.0	27.00	0.0	48.00	TPMR 1603

For inserts, see pages: TPGN-Ceramic (220) • TPMR (204) • TPMR-FTF (205) • TPMR-PF (204)

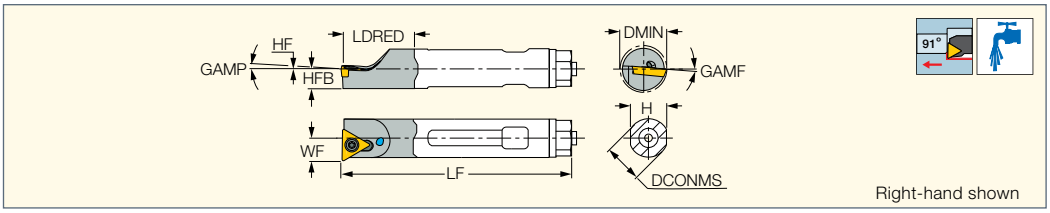
Spare Parts

Designation				
S12L CTFPR/L-09	LC12 SET1	HW 2.5		
S16Q CTFPR/L-11	LC 15 SET 1	HW 2.5		
S20Q CTFPR-16	LC 30 SET 2	HW 3.0		
S20R CTFPR/L-16	LC 30 SET 2	HW 3.0		
S25R CTFPR-16	LC 30 SET 2	HW 3.0		
S25S CTFPR-16	LC 30 SET 2	HW 3.0		
S32T CTFPR/L-16	LC 30 SET 1	HW 3.0	ITBP 122	SP 16
S40T CTFPR-16	LC 30 SET 1	HW 3.0	ITBP 122	SP 16

ISOTURN

E-STFPR-HEAD

Interchangeable Boring Heads Carrying Positive 11° Clearance Triangular Inserts on a Carbide Bar



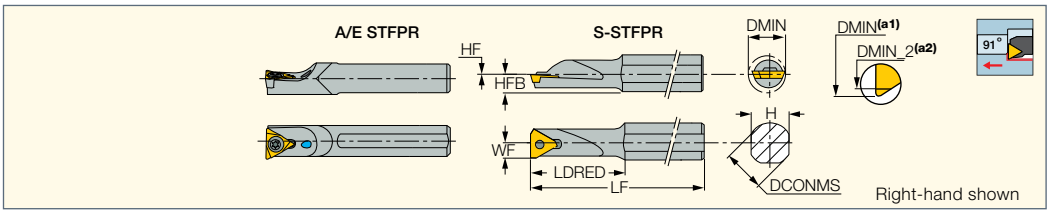
Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert		
E12 STFPR-11 HEAD	12.00	179.00	24.8	11.0	6.0	6.80	0.0	4.0	-6.0	13.00	TPMT/TPGH 1102	SR 14-505	T-7/5
E16 STFPR-11 HEAD	16.00	200.00	37.0	15.0	8.0	8.80	0.5	4.0	-6.0	20.00	TPGB 1102	SR 14-505	T-7/5

For inserts, see pages: TPMT-PF (205) • TPGT-SP (205) • TPGB-XL (206) • TPGH-XL (206) • TPGB (206) • TPMT (205)

ISOTURN

A/E/S-STFPR/L

Screw Lock Boring Bars Carrying Triangular Inserts with 11° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	DMIN	DMIN_2	CSP(1)	Shank m.(2)		
A10K STFPR-11	10.00	125.00	-	9.0	5.3	0.8	6.00	11.00	12.00	1	S	SR 14-505	T-7/5
A12Q STFPR-11	12.00	180.00	-	11.0	6.3	0.8	7.00	13.00	14.00	1	S	SR 14-505	T-7/5
E10M STFPR-11	10.00	150.00	-	9.0	5.3	0.8	6.00	12.00	12.00	1	C	SR 14-505	T-7/5
E12Q STFPR/L-11	12.00	180.00	-	11.0	6.3	0.8	7.00	14.00	14.00	1	C	SR 14-505	T-7/5
S12K STFPR/L-11	12.00	125.00	35.0	11.0	6.3	0.8	5.60	11.00	11.00	0	S	SR 14-505	T-7/5
S12M STFPR/L-11	12.00	150.00	27.0	11.0	6.3	0.8	7.00	15.00	15.00	0	S	SR 14-505	T-7/5
S16Q STFPR/L-11	16.00	180.00	27.0	15.0	8.0	0.5	9.20	18.00	18.00	0	S	SR 14-505	T-7/5
S20R STFPR/L-16	20.00	200.00	63.0	18.0	10.0	1.0	10.20	21.50	21.50	0	S	SR 14-541	T-15/5

• (a1) When used with insert TPG. 110204-XL (a2) When used with insert TP.. 110204-..

(1) 0 - Without coolant supply, 1 - With coolant supply

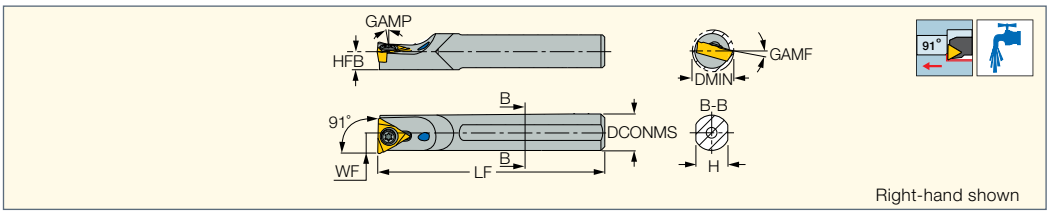
(2) S-Steel, C-Carbide

For inserts, see pages: TPMT-PF (205) • TPGB-XL (206) • TPGH-R/L (206) • TPGH-XL (206) • TPGB (206) • TPMT (205)

ISOTURN

A/E-STFPR-X

Boring Bars Carrying Triangular TPGX 11° Clearance Inserts for Small Diameters



Designation	DCONMS	LF	WF	H	HFB	DMIN	GAMP	GAMF	Shank m.(1)	Insert		
A08J STFPR-09X	8.00	110.00	5.00	7.2	3.6	9.50	5.0	-15.0	S	TPGX 0902	SR 14-298	T-8/5
A10K STFPR-09X	10.00	125.00	5.70	9.0	4.5	10.90	5.0	-8.0	S	TPGX 0902	SR 14-298	T-8/5
A12M STFPR-09X	12.00	150.00	6.70	11.0	5.5	13.00	5.0	-8.0	S	TPGX 0902	SR 14-298	T-8/5
A10K STFPR-11X	10.00	125.00	6.00	9.0	4.5	11.40	3.0	-15.0	S	TPGX 1103	SR 10400052	T-8/5
A12M STFPR-11X	12.00	150.00	6.80	11.0	5.5	13.50	3.0	-10.0	S	TPGX 1103	SR 10400052	T-8/5
A16Q STFPR-11X	16.00	180.00	8.80	14.0	7.0	17.30	3.0	-5.0	S	TPGX 1103	SR 10400052	T-8/5
E08K STFPR-09X	8.00	125.00	5.00	7.2	3.6	9.50	5.0	-15.0	C	TPGX 0902	SR 14-298	T-8/5
E10M STFPR-09X	10.00	150.00	5.70	9.0	4.5	10.90	5.0	-8.0	C	TPGX 0902	SR 14-298	T-8/5
E12Q STFPR-09X	12.00	180.00	6.70	11.0	5.5	13.00	5.0	-8.0	C	TPGX 0902	SR 14-298	T-8/5
E10M STFPR-11X	10.00	150.00	6.00	9.0	4.5	11.40	3.0	-15.0	C	TPGX 1103	SR 10400052	T-8/5
E12Q STFPR-11X	12.00	180.00	6.80	11.0	5.5	13.50	3.0	-10.0	C	TPGX 1103	SR 10400052	T-8/5
E16R STFPR-11X	16.00	200.00	8.80	14.0	7.0	17.30	3.0	-5.0	C	TPGX 1103	SR 10400052	T-8/5

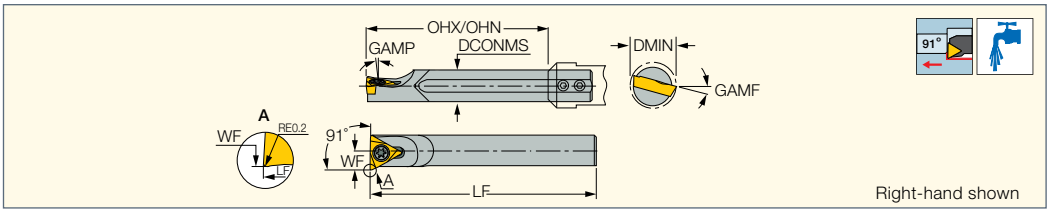
(1) S-Steel, C-Carbide

For inserts, see pages: TPGW-M3 (CBN) (235) • TPGX (207) • TPGX (CBN) (234) • TPGX (PCD) (224)

ISOTURN

MG STFPR-X

Solid Carbide Boring Bar Carrying TPGX Inserts for Small Diameters



Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP	GAMF	DMIN		
MG 08-STFPR-09X	8.00	79.00	20.0	56.0	4.90	5.0	-15.0	9.50	SR 14-298	T-8/5

(1) Minimum overhang in adjustment range

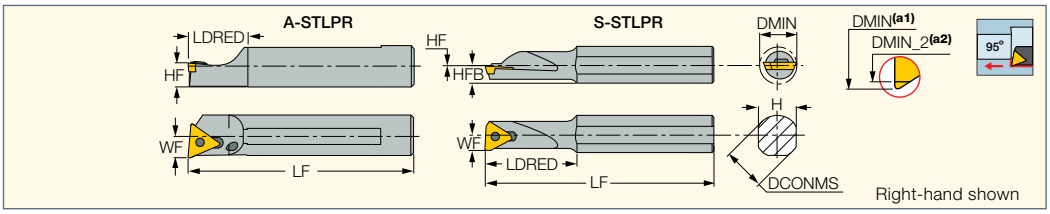
(2) Maximum overhang in adjustment range

For inserts, see pages: TPGX (207) • TPGX (CBN) (234) • TPGX (PCD) (224)

ISOTURN

A/S-STLPR/L

Screw Lock Boring Bars Carrying Triangular Inserts with 11° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	DMIN	DMIN_2	CSP(1)		
A10K STLPR-11	10.00	125.00	18.0	9.5	5.8	1.1	6.00	12.00	11.00	1	SR 14-505	T-7/5
A12Q STLPR-11	12.00	180.00	18.0	11.5	6.0	0.3	7.00	14.00	13.00	1	SR 14-505	T-7/5
S12K STLPR/L-11	12.00	125.00	35.0	11.0	6.3	0.8	5.60	11.00	9.70	0	SR 14-505	T-7/5
S12M STLPR/L-11	12.00	150.00	27.0	11.0	6.3	0.8	7.00	15.00	14.00	0	SR 14-505	T-7/5
S16Q STLPR-11	16.00	180.00	27.0	15.0	8.0	0.5	9.00	18.00	17.00	0	SR 14-505	T-7/5
S20R STLPR-16	20.00	200.00	63.0	18.0	10.0	1.0	10.20	21.50	21.50	0	SR 14-541	T-15/5

- (a1) When used with insert TP.. 110204-.. (a2) When used with insert TPG. 110204-XL

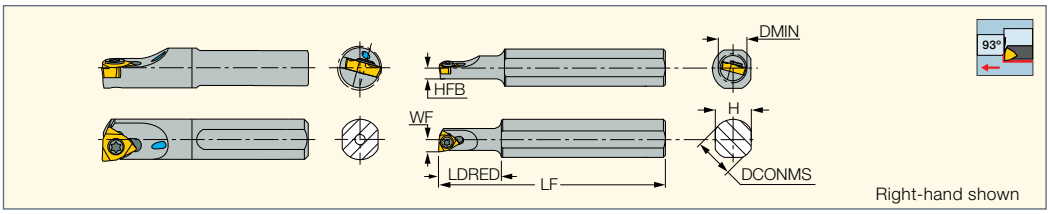
(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: TPMT-PF (205) • TPGB-XL (206) • TPGH-R/L (206) • TPGH-XL (206) • TPGB (206) • TPMT (205)

ISOTURN

E/S-SWUBR/L

Screw Clamp Miniature Boring Bars Carrying Small WBMT Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	CSP(1)	Shank m.(2)	MIID(3)		
E06H SWUBL-06	6.00	100.00	-	5.2	2.6	3.30	6.50	1	C	WBMT 060101R	SR 14-552	T-6/5
E06H SWUBR-06	6.00	100.00	-	5.2	2.6	3.30	6.50	1	C	WBMT 060101L		
E08K SWUBR-06	8.00	125.00	-	7.6	3.8	4.30	8.70	1	C	WBMT 060101L	SR 14-552	T-6/5
E10M SWUBR-06	10.00	150.00	-	9.0	4.5	5.20	10.90	1	C	WBMT 060101L	SR 14-552	T-6/5
S0606H SWUBR-06	6.00	100.00	-	5.2	2.6	3.30	6.50	0	S	WBMT 060101L	SR 14-552	T-6/5
S0610H SWUBL-06	10.00	100.00	20.0	9.0	4.5	3.00	6.00	0	S	WBMT 060101R	SR 14-552	T-6/5
S0610H SWUBR-06	10.00	100.00	20.0	9.0	4.5	3.00	6.00	0	S	WBMT 060101L		
S0710H SWUBL-06	10.00	100.00	24.0	9.0	4.5	3.50	7.00	0	S	WBMT 060101R	SR 14-552	T-6/5
S0710H SWUBR-06	10.00	100.00	24.0	9.0	4.5	3.50	7.00	0	S	WBMT 060101L		
S0808J SWUBR-06	8.00	100.00	-	7.4	3.7	4.30	8.50	0	S	WBMT 060101L	SR 14-552	T-6/5
S0812J SWUBL-06	12.00	110.00	32.0	11.0	5.5	4.00	8.00	0	S	WBMT 060101R	SR 14-552	T-6/5
S0812J SWUBR-06	12.00	110.00	32.0	11.0	5.5	4.00	8.00	0	S	WBMT 060101L		
S1010K SWUBL-06	10.00	125.00	-	9.0	4.5	5.20	11.00	0	S	WBMT 060101R	SR 14-552	T-6/5
S1010K SWUBR-06	10.00	125.00	-	9.0	4.5	5.20	11.00	0	S	WBMT 060101L		

- Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools.

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) S-Steel, C-Carbide

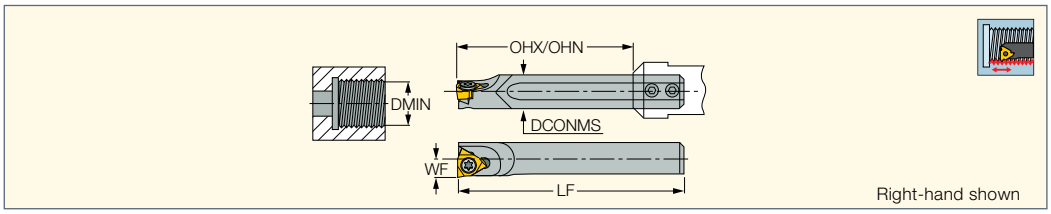
(3) Master insert identification

For inserts, see pages: WBGT (207) • WBMT (207)

ISCARTHREAD

MGSIR/L

Solid Carbide Bars for Internal Turning and Threading



Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN		
MGSIR/L 06-06	6.00	59.00	16.0	42.0	3.90	7.00	SR 14-552	T-6/5
MGSIR/L 08-06	8.00	72.00	20.0	56.0	5.00	9.20	SR 14-552	T-6/5

- In order to maintain high machining reliability, we strongly recommend replacing the clamping screw every 10 insert indexes

(1) Minimum overhang in adjustment range

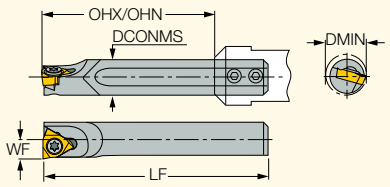
(2) Maximum overhang in adjustment range

For inserts, see pages: IR/L-55° (640) • IR/L-60° (645) • IR/L-BSPT (673) • IR/L-ISO (655) • IR/L-NPT (670) • IR/L-NPTF (672) • IR/L-UN (662) • IR/L-W (667)

ISOTURN

MG-SWUBR/L

Solid Carbide Bars for Internal Turning



Right-hand shown

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN		
MG 06-SWUBR/L-06	6.00	59.00	16.0	42.0	3.30	6.60	SR 14-552	T-6/5
MG 08-SWUBR/L-06	8.00	72.00	20.0	56.0	4.30	8.70	SR 14-552	T-6/5

- Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools

(1) Minimum overhang in adjustment range

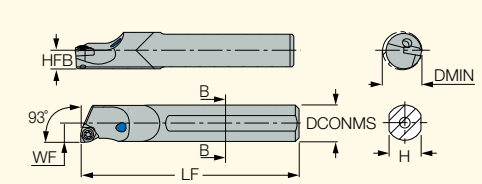
(2) Maximum overhang in adjustment range

For inserts, see pages: WBGT (207) • WBMT (207)

ISOTURN

A/E-SWUCR

Boring Bars Carrying WCGT Trigon Inserts for Small Diameters



Right-hand shown

Designation	DCONMS	LF	H	HFB	WF	DMIN	Shank m.(1)	Insert		
A06H SWUCR-02	6.00	100.00	5.4	2.7	3.30	6.60	S	WCGT 0201	SR 14-299	T-6/5
A08J SWUCR-02	8.00	110.00	7.2	3.6	4.25	8.70	S	WCGT 0201	SR 14-299	T-6/5
A10K SWUCR-02	10.00	125.00	9.0	4.5	5.20	10.90	S	WCGT 0201	SR 14-299	T-6/5
E06H SWUCR-02	6.00	100.00	5.4	2.7	3.30	6.60	C	WCGT 0201	SR 14-299	T-6/5
E08K SWUCR-02	8.00	125.00	7.2	3.6	4.30	8.70	C	WCGT 0201	SR 14-299	T-6/5
E10M SWUCR-02	10.00	150.00	9.0	4.5	5.20	10.90	C	WCGT 0201	SR 14-299	T-6/5

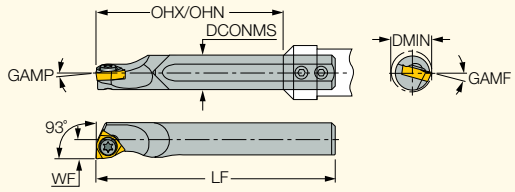
(1) S-Steel, C-Carbide

For inserts, see pages: WCGT (208)

ISOTURN

MG-SWUCR

Solid Carbide Boring Bars Carrying WCGT Trigon Inserts for Small Diameters



Right-hand shown

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP	GAMF	DMIN	Insert		
MG 06-SWUCR-02	6.00	60.00	16.0	42.0	3.30	0.0	15.0	6.60	WCGT 0201	SR 14-299	T-6/5
MG 08-SWUCR-02	8.00	75.70	20.0	56.0	4.30	0.0	12.0	8.80	WCGT 0201	SR 14-299	T-6/5

(1) Minimum overhang in adjustment range

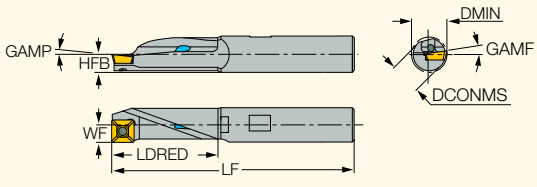
(2) Maximum overhang in adjustment range

For inserts, see pages: WCGT (208)

ISOTURN

A-SXFOR/L

Boring Bars with Coolant Holes Carrying XOMT Inserts



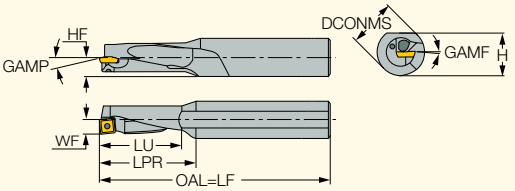
Right-hand shown

Designation	DCONMS	LF	LDRED	HFB	WF	GAMP	GAMF	DMIN	Insert		
A10J SXFOR/L-06	10.00	110.00	28.5	5.0	4.90	6.0	1.8	10.00	XOMT 0602	SR 34-508	T-7/5
A12K SXFOR/L-06	12.00	125.00	28.5	5.0	4.90	6.0	1.8	10.00	XOMT 0602	SR 34-508	T-7/5

For inserts, see pages: XOMT-DT (200)

MULTIFUNCTION TOOLS

A-SXFOR-DR
Boring and Drilling Bars
with Coolant Holes
Carrying XOMT Inserts



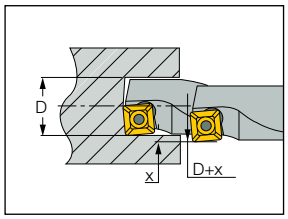


Right-hand shown

Designation	DCONMS	LF	LPR	LU	WF	HF	GAMP	GAMF	H	DCN(1)	Insert
A1612M SXFOR-06DR	16.00	180.00	31.0	21.0	6.00	8.5	0.0	0.0	15.0	12.50	XOMT 0602

(1) Cutting diameter minimum

For inserts, see pages: XOMT-DT (200)



Drilling Solid Material

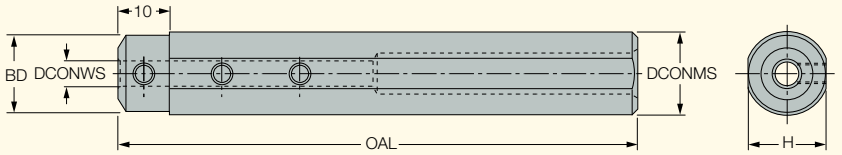
Range:
Dmin=12.5 mm
Dmax=14 mm
To achieve required diameter øD, position tool as shown at D + x (x=0.10) to compensate for tool deflection.
Use pecking cycle, pulling back 0.1 mm after each 1 mm of DOC.
Maximum feed for steel: 0.05 mm/rev;
For stainless steel: 0.03 mm/rev

Spare Parts

Designation			
A-SXFOR-DR	SR 34-508	T-7/51	PL 16

ISOTURN

SBB
Holders for Small
Diameter Boring Bars





Designation	DCONMS	DCONWS	BD	H	OAL			
SBB D16-4	16.00	4.00	15.00	15.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D16-5	16.00	5.00	15.00	15.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D16-6	16.00	6.00	15.00	15.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D16-7	16.00	7.00	15.00	15.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D20-4	20.00	4.00	13.00	19.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D20-5	20.00	5.00	14.00	19.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D20-6	20.00	6.00	15.00	19.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D20-7	20.00	7.00	16.00	19.0	100.00	SR M4X4	HW 2.0	PL 16*
SBB D22-4	22.00	4.00	13.00	21.0	125.00	SR M4X4	HW 2.0	PL 16*
SBB D22-5	22.00	5.00	14.00	21.0	125.00	SR M4X4	HW 2.0	PL 16*
SBB D22-6	22.00	6.00	15.00	21.0	125.00	SR M4X4	HW 2.0	PL 16*
SBB D22-7	22.00	7.00	16.00	21.0	125.00	SR M4X4	HW 2.0	PL 16*
SBB D25-4	25.00	4.00	13.00	24.0	125.00		HW 2.0	
SBB D25-5	25.00	5.00	14.00	24.0	125.00		HW 2.0	
SBB D25-6	25.00	6.00	15.00	24.0	125.00		HW 2.0	
SBB D25-7	25.00	7.00	16.00	24.0	125.00		HW 2.0	

- Holders are suitable for right- and left-hand inserts, and boring bars

* Optional, should be ordered separately

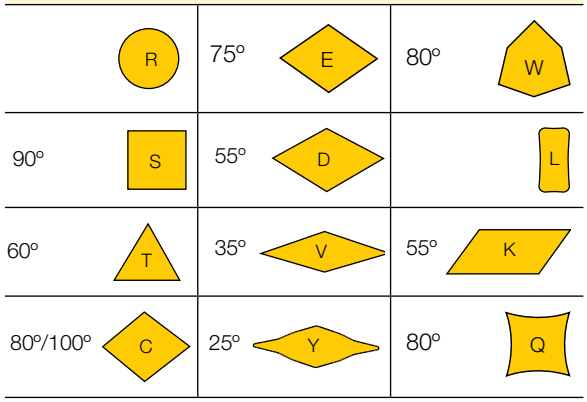
For tools, see pages: A/E-SEXPR/L-03 (112) • A/E-SWUCR (119) • A/E/S-SCLCR/L (111) • E/S-SWUBR/L (118) • MG-SWUBR/L (119) • MG-SWUCR (119) • MGCH (414) • MGSIR/L (118)

ISOTURN INSERTS

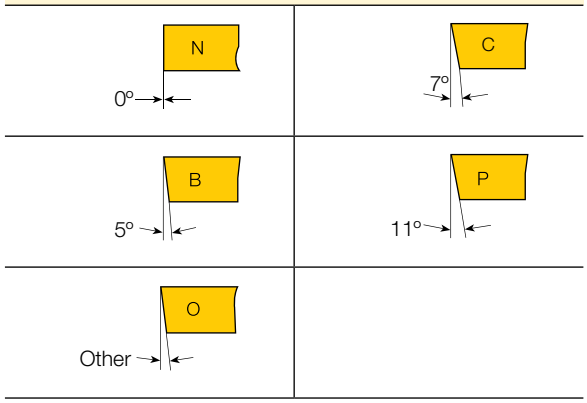


W	N	M	G	08	04	08	E	GN
1	2	3	4	5	6	7	8	9

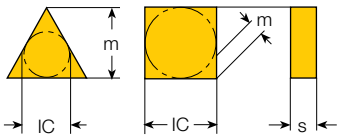
1. Shape



2. Clearance Angle



3. Tolerance

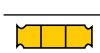


	m		s	IC	
E		±0.025	±0.025		±0.025
G		±0.025	±0.13		±0.025
M	from	±0.08	±0.13	from	±0.05
	to	±0.18(1)		to	±0.13(1)
U	from	±0.13	±0.13	from	±0.08
	to	±0.38(1)		to	±0.25(1)

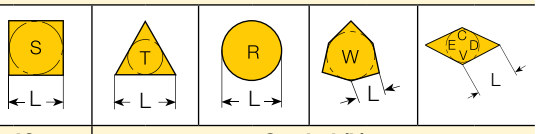
(1) Exact tolerance depends on insert size

IC	Tolerance in mm			
	On m		On IC	
	Class M	Class U	Class M	Class U
6.35	±0.08	±0.13	±0.05	±0.08
9.52	±0.08	±0.13	±0.05	±0.08
12.70	±0.13	±0.20	±0.08	±0.13
15.87	±0.15	±0.27	±0.10	±0.18
19.05	±0.15	±0.27	±0.10	±0.18
25.40	±0.18	±0.38	±0.13	±0.25

4. Type

	A	Without chipbreaker, with hole
	G	Chipbreaker on both sides, with hole
	M, S	Chipbreaker on one side, with hole
	R	Chipbreaker on one side, without hole
	B, W	Countersink on one side, with hole
	T, H	Chipbreaker on one side, with hole and countersink
	P	Neg./pos. on one or both sides, with hole
	Z, X	Special

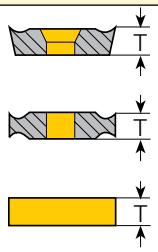
5. Cutting Edge Length



IC		Symbol (L)							
inch	mm	C	D	R	S	T	V	W	Q
5/32	3.97		04		03	06	06	02(1)	
7/32	5.56	05				09			
1/4	6.35	06	07			11	11		
9/32	7.15						12		
	8.00			08					
3/8	9.52	09	11		09	16	16	06	09
	10.00			10					
	12.00			12					
1/2	12.70	12	15		12	22	22	08	12
5/8	15.88	16			15	27			
	16.00			16					
3/4	19.05	19			19	33		13	
	20.00			20					
	25.00			25					
1	25.40				25				

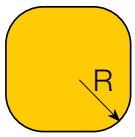
(1) WBMT 06...

6. Thickness



01	=	1.59 mm
T1	=	1.98 mm
02	=	2.38 mm
03	=	3.18 mm
T3	=	3.97 mm
04	=	4.76 mm
06	=	6.35 mm
07	=	7.94 mm

7. Corner Radius



02	=	0.2 mm
04	=	0.4 mm
08	=	0.8 mm
12	=	1.2 mm
16	=	1.6 mm
20	=	2.0 mm
24	=	2.4 mm

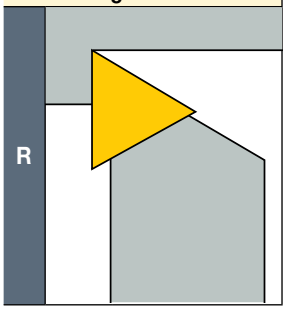
8. Cutting Edge (Optional)

	F	Sharp
	E	Honed (Rounded)
	T	Chamfered (Negative Land)
	S	Chamfered + Honed

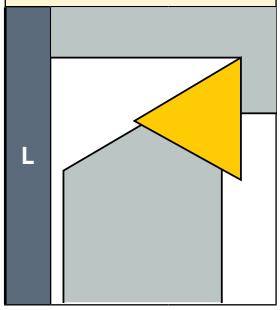
9. Chipformer Designation

SF	AS/AF	TF	NM
PF	../Z-RF/LF(1)	PP	TNM
NF	WF	GN	NR
SM	WG	NMS	RP
14	VL		

Right-hand



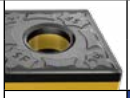
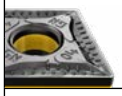
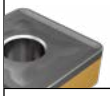
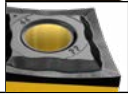
Left-hand



Selection Guide for Chipformers and Grades

ISO P-Steel

Negative

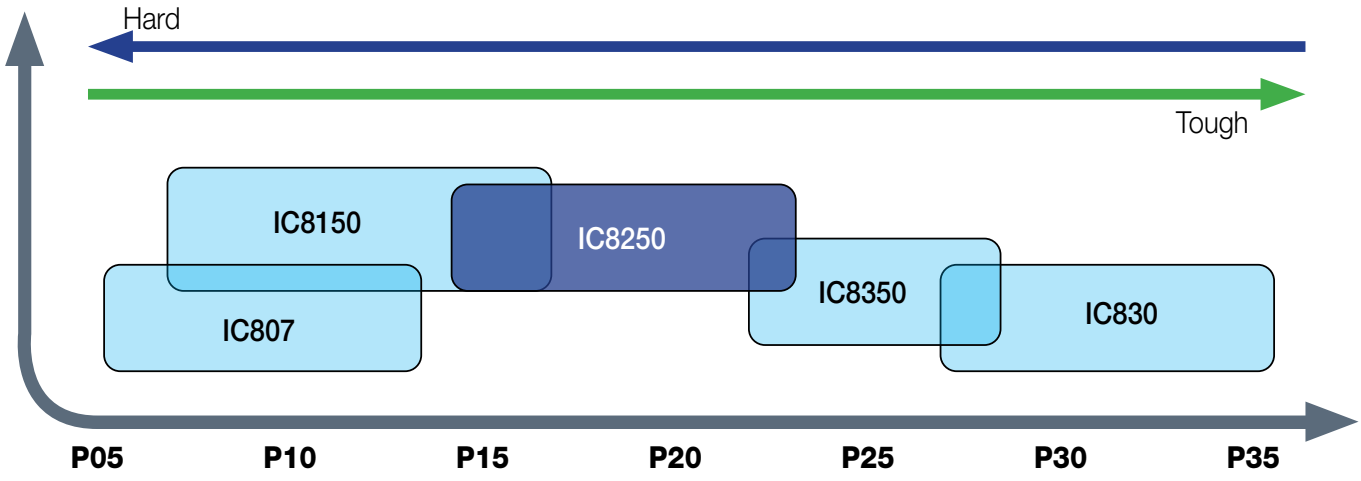
Finishing	Medium	Roughing	Heavy
Tight	Tight	Tight	Tight
 SF	 M4PW	 GN	 H3P
 **F3P**	 TF	 **R3P**	 **H4P**
 NF	 **M3P**	 NR	 H5P
	 GN		
	 PP		
Open	Open	Open	Open

Positive

Finishing	Medium
Tight	Tight
 **F3P**	 SM
 PF	 **M3P**
 SM	
 14	
Open	Open

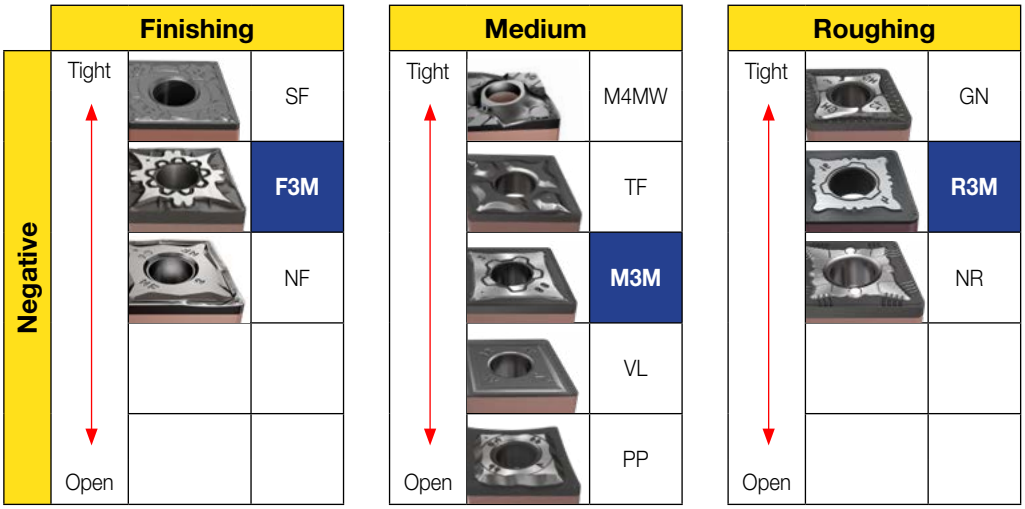
First Choice

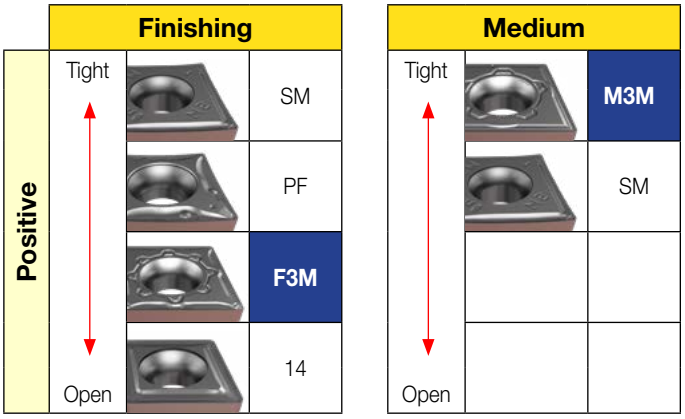
Recommended Carbide Grades



* For CBN and Ceramic grades for hardend steel see page (237)

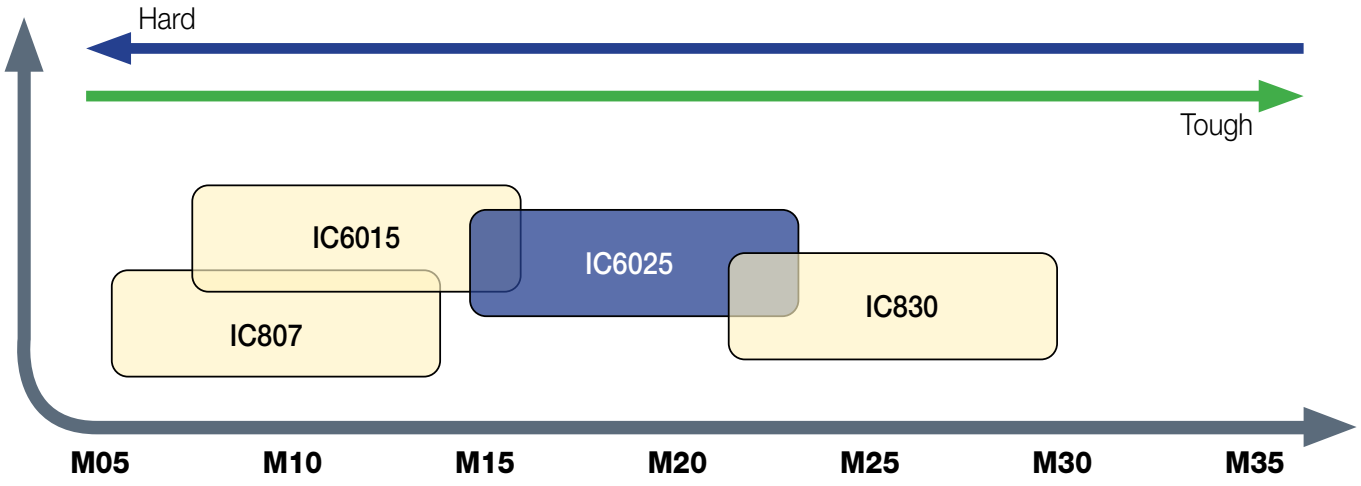
ISO M- Stainless Steel





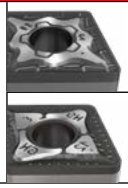
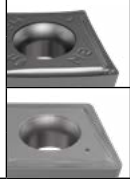
First Choice

Recommended Carbide Grades



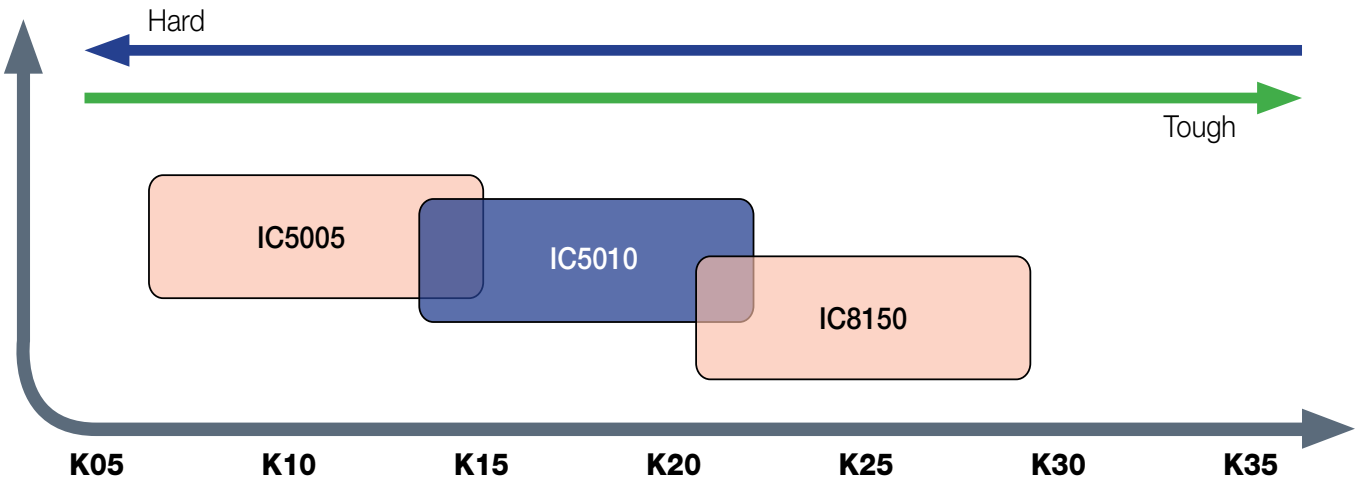
Selection Guide for Chipformers and Grades

ISO K-Cast Iron

	Finishing	Medium	Roughing
Negative	Tight ↕ Open 	Tight ↕ Open 	Tight ↕ Open 
	M3P	GN	NR
	GN	**A**	**A**
Positive	Tight ↕ Open 	Tight ↕ Open 	
	SM	**SM**	
	14	14	

First Choice

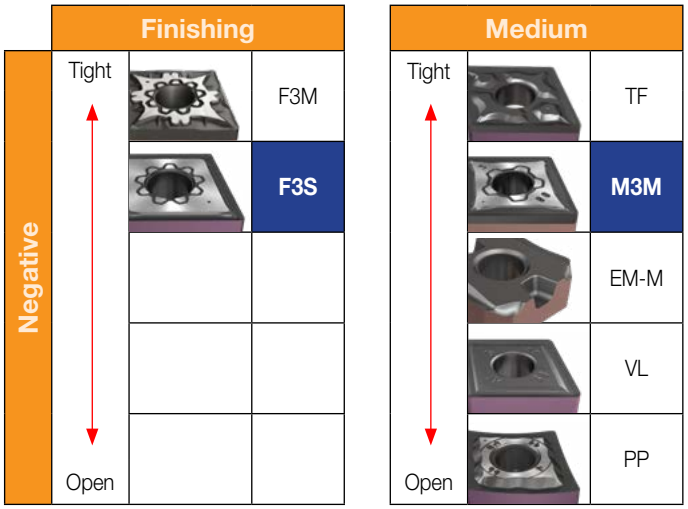
Recommended Carbide Grades

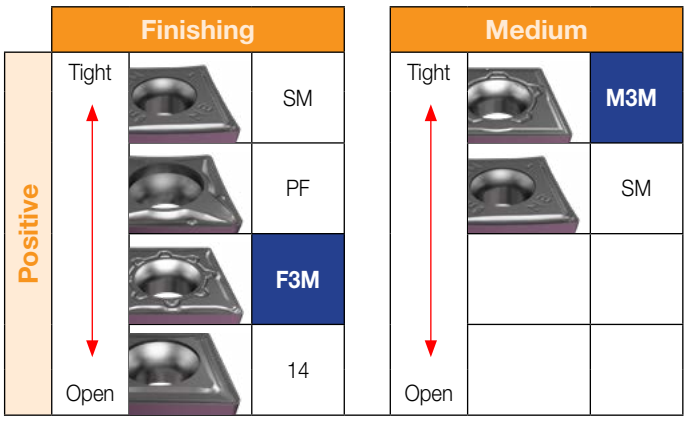


* For CBN and Ceramic grades for hardend steel see page (237)

Selection Guide for Chipformers and Grades

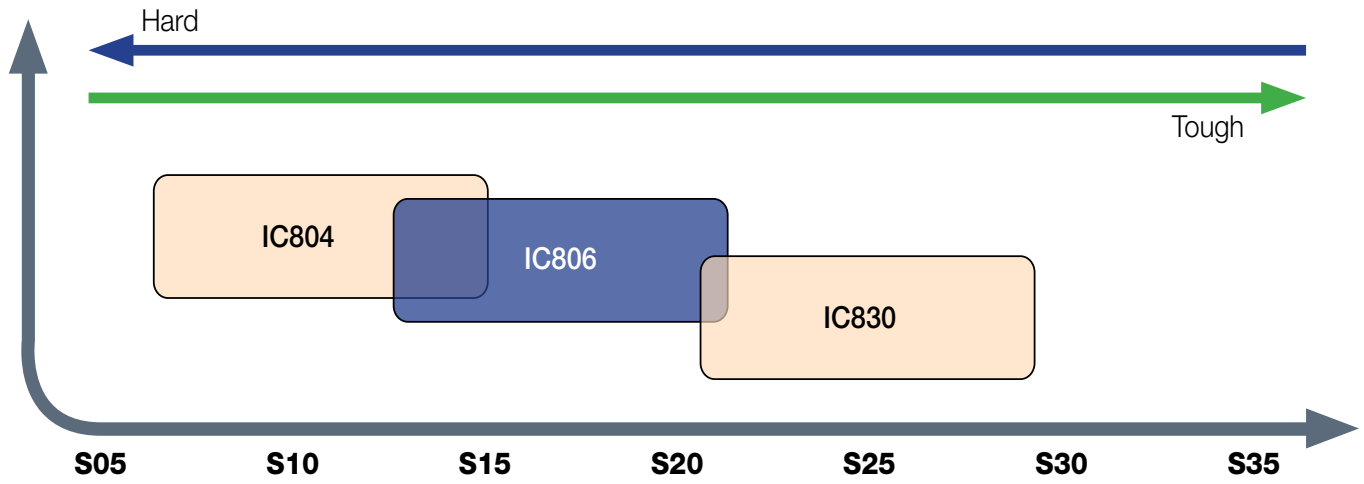
ISO S-High Temp. Alloys





First Choice

Recommended Carbide Grades



* For CBN and Ceramic grades for hardend steel see page (237)

Selection Guide for Chipformers and Grades

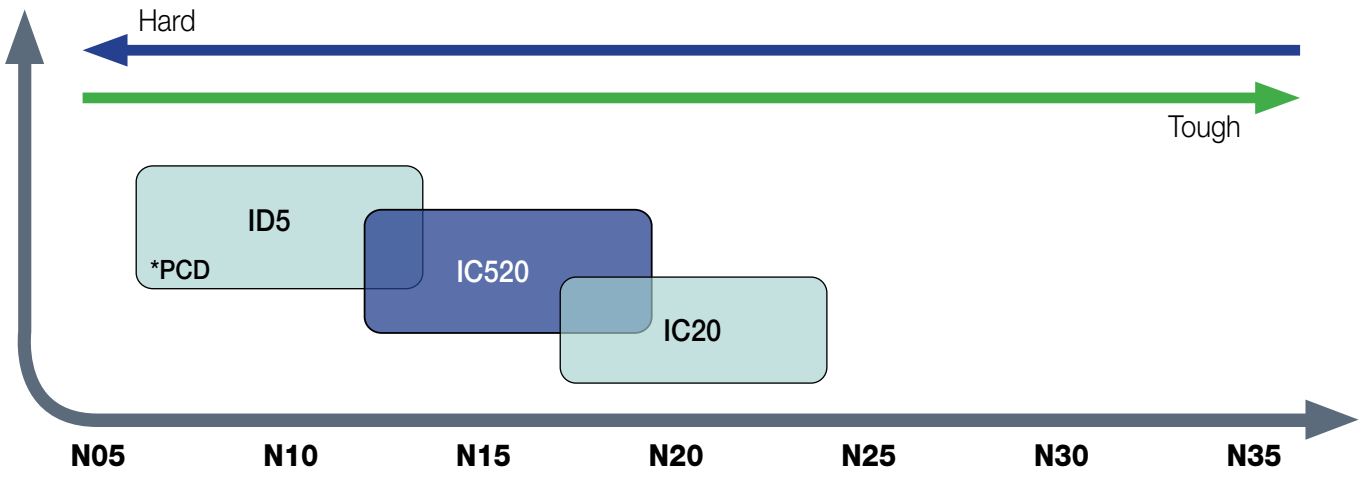
ISO N-Aluminum

	Finishing	Medium	Roughing
Negative	Tight ↕ Open	Tight ↕ Open	Tight ↕ Open
	 NF	 PP	 NMS12
	 **F3N**	 **M3N**	

	Finishing
Positive	Tight ↕ Open
	 AS

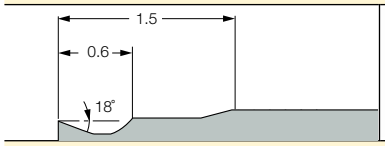
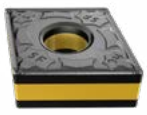
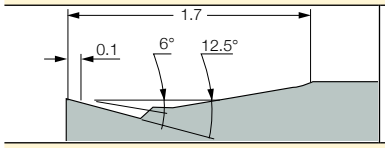
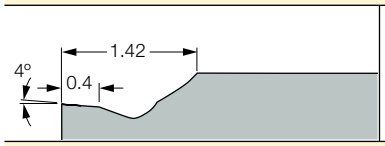
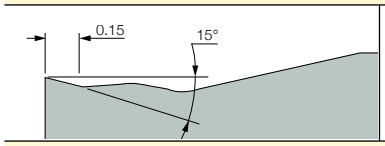
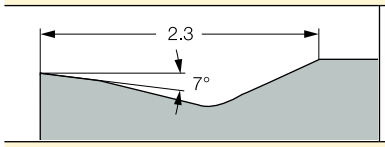
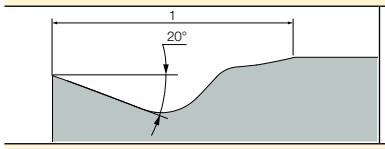
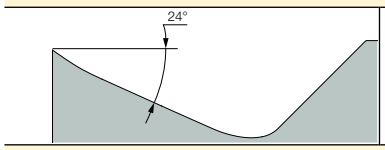
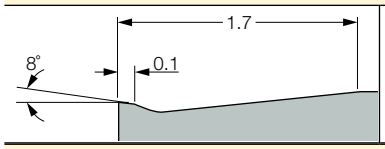
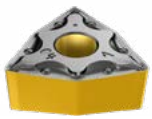
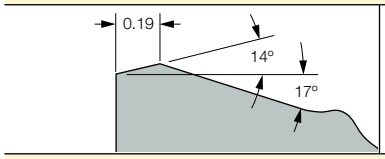
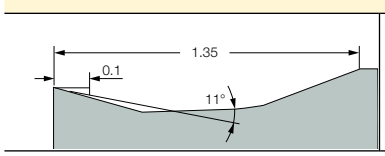
First Choice

Recommended Carbide Grades

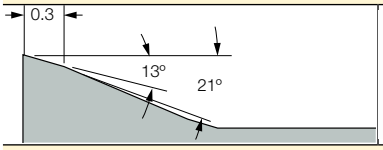
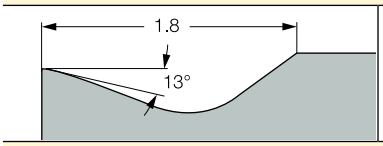
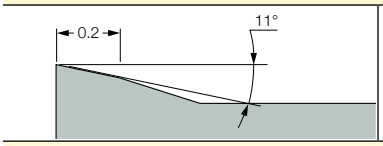
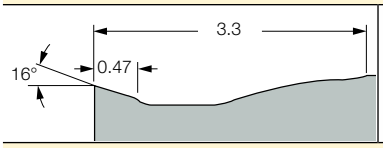
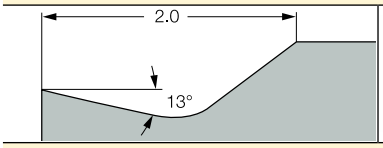
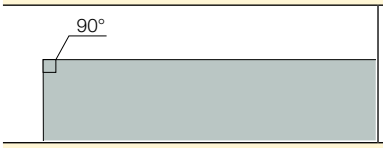
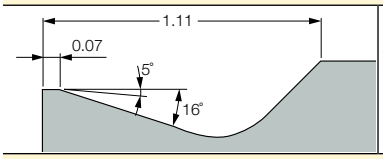
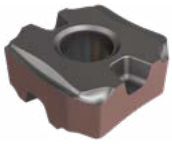
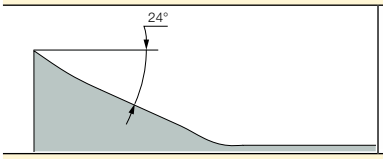
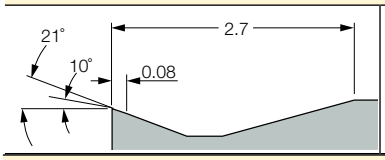
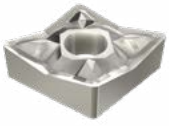
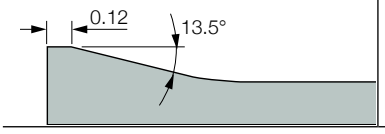


Chipformers

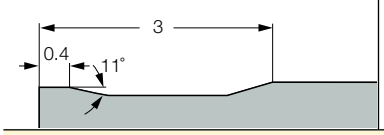
Negative Chipformers

SF Chipformer		
		A unique super finishing chipformer that controls chip flow at very low feeds and cutting depths. Designed to reduce crater wear.
F3P Chipformer		
		Double-sided insert with a positive rake angle to reduce cutting forces for finish machining on steel.
NF Chipformer		
		Double-sided for semi-finishing and finishing applications. Low cutting forces are due to a very sharp edge and positive rake.
F3M Chipformer		
		Double-sided insert with a positive rake angle for finish machining on stainless steel. Its unique deflector geometry with a wavy surface prevents chip hammering.
GN Chipformer		
		Double-sided for general applications. Secure cutting edge for medium and semi-roughing on steel and cast iron.
F3S Chipformer		
		Chipbreaker with positive rake angle for finish machining superalloys and exotic materials.
F3N Chipformer		
		Polished and extra sharp positive insert for machining aluminum and non-ferrous materials for finishing applications.
WF Chipformer		
		Wiper geometry for high feed finishing on soft and gummy materials. Small depths of cut.
M4PW Chipformer		
		Double-sided for roughing applications. Feed range: 0.25 mm/rev to 0.8 mm/rev. Depth of cut from 2.00 to 10.0 mm.
M3P Chipformer		
		Double-sided insert for medium machining on steel with a reinforced cutting edge to increase tool life.

Negative Chipformers

M4MW Chipformer		
		Chipformer for heavy machining applications on stainless steel. The inserts feature a very positive radial helical cutting edge and a positive rake angle.
TF Chipformer		
		Double-sided positive rake angles to prevent strain hardening. The rake angle varies along the edge to a negative angle which prevents chipping. Special design reduces cratering. Used for carbon and alloy steel, stainless steel and high-temp alloys.
M3M Chipformer		
		Double-sided insert for medium machining on stainless steel with a reinforced cutting edge that prevents notch wear at tight radii to increase tool life.
VL Chipformer		
		High positive rake and a special edge preparation used for rough and finish turning on high temperature alloys. Excellent performance on parts such as automotive valves.
PP Chipformer		
		Double-sided, very positive rake, sharp- and positive radial edge for heat-resistant alloys, stainless steel, aluminum alloys and soft, low carbon steel.
A Chipformer		
		Flat inserts, used for short chipping materials such as cast iron.
EM-M Chipformer		
		Double-sided sharp cutting edge with a 16º positive rake angle for machining high temperature alloys at a_p<3 mm.
M3N Chipformer		
		Polished and extra sharp positive insert for machining aluminum and non-ferrous materials for medium applications.
12 Chipformer		
		Single-sided for medium to rough machining on aluminum and soft materials.
R3P Chipformer		
		Chipbreaker for rough machining on steel with a positive rake angle and reinforced cutting edge for better performance and longer tool life.

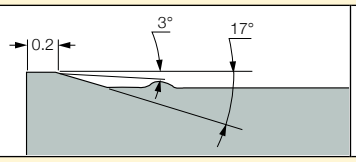
NR Chipformer





Double-sided sharp cutting edge with a 13º positive rake angle for machining high temperature alloys at a_p < 6 mm.

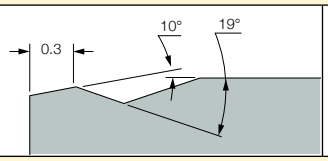
R3M Chipformer





Double-sided insert for rough machining on stainless steel with a unique deflector geometry to improve chip control. Includes a wavy surface to prevent chip hammering.

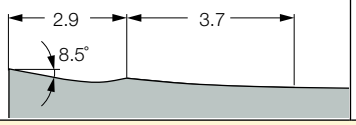
T3P Chipformer





Double-sided 6˚ negative flank trigone insert for high feed turning on steel.

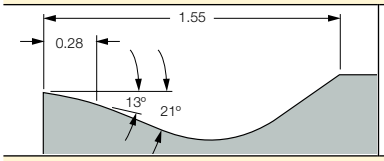
TNM Chipformer

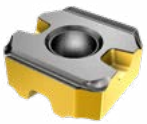




Double-sided trigon for roughing applications. Feed ranges: from 0.25 to 0.65 mm/rev. Depth of cut from 2 to 7 mm.

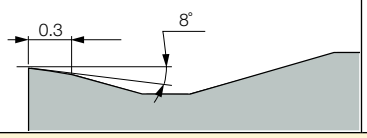
EM-R Chipformer





Double-sided sharp cutting edge with a 13º positive rake angle for machining high temperature alloys at a_p < 6 mm.

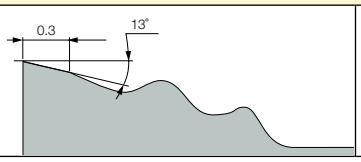
HT/WG Chipformer





Double-sided for roughing applications. Feed range: 0.25 mm/rev to 0.8 mm/rev. Depth of cut from 2.00 to 10.0 mm.

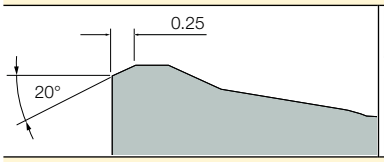
HM Chipformer

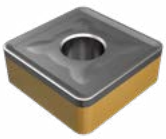




Feed range: 0.08 mm/rev to 0.75 mm/rev. Depth of cut from 1.5 mm to 8.0 mm.

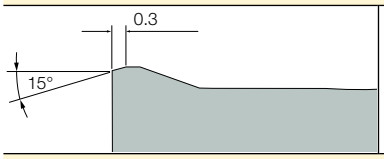
H3P Chipformer

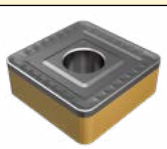




- For heavy roughing applications
- Low cutting force for low horse power machines
- Excellent chip control due to changeable land and a flexible chip breaker

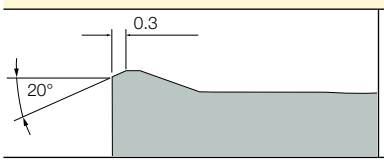
H4P Chipformer





- For heavy roughing applications
- For large depth of cut and high feed
- Strong cutting edge credit to a wide land and large land angle

H5P Chipformer

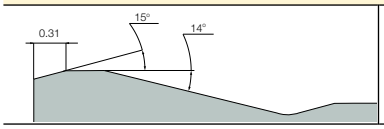




- For heavy roughing applications
- For large depth of cut and high feed
- Extremely strong cutting edge credit to a wide land and large land angle
- Suitable for high cutting conditions

Negative Chipformers

H6P Chipformer

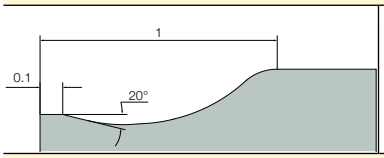




Tangential insert with 4 cutting edges for high metal removal on steel up to 35 mm DOC

Positive Chipformers

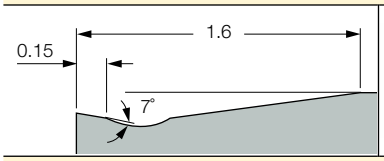
F3P Chipformer





Super finishing and finishing applications, mainly on positive inserts.
Feed range: 0.03-0.20 mm/rev. DOC 0.25-3.0 mm.

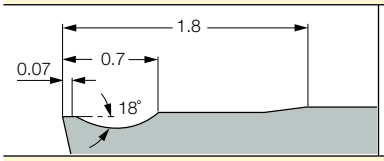
PF Chipformer





Super finishing and finishing applications, mainly on positive inserts.
Feed range: 0.03-0.20 mm/rev. DOC 0.25-3.0 mm.

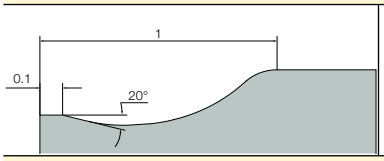
SM Chipformer

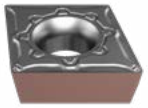




Finishing and boring applications. Feed range: 0.06-0.25 mm/rev. DOC 0.5-2.5 mm.

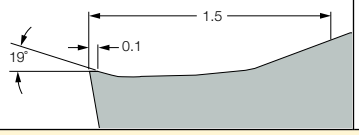
F3M Chipformer





Chipbreaker with positive rake angle for finishing machining of stainless steel, also suitable for superalloys and exotic materials.

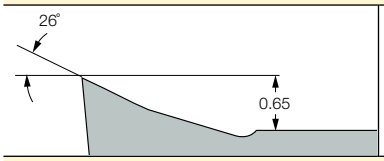
14 Chipformer





Semi-finishing and finishing. Medium feeds.

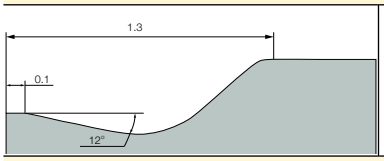
AS Chipformer





For general use machining on aluminum and soft materials.

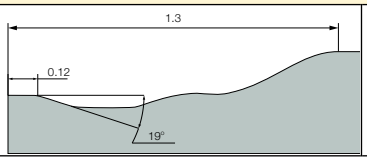
M3P Chipformer





Chipbreaker with reinforced cutting edge and positive rake angles for medium machining steel conditions.

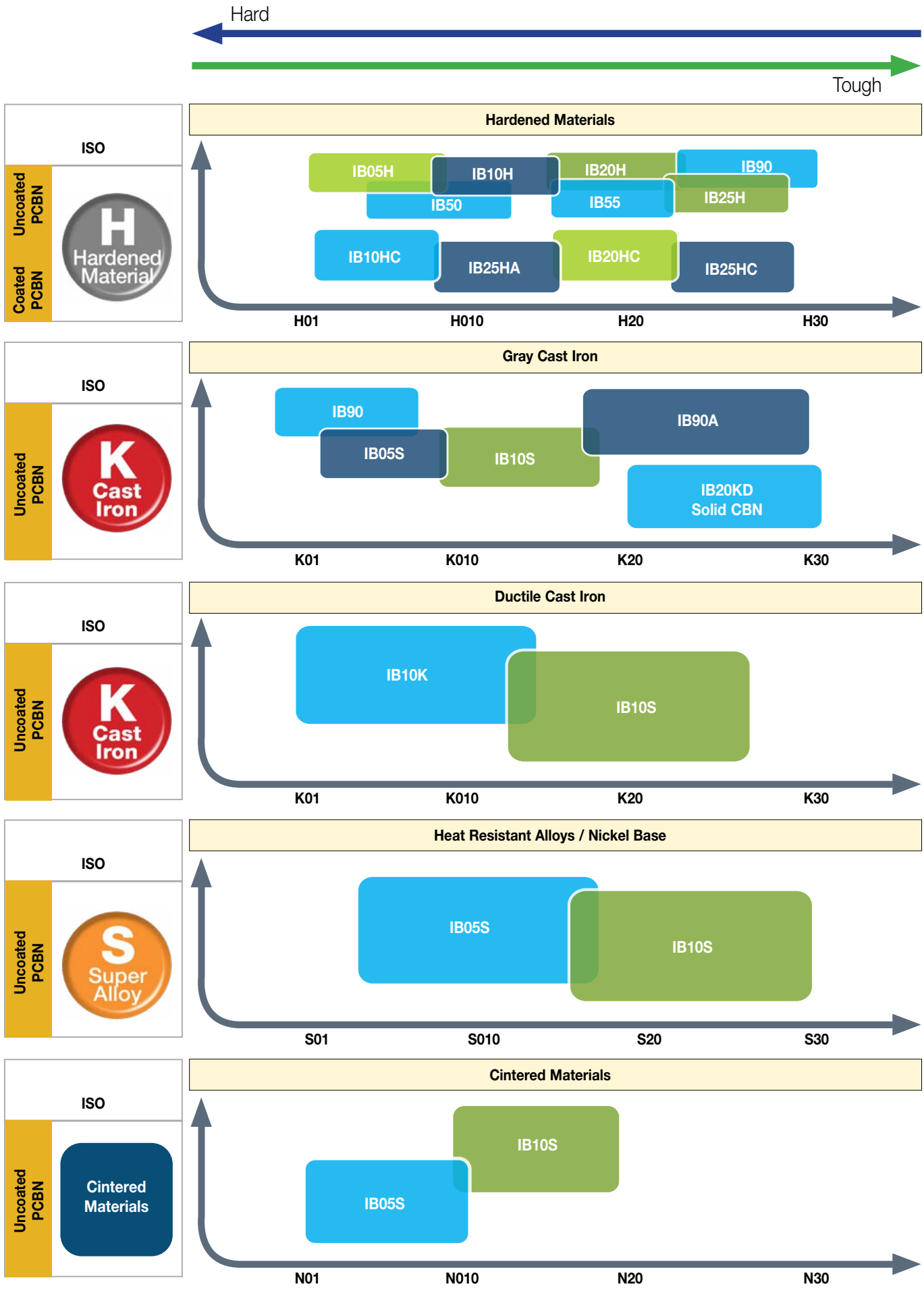
M3M Chipformer



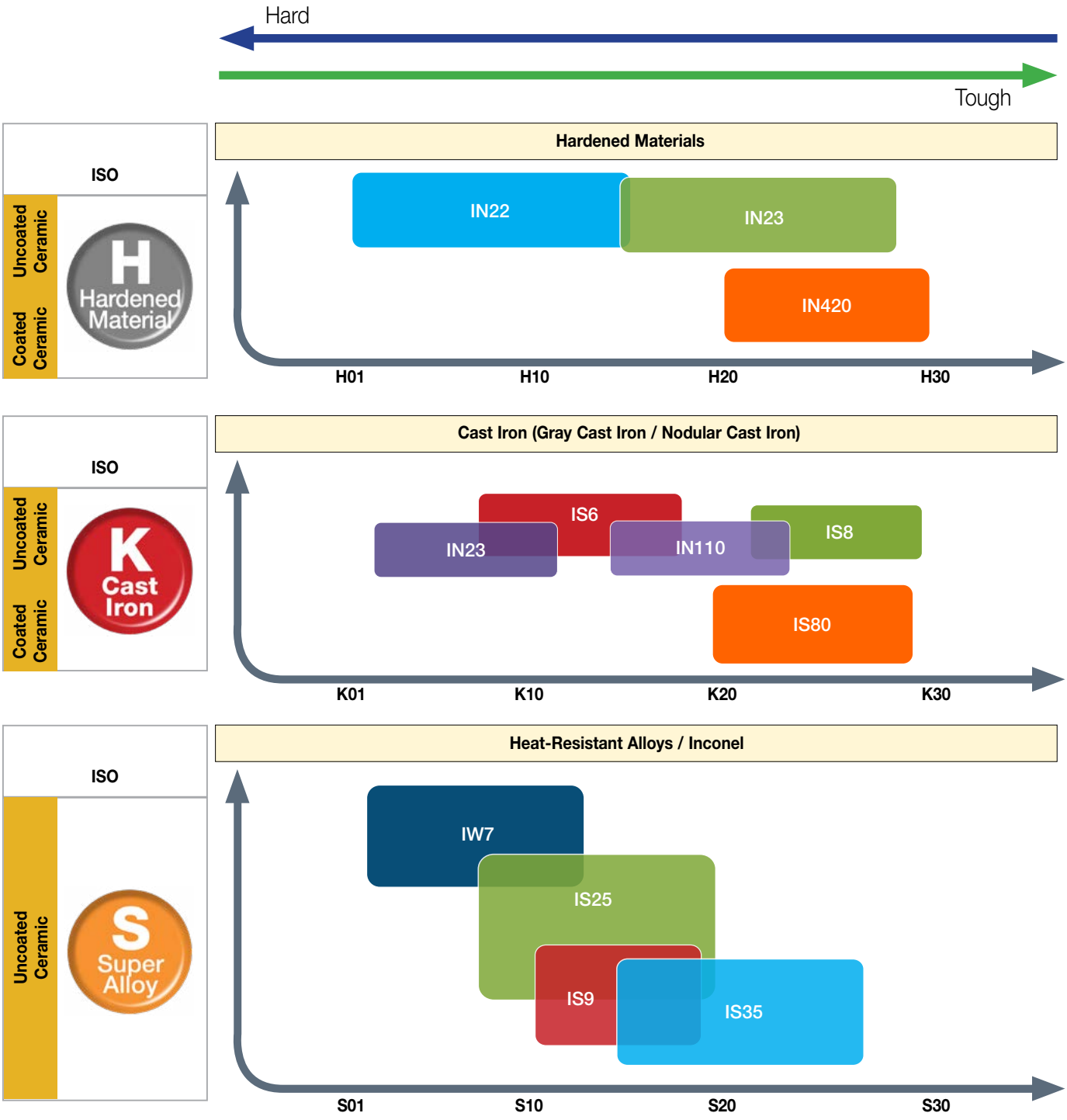


Chipbreaker with reinforced cutting edge and positive rake angles for medium machining stainless steel conditions.

PCBN Grades


Hard
Tough
ISO
Uncoated PCBN
Coated PCBN
H
Hardened Material
Hardened Materials
IB05H
IB10H
IB20H
IB90
IB50
IB55
IB25H
IB10HC
IB25HA
IB20HC
IB25HC
H01
H010
H20
H30
ISO
Uncoated PCBN
K
Cast Iron
Gray Cast Iron
IB90
IB05S
IB10S
IB90A
IB20KD
Solid CBN
K01
K010
K20
K30
ISO
Uncoated PCBN
K
Cast Iron
Ductile Cast Iron
IB10K
IB10S
K01
K010
K20
K30
ISO
Uncoated PCBN
S
Super Alloy
Heat Resistant Alloys / Nickel Base
IB05S
IB10S
S01
S010
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Ceramic Grades

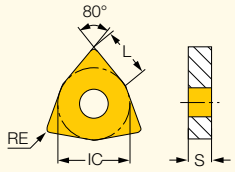


ISOTURN
MINIPTURN POSITIVE DOUBLE SIDED

WNGP-F2P

Double-Sided Trigon Inserts for Super Finish Machining Conditions on Alloyed Steel







Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGP 040302R/L-F2P	4.35	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
WNGP 040304R/L-F2P	4.35	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
WNGP 040308R/L-F2P	4.35	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

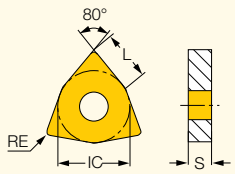
For tools, see pages: A/E-SWLNR/L-04 (103) • NQCH-SWLNR/L-S-JHP (8) • PWLNR/L-S (8)

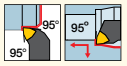
ISOTURN

WNMG-F3P

Double-Sided Trigon Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-F3P	6.52	9.52	4.76	0.40	●	●	●	●	●	●	0.50-2.50	0.07-0.25
WNMG 060408-F3P	6.52	9.52	4.76	0.80	●	●	●	●	●	●	0.90-3.00	0.08-0.25
WNMG 060412-F3P	6.52	9.52	4.76	1.20	●	●	●			●	1.30-3.00	0.10-0.25
WNMG 080404-F3P	8.70	12.70	4.76	0.40	●	●	●			●	0.50-3.50	0.07-0.25
WNMG 080408-F3P	8.70	12.70	4.76	0.80	●	●	●			●	0.90-3.50	0.08-0.25
WNMG 080412-F3P	8.70	12.70	4.76	1.20	●	●	●			●	1.30-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

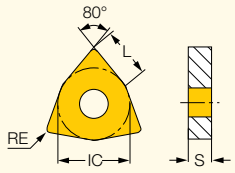
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

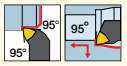
ISOTURN

WNMG-M3P

Double-Sided Trigon Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC5010	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-M3P	6.52	9.52	3.97	0.40	●	●	●			0.45-2.50	0.10-0.45
WNMG 06T308-M3P	6.52	9.52	3.97	0.80	●	●	●			0.50-3.00	0.15-0.50
WNMG 06T312-M3P	6.52	9.52	3.97	1.20	●	●				0.80-3.00	0.18-0.60
WNMG 060404-M3P	6.52	9.52	4.76	0.40	●	●	●		●	0.45-2.50	0.10-0.45
WNMG 060408-M3P	6.52	9.52	4.76	0.80	●	●	●		●	0.50-3.00	0.15-0.50
WNMG 060412-M3P	6.52	9.52	4.76	1.20	●		●		●	0.80-3.00	0.18-0.60
WNMG 080404-M3P	8.70	12.70	4.76	0.40	●	●	●		●	0.40-3.50	0.10-0.45
WNMG 080408-M3P	8.70	12.70	4.76	0.80	●	●	●	●	●	0.50-4.00	0.15-0.50
WNMG 080412-M3P	8.70	12.70	4.76	1.20	●	●	●	●	●	0.80-4.00	0.18-0.60
WNMG 080416-M3P	8.70	12.70	4.76	1.60	●	●			●	1.00-4.00	0.23-0.65

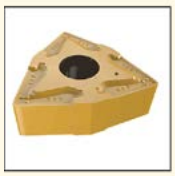
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

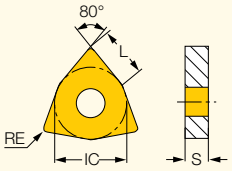
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

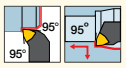
ISOTURN

WNMG-CERMET

Double-Sided Trigon Cermet Grade Inserts for Semi-Finishing and Finishing Applications





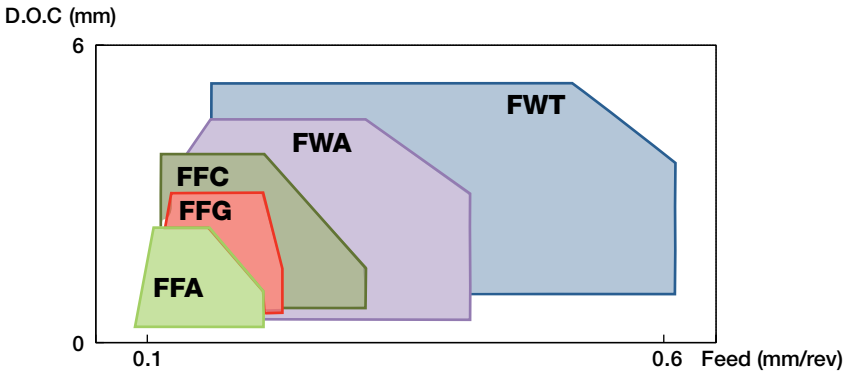


Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T302-FFC	6.52	9.52	3.97	0.20	●	●	1.00-2.50	0.05-0.25
WNMG 06T304-FFC	6.52	9.52	3.97	0.40	●	●	1.00-2.50	0.05-0.25
WNMG 06T304-FFG	6.52	9.52	3.97	0.40		●	1.00-2.50	0.05-0.25
WNMG 06T304-FWA (1)	6.52	9.52	3.97	0.40		●	0.50-3.00	0.12-0.50
WNMG 06T308-FFC	6.52	9.52	3.97	0.80	●		1.00-2.50	0.05-0.25
WNMX 060404-FWA (1)	6.52	9.52	4.76	0.40		●	0.50-3.00	0.12-0.50
WNMG 06T302-FFA	6.52	9.92	3.97	0.20		●	0.30-1.50	0.05-0.16
WNMG 080404-FFC	8.70	12.70	4.76	0.40	●	●	1.00-2.50	0.05-0.25
WNMG 080408-FFC	8.70	12.70	4.76	0.80		●	1.00-2.50	0.05-0.25
WNMG 080408-FWT	8.70	12.70	4.76	0.80		●	1.40-5.00	0.15-0.60

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

(1) Insert with wiper geometry

For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)



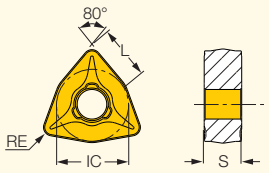
DOVEIQTURN HEAVY DUTY LINE

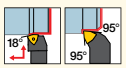
FEEDTURN

WOMG-10-T3P-IQ

Double-Sided 6° Negative Side Flank Trigon Inserts for High Feed Turning of Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8350	IC8250	IC8150	Recommended Machining Data a_p (mm)(2)	f (mm/rev)(1)
WOMG 100716-T3P-IQ	10.86	15.88	7.94	1.60	●	●	●	1.00-2.80	1.50-3.00

- The specified machining recommendations in the above table are valid only for PWXOR/L-TF-IQ tools. For PWLOR/L-IQ tools: a_p= 3-7 mm, ft= 0.3-0.8 mm/rev.
- For user guide, see pages 122-134, 236-248

(1) Fast feed cutting condition. For 95° app. See more info.

(2) Fast feed cutting condition. For 95° app. See more info.

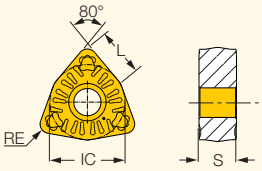
For tools, see pages: PWLOR/L-IQ (18) • PWXOR/L-TF-IQ (19)

DOVE IQ TURN HEAVY DUTY LINE

WOMG-13-R3P-IQ

Double-Sided 7° Negative Side Flank Trigon Inserts for Heavy Turning of Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
WOMG 130612-R3P-IQ	13.03	19.05	6.35	1.20	●	●	3.50-8.00	0.30-0.80
WOMG 130616-R3P-IQ	13.03	19.05	6.35	1.60	●	●	4.00-8.00	0.40-0.85
WOMG 130624-R3P-IQ	13.03	19.05	6.35	2.40	●	●	4.00-8.00	0.40-1.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: C#-PWLOR/L-IQ (19) • PWLOR/L-IQ (18)

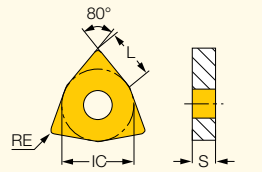
ISOTURN

MINI PTURN POSITIVE DOUBLE SIDED

WNGP-F2M

Double-Sided Trigon Inserts for Super Finish Machining Conditions on Stainless Steel







Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGP 040302R/L-F2M	4.35	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
WNGP 040304R/L-F2M	4.35	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
WNGP 040308R/L-F2M	4.35	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

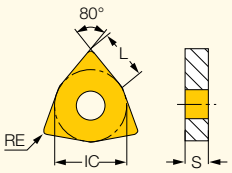
For tools, see pages: A/E-SWLNR/L-04 (103) • NQCH-SWLNR/L-S-JHP (8) • PWLNR/L-S (8)

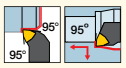
ISOTURN

WNMG-F3M

Double-Sided Trigon Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-F3M	6.52	9.52	4.76	0.40	●	●	●	●	●	0.10-1.50	0.05-0.30
WNMG 060408-F3M	6.52	9.52	4.76	0.80	●	●	●	●	●	0.10-1.50	0.10-0.40
WNMG 060412-F3M	6.52	9.52	4.76	1.20		●	●	●	●	0.20-2.50	0.15-0.50
WNMG 080404-F3M	8.70	12.70	4.76	0.40	●	●	●	●	●	0.10-1.50	0.05-0.30
WNMG 080408-F3M	8.70	12.70	4.76	0.80	●	●	●	●	●	0.10-1.50	0.10-0.40
WNMG 080412-F3M	8.70	12.70	4.76	1.20	●	●	●	●	●	0.20-2.50	0.15-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

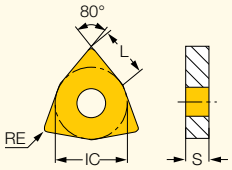
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

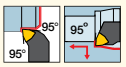
ISOTURN

WNMG-M3M

Double-Sided Trigon Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-M3M	6.52	9.52	4.76	0.40	●	●	●	●	●		0.50-3.50	0.12-0.40
WNMG 060408-M3M	6.52	9.52	4.76	0.80	●	●	●	●	●		0.50-3.50	0.15-0.50
WNMG 060412-M3M	6.52	9.52	4.76	1.20	●	●	●	●	●		0.50-3.50	0.20-0.60
WNMG 080404-M3M	8.70	12.70	4.76	0.40	●				●		0.50-5.00	0.12-0.40
WNMG 080408-M3M	8.70	12.70	4.76	0.80	●	●	●	●	●	●	0.50-5.00	0.15-0.50
WNMG 080412-M3M	8.70	12.70	4.76	1.20	●	●	●	●	●		0.50-5.00	0.20-0.60
WNMG 080416-M3M	8.70	12.70	4.76	1.60					●		0.50-5.00	0.25-0.70

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

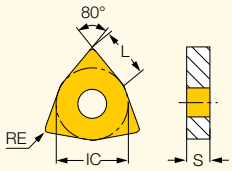
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

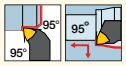
ISOTURN

WNMG-F3S

Double-Sided 80° Trigon Inserts for Titanium and Heat Resistant Materials for Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-F3S	6.52	9.52	4.76	0.40	●	●	0.10-1.50	0.05-0.30
WNMG 060408-F3S	6.52	9.52	4.76	0.80	●	●	0.10-1.50	0.10-0.35
WNMG 080404-F3S	8.70	12.70	4.76	0.40	●	●	0.10-1.50	0.05-0.30
WNMG 080408-F3S	8.70	12.70	4.76	0.80	●	●	0.10-1.50	0.10-0.35

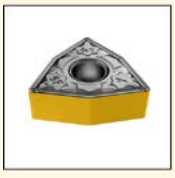
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

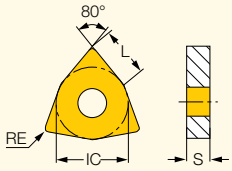
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • DWLNR/L-JHP-MC (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105)

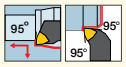
ISOTURN

WNMG-SF

Double-Sided Trigon Inserts for Super Finishing







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC520N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T302-SF	6.52	9.52	3.97	0.20	●				0.30-1.50	0.02-0.15
WNMG 06T304-SF	6.52	9.52	3.97	0.40	●	●	●	●	0.30-1.50	0.05-0.15

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

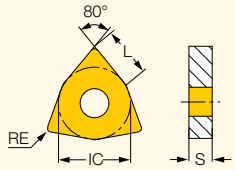
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • MWLNR/L-W (18) • PWLNR/L (8)

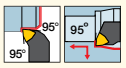
ISOTURN

WNMG-NF

Double-Sided Trigon Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8350	IC8250	IC908	IC30N	IC530N	IC10	IC8150	IC20	IC20N	IC520N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T301-NF	6.52	9.52	3.97	0.10			●										0.20-1.00	0.05-0.15
WNMG 06T302-NF	6.52	9.52	3.97	0.20	●	●		●	●	●	●		●		●	●	0.30-1.50	0.08-0.17
WNMG 06T304-NF	6.52	9.52	3.97	0.40	●	●		●	●	●	●	●	●	●	●	●	0.40-2.50	0.07-0.25
WNMG 06T308-NF	6.52	9.52	3.97	0.80	●	●				●	●	●	●				0.60-3.00	0.08-0.25
WNMG 060402-NF	6.52	9.52	4.76	0.20											●	●	0.30-3.00	0.05-0.20
WNMG 060404-NF	6.52	9.52	4.76	0.40		●									●	●	0.60-3.00	0.08-0.25
WNMG 060408-NF	6.52	9.52	4.76	0.80							●						0.80-3.00	0.08-0.25
WNMG 080404-NF	8.70	12.70	4.76	0.40		●			●				●				0.40-3.50	0.07-0.25
WNMG 080408-NF	8.70	12.70	4.76	0.80		●			●		●						0.80-3.50	0.08-0.25
WNMG 080412-NF	8.70	12.70	4.76	1.20							●						1.20-3.50	0.08-0.25

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

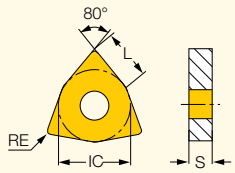
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

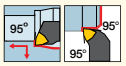
ISOTURN

WNMG-VL

Double-Sided Trigon Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T308-VL	6.52	9.52	3.97	0.80	●			0.50-3.00	0.07-0.25
WNMG 080404-VL	8.70	12.70	4.76	0.40		●	●	0.30-3.00	0.05-0.15
WNMG 080408-VL	8.70	12.70	4.76	0.80	●	●		0.50-4.00	0.10-0.25
WNMG 080412-VL	8.70	12.70	4.76	1.20	●			1.00-4.50	0.12-0.25

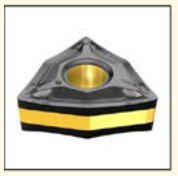
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

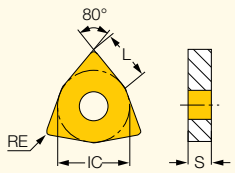
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

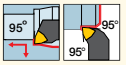
ISOTURN

WNMG-WG

Double-Sided Trigon Wiper Inserts for High Surface Finish at High Feed Turning







Designation	Dimensions IC	L	S	RE	Tough ↔ Hard IC8250	IC530N	IC8150	IC20N	IC520N	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-WG	9.52	6.52	3.97	0.40	●	●	●	●	●					0.40-3.00	0.10-0.35
WNMG 06T308-WG	9.52	6.52	3.97	0.80	●		●		●			●	●	0.60-3.50	0.10-0.50
WNMG 060404-WG	9.52	6.52	4.76	0.40	●	●	●					●		0.40-3.00	0.10-0.35
WNMG 060408-WG	9.52	6.52	4.76	0.80	●		●					●		0.60-3.50	0.10-0.50
WNMG 080408-WG	12.70	8.70	4.76	0.80	●	●	●		●	●	●	●	●	1.00-3.50	0.10-0.50
WNMG 080412-WG	12.70	8.70	4.76	1.20	●		●			●	●			1.20-4.00	0.30-0.80

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

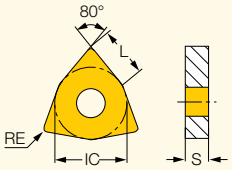
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

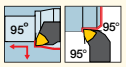
ISOTURN

WNMG-WF

Double-Sided Trigon
Wiper Inserts for Finishing
Operations at High Feeds







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC8150	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060402-WF	6.52	9.52	4.76	0.20				●	0.20-3.00	0.05-0.25
WNMG 060404-WF	6.52	9.52	4.76	0.40			●	●	0.50-3.00	0.05-0.30
WNMG 060408-WF	6.52	9.52	4.76	0.80				●	0.80-3.50	0.07-0.30
WNMG 080408-WF	8.70	12.70	4.76	0.80	●	●			0.80-3.50	0.07-0.35
WNMG 080412-WF	8.70	12.70	4.76	1.20		●			0.80-3.50	0.07-0.35

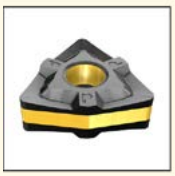
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

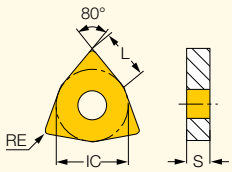
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9)
• C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16)
• HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12)
• PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

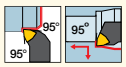
ISOTURN

WNMG-PP

Double-Sided Trigon Inserts for
Machining Very Ductile Materials
at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC8350	IC6025	IC8250	IC30N	IC530N	IC10	IC6015	IC8150	IC520M	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-PP	6.52	9.52	3.97	0.40			●		●		●	●		●					●	●	1.00-3.00	0.14-0.30
WNMG 06T308-PP	6.52	9.52	3.97	0.80		●	●		●					●					●	●	1.00-3.00	0.14-0.30
WNMG 060404-PP	6.52	9.52	4.76	0.40			●		●										●	●	1.00-3.00	0.14-0.30
WNMG 060408-PP	6.52	9.52	4.76	0.80			●												●	●	1.00-3.00	0.14-0.30
WNMG 080404-PP	8.70	12.70	4.76	0.40		●	●	●	●			●	●	●					●	●	1.00-3.50	0.14-0.30
WNMG 080408-PP	8.70	12.70	4.76	0.80	●	●	●	●	●			●	●	●	●		●	●	●	●	1.00-4.00	0.14-0.30
WNMG 080412-PP	8.70	12.70	4.76	1.20					●	●						●					1.50-5.00	0.18-0.40

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

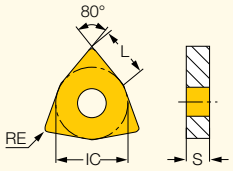
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9)
• C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16)
• HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12)
• PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

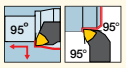
ISOTURN

WNMG-TF

Double-Sided Trigon Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC908	IC6015	IC8150	IC520M	IC20	IC20N	IC5010	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-TF	6.52	9.52	3.97	0.40	●			●					●				●	●	1.00-3.00	0.12-0.35
WNMG 06T308-TF	6.52	9.52	3.97	0.80	●			●			●		●	●		●	●	●	1.00-3.00	0.12-0.35
WNMG 06T312-TF	6.52	9.52	3.97	1.20													●	●	1.00-4.00	0.15-0.40
WNMG 060404-TF	6.52	9.52	4.76	0.40				●									●	●	1.00-3.00	0.12-0.35
WNMG 060408-TF	6.52	9.52	4.76	0.80	●			●			●						●	●	1.00-3.00	0.12-0.35
WNMG 060412-TF	6.52	9.52	4.76	1.20													●	●	1.00-4.00	0.15-0.35
WNMG 080404-TF	8.70	12.70	4.76	0.40	●		●	●		●	●		●			●	●	●	1.00-4.00	0.12-0.35
WNMG 080408-TF	8.70	12.70	4.76	0.80	●	●	●	●	●	●	●	●	●		●	●	●	●	1.00-4.00	0.12-0.35
WNMG 080412-TF	8.70	12.70	4.76	1.20	●		●	●	●	●	●		●				●	●	1.50-4.50	0.15-0.40

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

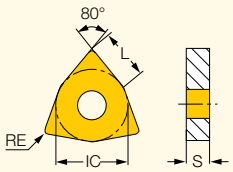
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

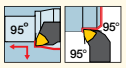
ISOTURN

WNMG-GN

Double-Sided Trigon Inserts for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC928	IC8350	IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-GN	6.52	9.52	3.97	0.40	●				●		●	●					1.00-3.50	0.14-0.40
WNMG 06T308-GN	6.52	9.52	3.97	0.80	●		●		●		●						1.00-3.50	0.16-0.45
WNMG 06T312-GN	6.52	9.52	3.97	1.20					●								1.50-4.00	0.18-0.45
WNMG 060404-GN	6.52	9.52	4.76	0.40					●								1.00-3.50	0.14-0.40
WNMG 060408-GN	6.52	9.52	4.76	0.80					●								1.00-3.50	0.16-0.45
WNMG 060412-GN	6.52	9.52	4.76	1.20							●						1.50-4.00	0.18-0.45
WNMG 080404-GN	8.70	12.70	4.76	0.40	●				●		●		●	●			1.00-4.50	0.14-0.40
WNMG 080408-GN	8.70	12.70	4.76	0.80	●	●	●	●	●	●	●	●	●	●	●	●	1.00-4.50	0.16-0.45
WNMG 080412-GN	8.70	12.70	4.76	1.20	●		●		●		●		●	●			1.50-4.50	0.22-0.50
WNMG 080416-GN	8.70	12.70	4.76	1.60					●								2.00-6.00	0.25-0.60
WNMG 130612-GN	13.03	19.05	6.35	1.20			●		●								2.50-5.50	0.30-0.50
WNMG 130616-GN	13.03	19.05	6.35	1.60					●								2.50-6.00	0.30-0.50

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

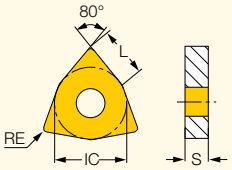
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

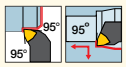
ISOTURN

WNMM-NM

Single-Sided Trigon Inserts
for Roughing Applications







Designation	Dimensions L	IC	S	RE	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMM 080408-NM	8.70	12.70	4.76	0.80	●	1.50-5.00	0.20-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

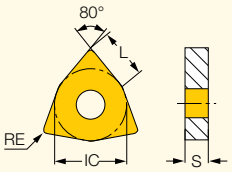
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

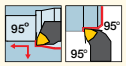
ISOTURN

WNMG-NR

Double-Sided Trigon Inserts
with a Special Chipformer
for Heavy Machining







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC5010	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 080408-NR	8.70	12.70	4.76	0.80	●		●	●	●	1.00-5.00	0.18-0.50
WNMG 080412-NR	8.70	12.70	4.76	1.20	●	●	●	●	●	2.00-5.00	0.23-0.55
WNMG 080416-NR	8.70	12.70	4.76	1.60	●	●				2.00-5.00	0.30-0.60

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

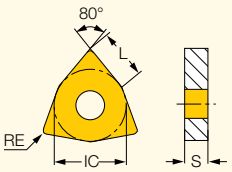
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

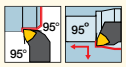
ISOTURN

WNMG-TNM

Double-Sided Trigon Inserts
for Semi-Roughing and
Roughing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 080408-TNM	8.70	12.70	4.76	0.80			●			2.00-4.50	0.25-0.45
WNMG 080412-TNM	8.70	12.70	4.76	1.20			●			2.00-4.50	0.25-0.45
WNMG 130612-TNM	13.03	19.05	6.35	1.20		●	●	●	●	2.50-7.00	0.25-0.65
WNMG 130616-TNM	13.03	19.05	6.35	1.60		●	●			2.50-7.00	0.25-0.65
WNMG 130624-TNM	13.03	19.05	6.35	2.40	●		●			3.00-7.00	0.30-0.65

• This inserts should be used with SEAT IWSN 635M3 only! • For user guide and cutting speed recommendations, see pages 122-134, 236-248

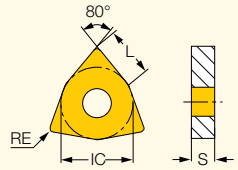
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-13W (18) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

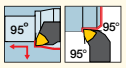
ISOTURN

WNMA/WNMA-WG

Double-Sided Trigon Inserts
for Short Chipping Materials
such as Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC5010	IC428	IC5005	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMA 06T304	6.52	9.52	3.97	0.40		●	●	●	0.50-2.00	0.03-0.30
WNMA 06T308	6.52	9.52	3.97	0.80		●	●	●	1.00-3.00	0.03-0.40
WNMA 06T312	6.52	9.52	3.97	1.20			●		1.50-3.50	0.03-0.45
WNMA 060404	6.52	9.52	4.76	0.40		●		●	1.00-3.00	0.03-0.50
WNMA 060408	6.52	9.52	4.76	0.80		●	●	●	1.00-3.00	0.03-0.50
WNMA 060412	6.52	9.52	4.76	1.20		●		●	1.00-3.00	0.03-0.50
WNMA 080408	8.70	12.70	4.76	0.80	●	●	●	●	1.00-4.00	0.03-0.48
WNMA 080408-WG	8.70	12.70	4.76	0.80			●		1.00-3.50	0.10-0.60
WNMA 080412	8.70	12.70	4.76	1.20		●	●	●	1.50-4.00	0.03-0.55
WNMA 080416	8.70	12.70	4.76	1.60		●		●	2.00-5.00	0.03-0.55
WNMA 130616	13.03	19.05	6.35	1.60			●	●	3.00-8.00	0.03-0.80

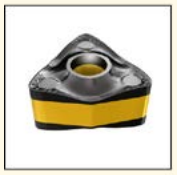
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

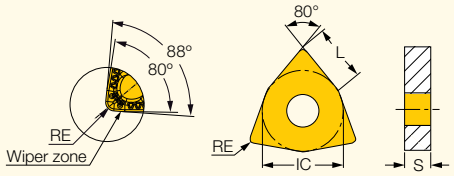
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • E-PWLNR/L-HEAD (105) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-13W (18) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

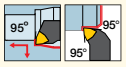
HELITURN LD

WNMX-M3/4PW

Double-Sided Trigon Inserts
with High Helical Cutting Edge
for High Metal Removal Rates







Designation	Dimensions IC	RE	S	L	Tough ↔ Hard IC830	IC8250	IC8150	IC520N	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMX 060604-M3PW	9.52	0.40	4.41	6.50	●	●	●			1.00-4.00	0.20-0.50
WNMX 060608-M3PW	9.52	0.80	4.41	6.50	●	●	●	●	●	1.50-4.00	0.25-0.60
WNMX 080708-M4PW	12.70	0.80	6.78	8.70		●	●		●	1.50-5.00	0.25-0.60
WNMX 080712-M4PW	12.70	1.20	6.78	8.70		●	●			2.00-5.00	0.30-0.80
WNMX 080716-M4PW	12.70	1.60	6.78	8.70		●	●			2.00-5.00	0.30-1.00

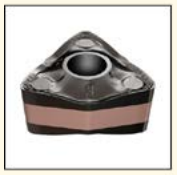
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

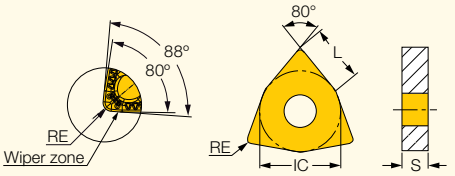
For tools, see pages: A-PWLNR/L-X/G (104) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • DWLNR/L-JHP-MC (10) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13)

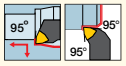
HELITURN LD

WNMX-M3/4MW

Double-Sided Trigon Inserts
for Machining Stainless Steel,
High Temperature Alloys and
Soft, Low Carbon Steel







Designation	Dimensions IC	RE	S	L	Tough ↔ Hard IC830	IC6025	IC8250	IC6015	IC8150	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMX 060604-M3MW	9.52	0.40	4.41	6.50	●	●		●				0.80-4.00	0.15-0.50
WNMX 060608-M3MW	9.52	0.80	4.41	6.50	●	●		●				1.00-5.00	0.20-0.60
WNMX 080704-M4MW	12.70	0.40	6.78	8.70		●	●	●	●	●	●	0.80-5.00	0.15-0.50
WNMX 080708-M4MW	12.70	0.80	6.78	8.70		●	●	●	●	●	●	1.00-5.00	0.20-0.60
WNMX 080712-M4MW	12.70	1.20	6.78	8.70		●		●		●	●	1.20-5.00	0.25-0.70

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

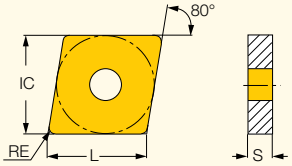
For tools, see pages: A-PWLNR/L-X/G (104) • C#-PWLNR/L-X (13) • C#-PWLNR/L-X-JHP (14) • DWLNR/L (10) • DWLNR/L-JHP-MC (10) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13)

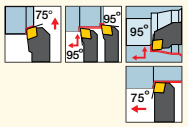
ISOTURN

CNMG-F3P

Double-Sided 80° Rhombic Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-F3P	9.67	9.52	4.76	0.40	●		●	●	●	●	●	0.50-3.50	0.07-0.25
CNMG 090408-F3P	9.67	9.52	4.76	0.80	●		●	●	●	●	●	0.90-3.50	0.08-0.25
CNMG 120404-F3P	12.90	12.70	4.76	0.40	●	●	●	●			●	0.50-3.50	0.07-0.25
CNMG 120408-F3P	12.90	12.70	4.76	0.80	●		●	●		●	●	0.90-3.50	0.08-0.25
CNMG 120412-F3P	12.90	12.70	4.76	1.20	●		●	●			●	1.30-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

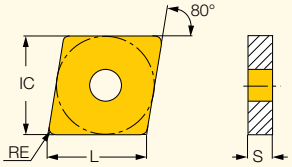
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • AVC-PCLNR/L (96) • DCLNR/L-JHP-MC (25)

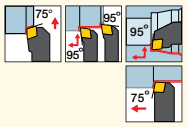
ISOTURN

CNMG-M3P

Double-Sided 80° Rhombic Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC5010	IC5005	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-M3P	9.67	9.52	4.76	0.40	●	●	●			●	0.40-4.00	0.10-0.30
CNMG 090408-M3P	9.67	9.52	4.76	0.80	●	●	●			●	0.50-4.50	0.15-0.50
CNMG 120404-M3P	12.90	12.70	4.76	0.40	●	●	●			●	0.40-5.50	0.10-0.30
CNMG 120408-M3P	12.90	12.70	4.76	0.80	●	●	●	●	●	●	0.50-5.50	0.15-0.50
CNMG 120412-M3P	12.90	12.70	4.76	1.20	●	●	●			●	0.80-5.50	0.18-0.60
CNMG 160612-M3P	16.12	15.88	6.35	1.20	●	●	●			●	0.80-7.20	0.18-0.60
CNMG 160616-M3P	16.12	15.88	6.35	1.60	●	●	●			●	0.80-7.20	0.18-0.60
CNMG 190608-M3P	19.30	19.05	6.35	0.80	●	●				●	0.50-8.60	0.15-0.50
CNMG 190612-M3P	19.30	19.05	6.35	1.20	●	●				●	0.80-8.60	0.18-0.60

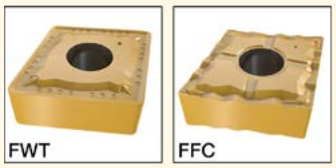
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

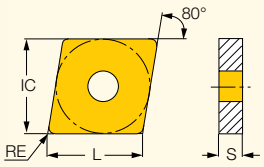
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • AVC-PCLNR/L (96) • DCLNR/L-JHP-MC (25)

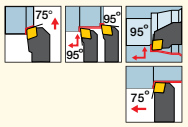
ISOTURN

CNMG-CERMET

Double-Sided 80° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications



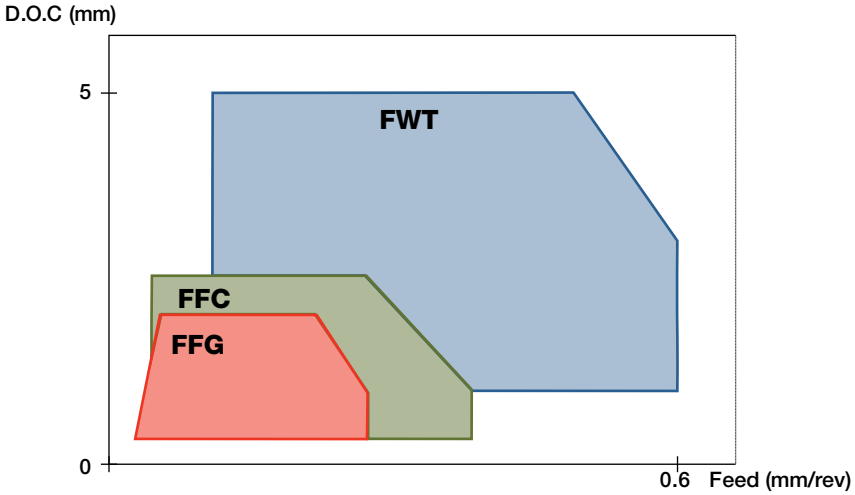




Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120402-FFG	12.90	12.70	4.76	0.20		●	0.40-3.50	0.07-0.25
CNMG 120404-FFC	12.90	12.70	4.76	0.40	●	●	0.50-3.50	0.07-0.25
CNMG 120408-FFC	12.90	12.70	4.76	0.80	●		1.00-2.50	0.05-0.25
CNMG 120408-FWT	12.90	12.70	4.76	0.80		●	0.00-5.00	0.15-0.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • DCLNR/L-JHP-MC (25)

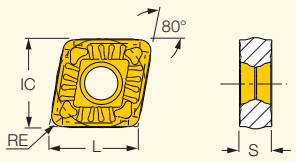


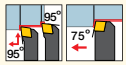
DOVE IQ TURN HEAVY DUTY LINE

COMG-R3P-IQ

Double-Sided 7° Negative Side Flank 80° Rhombic Inserts for Heavy Turning of Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
COMG 160608-R3P-IQ	16.12	15.88	6.35	0.80	●	●	2.00-9.00	0.25-0.50
COMG 160612-R3P-IQ	16.12	15.88	6.35	1.20	●	●	2.00-9.00	0.30-0.60
COMG 160616-R3P-IQ	16.12	15.88	6.35	1.60	●	●	2.00-9.00	0.30-0.70
COMG 190612-R3P-IQ	19.34	19.05	6.35	1.20	●	●	3.00-12.00	0.30-0.80
COMG 190616-R3P-IQ	19.34	19.05	6.35	1.60	●	●	3.50-12.00	0.35-0.90
COMG 190624-R3P-IQ	19.34	19.05	6.35	2.40	●	●	3.50-12.00	0.35-0.90
COMG 250924-R3P-IQ	25.79	25.40	9.52	2.40	●	●	4.00-15.00	0.40-1.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: C#-PCLOR/L-IQ (27) • PCBOR/L-IQ (27) • PCLOR/L-IQ (26)





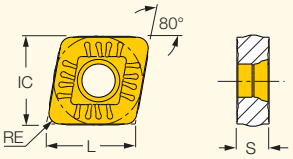
DOVE TAIL GEOMETRY

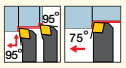
DOVEIQTURN HEAVY DUTY LINE

COMM-R3P-IQ

Single-Sided 7° Negative Side Flank 80° Rhombic Inserts for Heavy Turning of Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
COMM 190624-R3P-IQ	19.34	19.05	6.35	2.40	●	●	3.50-12.00	0.35-1.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

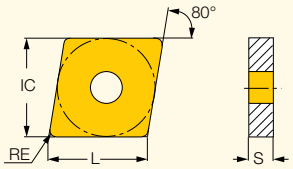
For tools, see pages: C#-PCLOR/L-IQ (27) • PCBOR/L-IQ (27) • PCLOR/L-IQ (26)

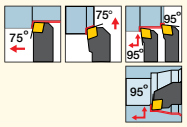
ISOTURN

CNMG-F3M

Double-sided 80° Rhombic Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC4	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-F3M	9.67	9.52	4.76	0.40	●	●	●	●	●			0.10-1.50	0.05-0.30
CNMG 090408-F3M	9.67	9.52	4.76	0.80	●	●	●	●	●			0.10-1.50	0.10-0.40
CNMG 120404-F3M	12.90	12.70	4.76	0.40	●	●	●	●	●			0.10-1.50	0.05-0.30
CNMG 120408-F3M	12.90	12.70	4.76	0.80	●	●	●	●	●		●	0.10-1.50	0.10-0.40
CNMG 120412-F3M	12.90	12.70	4.76	1.20	●	●	●	●	●	●	●	0.20-2.00	0.15-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

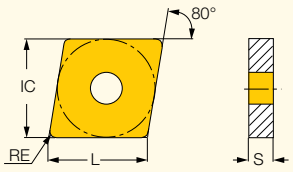
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • AVC-PCLNR/L (96) • DCLNR/L-JHP-MC (25)

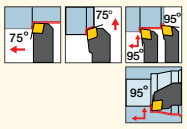
ISOTURN

CNMG-M3M

Double-Sided 80° Rhombic Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-M3M	9.67	9.52	4.76	0.40	●	●	●	●	●		0.40-4.00	0.12-0.40
CNMG 090408-M3M	9.67	9.52	4.76	0.80	●	●	●	●	●		0.50-4.50	0.15-0.50
CNMG 120404-M3M	12.90	12.70	4.76	0.40	●				●		0.50-5.00	0.15-0.50
CNMG 120408-M3M	12.90	12.70	4.76	0.80	●	●	●	●	●	●	0.50-5.00	0.15-0.50
CNMG 120412-M3M	12.90	12.70	4.76	1.20	●	●	●	●	●	●	0.50-5.00	0.20-0.60
CNMG 120416-M3M	12.90	12.70	4.76	1.60	●	●	●	●			0.50-5.00	0.25-0.70
CNMG 160608-M3M	16.12	15.88	6.35	0.80	●	●	●	●			0.50-7.00	0.15-0.50
CNMG 160612-M3M	16.12	15.88	6.35	1.20	●	●	●	●	●		0.50-7.00	0.20-0.60
CNMG 160616-M3M	16.12	15.88	6.35	1.60	●	●	●	●	●		0.50-7.00	0.25-0.70
CNMG 190608-M3M	19.34	19.05	6.35	0.80	●	●	●		●		3.00-10.00	0.30-0.70
CNMG 190612-M3M	19.34	19.05	6.35	1.20	●	●	●		●		3.00-10.00	0.35-0.80

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

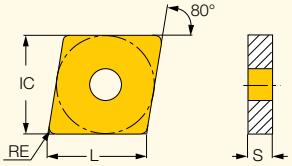
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • AVC-PCLNR/L (96) • DCLNR/L-JHP-MC (25)

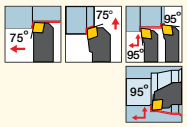
ISOTURN

CNMG-R3M

Double-Sided 80° Rhombic Inserts for Rough Machining of Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC806	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 160612-R3M	16.12	15.88	6.35	1.20	●	●		2.00-9.00	0.30-0.90
CNMG 160616-R3M	16.12	15.88	6.35	1.60	●	●		2.00-10.00	0.40-1.00
CNMG 160624-R3M	16.12	15.88	6.35	2.40		●		2.00-11.00	0.50-1.20
CNMG 190612-R3M	19.34	19.05	6.35	1.20	●	●	●	2.00-9.00	0.30-0.90
CNMG 190616-R3M	19.34	19.05	6.35	1.60	●	●	●	2.00-10.00	0.40-1.00
CNMG 190624-R3M	19.34	19.05	6.35	2.40	●	●		2.00-11.00	0.50-1.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

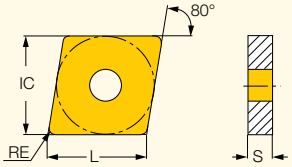
For tools, see pages: A/S-PCLNR/L (101) • C#-PCLNR/L-X (24) • DCBNR/L (26) • DCLNR/L (25)) • MCLNR/L (21) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-X (22) • A/S-PCLNR/L-X/G (102)

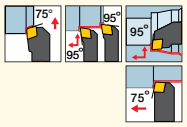
ISOTURN

CNMG-F3S

Double-Sided 80° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-F3S	9.67	9.52	4.76	0.40	●	●	0.10-1.50	0.05-0.30
CNMG 090408-F3S	9.67	9.52	4.76	0.80	●	●	0.10-1.50	0.05-0.30
CNMG 120404-F3S	12.90	12.70	4.76	0.40	●	●	0.10-1.50	0.05-0.30
CNMG 120408-F3S	12.90	12.70	4.76	0.80	●	●	0.10-1.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

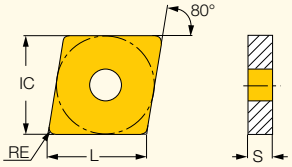
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • AVC-PCLNR/L (96) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105)

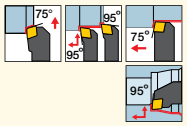
ISOTURN

CNMG-VL

Double-Sided 80° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404-VL	12.90	12.70	4.76	0.40	●		0.30-3.00	0.05-0.15
CNMG 120408-VL	12.90	12.70	4.76	0.80	●	●	0.50-4.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

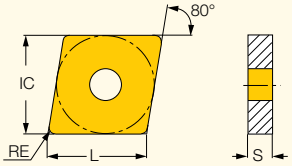
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

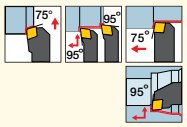
ISOTURN

CNMG/CNGG-SF

Double-Sided 80° Rhombic Inserts for Super-Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6015	IC520N	IC428	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120402-SF	12.90	12.70	4.76	0.20		●	●		0.30-2.00	0.03-0.25
CNMG 120404-SF	12.90	12.70	4.76	0.40	●				0.30-2.00	0.05-0.25
CNGG 120401-SF	12.90	12.70	4.76	0.10				●	0.20-1.50	0.03-0.15
CNGG 120402-SF	12.90	12.70	4.76	0.20				●	0.30-2.00	0.03-0.20
CNGG 120404-SF	12.90	12.70	4.76	0.40				●	0.30-2.00	0.03-0.20

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

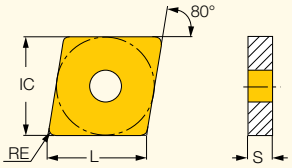
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24)
• DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15)
• PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99)
• S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

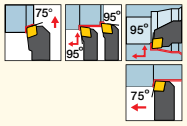
ISOTURN

CNMG-NF

Double-Sided 80° Rhombic Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC6015	IC8150	IC20N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404-NF	12.90	12.70	4.76	0.40	●	●	●	●	●	●	●	0.40-3.50	0.08-0.25
CNMG 120408-NF	12.90	12.70	4.76	0.80	●			●	●	●	●	0.80-3.50	0.08-0.25

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

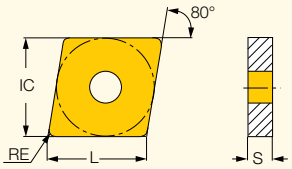
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24)
• DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15)
• PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99)
• S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

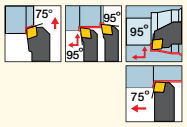
ISOTURN

CNMG-WF

Double-Sided 80° Rhombic Wiper Inserts for Finishing Operations at High Feeds







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120408-WF	12.90	12.70	4.76	0.80	●	●	0.80-3.50	0.10-0.35

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

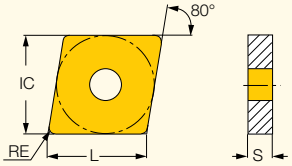
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24)
• DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15)
• PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99)
• S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

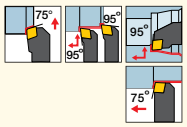
ISOTURN

CNMG-WG/NRW

Double-Sided 80° Rhombic Wiper Inserts for High Feed Turning and High Surface Finish







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC520N	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120408-WG	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	0.80-3.50	0.10-0.50
CNMG 120412-WG	12.90	12.70	4.76	1.20	●	●						1.50-4.00	0.30-0.80
CNMG 120416-NRW	12.90	12.70	4.76	1.60	●	●						2.00-4.50	0.30-0.80

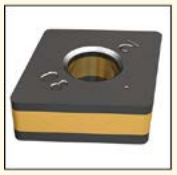
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

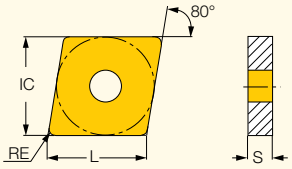
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

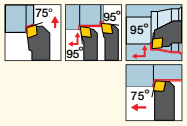
ISOTURN

CNMA

Double-Sided 80° Rhombic Inserts for Short Chipping Materials such as Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMA 120404	12.90	12.70	4.76	0.40			●	●	●			1.00-4.00	0.03-0.34
CNMA 120408	12.90	12.70	4.76	0.80	●	●	●	●	●			1.00-4.00	0.05-0.43
CNMA 120408F (1)	12.90	12.70	4.76	0.80						●	●	1.00-4.00	0.05-0.50
CNMA 120412	12.90	12.70	4.76	1.20	●	●	●	●	●			1.50-4.50	0.08-0.60
CNMA 120416	12.90	12.70	4.76	1.60			●	●	●			2.00-6.00	0.30-0.60
CNMA 160612	16.12	15.88	6.35	1.20			●		●			2.00-10.00	0.10-0.80
CNMA 160616	16.12	15.88	6.35	1.60			●		●			2.00-10.00	0.30-0.60
CNMA 190612	19.30	19.05	6.35	1.20		●		●	●			2.00-10.00	0.10-0.80
CNMA 190616	19.30	19.05	6.35	1.60					●			2.50-10.00	0.30-1.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

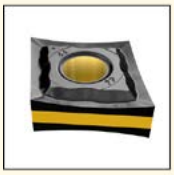
(1) Sharp edge

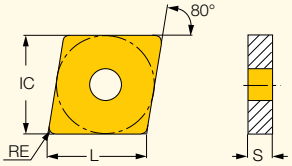
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105)

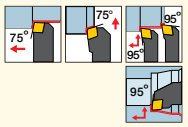
ISOTURN

CNMG/CNGG-PP

Double-Sided 80° Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC8350	IC6025	IC8250	IC10	IC6015	IC8150	IC428	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404-PP	12.90	12.70	4.76	0.40		●	●	●	●	●	●				●	●		1.00-4.00	0.14-0.30
CNMG 120408-PP	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	●	●	●	●	●		1.00-4.00	0.14-0.30
CNMG 120412-PP	12.90	12.70	4.76	1.20					●						●	●		1.50-4.00	0.18-0.40
CNMG 190612-PP	19.30	19.05	6.35	1.20											●	●		2.00-8.00	0.30-0.60
CNGG 120401-PP	12.90	12.70	4.76	0.10												●		0.40-2.00	0.05-0.20
CNGG 120402-PP	12.90	12.70	4.76	0.20												●		0.40-2.50	0.08-0.25
CNGG 120404-PP	12.90	12.70	4.76	0.40												●		0.80-3.00	0.10-0.30
CNGG 120408-PP	12.90	12.70	4.76	0.80										●		●	●	1.00-4.00	0.10-0.30
CNGG 120412-PP	12.90	12.70	4.76	1.20										●				1.00-4.00	0.10-0.30
CNGG 190612-PP	19.30	19.05	6.35	1.20												●		2.00-9.00	0.30-0.60

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

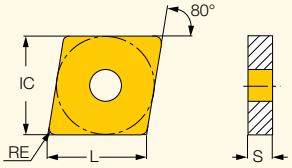
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • DCLNR/L-JHP-MC (25)

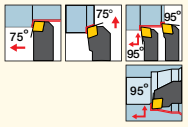
ISOTURN

CNMG/CNGG-TF

Double-Sided 80° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090304-TF	9.70	9.52	3.18	0.40				●			●						1.00-3.00	0.12-0.35
CNMG 090308-TF	9.70	9.52	3.18	0.80	●			●			●						1.00-4.00	0.12-0.35
CNMG 120404-TF	12.90	12.70	4.76	0.40	●		●	●		●		●		●	●	●	1.00-4.00	0.12-0.35
CNMG 120408-TF	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	●	●	●	●	●	1.00-4.00	0.12-0.35
CNMG 120412-TF	12.90	12.70	4.76	1.20	●		●	●	●	●	●	●		●	●	●	1.50-4.50	0.15-0.40
CNMG 160608-TF	16.12	15.88	6.35	0.80											●	●	1.00-6.00	0.12-0.35
CNMG 160612-TF	16.12	15.88	6.35	1.20				●									1.50-6.00	0.15-0.45
CNMG 190612-TF	19.30	19.05	6.35	1.20				●									1.50-6.50	0.20-0.55
CNGG 120408-TF	12.96	12.70	4.76	0.80												●	1.00-4.00	0.12-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

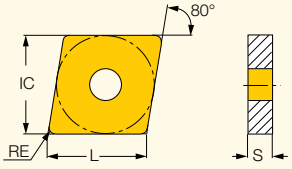
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105)

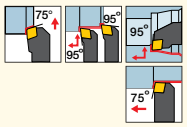
ISOTURN

CNMG-GN

Double-Sided 80° Rhombic Inserts for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404-GN	12.90	12.70	4.76	0.40	●	●		●		●	●		●				1.00-4.00	0.14-0.40
CNMG 120408-GN	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	●		●	●	●	1.00-4.50	0.16-0.45
CNMG 120412-GN	12.90	12.70	4.76	1.20	●	●		●		●			●	●	●	●	1.50-5.00	0.22-0.50
CNMG 160612-GN	16.12	15.88	6.35	1.20	●			●		●		●					2.00-7.00	0.22-0.60
CNMG 160616-GN	16.12	15.88	6.35	1.60				●									2.00-7.00	0.22-0.75
CNMG 190608-GN	19.30	19.05	6.35	0.80				●									1.50-8.00	0.20-0.70
CNMG 190612-GN	19.30	19.05	6.35	1.20	●	●		●		●							2.00-7.98	0.25-0.70

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

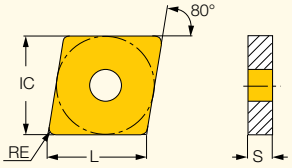
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105)

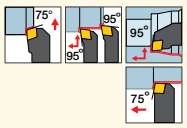
ISOTURN

CNMG-NR

Double-Sided 80° Rhombic Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120408-NR	12.90	12.70	4.76	0.80		●	●	●	●	●	●	●	●	●	●	1.00-5.00	0.15-0.50
CNMG 120412-NR	12.90	12.70	4.76	1.20	●	●		●		●	●		●			1.00-5.00	0.23-0.55
CNMG 120416-NR	12.90	12.70	4.76	1.60						●						1.00-5.00	0.30-0.60
CNMG 160608-NR	16.12	15.88	6.35	0.80		●		●								1.50-6.00	0.25-0.50
CNMG 160612-NR	16.12	15.88	6.35	1.20		●		●						●	●	2.00-7.00	0.30-0.60
CNMG 160616-NR	16.12	15.88	6.35	1.60	●	●		●		●		●	●	●	●	2.50-7.00	0.30-0.70
CNMG 190608-NR	19.30	19.05	6.35	0.80		●		●								3.50-8.00	0.30-0.72
CNMG 190612-NR	19.30	19.05	6.35	1.20		●		●						●	●	3.50-8.00	0.30-0.80
CNMG 190616-NR	19.30	19.05	6.35	1.60	●	●		●		●				●	●	4.00-10.00	0.40-0.85
CNMG 190624-NR	19.30	19.05	6.35	2.40				●								4.00-10.00	0.40-1.20
CNMG 250924-NR	25.79	25.40	9.52	2.40				●								6.00-12.00	0.40-1.20

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

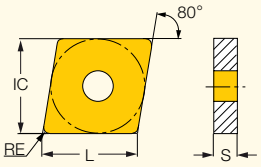
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

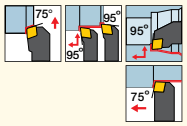
ISOTURN

CNMG-MR

Double-Sided 80° Rhombic Inserts for Rough Turning on Stainless Steel and Soft Materials







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8350	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 160612-MR	16.12	15.88	6.35	1.20	●		●	●	2.00-10.00	0.30-0.90
CNMG 190612-MR	19.03	19.05	6.35	1.20	●	●	●	●	2.00-10.00	0.30-0.90

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

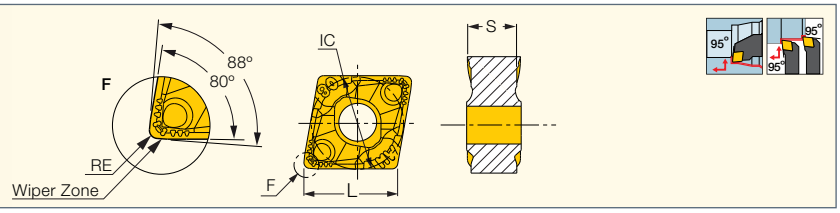
For tools, see pages: C#-PCLNR/L-X (24) • DCBNR/L (26) • DCLNR/L (25) • MCLNR/L (21) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-X (22) • A/S-PCLNR/L-X/G (102)

HELITURN LD

CNMX-M3/4PW

Double-Sided 80° Rhombic Inserts with a High Helical Cutting Edge for High Metal Removal Rates





Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20N	IC520N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMX 090604-M3PW	9.67	9.52	4.40	0.40	●		●	●					1.00-4.50	0.20-0.50
CNMX 090608-M3PW	9.67	9.52	4.40	0.80	●		●	●	●	●			1.50-5.00	0.25-0.60
CNMX 120708-M4PW	12.90	12.70	6.78	0.80		●	●	●			●	●	1.50-6.00	0.25-0.60
CNMX 120712-M4PW	12.90	12.70	6.78	1.20		●	●	●			●	●	2.00-6.00	0.30-0.80
CNMX 120716-M4PW	12.90	12.70	6.78	1.60		●	●	●			●	●	2.00-6.00	0.30-1.00
CNMX 160712-M4PW	16.12	15.88	6.40	1.20			●	●			●		2.00-8.00	0.30-0.80
CNMX 160716-M4PW	16.12	15.88	6.40	1.60			●	●			●		2.00-8.00	0.30-1.00

- PCLNR/L...X and A..-PCLNR/L-X are most recommended as they were designed especially for this insert
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

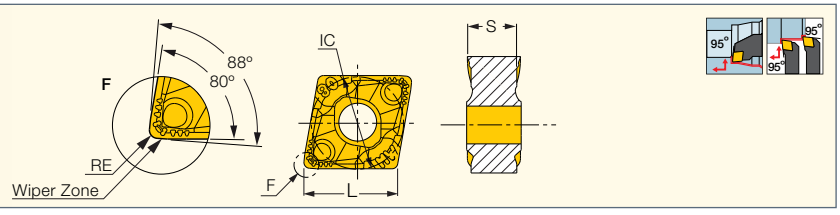
For tools, see pages: A/S-PCLNR/L-X/G (102) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23)

HELITURN LD

CNMX-M3/4MW

Double-Sided 80° Rhombic Inserts with a High Helical Cutting Edge for High Metal Removal Rates of Stainless Steel





Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC8150	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMX 090604-M3MW	9.67	9.52	4.40	0.40	●	●	●				0.80-4.00	0.15-0.45
CNMX 090608-M3MW	9.67	9.52	4.40	0.80	●	●	●				1.00-5.00	0.20-0.60
CNMX 120704-M4MW	12.90	12.70	6.78	0.40			●		●	●	0.80-5.00	0.15-0.45
CNMX 120708-M4MW	12.90	12.70	6.78	0.80	●	●	●	●	●	●	1.00-6.00	0.20-0.60
CNMX 120712-M4MW	12.90	12.70	6.78	1.20		●	●	●	●	●	2.00-6.00	0.30-0.80

- PCLNR/L...X and A..-PCLNR/L-X are most recommended as they were designed especially for this insert
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

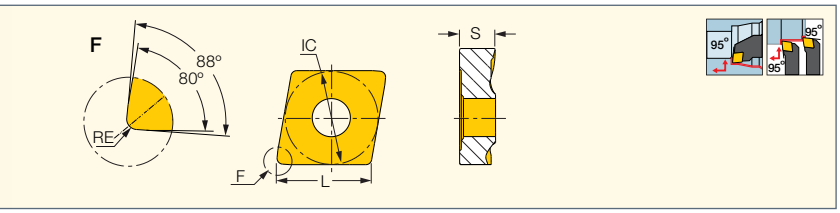
For tools, see pages: A/S-PCLNR/L-X/G (102) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23)

HELITURN LD

CNMM-M4PW

Very Positive Radial Insert with a Helical Cutting Edge and Positive Rake for Heavy Machining Applications





Designation	Dimensions IC	S	RE	L	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMM 120408-M4PW	12.70	4.76	0.80	12.90	●	●	1.50-5.00	0.24-0.59

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

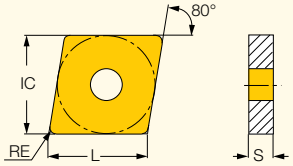
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • DCLNR/L-JHP-MC (25)

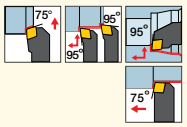
ISOTURN

CNMM-R3P

Single-Sided 80° Rhombic Inserts for Rough Turning Applications on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMM 120408-R3P	12.90	12.70	4.76	0.80	●	●	●	0.70-7.50	0.20-0.55
CNMM 120412-R3P	12.90	12.70	4.76	1.20	●	●	●	1.00-7.50	0.25-0.70
CNMM 120416-R3P	12.90	12.70	4.76	1.60	●	●	●	1.50-7.50	0.30-0.90
CNMM 160608-R3P	16.12	15.88	6.35	0.80	●	●	●	2.00-9.50	0.20-0.55
CNMM 160612-R3P	16.12	15.88	6.35	1.20	●	●	●	2.00-9.50	0.30-0.70
CNMM 160616-R3P	16.12	15.88	6.35	1.60	●	●	●	2.00-9.50	0.30-0.90
CNMM 190612-R3P	19.34	19.05	6.35	1.20	●	●	●	3.00-12.00	0.25-0.80
CNMM 190616-R3P	19.34	19.05	6.35	1.60	●	●	●	3.50-12.00	0.30-0.90
CNMM 190624-R3P	19.34	19.05	6.35	2.40	●	●	●	3.50-12.00	0.30-1.20
CNMM 250924-R3P	25.79	25.40	9.52	2.40	●	●	●	4.00-15.00	0.40-1.20

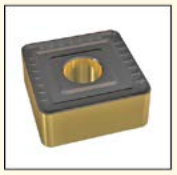
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

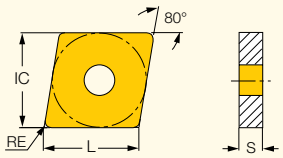
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MCLNR/L (21) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

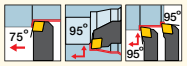
ISOTURN

CNMM-H3P

Single-Sided 80° Rhombic Insert with a Strong Cutting Edge for Extra Rough Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMM 190624-H3P	19.34	19.05	6.35	2.40	●	●	4.00-9.00	0.55-1.20
CNMM 250924-H3P	25.79	25.40	9.52	2.40	●	●	5.00-12.00	0.55-1.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

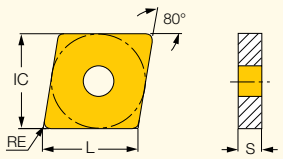
For tools, see pages: A/S-PCLNR/L (101) • DCBNR/L (26) • DCLNR/L (25) • MCLNR/L (21) • PCBNR/L (22) • PCLNR/L (20)

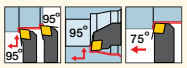
ISOTURN

CNMM-H4P

Single-Sided 80° Rhombic Insert with a Strong Cutting Edge for Extra Rough Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMM 190624-H4P	19.34	19.05	6.35	2.40	●	●	4.00-12.00	0.50-1.10
CNMM 250924-H4P	25.79	25.40	9.52	2.40	●	●	5.00-15.00	0.55-1.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

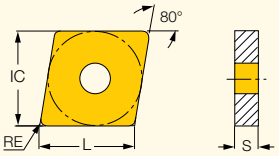
For tools, see pages: A/S-PCLNR/L (101) • DCBNR/L (26) • DCLNR/L (25) • MCLNR/L (21) • PCBNR/L (22) • PCLNR/L (20)

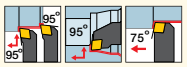
ISOTURN

CNMM-H5P

Single-Sided 80° Rhombic Insert with a Strong Cutting Edge for Extra Rough Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMM 250924-H5P	25.79	25.40	9.52	2.40	●	●	5.00-15.00	0.55-1.50

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

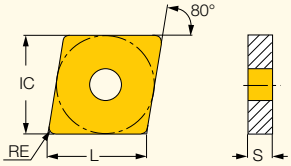
For tools, see pages: PCLNR/L (20)

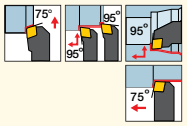
ISOTURN

CNMM-NR

Single-Sided 80° Rhombic Inserts for Rough Turning Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMM 190616-NR	19.03	19.05	6.35	1.60	●	●	2.00-10.00	0.40-1.00

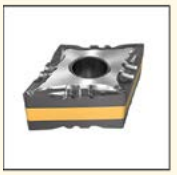
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

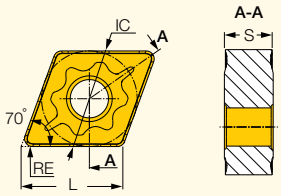
For tools, see pages: DCBNR/L (26) • DCLNR/L (25) • MCLNR/L (21) • PCBNR/L (22) • PCLNR/L (20)

ISOTURN

XNMG-F3P

Double-Sided 70° Rhombic Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
XNMG 090404-F3P	10.14	9.53	4.76	0.40	●	●	●	●	0.50-3.50	0.07-0.25
XNMG 090408-F3P	10.14	9.53	4.76	0.80	●	●	●	●	0.90-3.50	0.08-0.25
XNMG 120404-F3P	13.52	12.70	4.76	0.40	●	●	●	●	0.50-3.50	0.07-0.25
XNMG 120408-F3P	13.52	12.70	4.76	0.80	●	●	●	●	0.90-3.50	0.08-0.25

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

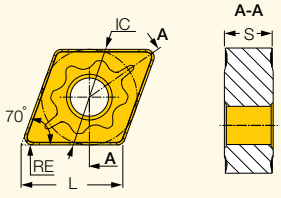
For tools, see pages: DXJNR/L-X-JHP-MC (27)

ISOTURN

XNMG-M3P

Double-Sided 70° Rhombic Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
XNMG 090404-M3P	10.14	9.53	4.76	0.40	●	●	●	●	0.50-3.50	0.07-0.25
XNMG 090408-M3P	10.14	9.53	4.76	0.80	●	●	●	●	0.90-3.50	0.08-0.25
XNMG 120404-M3P	13.52	12.70	4.76	0.40	●	●	●	●	0.50-3.50	0.07-0.25
XNMG 120408-M3P	13.52	12.70	4.76	0.80	●		●	●	0.90-3.50	0.08-0.25

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

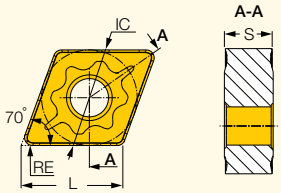
For tools, see pages: DXJNR/L-X-JHP-MC (27)

ISOTURN

XNMG-F3M

Double-sided 70° Rhombic Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
XNMG 090404-F3M	10.14	9.53	4.76	0.40	●	●	●	●	●	0.10-1.50	0.05-0.30
XNMG 090408-F3M	10.14	9.53	4.76	0.80	●	●	●	●	●	0.10-1.50	0.10-0.40
XNMG 120404-F3M	13.52	12.70	4.76	0.40	●	●	●	●	●	0.10-1.50	0.05-0.30
XNMG 120408-F3M	13.52	12.70	4.76	0.80	●	●	●	●	●	0.10-1.50	0.10-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

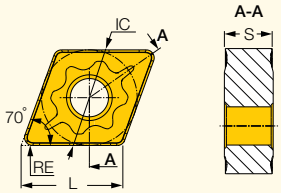
For tools, see pages: DXJNR/L-X-JHP-MC (27)

ISOTURN

XNMG-M3M

Double-Sided 70° Rhombic Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
XNMG 090404-M3M	10.14	9.53	4.76	0.40	●	●	●	●	●	0.40-4.00	0.12-0.40
XNMG 090408-M3M	10.14	9.53	4.76	0.80	●	●	●	●	●	0.50-4.50	0.15-0.50
XNMG 120404-M3M	13.52	12.70	4.76	0.40	●	●	●	●	●	0.50-5.00	0.15-0.50
XNMG 120408-M3M	13.52	12.70	4.76	0.80	●	●	●	●	●	0.50-5.00	0.15-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

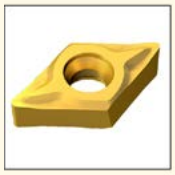
For tools, see pages: DXJNR/L-X-JHP-MC (27)

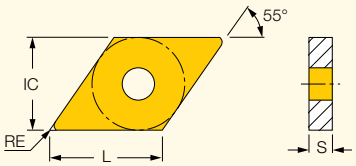
ISOTURN

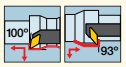
MINIPTURN POSITIVE DOUBLE SIDED

DNGP-F2P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications on Alloyed Steel







Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGP 070302R/L-F2P	7.70	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
DNGP 070304R/L-F2P	7.70	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
DNGP 070308R/L-F2P	7.70	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

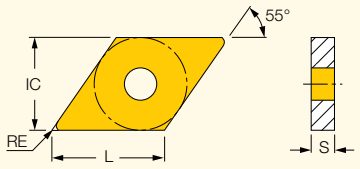
For tools, see pages: A/E-SDXNR/L-07 (107) • A/E-SDZNR/L-07 (107) • NQCH-SDJNR/L-S-JHP (28) • PDJNR/L-S (28)

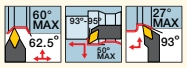
ISOTURN

DNMG-F3P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-F3P	11.63	9.52	4.76	0.40	●	●	●	●	0.80-3.00	0.07-0.25
DNMG 110408-F3P	11.63	9.52	4.76	0.80	●	●	●	●	1.00-3.50	0.08-0.25
DNMG 110412-F3P	11.63	9.52	4.76	1.20	●	●	●	●	1.40-4.00	0.10-0.25
DNMG 150404-F3P	15.50	12.70	4.76	0.40	●	●	●	●	0.80-3.00	0.07-0.25
DNMG 150408-F3P	15.50	12.70	4.76	0.80	●	●	●	●	1.00-3.50	0.08-0.25
DNMG 150412-F3P	15.50	12.70	4.76	1.20	●	●	●	●	1.40-4.00	0.10-0.25
DNMG 150604-F3P	15.50	12.70	6.35	0.40	●	●	●	●	0.80-3.00	0.07-0.25
DNMG 150608-F3P	15.50	12.70	6.35	0.80	●	●	●	●	1.00-3.50	0.08-0.25
DNMG 150612-F3P	15.50	12.70	6.35	1.20	●	●	●	●	1.40-4.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

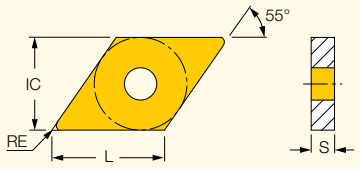
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

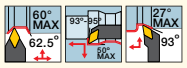
ISOTURN

DNMG-M3P

Double-Sided 55° Rhombic Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC5010	IC5005	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110408-M3P	11.63	9.52	4.76	0.80	●	●	●			●	0.50-5.00	0.15-0.50
DNMG 110412-M3P	11.63	9.52	4.76	1.20	●		●			●	0.80-5.00	0.18-0.60
DNMG 150408-M3P	15.50	12.70	4.76	0.80	●	●	●	●	●	●	0.50-6.00	0.15-0.50
DNMG 150412-M3P	15.50	12.70	4.76	1.20	●					●	0.80-6.00	0.18-0.60
DNMG 150608-M3P	15.50	12.70	6.35	0.80	●	●	●			●	0.50-6.00	0.15-0.50
DNMG 150612-M3P	15.50	12.70	6.35	1.20	●	●	●			●	0.80-6.00	0.18-0.60

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

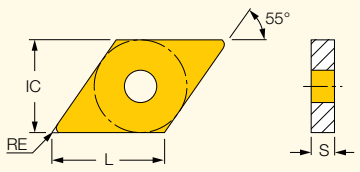
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L (97) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • DDJNR/L-JHP-MC (30)

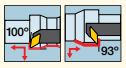
ISOTURN

DNGP-F2M

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Stainless Steel







Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGP 070302R/L-F2M	7.70	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
DNGP 070304R/L-F2M	7.70	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
DNGP 070308R/L-F2M	7.70	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

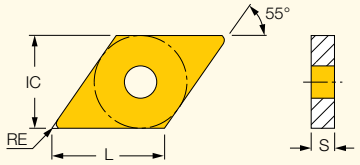
For tools, see pages: A/E-SDXNR/L-07 (107) • A/E-SDZNR/L-07 (107) • NQCH-SDJNR/L-S-JHP (28) • PDJNR/L-S (28)

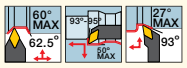
ISOTURN

DNMG-F3M

Double-Sided 55° Rhombic Inserts for Finish on Turning Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-F3M	11.63	9.52	4.76	0.40	•	•	•	•	•		0.10-1.50	0.05-0.32
DNMG 110408-F3M	11.63	9.52	4.76	0.80	•	•	•	•	•		0.10-1.50	0.10-0.42
DNMG 110412-F3M	11.63	9.52	4.76	1.20		•	•	•	•		0.15-2.00	0.15-0.52
DNMG 150404-F3M	15.50	12.70	4.76	0.40	•	•	•	•	•	•	0.10-1.50	0.05-0.30
DNMG 150408-F3M	15.50	12.70	4.76	0.80	•	•	•	•	•		0.10-1.50	0.10-0.40
DNMG 150412-F3M	15.50	12.70	4.76	1.20		•	•	•	•		0.20-2.50	0.15-0.50
DNMG 150604-F3M	15.50	12.70	6.35	0.40	•	•	•	•	•		0.10-1.50	0.05-0.30
DNMG 150608-F3M	15.50	12.70	6.35	0.80	•	•	•	•	•		0.10-1.50	0.10-0.40
DNMG 150612-F3M	15.50	12.70	6.35	1.20	•	•	•	•	•		0.20-2.50	0.15-0.50

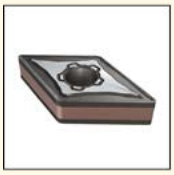
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

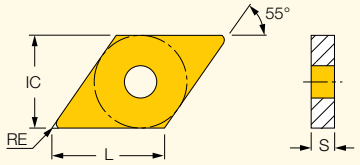
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

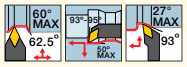
ISOTURN

DNMG-M3M

Double-Sided 55° Rhombic Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-M3M	11.63	9.52	4.76	0.40	•	•	•	•	•		0.50-3.50	0.12-0.40
DNMG 110408-M3M	11.63	9.52	4.76	0.80	•	•	•	•	•		0.50-4.00	0.15-0.50
DNMG 110412-M3M	11.63	9.52	4.76	1.20	•	•	•	•	•		0.50-4.00	0.20-0.60
DNMG 150408-M3M	15.50	12.70	4.76	0.80	•	•	•	•	•	•	0.50-5.00	0.15-0.50
DNMG 150412-M3M	15.50	12.70	4.76	1.20	•	•	•	•	•		0.50-5.00	0.20-0.60
DNMG 150608-M3M	15.50	12.70	6.35	0.80	•	•	•	•	•		0.50-5.00	0.15-0.50
DNMG 150612-M3M	15.50	12.70	6.35	1.20	•	•	•	•	•		0.50-5.00	0.20-0.60

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

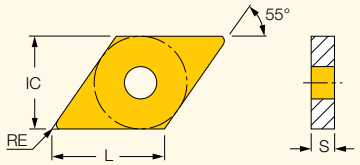
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

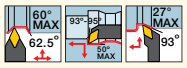
ISOTURN

DNMG-F3S

Double-Sided 55° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-F3S	11.63	9.52	4.76	0.40	•	•	0.10-1.50	0.05-0.32
DNMG 110408-F3S	11.63	9.52	4.76	0.80	•	•	0.10-1.50	0.10-0.40
DNMG 150404-F3S	15.50	12.70	4.76	0.40	•	•	0.10-1.50	0.05-0.32
DNMG 150408-F3S	15.50	12.70	4.76	0.80	•	•	0.10-1.50	0.10-0.40
DNMG 150604-F3S	15.50	12.70	6.35	0.40	•	•	0.10-1.50	0.05-0.32
DNMG 150608-F3S	15.50	12.70	6.35	0.80	•	•	0.10-1.50	0.10-0.40

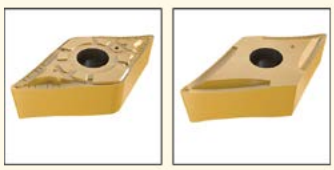
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

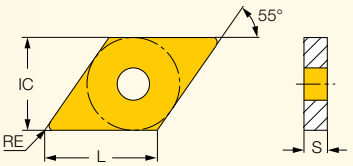
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L (97) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • DDJNR/L-JHP-MC (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106)

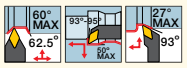
ISOTURN

DNMG-CERMET

Double-Sided 55° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications



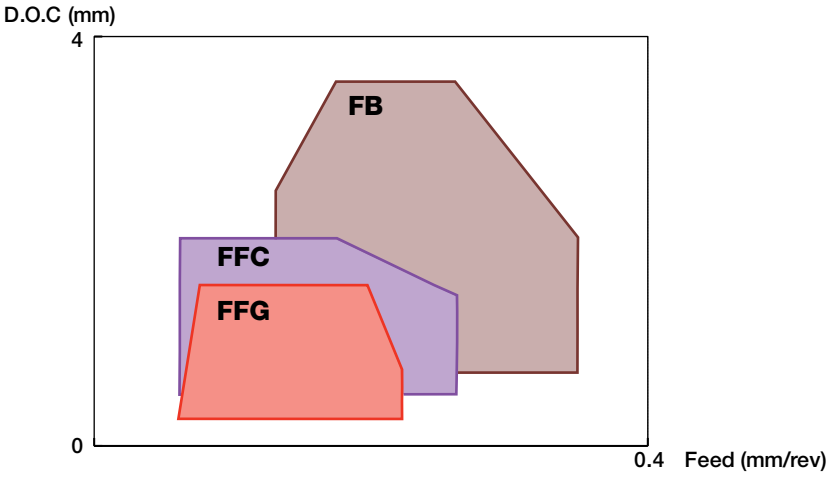




Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-FFG	11.63	9.52	4.76	0.40		●	0.70-2.00	0.07-0.22
DNMG 110402-FFC	11.63	9.52	4.76	0.20	●		0.40-2.50	0.05-0.20
DNMG 110404-FFC	11.63	9.52	4.76	0.40	●	●	0.80-3.00	0.07-0.25
DNMG 110408-FFC	11.63	9.52	4.76	0.80	●	●	1.00-3.50	0.08-0.25
DNMG 150404-FFC	15.50	12.70	4.76	0.40		●	0.80-3.00	0.07-0.25
DNMG 150604-FB	15.50	12.70	6.35	0.40	●		0.50-3.00	0.07-0.23
DNMG 150604-FFC	15.50	12.70	6.35	0.40		●	0.80-3.00	0.08-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/S-PDUNR/L (106) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • DDJNR/L-JHP-MC (30)

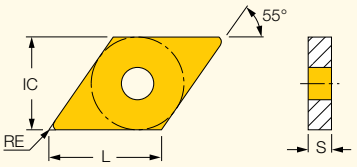


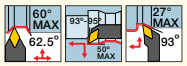
ISOTURN

DNMG-NF

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC530N	IC8150	IC20N	IC520N	IC5010	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110402-NF	11.63	9.52	4.76	0.20		●	●		●	●			●	●	0.40-2.50	0.07-0.18
DNMG 110404-NF	11.63	9.52	4.76	0.40	●		●		●	●	●	●	●	●	0.80-3.00	0.07-0.25
DNMG 110408-NF	11.63	9.52	4.76	0.80	●		●	●	●	●			●	●	1.00-3.50	0.08-0.25
DNMG 150404-NF	15.50	12.70	4.76	0.40			●	●					●	●	0.80-3.50	0.07-0.25
DNMG 150408-NF	15.50	12.70	4.76	0.80			●		●						1.00-3.51	0.08-0.25
DNMG 150604-NF	15.50	12.70	6.35	0.40			●	●					●	●	0.80-3.50	0.07-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

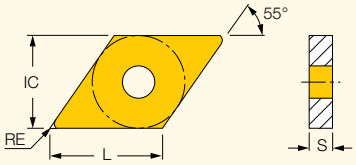
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

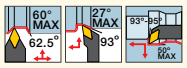
ISOTURN

DNMG/DNGG-SF

Double-Sided 55° Rhombic Inserts for Super Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC520N	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-SF	11.63	9.52	4.76	0.40	●	●		0.50-3.00	0.05-0.25
DNGG 150401-SF	15.50	12.70	4.76	0.10			●	0.25-2.00	0.03-0.15
DNGG 150402-SF	15.50	12.70	4.76	0.20			●	0.40-2.50	0.05-0.20

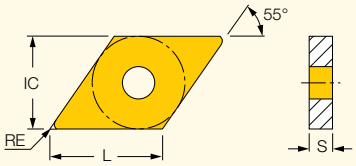
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A/S-PDUNR/L (106) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

ISOTURN

DNMG-WG

Double-Sided 55° Rhombic Wiper Inserts for High Surface Finish at High Feed Turning







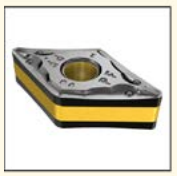
Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC5010	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 150408-WG	15.50	12.70	4.76	0.80	●			1.00-2.50	0.20-0.50
DNMG 150608-WG	15.50	12.70	6.35	0.80	●		●	1.00-2.50	0.18-0.40
DNMG 150612-WG	15.50	12.70	6.35	1.20	●	●		1.00-3.00	0.20-0.80

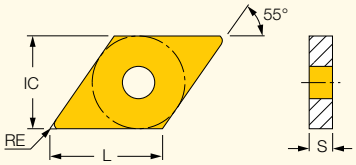
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

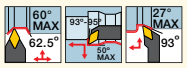
ISOTURN

DNMG-PF

Double-Sided 55° Rhombic Inserts for Finishing Applications on Alloyed and Stainless Steel







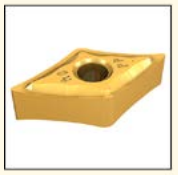
Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110408-PF	11.63	9.52	4.76	0.80	●	0.30-3.00	0.07-0.30
DNMG 150612-PF	15.50	12.70	6.35	1.20	●	1.00-4.00	0.10-0.30

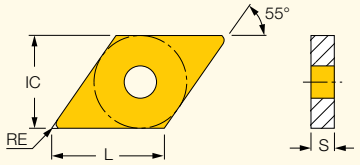
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

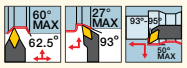
ISOTURN

DNMG/DNGG-PP

55° Double-Sided Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC10	IC6015	IC8150	IC20	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-PP	11.63	9.52	4.76	0.40		●		●				●					0.40-3.00	0.12-0.30
DNMG 110408-PP	11.63	9.52	4.76	0.80	●			●	●		●						1.00-3.50	0.12-0.30
DNMG 150408-PP	15.50	12.70	4.76	0.80	●			●				●					1.00-4.00	0.12-0.30
DNMG 150604-PP	15.50	12.70	6.35	0.40										●	●		0.50-4.00	0.12-0.30
DNMG 150608-PP	15.50	12.70	6.35	0.80	●	●	●	●		●		●		●	●		1.00-3.50	0.12-0.30
DNGG 150604-PP	15.50	12.70	6.35	0.40											●		0.50-4.00	0.12-0.30
DNGG 150608-PP	15.50	12.70	6.35	0.80									●		●	●	1.00-4.00	0.12-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

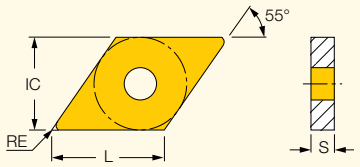
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L (97) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • DDJNR/L-JHP-MC (30)

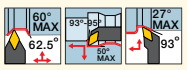
ISOTURN

DNMG-VL

Double-Sided 55° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-VL	11.63	9.52	4.76	0.40	●	●	0.50-3.50	0.10-0.25
DNMG 110408-VL	11.63	9.52	4.76	0.80	●	●	0.50-3.50	0.10-0.25
DNMG 150404-VL	15.50	12.70	4.76	0.40		●	0.50-3.50	0.10-0.25
DNMG 150408-VL	15.50	12.70	4.76	0.80	●	●	0.50-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

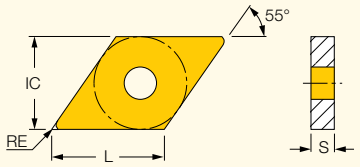
For tools, see pages: A/S-PDUNR/L (106) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

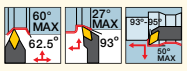
ISOTURN

DNMG/DNGG-TF

Double-Sided 55° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC530N	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-TF	11.63	9.52	4.76	0.40			●	●			●					1.00-3.00	0.12-0.30
DNMG 110412-TF	11.63	9.52	4.76	1.20			●									1.50-4.00	0.15-0.35
DNMG 150404-TF	15.50	12.70	4.76	0.40	●		●				●			●	●	1.00-3.00	0.15-0.30
DNMG 150408-TF	15.50	12.70	4.76	0.80	●	●	●		●	●	●		●	●	●	1.00-3.50	0.15-0.30
DNMG 150412-TF	15.50	12.70	4.76	1.20			●									1.50-4.00	0.12-0.40
DNMG 150604-TF	15.50	12.70	6.35	0.40		●	●		●	●	●	●		●	●	1.00-3.00	0.14-0.30
DNMG 150608-TF	15.50	12.70	6.35	0.80	●	●	●		●	●	●	●	●	●	●	1.00-3.50	0.15-0.30
DNMG 150612-TF	15.50	12.70	6.35	1.20	●	●	●		●	●	●		●	●	●	1.50-4.00	0.11-0.35
DNGG 150404-TF	15.50	12.70	4.76	0.40											●	1.00-3.00	0.15-0.30
DNGG 150408-TF	15.50	12.70	4.76	0.80											●	1.00-3.50	0.15-0.30

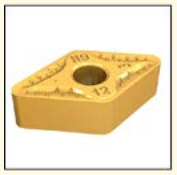
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

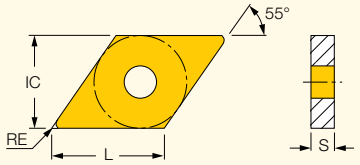
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

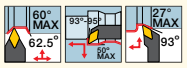
ISOTURN

DNMG-GN

Double-Sided 55° Rhombic Inserts for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20N	IC5010	IC428	IC5005	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110408-GN	11.63	9.52	4.76	0.80			●	●		●			1.00-4.00	0.18-0.38
DNMG 110412-GN	11.63	9.52	4.76	1.20			●	●					1.50-4.50	0.18-0.38
DNMG 150408-GN	15.50	12.70	4.76	0.80	●		●	●					1.00-4.00	0.18-0.18
DNMG 150412-GN	15.50	12.70	4.76	1.20	●	●	●	●		●			1.50-5.00	0.18-0.43
DNMG 150608-GN	15.50	12.70	6.35	0.80	●	●	●	●	●		●	●	1.00-4.00	0.18-0.38
DNMG 150612-GN	15.50	12.70	6.35	1.20	●		●	●			●	●	1.50-5.00	0.18-0.43

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

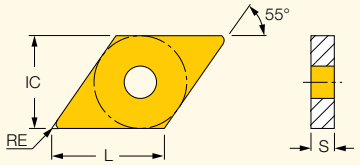
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

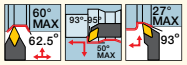
ISOTURN

DNMG-NR

Double-Sided 55° Rhombic Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 150612-NR	15.50	12.70	6.35	1.20	●	●	2.00-6.00	0.23-0.50
DNMG 150616-NR	15.50	12.70	6.35	1.60	●	●	2.00-6.00	0.25-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

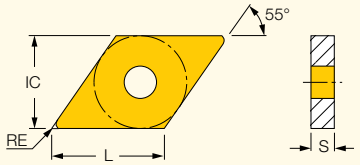
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

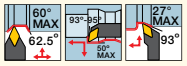
ISOTURN

DNMA

Double-Sided 55° Rhombic Inserts for Short Chipping Materials such as Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC5010	IC428	IC5005	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMA 150412	15.50	12.70	4.76	1.20		●	●	1.50-4.00	0.05-0.40
DNMA 150608	15.50	12.70	6.35	0.80	●	●	●	1.50-4.00	0.03-0.40
DNMA 150612	15.50	12.70	6.35	1.20	●	●	●	1.50-4.00	0.05-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

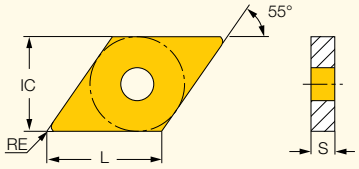
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

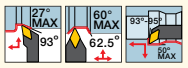
ISOTURN

DNMM-R3P

Single-Sided 55° Rhombic Inserts for Rough Turning Applications on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMM 150608-R3P	15.50	12.70	6.35	0.80	●	●	0.70-6.00	0.20-0.55
DNMM 150612-R3P	15.50	12.70	6.35	1.20	●	●	1.00-6.00	0.25-0.70
DNMM 150616-R3P	15.50	12.70	6.35	1.60	●	●	1.50-6.00	0.32-0.90

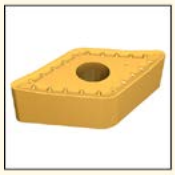
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

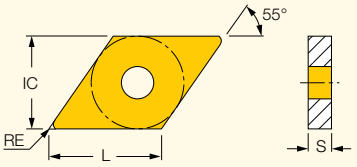
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

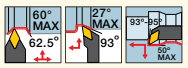
ISOTURN

DNMM-NM

Single-Sided 55° Rhombic Inserts for Roughing Applications







Designation	Dimensions L	IC	S	RE	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMM 150612-NM	15.50	12.70	6.35	1.20	●	1.50-4.50	0.25-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

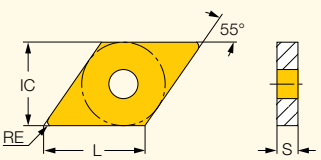
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

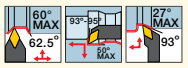
HELITURN LD

DNMX-M3P

Double-Sided 55° Rhombic Inserts with High Helical Cutting Edge for High Metal Removal Rates







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMX 150608-M3P	15.50	12.70	6.35	0.80	●		●	●	●	●	●	●	2.00-7.00	0.25-0.50
DNMX 150612-M3P	15.50	12.70	6.35	1.20	●	●	●	●	●	●	●	●	2.50-7.00	0.30-0.60
DNMX 150616-M3P	15.50	12.70	6.35	1.60	●			●		●			2.50-5.50	0.30-0.60

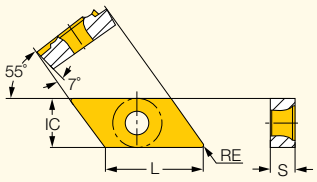
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

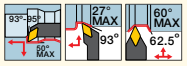
For tools, see pages: A/S-PDUNR/L (106) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • DDJNR/L-JHP-MC (30)

ISOTURN

KNMX
55° Parallelogram Profiling Inserts







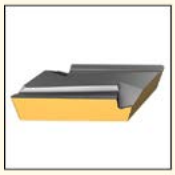
Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC5010	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
KNMX 160405-LP	19.72	9.52	4.76	0.50	●	●		●		1.00-4.00	0.10-0.40
KNMX 160405-RP	19.72	9.52	4.76	0.50	●	●		●	●	1.00-4.00	0.10-0.40
KNMX 160410-LP	19.72	9.52	4.76	1.00		●	●			1.50-4.00	0.15-0.45
KNMX 160410-RP	19.72	9.52	4.76	1.00	●	●			●	1.50-4.00	0.15-0.45

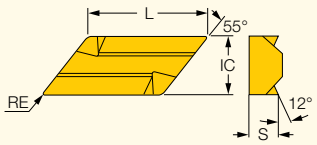
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

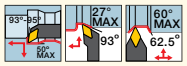
For tools, see pages: CKJNR/L (32) • CKNNR/L (32) • SKJNR/L (32)

ISOTURN

KNUX
55° Parallelogram Profiling Inserts







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC9250	IC9025	IC9015	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
KNUX 160405 L11	19.72	9.52	4.76	0.50		●	●	●	1.00-4.00	0.10-0.40
KNUX 160405 R11	19.72	9.52	4.76	0.50	●	●	●	●	1.00-4.00	0.10-0.40
KNUX 160405 L12	19.72	9.52	4.76	0.50			●		1.50-4.00	0.10-0.40
KNUX 160405 R12	19.72	9.52	4.76	0.50		●			1.50-4.00	0.10-0.40
KNUX 160410 L11	19.72	9.52	4.76	1.00			●		1.50-4.00	0.15-0.45
KNUX 160410 R11	19.72	9.52	4.76	1.00		●	●		1.50-4.00	0.15-0.45
KNUX 160410 R/L12	19.72	9.52	4.76	1.00			●		1.50-4.00	0.15-0.45

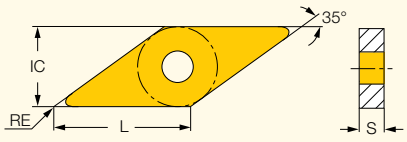
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

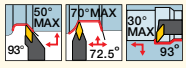
For tools, see pages: CKJNR/L (32) • CKNNR/L (32)

ISOTURN

VNMG-F3P
Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-F3P	12.40	7.15	3.89	0.20	●	●	●		0.40-2.00	0.08-0.20
VNMG 160404-F3P	16.60	9.52	4.76	0.40	●	●	●	●	0.70-2.00	0.07-0.24
VNMG 160408-F3P	16.60	9.52	4.76	0.80	●	●	●	●	1.00-3.00	0.08-0.24

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

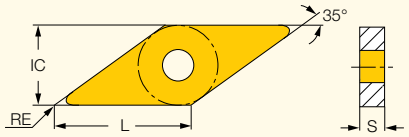
For tools, see pages: A-SVUNR/L (107) • AVC-DVUNR/L (97) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • MVJNR/L (33) • MVVNN (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

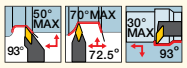
ISOTURN

VNMG-F3M

Double-Sided 35° Rhombic Inserts for Finishing on Stainless Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-F3M	12.40	7.15	3.97	0.20				●		●	0.10-1.50	0.03-0.20
VNMG 12T304-F3M	12.40	7.15	3.97	0.40				●		●	0.10-1.50	0.05-0.30
VNMG 12T308-F3M	12.40	7.15	3.97	0.80				●		●	0.10-1.50	0.05-0.30
VNMG 160404-F3M	16.60	9.52	4.76	0.40	●	●	●		●		0.10-1.50	0.05-0.30
VNMG 160408-F3M	16.60	9.52	4.76	0.80	●	●			●		0.10-1.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

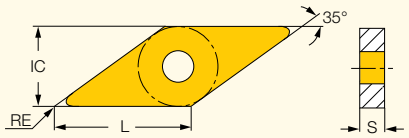
For tools, see pages: A-SVUNR/L (107) • AVC-DVUNR/L (97) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • MVJNR/L (33) • MVVNN (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

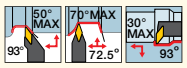
ISOTURN

VNMG-M3M

Double-Sided 35° Rhombic Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC4	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T308-M3M	12.40	7.15	3.89	0.80	●	●	●	●	●			0.70-2.00	0.08-0.20
VNMG 160404-M3M	16.60	9.52	4.76	0.40	●	●	●	●				0.70-3.00	0.07-0.20
VNMG 160408-M3M	16.60	9.52	4.76	0.80	●	●	●	●		●	●	0.10-1.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

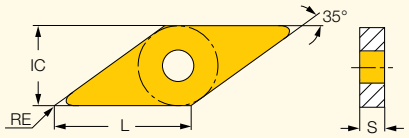
For tools, see pages: A-SVUNR/L (107) • AVC-DVUNR/L (97) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • MVJNR/L (33) • MVVNN (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

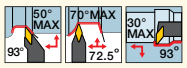
ISOTURN

VNMG-F3S

Double-Sided 35° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-F3S	12.40	7.15	3.97	0.20	●	●	0.10-1.50	0.05-0.20
VNMG 12T304-F3S	12.40	7.15	3.97	0.40	●	●	0.10-1.50	0.05-0.30
VNMG 12T308-F3S	12.40	7.15	3.97	0.80	●	●	0.10-1.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

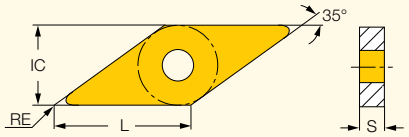
For tools, see pages: A-SVUNR/L (107) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

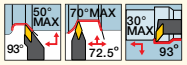
ISOTURN

VNMG-SF

Double-Sided 35° Rhombic Inserts for Super Finishing







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC570	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-SF	12.40	7.15	3.97	0.20	•	•	0.30-2.00	0.03-0.20
VNMG 12T304-SF	12.40	7.15	3.97	0.40	•	•	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

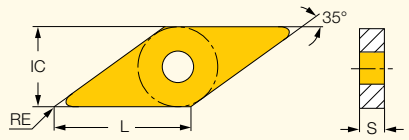
For tools, see pages: A-SVUNR/L (107) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

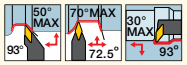
ISOTURN

VNMG-FNF-CERMET

Double-Sided 35° Rhombic Cermet Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-FNF	12.40	7.15	3.97	0.20	•		0.50-3.00	0.07-0.23
VNMG 12T304-FNF	12.40	7.15	3.97	0.40	•	•	0.50-3.00	0.07-0.23
VNMG 12T308-FNF	12.40	7.15	3.89	0.80	•		0.50-3.00	0.07-0.23

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

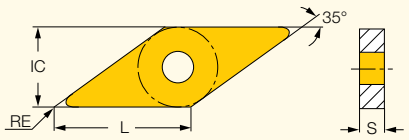
For tools, see pages: A-SVUNR/L (107) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

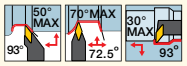
ISOTURN

VNMG/VNGG-NF

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC530N	IC10	IC6015	IC8150	IC20	IC20N	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-NF	12.40	7.15	3.97	0.20	•		•	•		•	•			•				•	•	0.40-2.50	0.07-0.18
VNMG 12T304-NF	12.40	7.15	3.97	0.40	•	•	•	•	•	•	•	•		•		•		•	•	0.70-2.00	0.07-0.24
VNMG 12T308-NF	12.40	7.15	3.97	0.80	•	•	•	•		•	•	•		•	•	•	•	•	•	1.00-3.00	0.08-0.24
VNMG 160404-NF	16.60	9.52	4.76	0.40	•		•	•			•	•						•	•	0.70-2.50	0.07-0.24
VNMG 160408-NF	16.60	9.52	4.76	0.80				•					•							1.00-3.00	0.08-0.25
VNGG 12T302-NF	12.40	7.15	3.90	0.20															•	0.40-2.50	0.05-0.17
VNGG 12T304-NF	12.40	7.15	3.90	0.40															•	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

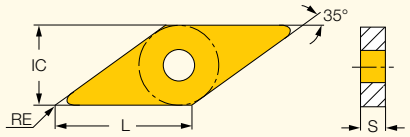
For tools, see pages: A-SVUNR/L (107) • AVC-DVUNR/L (97) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • MVJNR/L (33) • MVVNN (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

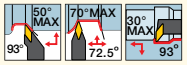
ISOTURN

VNMM-PP

Single-Sided 35° Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMM 12T304-PP	12.40	7.15	3.97	0.40	●	●	0.80-2.50	0.12-0.20
VNMM 12T308-PP	12.40	7.15	3.97	0.80	●	●	1.00-2.50	0.12-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

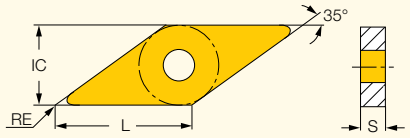
For tools, see pages: A-SVUNR/L (107) • C#-SVJNR/L-F (33) • HSK A63WH-SVVNN-F (35) • SVANR/L-FS (32) • SVJNR/L-F (33) • SVVNN-F (34)

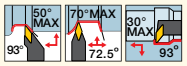
ISOTURN

VNMG-TF

Double-Sided 35° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC6015	IC8150	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 160408-TF	16.60	9.52	4.76	0.80	●	●	●	●	●	●	●	●	1.00-3.50	0.10-0.30
VNMG 160412-TF	16.60	9.52	4.76	1.20							●	●	1.00-4.00	0.12-0.38
VNMG 220408-TF	22.00	12.70	4.76	0.80			●						1.00-3.50	0.14-0.36

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

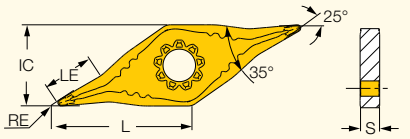
For tools, see pages: AVC-DVUNR/L (97) • MVJNR/L (33) • MVVNN (35)

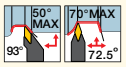
ISOTURN

YNMG-F3P

Double-Sided 25° Corner Inserts for Internal and External Deep and Narrow Profiling and Undercutting







Designation	Dimensions L	IC	LE	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
YNMG 160404-F3P	16.60	9.52	5.7	4.76	0.40	●	●	0.40-3.00	0.03-0.12
YNMG 160408-F3P	16.60	9.52	5.3	4.76	0.80	●	●	0.90-4.00	0.05-0.15

• Use IYSN 322 seat for these inserts • For user guide, see pages 122-134, 236-248

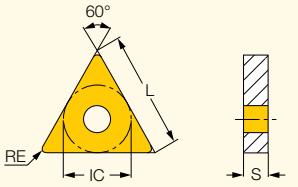
For tools, see pages: MVJNR/L (33) • MVVNN (35)

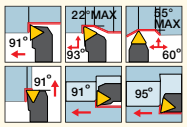
ISOTURN

TNMG-F3P

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-F3P	16.50	9.52	4.76	0.40	●	●	●	●	0.50-2.00	0.07-0.25
TNMG 160408-F3P	16.50	9.52	4.76	0.80	●	●	●	●	0.90-3.00	0.08-0.25
TNMG 160412-F3P	16.50	9.52	4.76	1.20	●	●	●	●	1.30-4.00	0.10-0.25
TNMG 220408-F3P	22.00	12.70	4.76	0.80	●	●	●	●	0.90-3.00	0.08-0.25
TNMG 220412-F3P	22.00	12.70	4.76	1.20	●	●	●	●	1.30-4.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

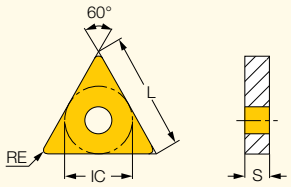
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

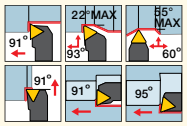
ISOTURN

TNMG-M3P

Double-Sided Triangular Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-M3P	16.50	9.52	4.76	0.40	●	●	●	●	0.40-5.00	0.10-0.30
TNMG 160408-M3P	16.50	9.52	4.76	0.80	●	●	●	●	0.50-5.00	0.15-0.50
TNMG 160412-M3P	16.50	9.52	4.76	1.20	●	●	●	●	0.80-5.00	0.18-0.60
TNMG 220408-M3P	22.00	12.70	4.76	0.80	●	●	●	●	0.50-6.60	0.15-0.50
TNMG 220412-M3P	22.00	12.70	4.76	1.20	●		●	●	0.80-6.60	0.18-0.60
TNMG 220416-M3P	22.00	12.70	4.76	1.60	●	●	●	●	1.00-6.60	0.23-0.65

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

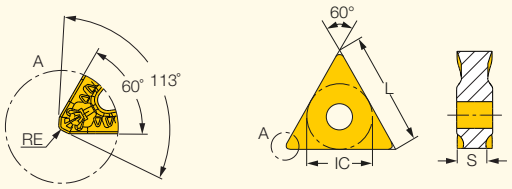
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

HELITURN LD

TNMX-M3/4PW

Double-Sided Triangular Inserts with High Helical Cutting Edge for High Metal Removal Rates on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMX 160604-M3PW	16.50	9.52	4.40	0.40	●	●	●	2.00-5.00	0.25-0.40
TNMX 160608-M3PW	16.50	9.52	4.40	0.80	●	●	●	2.50-5.50	0.30-0.50
TNMX 220712-M4PW	22.00	12.70	7.40	1.20		●	●	3.00-6.00	0.35-0.60
TNMX 220716-M4PW	22.00	12.70	7.40	1.60		●	●	3.50-6.50	0.40-0.70

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

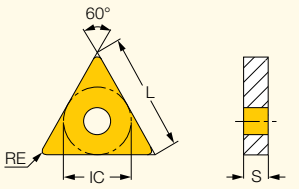
For tools, see pages: A-PTFNR/L-X/G (108) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37)

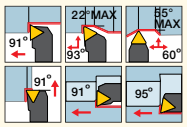
ISOTURN

TNMG-F3M

Double-Sided Triangular Inserts for Finish Turning on Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC20N	IC520N	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-F3M	16.50	9.52	4.76	0.40	●	●	●	●	●	●	●		0.10-1.50	0.05-0.32
TNMG 160408-F3M	16.50	9.52	4.76	0.80	●	●	●	●	●	●	●	●	0.10-1.50	0.10-0.42
TNMG 160412-F3M	16.50	9.52	4.76	1.20	●	●	●			●	●		0.15-2.00	0.15-0.52
TNMG 220404-F3M	22.00	12.70	4.76	0.40	●	●	●			●	●		0.10-1.50	0.05-0.32
TNMG 220408-F3M	22.00	12.70	4.76	0.80	●	●	●			●	●		0.10-1.50	0.10-0.42
TNMG 220412-F3M	22.00	12.70	4.76	1.20		●	●			●	●		0.15-2.00	0.15-0.52

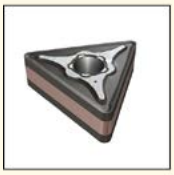
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

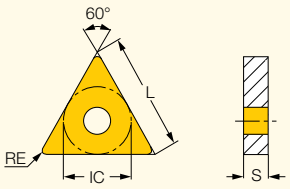
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

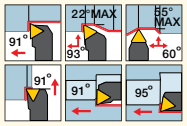
ISOTURN

TNMG-M3M

Double-Sided Triangular Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC5500	IC6025	IC6015	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-M3M	16.50	9.52	4.76	0.40	●				●		0.50-4.00	0.15-0.50
TNMG 160408-M3M	16.50	9.52	4.76	0.80	●	●	●	●	●	●	0.50-4.00	0.15-0.50
TNMG 160412-M3M	16.50	9.52	4.76	1.20	●		●	●	●		0.50-4.00	0.20-0.60
TNMG 220408-M3M	22.00	12.70	4.76	0.80	●		●	●	●		0.50-5.00	0.15-0.50
TNMG 220412-M3M	22.00	12.70	4.76	1.20	●		●	●	●		0.50-5.00	0.20-0.60
TNMG 220416-M3M	22.00	12.70	4.76	1.60	●		●	●	●		0.50-5.00	0.30-0.65

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

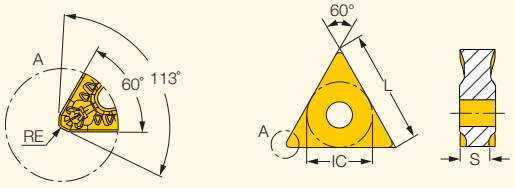
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

HELITURN LD

TNMX-M3/4MW

Double-Sided Triangular Inserts with High Helical Cutting Edge for High Metal Removal Rates on Stainless Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMX 160604-M3MW	16.50	9.52	4.40	0.40	●	●			2.00-5.00	0.12-0.40
TNMX 160608-M3MW	16.50	9.52	4.40	0.80	●	●			2.50-5.50	0.15-0.50
TNMX 220704-M4MW	22.00	12.70	7.94	0.40	●	●	●	●	2.00-5.00	0.12-0.40
TNMX 220708-M4MW	22.00	12.70	7.94	0.80	●		●	●	2.50-5.50	0.15-0.50
TNMX 220712-M4MW	22.00	12.70	7.94	1.20	●	●	●	●	3.00-6.00	0.18-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

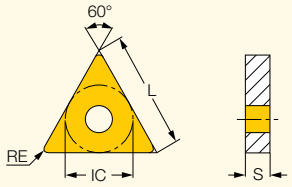
For tools, see pages: A-PTFNR/L-X/G (108) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37)

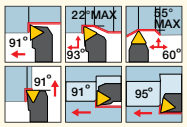
ISOTURN

TNMG-F3S

Double-Sided 60° Triangular Inserts for Titanium and Heat Resistant Materials for Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-F3S	16.50	9.52	4.76	0.40	•	•	0.10-1.50	0.05-0.32
TNMG 160408-F3S	16.50	9.52	4.76	0.80	•	•	0.10-1.50	0.10-0.40
TNMG 220404-F3S	22.00	12.70	4.76	0.40	•	•	0.10-1.50	0.05-0.32
TNMG 220408-F3S	22.00	12.70	4.76	0.80	•	•	0.10-1.50	0.10-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

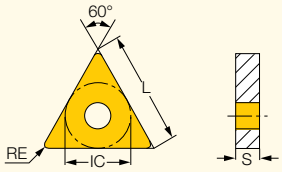
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

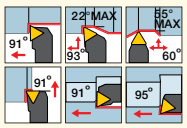
ISOTURN

TNMG-FFG-CERMET

Double-Sided Triangular Cermet Inserts for Semi-Finishing and Finishing Applications on Steel and Cast Iron







Designation	Dimensions L	IC	S	RE	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-FFG	16.50	9.52	4.76	0.40	•	0.50-2.00	0.07-0.25
TNMG 160408-FFG	16.50	9.52	4.76	0.80	•	0.90-2.50	0.08-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

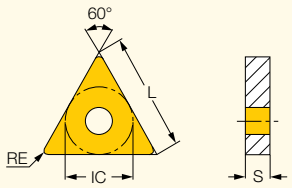
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

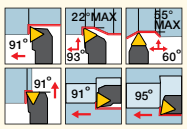
ISOTURN

TNMG-SF

Triangular Double-Sided Inserts for Super Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-SF	16.50	9.52	4.76	0.40		•	•	0.40-2.00	0.04-0.25
TNMG 160408-SF	16.50	9.52	4.76	0.80	•	•		1.00-3.00	0.06-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

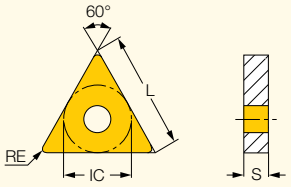
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

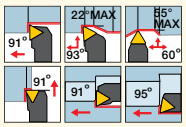
ISOTURN

TNMG-PF

Triangular Double-Sided Inserts for Finishing on Alloyed and Stainless Steel







Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160408-PF	16.50	9.52	4.76	0.80	●	0.80-3.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

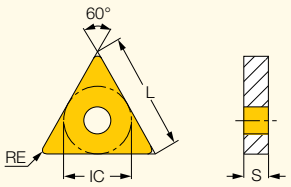
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

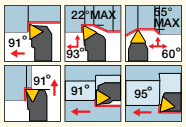
ISOTURN

TNMG-TF

Double-Sided Triangular Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160304-TF	16.50	9.52	3.18	0.40		●									1.00-3.00	0.12-0.30
TNMG 160308-TF	16.50	9.52	3.18	0.80										●	1.00-3.00	0.12-0.30
TNMG 160404-TF	16.50	9.52	4.76	0.40	●	●		●	●	●		●	●	●	1.00-3.00	0.12-0.30
TNMG 160408-TF	16.50	9.52	4.76	0.80	●	●	●	●	●		●	●	●	●	1.00-3.00	0.12-0.30
TNMG 160412-TF	16.50	9.52	4.76	1.20		●			●				●	●	1.00-5.00	0.12-0.40
TNMG 220404-TF	22.00	12.70	4.76	0.40	●	●			●				●	●	1.00-3.50	0.14-0.35
TNMG 220408-TF	22.00	12.70	4.76	0.80		●			●			●	●	●	1.00-4.00	0.15-0.40
TNMG 220412-TF	22.00	12.70	4.76	1.20		●							●	●	1.00-4.50	0.18-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

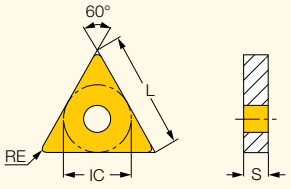
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

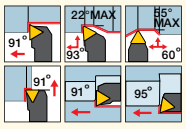
ISOTURN

TNMG-VL

Double-Sided Triangular Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-VL	16.50	9.52	4.76	0.40		●			0.80-3.50	0.10-0.25
TNMG 160408-VL	16.50	9.52	4.76	0.80	●	●	●	●	0.80-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

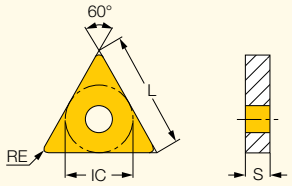
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

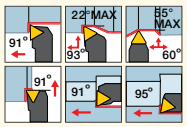
ISOTURN

TNMG/TNGG-PP

Double-Sided Triangular Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGG 160402-PP	16.50	9.52	4.76	0.20						●	0.50-1.50	0.05-0.25
TNMG 160404-PP	16.50	9.52	4.76	0.40		●	●		●		0.50-3.00	0.13-0.30
TNMG 160408-PP	16.50	9.52	4.76	0.80	●		●	●	●		1.00-3.00	0.12-0.30
TNMG 220404-PP	22.00	12.70	4.76	0.40	●		●				0.50-3.50	0.14-0.32
TNMG 220408-PP	22.00	12.70	4.76	0.80			●	●	●		1.00-3.50	0.14-0.32

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

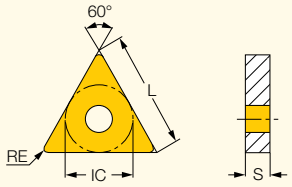
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

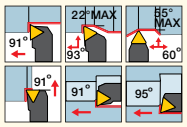
ISOTURN

TNMG-NF

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 110304-NF	11.00	6.35	3.18	0.40	●		0.40-2.00	0.07-0.25
TNMG 160408-NF	16.50	9.52	4.76	0.80	●	●	1.00-3.00	0.08-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

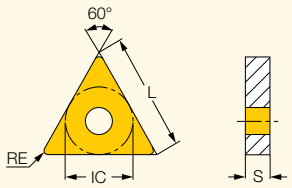
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

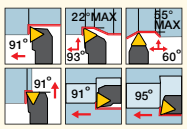
ISOTURN

TNMG-GN

Double-Sided Triangular Inserts for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-GN	16.50	9.52	4.76	0.40							●	●			1.00-3.00	0.12-0.30
TNMG 160408-GN	16.50	9.52	4.76	0.80	●	●	●	●	●	●	●	●	●	●	1.00-3.50	0.18-0.39
TNMG 160412-GN	16.50	9.52	4.76	1.20			●	●							1.50-4.00	0.18-0.43
TNMG 220408-GN	22.00	12.70	4.76	0.80	●	●	●	●							1.00-4.00	0.18-0.40
TNMG 220412-GN	22.00	12.70	4.76	1.20	●	●	●								1.50-4.50	0.18-0.45
TNMG 220416-GN	22.00	12.70	4.76	1.60			●								2.00-5.00	0.25-0.45
TNMG 270612-GN	27.50	15.88	6.35	1.20	●		●								2.00-6.00	0.25-0.45

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

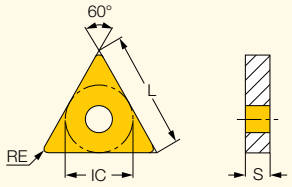
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

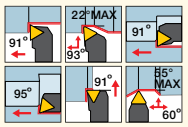
ISOTURN

TNMM-NR

Single-Sided Triangular Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMM 220416-NR	22.00	12.70	4.76	1.60	●	2.50-6.00	0.30-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

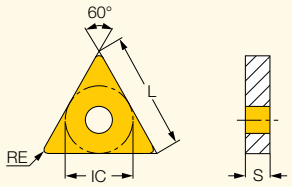
For tools, see pages: C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

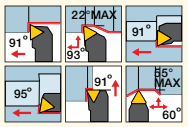
ISOTURN

TNMA

Double-Sided Triangular Inserts with no Chipformer for Short Chipping Materials







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20	IC5010	IC428	IC5005	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMA 160404	16.50	9.52	4.76	0.40		●	●	●	0.50-3.00	0.05-0.21
TNMA 160408	16.50	9.52	4.76	0.80	●	●	●	●	1.00-4.00	0.05-0.25
TNMA 160412	16.50	9.52	4.76	1.20		●	●	●	1.50-4.50	0.10-0.29
TNMA 160416	16.50	9.52	4.76	1.60		●			1.50-4.50	0.10-0.40
TNMA 220408	22.00	12.70	4.76	0.80	●		●	●	1.50-5.00	0.05-0.33
TNMA 220412	22.00	12.70	4.76	1.20		●	●	●	1.50-5.00	0.10-0.33
TNMA 220416	22.00	12.70	4.76	1.60				●	1.50-5.00	0.10-0.37

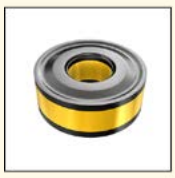
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

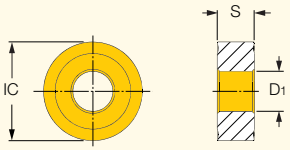
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

ISOTURN

RNMG

Double-Sided Round Negative Insert for Medium and Rough Profiling







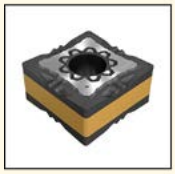
Designation	Dimensions IC	S	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
RNMG 120400	12.70	4.76	5.15	●	●	2.00-5.00	0.30-0.60

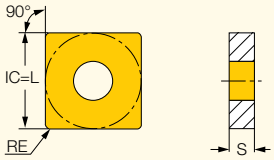
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

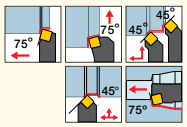
ISOTURN

SNMG-F3P

Double-Sided Square Inserts for Semi-Finishing and Finishing on Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 090404-F3P	9.52	4.76	0.40	•	•	•	•		•	0.50-3.50	0.07-0.25
SNMG 090408-F3P	9.52	4.76	0.80	•			•	•	•	0.90-3.50	0.08-0.25
SNMG 120408-F3P	12.70	4.76	0.80	•	•	•			•	0.90-3.50	0.08-0.25
SNMG 120412-F3P	12.70	4.76	1.20	•	•	•			•	0.90-3.50	0.10-0.25

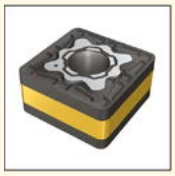
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

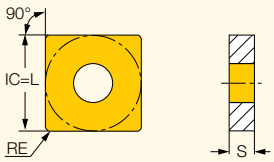
For tools, see pages: A-PSKNR/L-09 (115) • C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

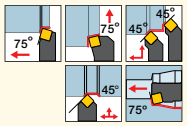
ISOTURN

SNMG-M3P

Double-Sided Square Inserts for Medium Machining Conditions on Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 090404-M3P	9.52	4.76	0.40	•	•	•	•	0.50-3.50	0.15-0.50
SNMG 090408-M3P	9.52	4.76	0.80	•	•	•	•	0.50-3.50	0.15-0.55
SNMG 120408-M3P	12.70	4.76	0.80	•	•	•	•	0.50-6.00	0.15-0.50
SNMG 120412-M3P	12.70	4.76	1.20	•		•	•	0.80-6.00	0.18-0.60
SNMG 150612-M3P	15.88	6.35	1.20	•	•		•	0.80-7.50	0.18-0.60
SNMG 150616-M3P	15.88	6.35	1.60	•		•	•	1.20-7.50	0.20-0.70

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

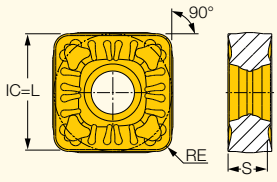
For tools, see pages: A-PSKNR/L-09 (115) • C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

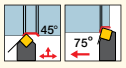
DOVEIQTURN HEAVY DUTY LINE

SOMG-R3P-IQ

Double-Sided 7° Negative Side Flank Square Inserts for Heavy Turning on Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SOMG 150612-R3P-IQ	15.88	6.35	1.20	•	•	2.00-9.00	0.30-0.60
SOMG 150616-R3P-IQ	15.88	6.35	1.60	•	•	2.00-9.00	0.30-0.70
SOMG 190612-R3P-IQ	19.05	6.35	1.20	•	•	3.00-12.00	0.30-0.80
SOMG 190616-R3P-IQ	19.05	6.35	1.60	•	•	3.50-12.00	0.35-0.85
SOMG 190624-R3P-IQ	19.05	6.35	2.40	•	•	3.50-12.00	0.40-1.00
SOMG 250924-R3P-IQ	25.40	9.52	2.40	•	•	4.00-15.00	0.40-1.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

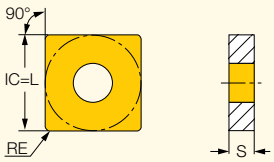
For tools, see pages: C#-PSROR/L-IQ (43) • PSBOR/L-IQ (43) • PSDON-IQ (40)

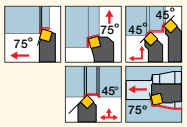
ISOTURN

SNMG-F3M

Double-Sided Square Inserts for Stainless Steel Finishing Applications







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 090404-F3M	9.52	4.76	0.40		●	●	●	●		0.50-3.50	0.05-0.30
SNMG 090408-F3M	9.52	4.76	0.80	●			●	●		0.50-3.50	0.05-0.30
SNMG 120404-F3M	12.70	4.76	0.40	●			●	●		0.90-3.50	0.10-0.40
SNMG 120408-F3M	12.70	4.76	0.80	●	●	●	●	●	●	0.90-3.50	0.10-0.40
SNMG 120412-F3M	12.70	4.76	1.20	●	●	●	●	●		0.90-3.50	0.10-0.40

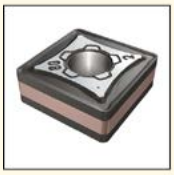
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

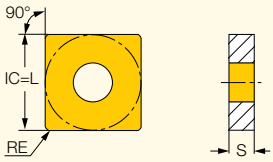
For tools, see pages: A-PSKNR/L-09 (115) • C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

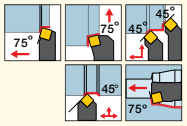
ISOTURN

SNMG-M3M

Double-Sided Square Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 090404-M3M	9.52	4.76	0.40	●				●		0.50-4.50	0.15-0.50
SNMG 090408-M3M	9.52	4.76	0.80	●	●	●		●		0.50-4.50	0.15-0.50
SNMG 120408-M3M	12.70	4.76	0.80	●	●	●		●	●	0.50-5.00	0.15-0.50
SNMG 120412-M3M	12.70	4.76	1.20	●	●	●	●	●		0.50-5.00	0.20-0.60
SNMG 120416-M3M	12.70	4.76	1.60	●	●	●				0.50-5.00	0.25-0.70
SNMG 150612-M3M	15.88	6.35	1.20	●	●	●		●		0.50-8.00	0.10-0.60
SNMG 150616-M3M	15.88	6.35	1.60	●	●	●		●		0.50-8.00	0.10-0.65
SNMG 190612-M3M	19.05	6.35	1.20		●	●				0.10-9.50	0.10-0.60
SNMG 190616-M3M	19.05	6.35	1.60		●	●				0.10-9.50	0.10-0.65

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

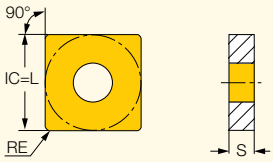
For tools, see pages: A-PSKNR/L-09 (115) • C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

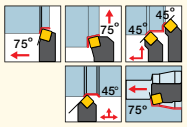
ISOTURN

SNMG-R3M

Double-Sided 90° Square Inserts for Rough Machining on Stainless and Low Carbon Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC806	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 190612 R3M	19.05	6.35	1.20		●	2.00-11.00	0.30-0.90
SNMG 190616-R3M	19.05	6.35	1.60	●	●	2.00-11.00	0.30-0.90

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

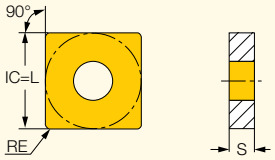
For tools, see pages: DSBNR/L (40) • DSDNN (39) • DSSNR/L (39) • PSBNR/L (43) • PSDNN (41) • PSSNR/L (42)

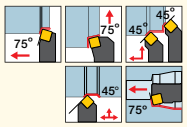
ISOTURN

SNMG-F3S

Double-Sided 90° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 090404-F3S	9.52	4.76	0.40	●	●	0.10-1.50	0.05-0.35
SNMG 090408-F3S	9.52	4.76	0.80	●	●	0.10-1.50	0.05-0.35
SNMG 120404-F3S	12.70	4.76	0.40	●	●	0.10-1.50	0.05-0.35
SNMG 120408-F3S	12.70	4.76	0.80	●	●	0.10-1.50	0.05-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

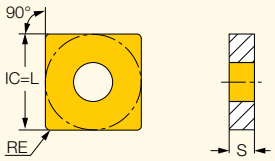
For tools, see pages: A-PSKNR/L-09 (115) • C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

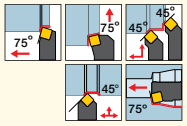
ISOTURN

SNMG-VL

Double-Sided Square Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC806	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 120404-VL	12.70	4.76	0.40	●		1.00-5.00	0.10-0.25
SNMG 120408-VL	12.70	4.76	0.80	●	●	1.00-5.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

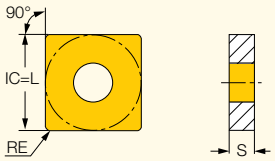
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

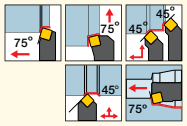
ISOTURN

SNMG-PP

Double-Sided Square Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions IC	S	RE	IC830	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 120408-PP	12.70	4.76	0.80	●	1.00-4.00	0.14-0.30

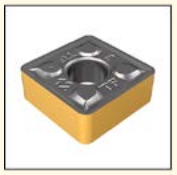
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

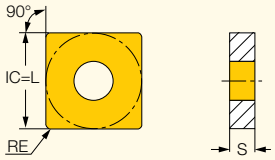
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

ISOTURN

SNMG-TF

Double-Sided Square Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions





Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	IC6015	IC8150	IC20	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 090304-TF	9.52	3.17	0.40		●							0.80-3.00	0.10-0.30
SNMG 120404-TF	12.70	4.76	0.40		●						●	1.00-4.00	0.12-0.35
SNMG 120408-TF	12.70	4.76	0.80	●	●	●			●	●	●	1.00-4.00	0.13-0.35
SNMG 120412-TF	12.70	4.76	1.20	●	●		●	●		●	●	1.50-4.00	0.15-0.40

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

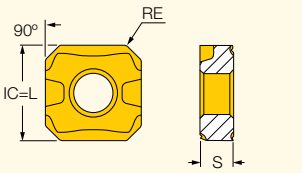
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

ISOTURN

SNMG-EM-M/R

Double-Sided Square Inserts for Medium Machining on High Temperature Alloys





Designation	Dimensions IC	S	RE	Tough ↔ Hard IC806	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 120408-EM-M	12.70	4.76	0.80	●		1.00-3.00	0.20-0.40
SNMG 120408-EM-R	12.70	4.76	0.80	●	●	3.00-6.00	0.25-0.50

- Requires the use of RST 443R/L SET - seat when used on DSSNR/L tools and TSN 423-PIN SET seat when used on PSSNR/L-JHP and PSDNN-JHP tools
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: DSDNN (39) • DSSNR/L (39) • PSDNN (41) • PSDNN-JHP (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

The inserts have 4 cutting edges (2 on each side) with truncated radii – a configuration which facilitates heat transfer from the cutting area. The two edges without chipbreakers (flat) are not used.

Toolholders

These inserts require the use of **RST 443R/L SET** - special seat when used on DSSNR/L tools and **TSN 423-PIN SET** seat when used on PSSNR/L-JHP and PSDNN–JHP tools. The standard seats should be replaced with the special ones which have a pin whose purpose is to prevent using the non-working flat cutting corners.



Correct insert position



Wrong positioning

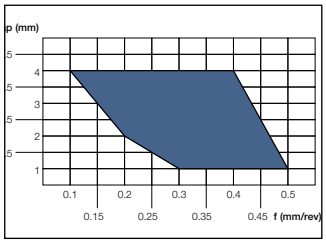


Orientation pin

Advantages

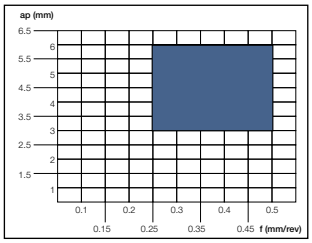
- Increased cutting speed (due to better heat transfer)
- Reduced notch wear (due to 45° approach angle)
- Increased feed (the 45° approach angle produces a thin chip)
- Increased productivity of up to 50%
- Ability to machine in two directions with the same tool, longitudinal and face turning

Chipbreaking Range SNMG 120408-EM-M



Material: Inconel 718 V_c: 50 m/min With coolant

Chipbreaking Range SNMG 120408-EM-R

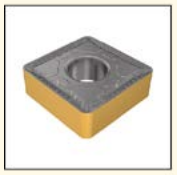


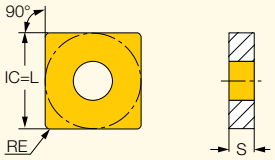
Material: Inconel 718 V_c: 50 m/min With coolant

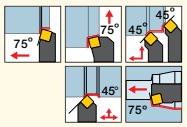
ISOTURN

SNMG-GN

Double-Sided Square Inserts
for General Applications







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20	IC5010	IC428	IC5005	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 120408-GN	12.70	4.76	0.80		●	●	●	●	●	●	●	1.00-5.00	0.20-0.45
SNMG 120412-GN	12.70	4.76	1.20				●					1.40-5.00	0.25-0.50
SNMG 150612-GN	15.88	6.35	1.20	●		●		●				2.00-7.00	0.30-0.60
SNMG 190612-GN	19.05	6.35	1.20	●	●	●						2.00-7.00	0.30-0.60
SNMG 190616-GN	19.05	6.35	1.60	●								2.00-9.00	0.30-0.65

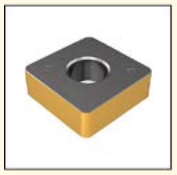
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

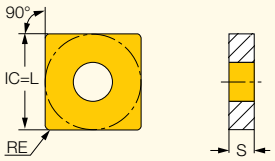
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

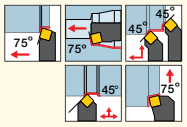
ISOTURN

SNMA

Double-Sided Square Inserts
Without a Chipformer for
Short Chipping Materials







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC20	IC5010	IC428	IC5005	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMA 120408	12.70	4.76	0.80	●	●	●	●	1.50-5.00	0.05-0.50
SNMA 120412	12.70	4.76	1.20	●	●	●	●	1.50-5.00	0.10-0.50
SNMA 120416	12.70	4.76	1.60		●	●	●	2.00-6.00	0.10-0.60
SNMA 190612	19.05	6.35	1.20	●	●		●	2.00-7.00	0.10-0.60
SNMA 190616	19.05	6.35	1.60		●	●		2.50-10.00	0.10-0.60

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

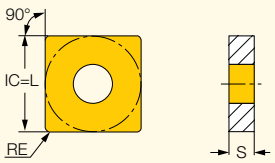
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

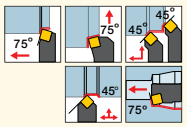
ISOTURN

SNMG-NR

Double-Sided Square Inserts
with a Special Chipformer
for Heavy Machining







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMG 120412-NR	12.70	4.76	1.20			●			●	●			2.00-5.00	0.30-0.70
SNMG 120416-NR	12.70	4.76	1.60		●	●	●						2.50-6.00	0.30-0.70
SNMG 150608-NR	15.88	6.35	0.80			●							2.50-8.00	0.30-0.70
SNMG 150612-NR	15.88	6.35	1.20		●	●							2.50-8.00	0.30-0.70
SNMG 150616-NR	15.88	6.35	1.60			●	●	●		●			2.50-8.00	0.30-0.70
SNMG 190612-NR	19.05	6.35	1.20			●					●	●	3.00-8.00	0.40-0.70
SNMG 190616-NR	19.05	6.35	1.60	●	●	●	●						3.50-10.00	0.40-0.70
SNMG 250724-NR	25.40	7.94	2.40		●								5.00-15.00	0.40-1.00
SNMG 250924-NR	25.40	9.52	2.40	●	●	●							5.00-15.00	0.40-1.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

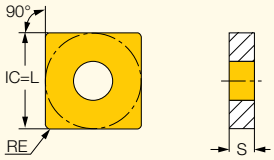
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

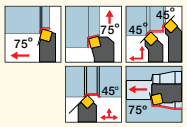
ISOTURN

SNMM-R3P

Single-Sided Square Inserts for Rough Turning Applications on Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMM 120408-R3P	12.70	4.76	0.80	•	•	•	0.70-7.50	0.20-0.55
SNMM 120412-R3P	12.70	4.76	1.20	•	•	•	1.00-7.50	0.25-0.70
SNMM 120416-R3P	12.70	4.76	1.60	•	•		2.00-7.50	0.30-0.90
SNMM 150612-R3P	15.88	6.35	1.20	•	•	•	2.00-9.50	0.30-0.70
SNMM 150616-R3P	15.88	6.35	1.60	•	•	•	2.50-9.50	0.30-0.90
SNMM 190612-R3P	19.05	6.35	1.20	•	•	•	3.00-12.00	0.25-0.80
SNMM 190616-R3P	19.05	6.35	1.60	•	•	•	3.50-12.00	0.30-0.90
SNMM 190624-R3P	19.05	6.35	2.40	•	•	•	3.50-12.00	0.30-1.20
SNMM 250924-R3P	25.40	9.52	2.40	•	•	•	4.00-15.00	0.40-1.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

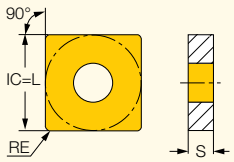
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

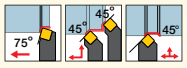
ISOTURN

SNMM-H3P

Single-Sided Square Inserts with a Strong Cutting Edge for Extra Rough Turning







Designation	Dimensions IC	RE	S	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMM 190624-H3P	19.05	2.40	6.35	•	•	4.00-9.00	0.55-1.20
SNMM 250924-H3P	25.40	2.40	9.52	•	•	5.00-12.00	0.55-1.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

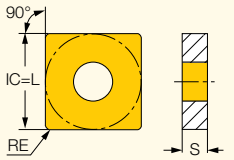
For tools, see pages: DSBNR/L (40) • DSDNN (39) • DSSNR/L (39) • PSBNR/L (43) • PSDNN (41) • PSSNR/L (42)

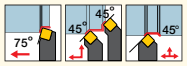
ISOTURN

SNMM-H4P

Single-Sided Square Inserts with a Strong Cutting Edge for Extra Rough Turning







Designation	Dimensions IC	RE	S	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMM 190624-H4P	19.05	2.40	6.35	•	•	4.00-12.00	0.50-1.10
SNMM 250924-H4P	25.40	2.40	9.52	•	•	5.00-15.00	0.55-1.50

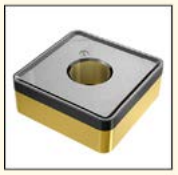
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

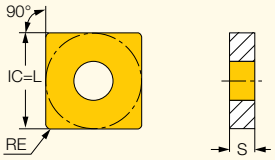
For tools, see pages: DSBNR/L (40) • DSDNN (39) • DSSNR/L (39) • PSBNR/L (43) • PSDNN (41) • PSSNR/L (42)

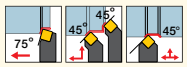
ISOTURN

SNMM-H5P

Single-Sided Square Insert
with a Strong Cutting Edge
for Extra Rough Turning







Designation	Dimensions IC	RE	S	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMM 250924-H5P	25.40	2.40	9.52	•	•	3.60-16.00	0.60-1.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

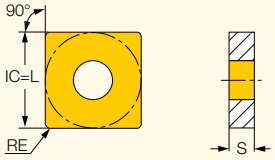
For tools, see pages: PSBNR/L (43) • PSDNN (41) • PSSNR/L (42)

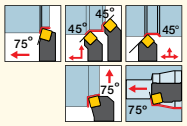
ISOTURN

SNMM-NM

Single-Sided Square Inserts
for Roughing Applications







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMM 190616-NM	19.05	6.35	1.60	•	•	2.50-10.00	0.30-0.70

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

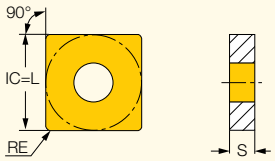
For tools, see pages: DSBNR/L (40) • DSDNN (39) • DSSNR/L (39) • PSBNR/L (43) • PSDNN (41) • PSSNR/L (42)

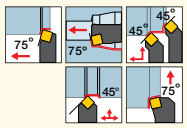
ISOTURN

SNMM-NR

Single-Sided Square Inserts
with a Special Chipformer
for Heavy Machining







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC8350	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMM 190616-NR	19.05	6.35	1.60		•		2.50-8.00	0.35-1.00
SNMM 250724-NR	25.40	7.94	2.40	•	•	•	5.00-15.00	0.35-1.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

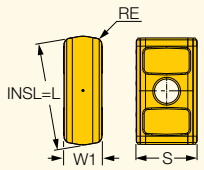
For tools, see pages: DSBNR/L (40) • DSDNN (39) • DSSNR/L (39) • PSBNR/L (43) • PSDNN (41) • PSSNR/L (42)

HEAVY SUPER TURN

LOMX-H6P

Tangential Inserts with 4 Cutting Edges for High Metal Removal of up to 35 mm D.O.C. on Steel





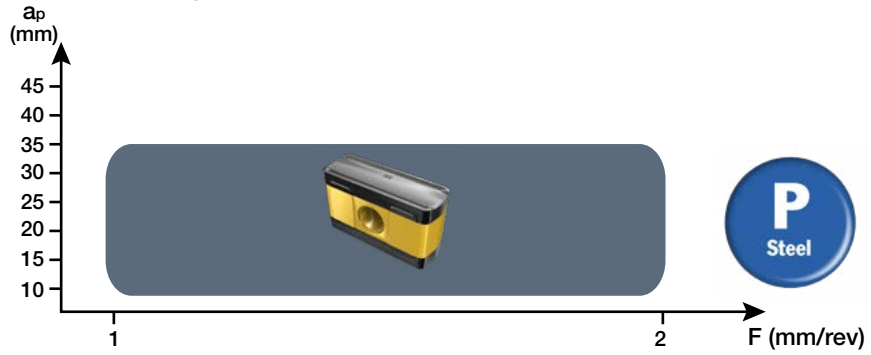


Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
LOMX 402224-H6P	14.40	40.30	22.60	2.40	●	●	7.00-35.00	1.00-2.00

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: PLBOR/L (45)

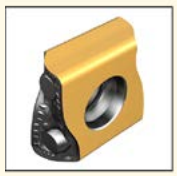
Application Range H6P Chipformer

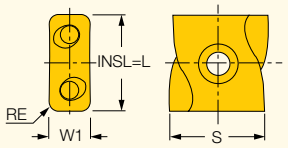


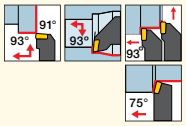
HELITURN TANGENTIAL LINE

LNMX-HT

Tangential Inserts with 4 Cutting Edges and a Positive Rake Angle for High Metal Removal Rates







Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC908	IC8150	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
LNMX 110408L-HT	4.75	11.00	11.40	0.80	●	●	●	●	●	●			●	0.50-5.00	0.15-0.60
LNMX 110408R-HT	4.75	11.00	11.40	0.80	●	●	●	●	●	●		●	●	0.50-5.00	0.15-0.60
LNMX 110412L-HT	4.75	11.00	11.40	1.20			●	●	●	●				0.80-5.00	0.20-0.80
LNMX 110412R-HT	4.75	11.00	11.40	1.20	●		●	●	●	●				0.80-5.00	0.20-0.80
LNMX 150608L-HT	6.40	15.00	13.40	0.80	●		●	●	●	●	●		●	1.00-6.00	0.25-0.60
LNMX 150608R-HT	6.40	15.00	13.40	0.80	●	●	●	●	●	●	●	●	●	1.00-6.00	0.25-0.60
LNMX 150612L-HT	6.40	15.00	13.40	1.20		●	●	●	●	●			●	1.50-7.00	0.30-0.80
LNMX 150612R-HT	6.40	15.00	13.40	1.20	●	●	●	●	●	●	●		●	1.50-7.00	0.30-0.80
LNMX 150616L-HT	6.40	15.00	13.40	1.60	●		●	●	●	●	●			2.00-8.00	0.30-1.00
LNMX 150616R-HT	6.40	15.00	13.40	1.60		●	●	●	●	●			●	2.00-8.00	0.30-1.00
LNMX 221016R/L-HT	9.40	22.00	20.00	1.60		●	●		●					4.00-15.00	0.30-1.00
LNMX 221024R/L-HT	9.40	22.00	20.00	2.40		●	●		●					5.00-15.00	0.30-1.10

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

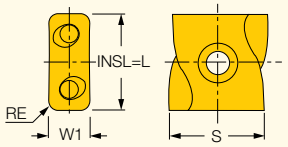
For tools, see pages: C#-SLANR/L-TANG (48) • PLANR/L-TANG (46) • S-PLANR-TANG (100) • S-SLANR/L-TANG (100) • SLANR/L-15-TANG-JHP (48) • SLANR/L-TANG (47) • SLBNR/L-TANG (49) • SLFNR/L-TANG (49)

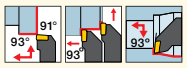
HELITURN TANGENTIAL LINE

LNMX-HM

Tangential Inserts with a Positive Rake Angle for High Metal Removal on Soft and Ductile Materials







Designation	Dimensions INSL	W1	S	RE	Tough ↔ Hard IC8250	IC6015	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
LNMX 110408L-HM	11.00	4.75	11.40	0.80		●		●		1.00-5.00	0.10-0.40
LNMX 110408R-HM	11.00	4.75	11.40	0.80	●	●		●		1.00-5.00	0.10-0.40
LNMX 110412L-HM	11.00	4.75	11.40	1.20	●					1.00-5.00	0.10-0.40
LNMX 110412R-HM	11.00	4.75	11.40	1.20		●				1.00-5.00	0.10-0.40
LNMX 150608L-HM	15.00	6.40	13.40	0.80	●		●		●	1.00-6.00	0.10-0.50
LNMX 150608R-HM	15.00	6.40	13.40	0.80	●		●	●	●	1.00-6.00	0.10-0.50
LNMX 150612R/L-HM	15.00	6.40	13.40	1.20	●		●		●	1.50-7.00	0.15-0.70

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

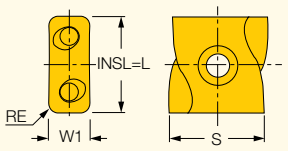
For tools, see pages: C#-SLANR/L-TANG (48) • PLANR/L-TANG (46) • S-PLANR-TANG (100) • S-SLANR/L-TANG (100) • SLANR/L-15-TANG-JHP (48) • SLANR/L-TANG (47) • SLFNR/L-TANG (49)

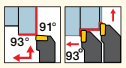
HELITURN TANGENTIAL LINE

LNMX-WG

Tangentially Clamped Inserts with a Wiper Corner Design for High Production Cutting and Excellent Surface Finish







Designation	Dimensions INSL	W1	S	RE	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
LNMX 150612R/L-WG	15.00	6.40	13.40	1.20	●	1.50-7.00	0.30-0.80

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

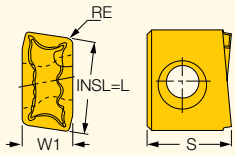
For tools, see pages: C#-SLANR/L-TANG (48) • PLANR/L-TANG (46) • S-PLANR-TANG (100) • S-SLANR/L-TANG (100) • SLANR/L-15-TANG-JHP (48) • SLANR/L-TANG (47) • SLFNR/L-TANG (49)

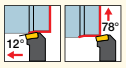
FEEDTURN

LNMX-HF

Tangentially Clamped Rough Turning Inserts for High Feed (up to 2.4 mm/Rev)







Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
LNMX 1608L-HF	8.50	16.00	14.00	1.20		●	●	0.50-2.40	1.50-2.40
LNMX 1608R-HF	8.50	16.00	14.00	1.20	●	●	●	0.50-2.40	1.50-2.40

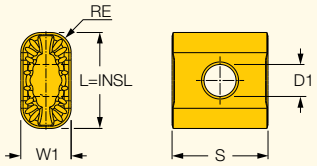
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

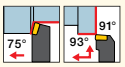
ISOTURN

LNMX 19/30

Tangentially Clamped Inserts
for Railroad Wheel Re-Turning







Designation	Dimensions W1	INSL	S	RE	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
LNMX 191940-WF	10.00	19.05	19.05	4.00	6.35	●	●	0.30-5.00	0.25-1.30
LNMX 191940-WM	10.00	19.05	19.05	4.00	6.35	●	●	0.30-5.00	0.40-1.50
LNMX 301940-WM	12.00	30.00	19.05	4.00	6.35	●	●	0.50-12.00	0.70-1.90
LNMX 301940-WR	12.00	30.00	19.05	4.00	6.35	●	●	0.50-12.00	0.80-1.90

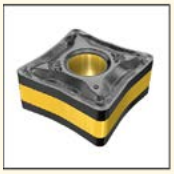
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

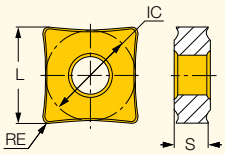
For tools, see pages: PRWR/L 175-CA (50) • PRWR/L 177-CA (50)

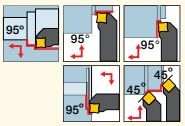
ISOTURN

QNMG-NF

Double-Sided Inserts
with Four 80° Corners for
Finishing Applications







Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
QNMG 120408-NF	13.33	12.70	4.76	0.80	●	0.80-3.00	0.08-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

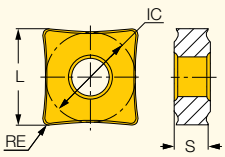
For tools, see pages: PQFNR/L (51) • PQLNR/L (50) • PQSNR/L (51) • S-PQFNR/L (100) • S-PQLNR/L (101)

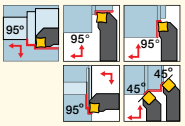
ISOTURN

QNMG-TF

Double-Sided Inserts
with Four 80° Corners for
General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
QNMG 090404-TF	10.32	9.52	4.76	0.40	●	●	●	1.00-4.00	0.12-0.35
QNMG 090408-TF	10.32	9.52	4.76	0.80	●	●	●	1.00-4.00	0.12-0.35
QNMG 120404-TF	13.41	12.70	4.76	0.40	●	●		1.00-4.00	0.12-0.35
QNMG 120408-TF	13.33	12.70	4.76	0.80	●	●	●	1.00-4.00	0.12-0.35
QNMG 120412-TF	13.25	12.70	4.76	1.20			●	1.50-4.50	0.15-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

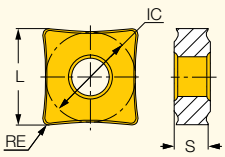
For tools, see pages: PQFNR/L (51) • PQLNR/L (50) • PQSNR/L (51) • S-PQFNR/L (100) • S-PQLNR/L (101)

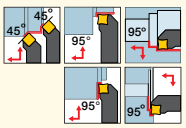
ISOTURN

QNMG-PP

Double-Sided Inserts
with Four 80° Corners for
General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
QNMG 090408-PP	10.32	9.52	4.76	0.80	●		1.00-4.00	0.14-0.30
QNMG 120408-PP	13.33	12.70	4.76	0.80	●	●	1.00-4.00	0.14-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

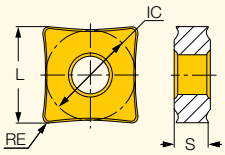
For tools, see pages: PQFNR/L (51) • PQLNR/L (50) • PQSNR/L (51) • S-PQFNR/L (100) • S-PQLNR/L (101)

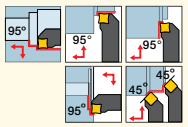
ISOTURN

QNMG-GN

Double-Sided Inserts with Four 80° Corners for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC428	Recommended Machining Data a_p (mm)	f (mm/rev)
QNMG 090408-GN	10.32	9.52	4.76	0.80	●		●		1.00-4.50	0.16-0.45
QNMG 120408-GN	13.33	12.70	4.76	0.80	●	●	●	●	1.00-4.50	0.16-0.45
QNMG 120412-GN	13.25	12.70	4.76	1.20	●	●	●	●	1.50-5.00	0.22-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: PQFNR/L (51) • PQLNR/L (50) • PQSNR/L (51) • S-PQFNR/L (100) • S-PQLNR/L (101)

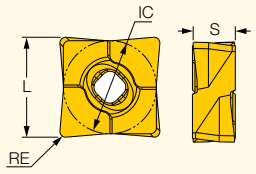
Positive Inserts

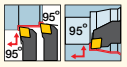
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-F3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Alloyed Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090402-F3P	10.40	9.35	4.66	0.20	●	●	0.30-2.00	0.03-0.15
CXMG 090404-F3P	10.40	9.35	4.65	0.40	●		0.40-2.00	0.05-0.25
CXMG 12T504-F3P	13.83	12.50	5.80	0.40	●	●	0.40-2.00	0.05-0.25
CXMG 12T508-F3P	13.75	12.50	5.80	0.80	●	●	0.80-2.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

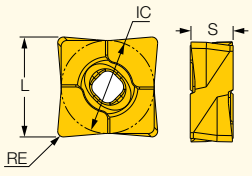
For tools, see pages: A-PCLXR/L (99) • AVC-PCLXR/L (96) • PCLXR/L (52) • PCLXR/L-JHP (52) • PCLXR/L-JHP-MC (53) • PCLXR/L-S (52) • PCLXR/L-S-JHP (53)

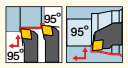
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-M3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Alloyed Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090408-M3P	10.32	9.35	4.65	0.80	●	●	●	0.80-3.00	0.10-0.50
CXMG 12T508-M3P	13.75	12.50	5.80	0.80	●	●	●	0.80-5.00	0.10-0.50
CXMG 12T512-M3P	13.68	12.50	5.80	1.20	●	●	●	1.20-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

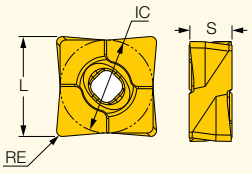
For tools, see pages: A-PCLXR/L (99) • AVC-PCLXR/L (96) • PCLXR/L (52) • PCLXR/L-JHP (52) • PCLXR/L-JHP-MC (53) • PCLXR/L-S (52) • PCLXR/L-S-JHP (53)

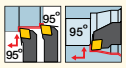
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-F3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Stainless Steel and H.T.A.







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090402-F3M	10.40	9.35	4.66	0.20		●	●	●	0.30-2.00	0.03-0.15
CXMG 090404-F3M	10.40	9.35	4.65	0.40	●	●	●	●	0.40-2.00	0.05-0.25
CXMG 12T504-F3M	13.83	12.50	5.80	0.40	●		●	●	0.40-2.00	0.05-0.25
CXMG 12T508-F3M	13.75	12.50	5.80	0.80	●		●	●	0.80-2.00	0.05-0.25

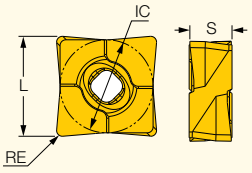
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A-PCLXR/L (99) • AVC-PCLXR/L (96) • PCLXR/L (52) • PCLXR/L-JHP (52) • PCLXR/L-JHP-MC (53) • PCLXR/L-S (52) • PCLXR/L-S-JHP (53)

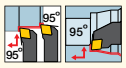
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-M3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Stainless Steel and H.T.A.







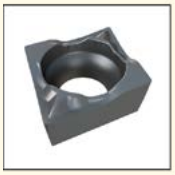
Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090408-M3M	10.32	9.35	4.65	0.80	●	●	●	0.80-3.00	0.15-0.50
CXMG 12T508-M3M	13.75	12.50	5.80	0.80	●	●	●	0.80-5.00	0.15-0.50
CXMG 12T512-M3M	13.68	12.50	5.80	1.20	●	●	●	1.20-5.00	0.15-0.50

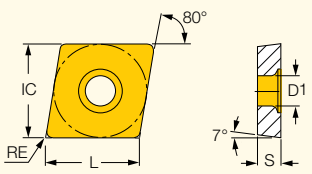
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A-PCLXR/L (99) • AVC-PCLXR/L (96) • PCLXR/L (52) • PCLXR/L-JHP (52) • PCLXR/L-JHP-MC (53) • PCLXR/L-S (52) • PCLXR/L-S-JHP (53)

ISOTURN

CCGT-F1P

80° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel





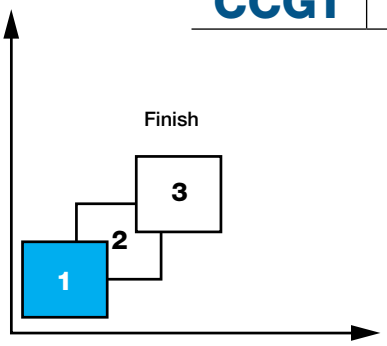


Designation	Dimensions L	IC	S	RE	D1	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 03X101-F1P	3.60	3.57	1.39	0.10	1.90	●	0.10-0.50	0.01-0.05
CCGT 03X102-F1P	3.60	3.57	1.39	0.20	1.90	●	0.10-0.50	0.02-0.10
CCGT 03X104-F1P	3.60	3.57	1.39	0.40	1.90	●	0.10-0.50	0.05-0.15
CCGT 04T101-F1P	4.40	4.37	1.79	0.10	2.30	●	0.10-0.50	0.01-0.05
CCGT 04T102-F1P	4.40	4.37	1.79	0.20	2.30	●	0.10-0.50	0.02-0.10
CCGT 04T104-F1P	4.40	4.37	1.79	0.40	2.30	●	0.10-0.50	0.05-0.15

• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A/E/S-SCLCR/L (111) • PICIN-SCLCR/L (386)

ISO Standard Designation				-	1	2	3
CCGT	04	T1	04	-	F	1	P

Finish



1. Application

F	Finishing

2. Chip Load

1	For super finish
2	For low range
3	For general range

3. Workpiece Material Group

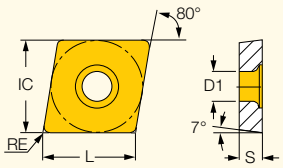
P	Steel
M	Stainless Steel
K	Cast Iron
N	Nonferrous & Aluminum
S	High Temperature Alloys

ISOTURN

CCGT-F1M-20P

80° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel







Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 0602005-F1M-20P	6.45	6.35	2.38	0.05	2.80	●	0.04-4.00	0.03-0.15
CCGT 060201-F1M-20P	6.45	6.35	2.38	0.10	2.80	●	0.07-4.00	0.03-0.15
CCGT 060202-F1M-20P	6.45	6.35	2.38	0.20	2.80	●	0.15-4.00	0.03-0.15
CCGT 060204-F1M-20P	6.45	6.35	2.38	0.40	2.80	●	0.30-4.00	0.03-0.15
CCGT 09T3005-F1M-20P	9.67	9.53	3.97	0.05	4.40	●	0.04-4.00	0.03-0.15
CCGT 09T301-F1M-20P	9.67	9.53	3.97	0.10	4.40	●	0.07-4.00	0.03-0.15
CCGT 09T302-F1M-20P	9.67	9.53	3.97	0.20	4.40	●	0.15-4.00	0.03-0.15
CCGT 09T304-F1M-20P	9.67	9.53	3.97	0.40	4.40	●	0.30-4.00	0.03-0.15

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

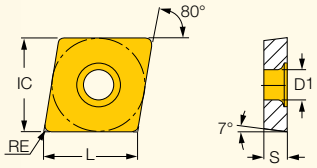
For tools, see pages: A/E/S-SCLCR/L (111)

ISOTURN

CCMT-F3P

80° Rhombic Positive Flank Inserts for Semi-Finishing and Finishing Turning of Steel







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060202-F3P	6.30	6.35	2.38	0.20	2.80	●	●	●	0.06-1.70	0.03-0.12
CCMT 060204-F3P	6.30	6.35	2.38	0.40	2.80	●	●	●	0.10-1.70	0.05-0.18
CCMT 09T302-F3P	9.70	9.52	3.97	0.20	4.40	●	●	●	0.08-2.00	0.04-0.16
CCMT 09T304-F3P	9.70	9.52	3.97	0.40	4.40	●	●	●	0.11-2.00	0.06-0.25
CCMT 09T308-F3P	9.70	9.52	3.97	0.80	4.40	●	●	●	0.15-2.00	0.08-0.32
CCMT 120404-F3P	12.90	12.70	4.76	0.40	5.50	●	●	●	0.11-2.00	0.06-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

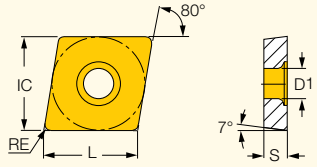
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-JHP-MC (56) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54)

ISOTURN

CCMT-M3P

80° Rhombic Positive Flank Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-M3P	6.30	6.35	2.38	0.40	2.80	●	●	●	0.50-2.00	0.10-0.25
CCMT 060208-M3P	6.30	6.35	2.38	0.80	2.80	●	●	●	1.00-4.00	0.10-0.30
CCMT 09T304-M3P	9.70	9.52	3.97	0.40	4.40	●	●	●	0.50-3.00	0.10-0.20
CCMT 09T308-M3P	9.70	9.52	3.97	0.80	4.40	●	●	●	1.00-4.00	0.10-0.30
CCMT 09T312-M3P	9.70	9.52	3.97	1.20	4.40	●	●	●	1.30-5.00	0.15-0.40
CCMT 120404-M3P	12.90	12.70	4.76	0.40	5.50	●	●	●	0.50-3.00	0.10-0.20
CCMT 120408-M3P	12.90	12.70	4.76	0.80	5.50	●	●	●	1.00-4.00	0.15-0.40
CCMT 120412-M3P	12.90	12.70	4.76	1.20	5.50	●	●	●	1.30-5.00	0.15-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

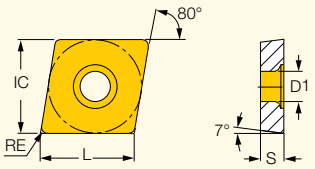
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

ISOTURN

CCMT-F3M

80° Rhombic Positive Flank Inserts for Stainless Steel Finishing Applications





Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060202-F3M	6.30	6.35	2.38	0.20	2.80	●	●	●	●	0.06-1.70	0.03-0.12
CCMT 060204-F3M	6.30	6.35	2.38	0.40	2.80	●	●	●	●	0.10-1.70	0.05-0.18
CCMT 060208-F3M	6.30	6.35	2.38	0.80	2.80	●	●	●	●	0.12-1.70	0.08-0.22
CCMT 09T302-F3M	9.70	9.52	3.97	0.20	4.40	●	●	●	●	0.08-2.00	0.04-0.16
CCMT 09T304-F3M	9.70	9.52	3.97	0.40	4.40	●	●	●	●	0.11-2.00	0.06-0.25
CCMT 09T308-F3M	9.70	9.52	3.97	0.80	4.40	●	●	●	●	0.15-2.00	0.08-0.32
CCMT 120402-F3M	12.90	12.70	4.76	0.20	5.50	●	●	●	●	0.11-2.00	0.06-0.18
CCMT 120404-F3M	12.90	12.70	4.76	0.40	5.50	●	●	●	●	0.15-2.00	0.08-0.25
CCMT 120408-F3M	12.90	12.70	4.76	0.80	5.50	●	●	●	●	0.18-2.00	0.10-0.32

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

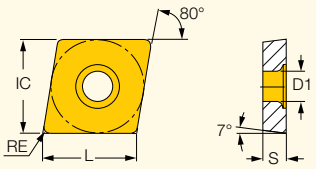
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

ISOTURN

CCMT-M3M

80° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel





Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-M3M	6.30	6.35	2.38	0.40	2.80	●	●	●	0.40-2.50	0.07-0.23
CCMT 060208-M3M	6.30	6.35	2.38	0.80	2.80	●	●	●	0.80-2.50	0.10-0.25
CCMT 09T304-M3M	9.70	9.52	3.97	0.40	4.40	●	●	●	0.40-3.00	0.07-0.25
CCMT 09T308-M3M	9.70	9.52	3.97	0.80	4.40	●	●	●	0.80-3.00	0.10-0.30
CCMT 120404-M3M	12.90	12.70	4.76	0.40	5.50	●	●	●	0.40-3.50	0.10-0.30
CCMT 120408-M3M	12.90	12.70	4.76	0.80	5.50	●	●	●	0.80-3.50	0.12-0.34
CCMT 120412-M3M	12.90	12.70	4.76	1.20	5.50	●	●	●	1.20-3.50	0.14-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

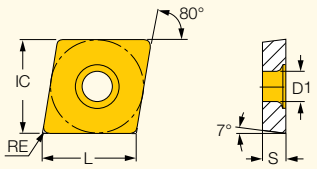
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

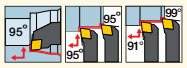
ISOTURN

CCMT-CERMET

Single-Sided 80° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications



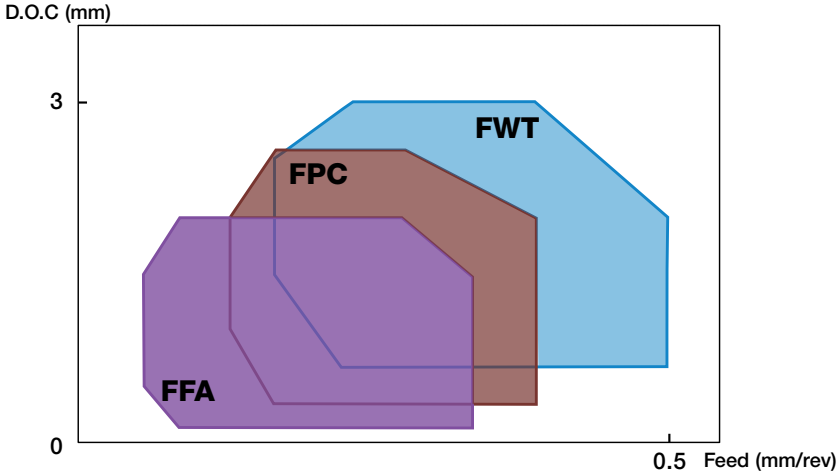




Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 09T302-FFA	9.70	9.52	3.97	0.20	4.40	•	•	0.03-2.00	0.04-0.15
CCMT 09T302-FWT	9.70	9.52	3.97	0.20	4.40	•		1.50-3.00	0.00-0.50
CCMT 09T304-FPC	9.70	9.52	3.97	0.40	4.40	•	•	0.50-2.50	0.03-0.20
CCMT 09T308-FPC	9.70	9.52	3.97	0.80	4.40		•	0.50-2.80	0.03-0.22

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

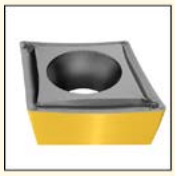
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-JHP-MC (56) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54)

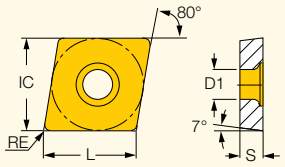


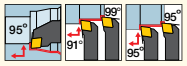
ISOTURN

CCMT/CCGT-SM

Single-Sided Turning Inserts for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC428	IC5005	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 060201-SM	6.45	6.35	2.38	0.10	2.80											•	0.25-2.00	0.05-0.20
CCGT 060202-SM	6.45	6.35	2.38	0.20	2.80											•	0.25-2.00	0.05-0.25
CCMT 060202-SM	6.45	6.35	2.38	0.20	2.80		•		•					•			0.25-2.00	0.05-0.25
CCMT 060204-SM	6.45	6.35	2.38	0.40	2.80	•	•	•	•					•	•	•	0.50-2.50	0.07-0.25
CCMT 060208-SM	6.45	6.35	2.38	0.80	2.80	•		•							•	•	0.50-2.50	0.07-0.25
CCMT 09T302-SM	9.70	9.52	3.97	0.20	4.40	•	•	•						•	•	•	0.50-2.50	0.06-0.25
CCMT 09T304-SM	9.70	9.52	3.97	0.40	4.40	•	•		•	•	•	•	•	•	•	•	0.50-2.50	0.06-0.25
CCMT 09T308-SM	9.70	9.52	3.97	0.80	4.40	•	•	•	•		•		•	•	•	•	0.50-3.00	0.07-0.25
CCMT 120404-SM	12.90	12.70	4.76	0.40	5.50		•		•					•	•	•	0.70-3.50	0.07-0.25
CCMT 120408-SM	12.90	12.70	4.76	0.80	5.50	•	•	•	•						•	•	0.70-3.50	0.07-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

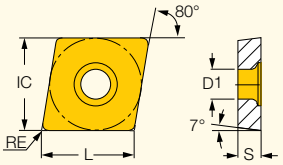
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

ISOTURN

CCMT-PF

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060202-PF	6.30	6.35	2.38	0.20	2.80	●	●	●		●	●	●	0.20-2.50	0.04-0.25
CCMT 060204-PF	6.30	6.35	2.38	0.40	2.80	●	●	●	●	●	●		0.40-2.50	0.04-0.30
CCMT 09T302-PF	9.70	9.52	3.97	0.20	4.40	●			●	●	●	●	0.50-3.00	0.05-0.30
CCMT 09T304-PF	9.70	9.52	3.97	0.40	4.40	●	●	●	●	●	●	●	0.50-3.50	0.05-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

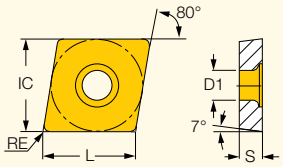
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

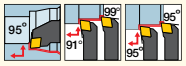
ISOTURN

CCMT-14

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC20	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-14	6.30	6.35	2.38	0.40	2.80	●		●	●	●	●	●	0.50-2.50	0.14-0.25
CCMT 09T304-14	9.70	9.52	3.97	0.40	4.40		●				●	●	0.50-3.00	0.14-0.25
CCMT 09T308-14	9.70	9.52	3.97	0.80	4.40	●	●	●	●	●			0.80-3.00	0.14-0.30
CCMT 120408-14	12.90	12.70	4.76	0.80	5.50	●		●					0.80-3.00	0.14-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

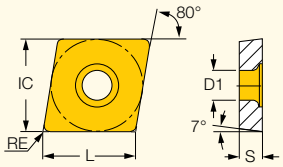
For tools, see pages: A/E/S-SCLCR/L (111) • AVC-SCLCR/L (95) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-JHP-MC (56) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54)

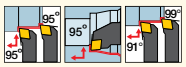
ISOTURN

CCMT/CCGT

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC30N	IC20	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 060202	6.45	6.35	2.38	0.20	2.80		●				0.50-2.00	0.10-0.20
CCGT 060202L (1)	6.45	6.35	2.38	0.20	2.80		●	●			0.50-2.00	0.10-0.20
CCGT 060204	6.45	6.35	2.38	0.40	2.80		●				0.50-2.00	0.10-0.20
CCGT 060204L (1)	6.45	6.35	2.38	0.40	2.80		●				0.50-2.00	0.10-0.20
CCMT 060202	6.45	6.35	2.38	0.20	2.80	●			●		0.50-2.00	0.10-0.20
CCMT 060204	6.45	6.35	2.38	0.40	2.80		●		●	●	0.50-2.00	0.12-0.22
CCMT 09T302	9.70	9.52	3.97	0.20	4.40				●	●	0.50-2.50	0.12-0.25
CCMT 09T304	9.70	9.52	3.97	0.40	4.40				●	●	0.50-2.50	0.12-0.25
CCMT 09T308	9.70	9.52	3.97	0.80	4.40				●	●	0.80-3.00	0.14-0.25

• Use left-hand inserts for left-hand external tools and for right-hand internal tools • For user guide and cutting speed recommendations, see pages 122-134, 236-248

(1) Left-hand insert

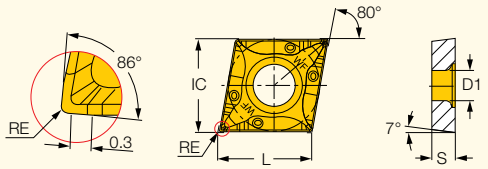
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

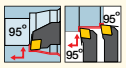
ISOTURN

CCET-WF

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing







Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCET 0602005-WF	6.30	6.35	2.38	0.05	2.80	●	0.05-2.00	0.01-0.20
CCET 09T3005-WF	9.50	9.52	3.97	0.05	4.40	●	0.05-2.00	0.01-0.20

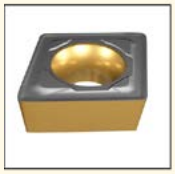
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

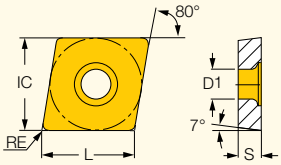
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

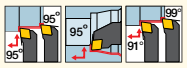
ISOTURN

CCMT-WG

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-WG	6.30	6.35	2.38	0.40	2.80		●	●	0.40-2.00	0.10-0.35
CCMT 09T304-WG	9.70	9.52	3.97	0.40	4.40	●			0.40-2.00	0.14-0.30
CCMT 09T308-WG	9.70	9.52	3.97	0.80	4.40	●			0.50-2.50	0.20-0.38
CCMT 120408-WG	12.90	12.70	4.76	0.80	5.50	●			0.50-3.00	0.20-0.36

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

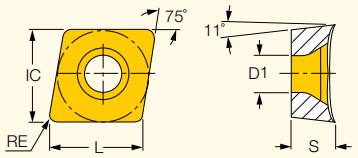
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

ISOTURN

EPGT-F1P

75° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel







Designation	Dimensions L	IC	S	RE	D1	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
EPGT 03X101-F1P	3.70	3.57	1.39	0.10	1.90	●	0.10-0.50	0.01-0.05
EPGT 03X102-F1P	3.70	3.57	1.39	0.20	1.90	●	0.10-0.50	0.02-0.10
EPGT 03X104-F1P	3.70	3.57	1.39	0.40	1.90	●	0.10-0.50	0.05-0.15

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

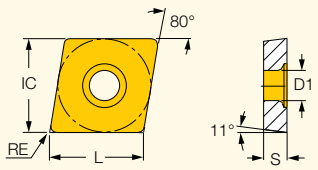
For tools, see pages: A/E-SEXPR/L-03 (112)

ISOTURN

CPGT-SM

80° Rhombic Inserts with an 11° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CPGT 060201-SM	6.45	6.35	2.38	0.10	2.80	●	0.25-2.00	0.05-0.20
CPGT 060202-SM	6.45	6.35	2.38	0.20	2.80	●	0.25-2.00	0.05-0.30
CPGT 060204-SM	6.45	6.35	2.38	0.40	2.80	●	0.50-3.00	0.10-0.35
CPGT 09T301-SM	9.67	9.52	3.97	0.10	4.40	●	0.25-2.00	0.05-0.25
CPGT 09T302-SM	9.67	9.52	3.97	0.20	4.40	●	0.50-2.50	0.10-0.30
CPGT 09T304-SM	9.67	9.52	3.97	0.40	4.40	●	0.60-3.50	0.10-0.35

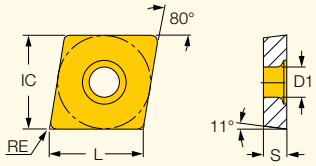
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

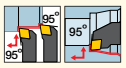
ISOTURN

CPMT-PF

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC6015	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CPMT 060204-PF	6.30	6.35	2.38	0.40	2.80	●	●	●	●	●	0.50-2.50	0.04-0.30
CPMT 060208-PF	6.30	6.35	2.38	0.80	2.80	●			●	●	0.50-2.50	0.08-0.30
CPMT 09T304-PF	9.50	9.52	3.97	0.40	4.40	●			●	●	0.50-3.00	0.05-0.35
CPMT 09T308-PF	9.50	9.52	3.97	0.80	4.40	●	●	●	●	●	0.50-3.50	0.10-0.35

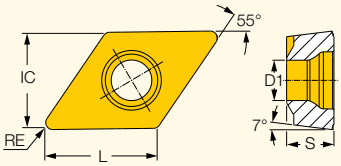
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

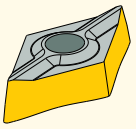
T-LOCK

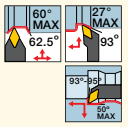
DCMT-F3P-SL

55° Rhombic Inserts with a Positive Flank with a Locating Bottom Ridge for Semi-Finishing and Finishing on Steel









Bottom view

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T504-F3P-SL	13.40	11.00	5.11	0.40	4.50	●	●	0.50-3.00	0.05-0.25
DCMT 13T508-F3P-SL	13.40	11.00	5.11	0.80	4.50	●	●	0.90-3.50	0.10-0.25

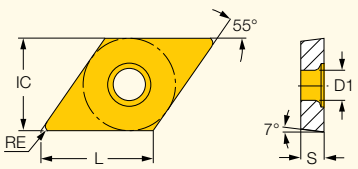
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A-SDUCR/L-13-SL (112) • AVC-SDJCN-Y (76) • C#-SDJCN-13-Y (76) • C#-SDJCR/L-13-SL-JHP (57) • C#-SDNCN-13-SL-JHP (63)
• HSK A63WH-SDJCN-13-Y (75) • SDACR/L-13S-SL-JHP (61) • SDJCR/L-13-SL (57) • SDNCN-13-SL (63)

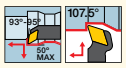
ISOTURN

DCMT-F3P

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 070202-F3P	7.70	6.35	2.38	0.20	2.80	●	●	●	●	0.06-1.50	0.03-0.12
DCMT 070204-F3P	7.70	6.35	2.38	0.40	2.80	●	●	●	●	0.08-1.50	0.05-0.18
DCMT 11T302-F3P	11.60	9.52	3.97	0.20	4.40	●	●	●	●	0.08-2.00	0.04-0.16
DCMT 11T304-F3P	11.60	9.52	3.97	0.40	4.40	●	●	●	●	0.11-2.00	0.06-0.25
DCMT 11T308-F3P	11.60	9.52	3.97	0.80	4.40	●	●	●	●	0.15-2.00	0.08-0.32

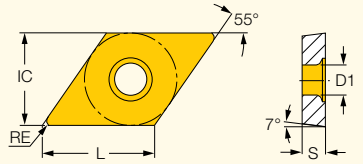
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59)
• C#-SDNCN (64) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-JHP-MC (62)
• PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58)

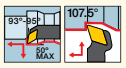
ISOTURN

DCMT-M3M

55° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 070204-M3M	7.70	6.35	2.38	0.40	2.80	●	●		●		0.40-2.50	0.07-0.23
DCMT 070208-M3M	7.70	6.35	2.38	0.80	2.80	●	●		●		0.80-2.50	0.10-0.25
DCMT 11T304-M3M	11.60	9.52	3.97	0.40	4.40	●	●		●		0.40-3.00	0.07-0.25
DCMT 11T308-M3M	11.60	9.52	3.97	0.40	4.40	●	●	●	●	●	0.80-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

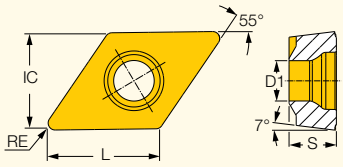
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

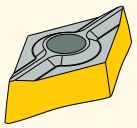
T-LOCK

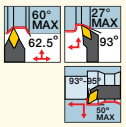
DCMT-M3M-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Machining Stainless and Low Carbon Steel









Bottom view

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T508-M3M-SL	13.40	11.00	5.11	0.80	4.50	●	●	0.90-3.50	0.10-0.25
DCMT 13T512-M3M-SL	13.40	11.00	5.11	1.20	4.50	●	●	0.90-3.50	0.15-0.30

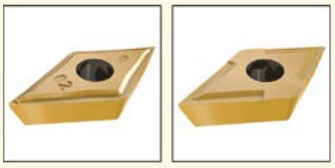
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

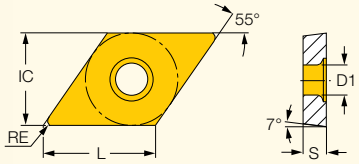
For tools, see pages: A-SDUCR/L-13-SL (112) • AVC-SDJCN-Y (76) • C#-SDJCN-13-Y (76) • C#-SDJCR/L-13-SL-JHP (57) • C#-SDNCN-13-SL-JHP (63) • HSK A63WH-SDJCN-13-Y (75) • SDACR/L-13S-SL-JHP (61) • SDJCR/L-13-SL (57) • SDNCN-13-SL (63)

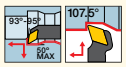
ISOTURN

DCMT-CERMET

Single-Sided 55° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications



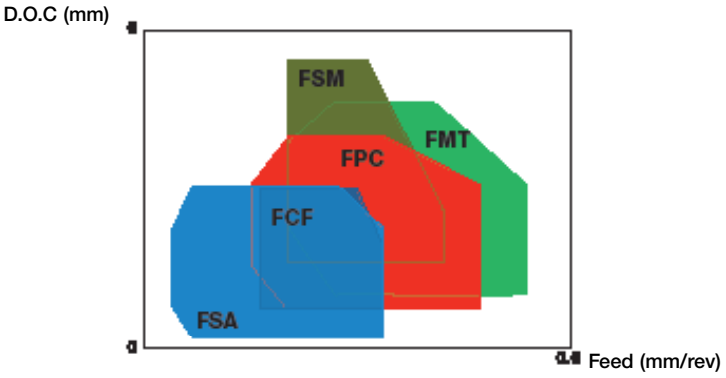




Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 11T302-FSA	11.60	9.52	3.97	0.20	4.40	●		0.30-2.00	0.02-0.15
DCGT 11T304-FSA	11.60	9.52	3.97	0.40	4.40	●		0.40-2.00	0.03-0.15
DCMT 11T302-FCF	11.60	9.52	3.97	0.20	4.40	●	●	0.50-2.50	0.07-0.22
DCMT 11T302-FSM	11.60	9.52	3.97	0.20	4.40		●	0.50-3.00	0.05-0.22
DCMT 11T304-FPC	11.60	9.52	3.97	0.40	4.40	●	●	0.50-2.70	0.04-0.25
DCMT 11T304-FSM	11.60	9.52	3.97	0.40	4.40		●	0.50-3.00	0.07-0.25
DCMT 11T308-FPC	11.60	9.52	3.97	0.80	4.40	●	●	0.50-2.70	0.04-0.25
DCMT 11T312-FMT	11.60	9.52	3.97	1.20	4.40		●	1.50-5.00	0.15-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-JHP-MC (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58)

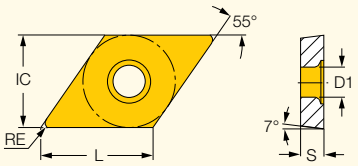


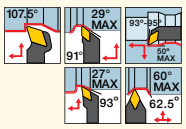
ISOTURN

DCGT-F1M-20P

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 0702005-F1M-20P	7.75	6.35	2.38	0.05	2.80	●	0.03-0.15	0.04-4.00
DCGT 070201-F1M-20P	7.75	6.35	2.38	0.10	2.80	●	0.03-0.15	0.07-4.00
DCGT 070202-F1M-20P	7.75	6.35	2.38	0.20	2.80	●	0.03-0.15	0.15-4.00
DCGT 070204-F1M-20P	7.75	6.35	2.38	0.40	2.80	●	0.03-0.15	0.30-4.00
DCGT 11T3005-F1M-20P	11.63	9.53	3.97	0.05	4.40	●	0.03-0.15	0.04-4.00
DCGT 11T301-F1M-20P	11.63	9.53	3.97	0.10	4.40	●	0.03-0.15	0.07-4.00
DCGT 11T302-F1M-20P	11.63	9.53	3.97	0.20	4.40	●	0.03-0.15	0.15-4.00
DCGT 11T304-F1M-20P	11.63	9.53	3.97	0.40	4.40	●	0.03-0.15	0.30-4.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

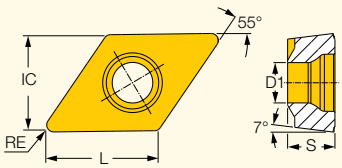
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • E-SDUCR/L-HEAD (113) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64)

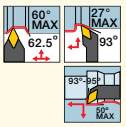
T-LOCK

DCMT-PF-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Finish Turning on Soft Materials & Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T504-PF-SL	13.40	11.00	5.11	0.40	4.50	●	0.50-3.00	0.05-0.25
DCMT 13T508-PF-SL	13.40	11.00	5.11	0.80	4.50	●	0.70-3.00	0.05-0.25

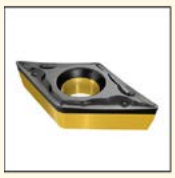
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

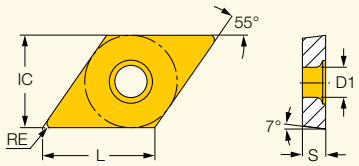
For tools, see pages: A-SDUCR/L-13-SL (112) • AVC-SDJCN-Y (76) • C#-SDJCN-13-Y (76) • C#-SDJCR/L-13-SL-JHP (57) • C#-SDNCN-13-SL-JHP (63) • HSK A63WH-SDJCN-13-Y (75) • SDACR/L-13S-SL-JHP (61) • SDJCR/L-13-SL (57) • SDNCN-13-SL (63)

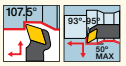
ISOTURN

DCMT/DCGT-PF

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 070201-PF	7.70	6.35	2.38	0.10	2.80				●						0.30-3.00	0.02-0.25
DCGT 070202-PF	7.70	6.35	2.38	0.20	2.80				●						0.40-3.00	0.03-0.25
DCGT 070204-PF	7.70	6.35	2.38	0.40	2.80				●						0.50-3.00	0.05-0.25
DCMT 070201-PF	7.70	6.35	2.38	0.10	2.80							●	●		0.30-3.00	0.02-0.25
DCMT 070202-PF	7.70	6.35	2.38	0.20	2.80	●									0.40-3.00	0.03-0.25
DCMT 070204-PF	7.70	6.35	2.38	0.40	2.80	●									0.50-3.00	0.05-0.25
DCMT 070208-PF	7.70	6.35	2.38	0.80	2.80							●	●		0.70-3.00	0.08-0.25
DCGT 11T301-PF	11.60	9.52	3.97	0.10	4.40				●						0.30-3.00	0.03-0.25
DCGT 11T302-PF	11.60	9.52	3.97	0.20	4.40				●						0.40-3.00	0.04-0.25
DCGT 11T304-PF	11.60	9.52	3.97	0.40	4.40				●						0.50-3.00	0.05-0.25
DCGT 11T308-PF	11.60	9.52	3.97	0.80	4.40				●						0.70-3.00	0.10-0.25
DCMT 11T302-PF	11.60	9.52	3.97	0.20	4.40	●					●	●	●	●	0.30-3.00	0.04-0.25
DCMT 11T304-PF	11.60	9.52	3.97	0.40	4.40	●	●	●		●	●	●	●	●	0.50-3.00	0.05-0.25
DCMT 11T308-PF	11.60	9.52	3.97	0.80	4.40	●	●	●		●	●	●	●	●	0.70-3.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

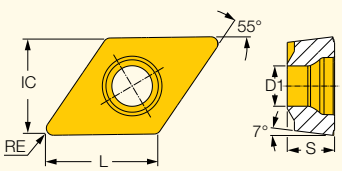
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

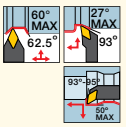
T-LOCK

DCMT-SM-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Finish Turning on Soft Materials & Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T504-SM-SL	13.40	11.00	5.11	0.40	4.50	●	0.50-2.50	0.07-0.27
DCMT 13T508-SM-SL	13.40	11.00	5.11	0.80	4.50	●	1.00-3.00	0.07-0.27

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

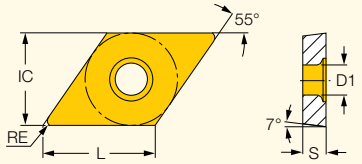
For tools, see pages: A-SDUCR/L-13-SL (112) • AVC-SDJCN-Y (76) • C#-SDJCN-13-Y (76) • C#-SDJCR/L-13-SL-JHP (57) • C#-SDNCN-13-SL-JHP (63) • HSK A63WH-SDJCN-13-Y (75) • SDACR/L-13S-SL-JHP (61) • SDJCR/L-13-SL (57) • SDNCN-13-SL (63)

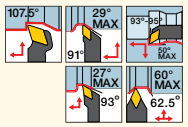
ISOTURN

DCMT/DCGT-SM

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8350	IC6025	IC8250	IC530N	IC6015	IC8150	IC520N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 070202-SM	7.70	6.35	2.38	0.20	2.80		●			●				●	●	0.50-2.00	0.04-0.20
DCMT 070204-SM	7.70	6.35	2.38	0.40	2.80		●	●		●	●		●	●	●	0.50-2.50	0.05-0.25
DCMT 070208-SM	7.70	6.35	2.38	0.80	2.80			●								0.50-3.00	0.07-0.25
DCGT 11T302-SM	11.60	9.52	3.97	0.20	4.40										●	0.50-2.50	0.05-0.25
DCGT 11T304-SM	11.60	9.52	3.97	0.40	4.40										●	0.50-2.50	0.05-0.25
DCMT 11T302-SM	11.60	9.52	3.97	0.20	4.40		●	●	●	●				●	●	0.50-2.50	0.05-0.25
DCMT 11T304-SM	11.60	9.52	3.97	0.40	4.40	●	●	●	●		●		●	●	●	0.50-2.50	0.07-0.25
DCMT 11T308-SM	11.60	9.52	3.97	0.80	4.40	●	●	●		●	●			●	●	1.00-3.00	0.07-0.25
DCMT 11T312-SM	11.60	9.52	3.97	1.20	4.40							●				1.00-3.50	0.10-0.28

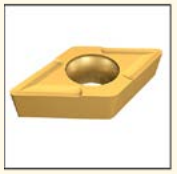
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

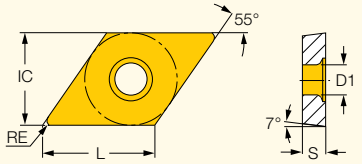
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-JHP-MC (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58)

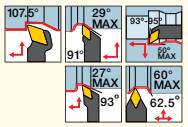
ISOTURN

DCMT/DCGT

55° Rhombic Inserts with a 7° Positive Clearance for Finishing Applications







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC908	IC30N	IC530N	IC8150	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 070201R [1]	7.70	6.35	2.38	0.10	2.80			●						0.25-1.50	0.05-0.15
DCGT 070202	7.70	6.35	2.38	0.20	2.80				●					0.50-2.00	0.08-0.20
DCGT 070204	7.70	6.35	2.38	0.40	2.80				●					0.80-2.50	0.10-0.25
DCMT 070202	7.70	6.35	2.38	0.20	2.80	●	●				●	●	●	0.50-2.00	0.08-0.20
DCMT 070204	7.70	6.35	2.38	0.40	2.80	●	●		●		●	●	●	0.50-2.00	0.08-0.22
DCGT 11T302	11.60	9.52	3.97	0.20	4.40				●					0.50-2.00	0.08-0.20
DCGT 11T304	11.60	9.52	3.97	0.40	4.40				●			●		1.00-2.50	0.12-0.25
DCMT 11T302	11.60	9.52	3.97	0.20	4.40				●	●		●	●	0.50-2.00	0.08-0.20
DCMT 11T304	11.60	9.52	3.97	0.40	4.40				●			●	●	0.50-2.00	0.12-0.25
DCMT 11T308	11.60	9.52	3.97	0.80	4.40	●						●	●	1.50-3.00	0.14-0.29

• Right-hand inserts for right-hand external tools and for left-hand internal tools • For user guide and cutting speed recommendations, see pages 122-134, 236-248

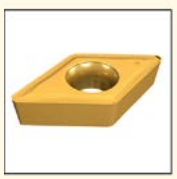
[1] Right-hand insert

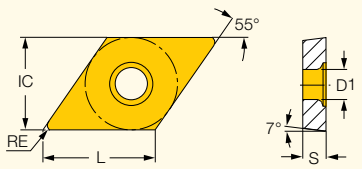
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

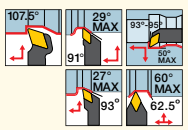
ISOTURN

DCMT-14

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8150	IC20	IC428	IC5005	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 11T304-14	11.60	9.52	3.97	0.40	4.40	●	●	●			1.00-2.50	0.14-0.25
DCMT 11T308-14	11.60	9.52	3.97	0.80	4.40		●	●	●	●	1.50-3.00	0.14-0.29

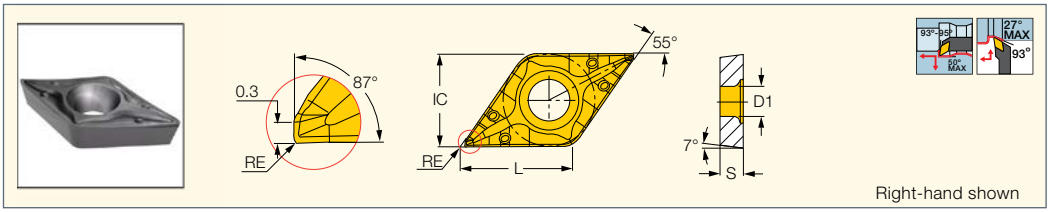
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

ISOTURN

DCET-WF

55° Rhombic Wiper Inserts for Finishing Operations at High Feeds



Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCET 0702005R/L-WF	7.70	6.35	2.38	0.05	2.80	●	0.05-3.00	0.01-0.20
DCET 11T3005R/L-WF	11.60	9.52	3.97	0.05	4.40	●	0.05-3.00	0.01-0.20

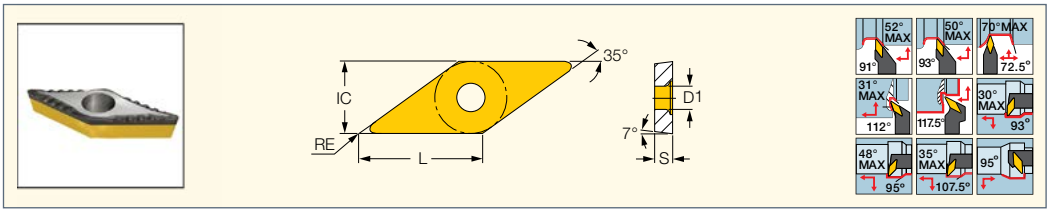
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

ISOTURN

VCMT-F3P

35° Rhombic Positive Flank Inserts for Semi-Finishing and Finish Turning of Steel



Designation	Dimensions L	IC	S	RE	D1	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 110302-F3P	11.10	6.35	3.18	0.20	2.80	●	●	0.06-1.70	0.03-0.14
VCMT 110304-F3P	11.10	6.35	3.18	0.40	2.80	●	●	0.10-1.70	0.05-0.20
VCMT 110308-F3P	11.10	6.35	3.18	0.80	2.80	●	●	0.13-1.70	0.07-0.28
VCMT 110312-F3P	11.10	6.35	3.18	1.20	2.80	●	●	0.13-1.70	0.08-0.33
VCMT 160402-F3P	16.60	9.52	4.76	0.20	4.40	●	●	0.07-1.80	0.04-0.15
VCMT 160404-F3P	16.60	9.52	4.76	0.40	4.40	●	●	0.10-1.80	0.05-0.20
VCMT 160408-F3P	16.60	9.52	4.76	0.80	4.40	●	●	0.14-1.80	0.07-0.29
VCMT 160412-F3P	16.60	9.52	4.76	1.20	4.40	●	●	0.14-1.80	0.09-0.34

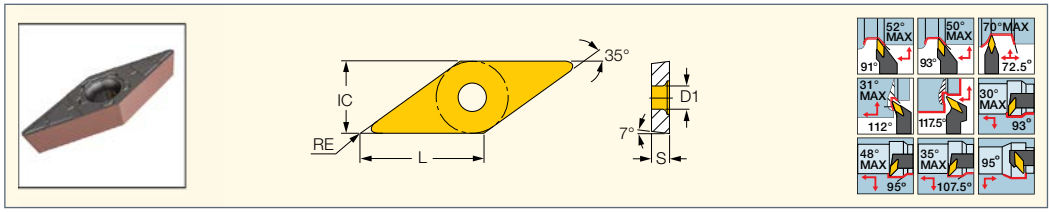
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • NQCH-SVACR/L-S-JHP (67) • NQCH-Y-SVJCR-S-JHP (65) • PVACR/L-JHP (68) • PVACR/L-JHP-MC (68) • PVACR/L-S (64) • S/A-SVJCR/L (114) • SVACR/L (67) • SVJCR-PAD (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVPCR/L (69) • SVVCN (454) • SVXCR/L (454) • Y-SVJCR (65) • Y-SVJCR-JHP (65) • AVC-SVLCR/L (96)

ISOTURN

VCMT-F3M

35° Rhombic Positive Flank Inserts for Stainless Steel Finishing Applications



Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 110302-F3M	11.10	6.35	3.18	0.20	2.85	●	●	●	●	0.06-1.70	0.03-0.14
VCMT 110304-F3M	11.10	6.35	3.18	0.40	2.85	●	●	●	●	0.10-1.70	0.05-0.20
VCMT 110308-F3M	11.10	6.35	3.18	0.80	2.85	●	●	●	●	0.13-1.70	0.07-0.28
VCMT 160402-F3M	16.60	9.52	4.76	0.20	4.50	●	●	●	●	0.06-1.80	0.03-0.14
VCMT 160404-F3M	16.60	9.52	4.76	0.40	4.50	●	●	●	●	0.10-1.80	0.05-0.20
VCMT 160408-F3M	16.60	9.52	4.76	0.80	4.50	●	●	●	●	0.13-1.80	0.07-0.28

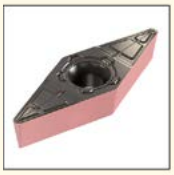
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

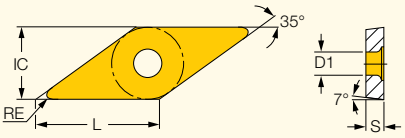
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L (96) • AVC-SVLCR/L-VH (98) • AVC-SVUCR/L (95) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • NQCH-SVACR/L-S-JHP (67) • NQCH-Y-SVJCR-S-JHP (65) • PVACR/L-JHP (68) • PVACR/L-JHP-MC (68) • PVACR/L-S (64) • S/A-SVJCR/L (114) • SVACR/L (67) • SVJCR-PAD (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVPCR/L (69) • SVVCN (454) • SVXCR/L (454) • Y-SVJCR (65) • Y-SVJCR-JHP (65)

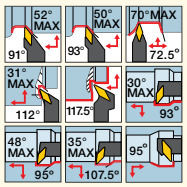
ISOTURN

VCMT-M3M

35° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404-M3M	16.60	9.52	4.76	0.40	4.40	●	●	●	1.00-5.00	0.07-0.25
VCMT 160408-M3M	16.60	9.52	4.76	0.80	4.40	●	●		1.00-5.00	0.10-0.30
VCMT 160412-M3M	16.60	9.52	4.76	1.20	4.40	●	●	●	1.00-5.00	0.13-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

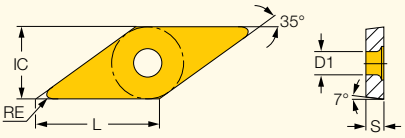
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

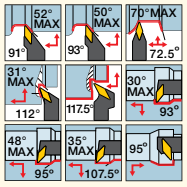
ISOTURN

VCMT-FPC-CERMET

35° Rhombic 7° Cermet Positive Flank Inserts for Semi-Finishing Turning of steel and Automotive Components







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404-FPC	16.60	9.52	4.76	0.40	●	●	0.70-2.00	0.04-0.22
VCMT 160408-FPC	16.60	9.52	4.76	0.80		●	0.70-2.00	0.04-0.22

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

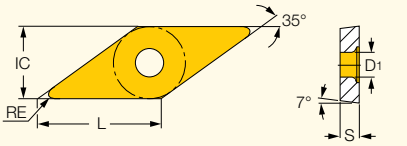
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

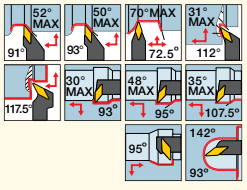
ISOTURN

VCGT-F1M-20P

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 1103005-F1M-20P	11.07	6.35	3.18	0.10	2.90	●	0.03-0.18	0.07-4.50
VCGT 110301-F1M-20P	11.07	6.35	3.18	0.40	2.90	●	0.03-0.18	0.30-4.50
VCGT 110302-F1M-20P	11.07	6.35	3.18	0.10	2.90	●	0.03-0.15	0.07-4.00
VCGT 110304-F1M-20P	11.07	6.35	3.18	0.40	2.90	●	0.03-0.15	0.30-4.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

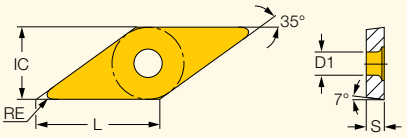
For tools, see pages: AVC-SVUCR/L (95) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • NQCH-SVACR/L-S-JHP (67) • NQCH-Y-SVJCR-S-JHP (65) • PVACR/L-JHP (68) • PVACR/L-JHP-MC (68) • PVACR/L-S (64) • S/A-SVJCR/L (114) • SVACR/L (67) • SVJCR-PAD (67) • SVJCR/L (453) • SVPCR/L (69) • SVVCN (454) • Y-SVJCR (65) • Y-SVJCR-JHP (65)

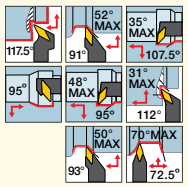
ISOTURN

VCGT-MD/PF

35° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	IC830	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 110301-PF	11.10	6.35	3.18	0.10	2.90	●	0.20-2.50	0.03-0.25
VCGT 110302-PF	11.40	6.35	3.18	0.20	2.90	●	0.30-2.50	0.03-0.25
VCGT 110304-PF	11.40	6.35	3.18	0.40	2.90	●	0.50-3.00	0.05-0.25
VCGT 130304-PF	13.00	7.94	3.18	0.40	3.40	●	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

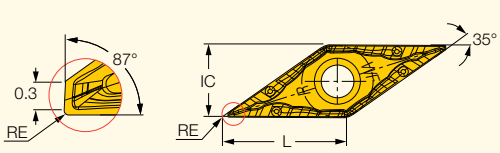
For tools, see pages: NQCH-SVACR/L-S-JHP (67) • SVACR/L (67)

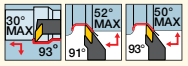
ISOTURN

VCET-WF

35° Rhombic Wiper Inserts for Finishing Operations at High Feeds







Right-hand shown

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
VCET 1103005R/L-WF	11.10	6.35	3.18	0.05	2.90	●	0.05-4.00	0.01-0.20

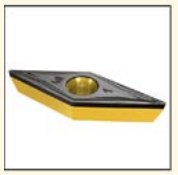
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

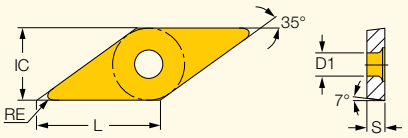
For tools, see pages: C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • NQCH-SVACR/L-S-JHP (67) • NQCH-Y-SVJCR-S-JHP (65) • PVACR/L-JHP (68) • PVACR/L-S (64) • S/A-SVJCR/L (114) • SVACR/L (67) • SVJCR-PAD (67) • SVJCR/L (453) • Y-SVJCR (65) • Y-SVJCR-JHP (65) • PVACR/L-JHP-MC (68)

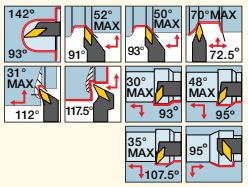
ISOTURN

VCMT-SM

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC8150	IC806	IC807	IC907	IC4	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 110302-SM	11.10	6.35	3.18	0.20	2.90				●				●	●			0.20-2.50	0.04-0.20
VCMT 110304-SM	11.10	6.35	3.18	0.40	2.90		●		●	●		●	●	●			0.50-3.00	0.07-0.24
VCMT 110308-SM	11.10	6.35	3.18	0.80	2.90				●								0.50-2.00	0.07-0.25
VCMT 160402-SM	16.60	9.52	4.76	0.20	4.40		●			●			●	●			0.50-2.50	0.05-0.20
VCMT 160404-SM	16.60	9.52	4.76	0.40	4.40		●	●			●	●	●	●			0.50-2.50	0.05-0.25
VCMT 160408-SM	16.60	9.52	4.76	0.80	4.40	●	●	●		●	●	●	●	●	●	●	0.90-2.50	0.07-0.25
VCMT 160412-SM	16.60	9.52	4.76	1.20	4.40								●	●			0.50-3.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

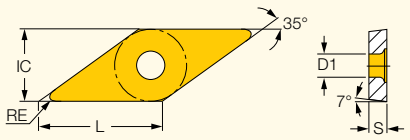
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L (96) • AVC-SVLCR/L-VH (98) • AVC-SVUCR/L (95) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • NQCH-SVACR/L-S-JHP (67) • NQCH-Y-SVJCR-S-JHP (65) • PVACR/L-JHP (68) • PVACR/L-JHP-MC (68) • PVACR/L-S (64) • S/A-SVJCR/L (114) • SVACR/L (67) • SVJCR-PAD (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVPCR/L (69) • SVVCN (454) • SVXCR/L (454) • Y-SVJCR (65) • Y-SVJCR-JHP (65)

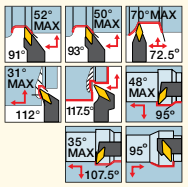
ISOTURN

VCMT-14

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC20	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404-14	16.60	9.52	4.76	0.40	4.40	●	●	●	●	1.00-5.00	0.12-0.25
VCMT 160408-14	16.60	9.52	4.76	0.80	4.40	●	●		●	1.00-5.00	0.12-0.30

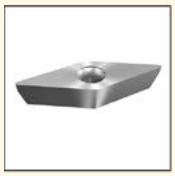
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L (96) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454)

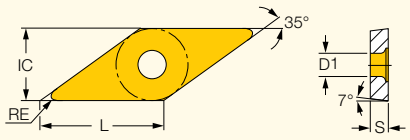
ISOTURN

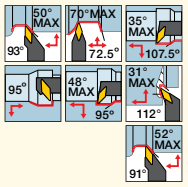
VCMW

35° Rhombic Inserts with a 7° Positive Flank for Short Chipping Materials such as Cast Iron



Tolerances:
IC= ±0.05
S= ±0.13





Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMW 160404	16.60	9.52	4.76	0.40	4.40	●	0.70-4.00	0.05-0.25
VCMW 160408	16.60	9.52	4.76	0.80	4.40	●	1.00-5.00	0.05-0.25

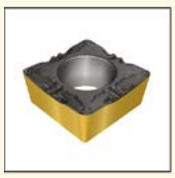
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

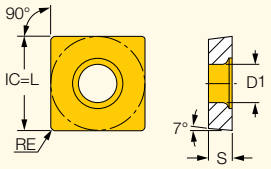
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

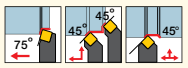
ISOTURN

SCMT-F3P

Square Positive Flank Inserts for Semi-Finishing and Finish Turning of Steel







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-F3P	9.52	3.97	0.40	4.40	●	●	●	0.11-2.00	0.06-0.25
SCMT 09T308-F3P	9.52	3.97	0.80	4.40	●	●	●	0.15-2.00	0.08-0.32

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

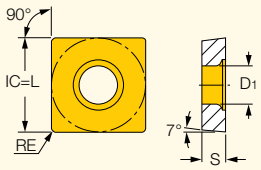
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

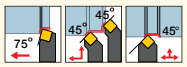
ISOTURN

SCMT-M3P

Square Positive Flank Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-M3P	9.52	3.97	0.40	4.40	●	●	●	0.50-3.00	0.07-0.25
SCMT 09T308-M3P	9.52	3.97	0.80	4.40	●	●	●	0.50-3.00	0.10-0.30
SCMT 120404-M3P	12.70	4.76	0.40	5.50	●	●	●	0.50-3.50	0.10-0.25
SCMT 120408-M3P	12.70	4.76	0.80	5.50	●	●	●	1.00-4.00	0.10-0.30
SCMT 120412-M3P	12.70	4.76	1.20	5.50	●	●	●	1.20-4.00	0.12-0.34

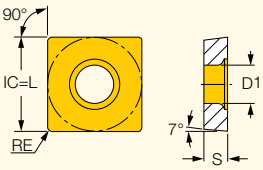
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

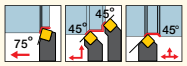
ISOTURN

SCMT-F3M

Square Positive Flank Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T302-F3M	9.52	3.97	0.20	4.40	●	●	●	●	0.08-2.00	0.04-0.16
SCMT 09T304-F3M	9.52	3.97	0.40	4.40	●	●	●	●	0.11-2.00	0.06-0.25
SCMT 09T308-F3M	9.52	3.97	0.80	4.40	●	●	●	●	0.15-2.00	0.08-0.32
SCMT 120402-F3M	12.70	4.76	0.20	5.50	●	●	●	●	0.11-2.00	0.06-0.18
SCMT 120404-F3M	12.70	4.76	0.40	5.50	●	●	●	●	0.15-2.00	0.08-0.25
SCMT 120408-F3M	12.70	4.76	0.80	5.50	●	●	●	●	0.18-2.00	0.10-0.32

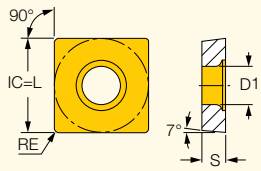
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

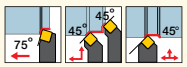
ISOTURN

SCMT-M3M

Square Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-M3M	9.52	3.97	0.40	4.40	●	●	●	0.40-3.80	0.07-0.25
SCMT 09T308-M3M	9.52	3.97	0.80	4.40	●	●	●	0.80-3.80	0.10-0.30
SCMT 120404-M3M	12.70	4.76	0.40	5.50	●	●	●	0.40-4.00	0.10-0.25
SCMT 120408-M3M	12.70	4.76	0.80	5.50	●	●	●	0.80-4.00	0.12-0.34

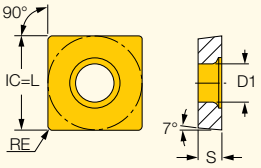
• For user guide and cutting speed recommendations, see pages 122-134, 236-248
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

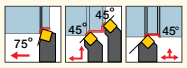
ISOTURN

SCMT-SM

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC8150	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-SM	9.52	3.97	0.40	4.40			●	●		●	●	0.50-3.00	0.07-0.25
SCMT 09T308-SM	9.52	3.97	0.80	4.40	●	●	●	●	●	●	●	0.50-3.00	0.10-0.30
SCMT 120404-SM	12.70	4.76	0.40	5.50				●				0.50-3.50	0.10-0.25
SCMT 120408-SM	12.70	4.76	0.80	5.50			●	●		●	●	1.00-4.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

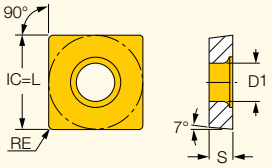
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

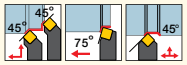
ISOTURN

SCMT-14

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-14	9.52	3.97	0.40	4.40		●	●	1.00-3.50	0.12-0.30
SCMT 120404-14	12.70	4.76	0.40	5.50	●			1.00-4.00	0.12-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

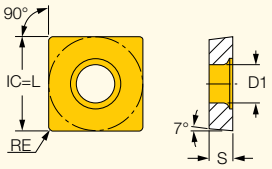
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

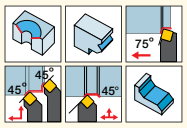
ISOTURN

SCMT-19

Square Inserts with a 7° Positive Flank for Semi-Roughing at Medium to High Feeds







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC20	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f_z (mm/rev)
SCMT 120408-19	12.70	4.76	0.80	5.50	●	●	●	●	●	3.00-8.00	0.08-0.15
SCMT 120412-19	12.70	4.76	1.20	5.50		●				3.00-8.00	0.08-0.15

• For cutting speed recommendations, see pages

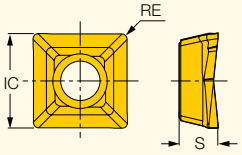
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

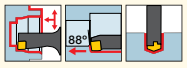
DRDRILLS

XOMT-DT

Inserts for DR Drills and Boring Bars







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC28	IC328	IC250	IC350	IC908	IC520M
XOMT 060204-DT	6.16	2.56	0.40	●	●	●	●	●	●

• Two cutting edges • For hard materials and interrupted cut

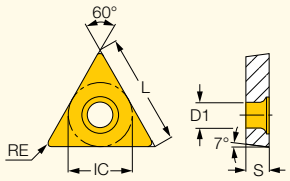
For tools, see pages: A-SXFOR-DR (120) • A-SXFOR/L (119)

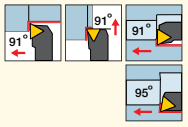
ISOTURN

TCMT-F3P

Triangular Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 090202-F3P	9.60	2.38	0.20	2.50	•	•	•	•	0.06-1.70	0.03-0.14
TCMT 090204-F3P	9.60	2.38	0.40	2.50	•	•	•	•	0.10-1.70	0.05-0.20
TCMT 110202-F3P	11.00	2.38	0.20	2.80	•	•	•	•	0.06-1.70	0.03-0.14
TCMT 110204-F3P	11.00	2.38	0.40	2.80	•	•	•	•	0.10-1.70	0.05-0.20
TCMT 110208-F3P	11.00	2.38	0.80	2.80	•	•	•	•	0.13-1.70	0.07-0.28
TCMT 16T304-F3P	16.50	3.97	0.40	4.40	•	•	•	•	0.10-1.70	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

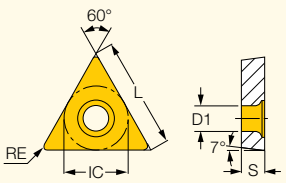
For tools, see pages: E-STFCR-HEAD (115) • S-MTLCR/L-W (114) • S-STFCR/L (115) • S-STLCR/L (115) • STFCR/L (70) • STGCR/L (70)

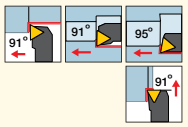
ISOTURN

TCMT-M3M

Triangular Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204-M3M	11.00	6.35	2.38	0.40	2.80	•	•	•	0.40-2.50	0.07-0.23
TCMT 110208-M3M	11.00	6.35	2.38	0.80	2.80	•	•	•	0.80-2.50	0.10-0.25
TCMT 16T304-M3M	16.50	9.52	3.97	0.40	4.40	•	•	•	0.40-3.00	0.07-0.25
TCMT 16T308-M3M	16.50	9.52	3.97	0.80	4.40	•	•	•	0.80-3.00	0.10-0.30

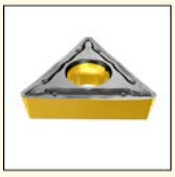
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

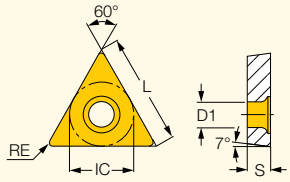
For tools, see pages: E-STFCR-HEAD (115) • S-MTLCR/L-W (114) • S-STFCR/L (115) • S-STLCR/L (115) • STFCR/L (70) • STGCR/L (70)

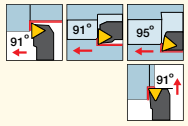
ISOTURN

TCMT-PF

Triangular Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110202-PF	11.00	6.35	2.38	0.20	2.85	•	•	0.20-3.00	0.05-0.25

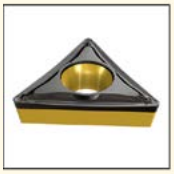
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

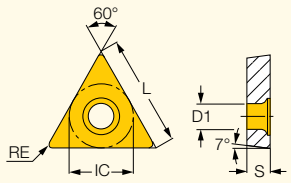
For tools, see pages: E-STFCR-HEAD (115) • S-STFCR/L (115) • S-STLCR/L (115) • STFCR/L (70) • STGCR/L (70)

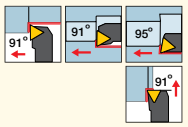
ISOTURN

TCMT-SM

Triangular Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8350	IC8250	IC908	IC8150	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204-SM	11.00	6.35	2.38	0.40	2.80		•	•	•	•	•		•	•	•	0.20-3.00	0.05-0.25
TCMT 110208-SM	11.00	6.35	2.38	0.80	2.80			•						•	•	0.50-2.50	0.07-0.25
TCMT 16T304-SM	16.50	9.52	3.97	0.40	4.40	•		•		•		•	•	•	•	0.50-3.00	0.06-0.25
TCMT 16T308-SM	16.50	9.52	3.97	0.80	4.40	•		•		•			•	•	•	0.50-3.00	0.08-0.28
TCMT 16T308-SM*	16.50	9.52	3.97	0.80	4.40		•									0.50-3.00	0.08-0.28

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

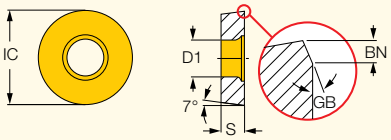
For tools, see pages: E-STFCR-HEAD (115) S-MTLCR/L-W (114) • S-STFCR/L (115) • S-STLCR/L (115) • STFCR/L (70)
• STGCR/L (70)

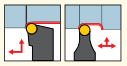
ISOTURN

RCMT-SR

Round Inserts with a 7° Positive Flank for Medium Profiling on a Wide Range of Materials







Designation	Dimensions IC	S	D1	GB	BN	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
RCMT 0803M0-SR	8.00	3.18	3.40	15.0	0.15	•	1.00-4.50	0.30-0.45
RCMT 1606M0-SR	16.00	6.35	5.50	15.0	0.18	•	2.00-8.00	0.40-0.60

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

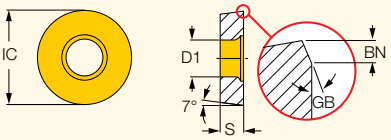
For tools, see pages: C#-RCMT-16-Y (77) • HSK A63WH-RCMT-Y (76) • SRDCN (72) • SRGCR/L (71)

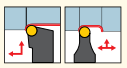
ISOTURN

RCMT-14

Round Inserts with a 7° Positive Flank for Medium and Finish Profiling on a Wide Range of Materials







Designation	Dimensions IC	S	D1	GB	BN	Tough ↔ Hard IC354	IC8250	IC8150	IC20	IC5010	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
RCMT 0803M0-14	8.00	3.18	3.40	15.0	0.15				•					1.00-4.00	0.30-0.45
RCMT 0803M0-14*	8.00	3.18	3.40	15.0	0.15		•							1.00-4.00	0.30-0.45
RCMT 10T3M0-14	10.00	3.97	4.40	15.0	0.15	•	•	•	•					1.50-5.00	0.30-0.50
RCMT 1204M0-14	12.00	4.76	5.50	15.0	0.15		•	•	•		•	•	•	1.50-6.00	0.30-0.50
RCMT 1606M0-14	16.00	6.35	5.50	15.0	0.25		•	•	•					2.00-8.00	0.40-0.60
RCMT 2006M0-14	20.00	6.35	6.50	15.0	0.25			•	•	•				2.50-10.00	0.50-0.70
RCMT 2006M0E-14	20.00	6.35	6.50	15.0	0.25			•						2.50-10.00	0.50-0.70

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

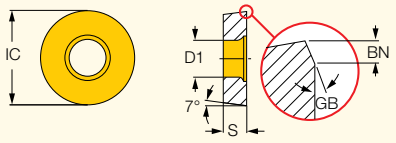
For tools, see pages: AVC-SRDCN-Y (77) • C#-RCMT-16-Y (77) • C#-SRGCR-12-JHP (72) • C#-SRGCR/L (71) • HSK A63WH-RCMT-Y (76)
• SRDCN (72) • SRGCR-12-JHP (71) • SRGCR/L (71)

ISOTURN

RCMX

Round Inserts with a 7° Positive Flank and Reinforced Cutting Edge for Semi-Roughing and Rough Profiling





Designation	Dimensions IC	S	D1	GB	BN	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
RCMX 100300	10.00	3.18	3.60	15.0	0.01	●		1.50-5.00	0.30-0.50
RCMX 120400	12.00	4.76	4.20	15.0	0.15		●	1.50-6.00	0.30-0.50
RCMX 200600	20.00	6.35	6.50	15.0	0.01	●		2.50-10.00	0.50-0.50

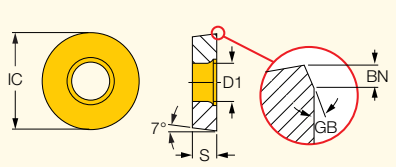
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

ISOTURN

RCMX-NR

Round 7° Inserts with a Positive Flank and Strong Cutting Edge for Rough Turning





Designation	Dimensions IC	S	D1	GB	BN	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
RCMX 250700-NR	25.00	7.94	7.20	17.0	0.30	●	4.00-10.00	0.50-1.50
RCMX 3209M0-NR	32.00	9.52	10.00	17.0	0.30	●	7.00-13.00	0.70-2.00

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

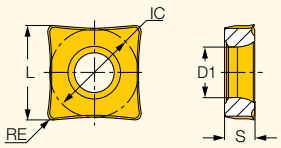
For tools, see pages: PRDCN (72) • PRGCR (72)

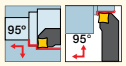
ISOTURN

QCMT-PF

Four 80° Cornered Insert with a Positive 7° Clearance and Chipformer for Finishing Applications







Designation	Dimensions IC	S	RE	D1	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
QCMT 09T302-PF	9.65	3.97	0.20	4.40	●	0.50-2.50	0.05-0.30

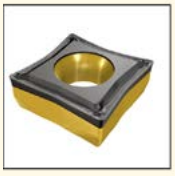
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

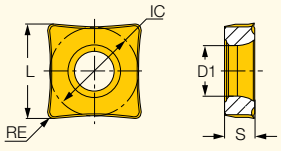
For tools, see pages: PQLCR/L (73) • PQLCR/L-S (73) • S/A-SQLCR/L (110)

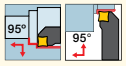
ISOTURN

QCMT-SM

Inserts with a Positive 7° Clearance and Chipformer for Finishing Applications







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
QCMT 09T304-SM	10.40	9.65	3.97	0.40	4.40	●	●	●	0.50-2.50	0.06-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

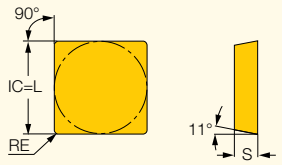
For tools, see pages: PQLCR/L (73) • PQLCR/L-S (73) • S/A-SQLCR/L (110)

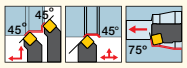
ISOTURN

SPMR

Square Inserts with a Positive Chipformer Exerting Low Cutting Forces for Semi-Finishing and Finishing Applications







Designation	Dimensions L	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	Recommended Machining Data a_p (mm)	f (mm/rev)
SPMR 090304	9.52	3.18	0.40		●		●	1.50-5.00	0.15-0.30
SPMR 090308	9.52	3.18	0.80	●	●			1.50-6.00	0.16-0.35
SPMR 120304	12.70	3.18	0.40	●	●			1.50-5.00	0.15-0.35
SPMR 120308	12.70	3.18	0.80		●			1.50-6.00	0.16-0.40
SPMR 120312	12.70	3.18	1.20		●	●		1.50-6.00	0.20-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

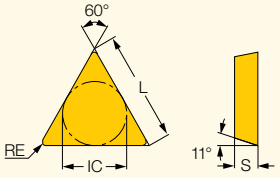
For tools, see pages: CSDPN (74) • CSSPR/L (74) • S-CSKPR (116)

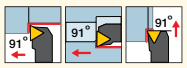
ISOTURN

TPMR

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC20N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMR 090202	9.60	5.56	2.38	0.20						●	1.00-3.00	0.10-0.20
TPMR 090204	9.60	5.56	2.38	0.40			●				1.00-3.50	0.15-0.20
TPMR 110304	11.00	6.35	3.18	0.40	●			●			1.00-3.50	0.15-0.25
TPMR 110308	11.00	6.35	3.18	0.80	●						1.00-3.50	0.15-0.30
TPMR 160304	16.50	9.52	3.18	0.40	●	●		●	●	●	1.00-4.00	0.15-0.33
TPMR 160308	16.50	9.52	3.18	0.80	●			●	●	●	1.00-4.00	0.15-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

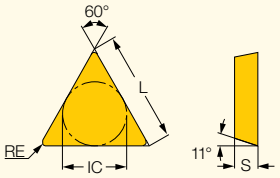
For tools, see pages: CTFPR/L (75) • CTGPR/L (74) • S-CTFPR/L (116)

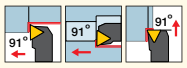
ISOTURN

TPMR-PF

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMR 110304-PF	11.00	6.35	3.18	0.40	●		●	●	0.40-3.00	0.08-0.25
TPMR 110308-PF	11.00	6.35	3.18	0.80	●			●	0.50-3.50	0.07-0.28
TPMR 160304-PF	16.50	9.52	3.18	0.40	●	●	●	●	0.50-3.50	0.06-0.25
TPMR 160308-PF	16.50	9.52	3.18	0.80	●	●		●	0.80-3.00	0.08-0.28

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

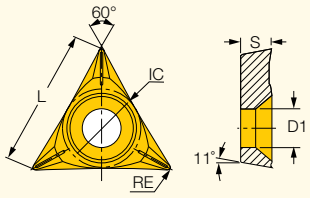
For tools, see pages: CTFPR/L (75) • CTGPR/L (74) • S-CTFPR/L (116)

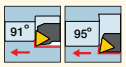
ISOTURN

TPGT-SP

Super Positive Triangular Inserts with 11° Clearance for Fine Boring and Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGT 110202-SP	11.00	6.35	2.38	0.20	3.00	●	●	0.40-1.00	0.05-0.15

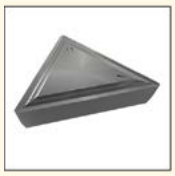
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

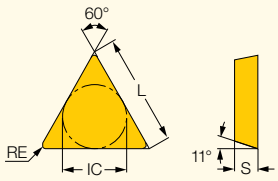
For tools, see pages: E-STFPR-HEAD (116)

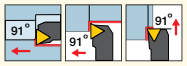
ISOTURN

TPMR-FTF

Triangular 11° Positive Inserts with a Positive Chipformer Exerting, Low Cutting Forces for Finish Turning Applications







Designation	Dimensions L	IC	S	RE	IC20N	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMR 110304-FTF	11.00	6.35	3.18	0.40	●	0.50-3.00	0.07-0.25
TPMR 160304-FTF	16.50	9.52	3.18	0.40	●	0.50-3.00	0.07-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

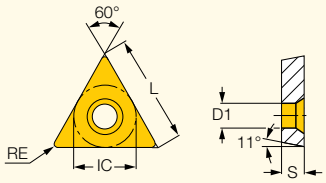
For tools, see pages: CTFPR/L (75) • CTGPR/L (74) • S-CTFPR/L (116)

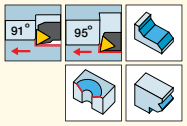
ISOTURN

TPMT

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC635	IC50M	IC8350	IC8250	IC8150	IC520M	IC20	IC806	IC807	IC907	Recommended Machining Data a_p (mm)(1)	f (mm/rev)(2)
TPMT 110202	11.00	6.35	2.38	0.20	3.00	●									●	●	0.20-2.00	0.05-0.25
TPMT 110204	11.00	6.35	2.38	0.40	3.00	●				●	●		●		●	●	1.00-3.00	0.12-0.30
TPMT 110208	11.00	6.35	2.38	0.80	3.00	●				●	●		●				1.00-4.00	0.15-0.30
TPMT 160304	16.50	9.52	3.18	0.40	4.30	●			●	●			●		●	●	1.00-4.00	0.12-0.30
TPMT 160308	16.50	9.52	3.18	0.80	4.30	●	●	●		●		●	●	●	●	●	5.00-12.00	0.15-0.35

• For cutting speed recommendations, see pages ..

(1) For turning

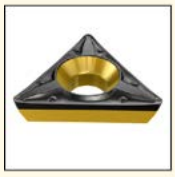
(2) For turning

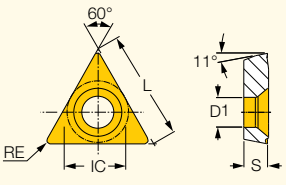
For tools, see pages: A/E/S-STFPR/L (117) • A/S-STLPR/L (118) • E-STFPR-HEAD (116)

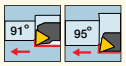
ISOTURN

TPMT-PF

Triangular 11° Positive Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC(1)	S	RE	D1	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMT 110204-PF	11.00	6.35	2.38	0.40	3.00	●	0.50-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

(1) Actual di=6.28, to be used in 6.35mm pocket size

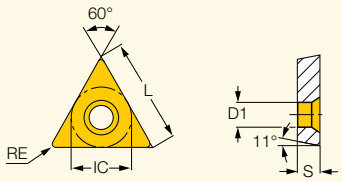
For tools, see pages: A/E/S-STFPR/L (117) • A/S-STLPR/L (118) • E-STFPR-HEAD (116)

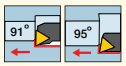
ISOTURN

TPGB

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGB 110204	11.00	6.35	2.38	0.40	3.00	●	1.00-3.00	0.05-0.25

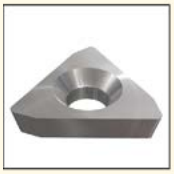
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

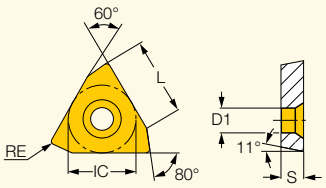
For tools, see pages: A/E/S-STFPR/L (117) • A/S-STLPR/L (118) • E-STFPR-HEAD (116)

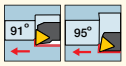
ISOTURN

TPGB-XL

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGB 110204-XL	11.00	6.35	2.38	0.40	3.00	●	1.00-3.00	0.05-0.25

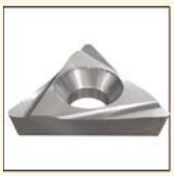
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

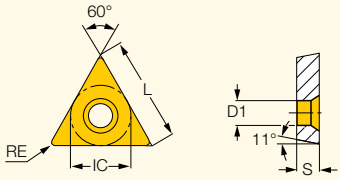
For tools, see pages: A/E/S-STFPR/L (117) • A/S-STLPR/L (118) • E-STFPR-HEAD (116)

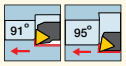
ISOTURN

TPGH-R/L

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGH 110204-L	11.00	6.35	2.38	0.40	3.00		●	1.00-3.00	0.05-0.25
TPGH 110208-L	11.00	6.35	2.38	0.80	3.00	●		1.00-3.00	0.05-0.25
TPGH 160304-L	16.50	9.52	3.18	0.40	4.30		●	1.00-4.00	0.05-0.30
TPGH 160304-R	16.50	9.52	3.18	0.40	4.30			1.00-4.00	0.05-0.30
TPGH 160308-L	16.50	9.52	3.18	0.80	4.30		●	1.00-4.00	0.05-0.30

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

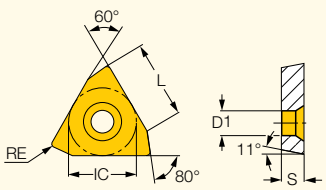
For tools, see pages: A/E/S-STFPR/L (117) • A/S-STLPR/L (118)

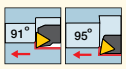
ISOTURN

TPGH-XL

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGH 110204-XL	11.00	6.35	2.38	0.40	3.00	●	1.00-3.00	0.05-0.25

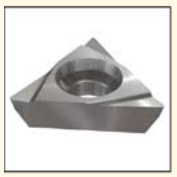
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

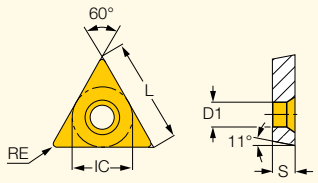
For tools, see pages: A/E/S-STFPR/L (117) • A/S-STLPR/L (118) • E-STFPR-HEAD (116)

ISOTURN

TPGX

Triangular Inserts with an 11° Positive Flank and Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC20	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGX 090202-L	9.52	5.56	2.38	0.20	3.00	●	●	●	●	1.00-2.00	0.10-0.20
TPGX 090204-L	9.52	5.56	2.38	0.40	3.00	●	●	●	●	1.00-2.50	0.15-0.20
TPGX 110302-L	11.00	6.35	3.18	0.20	3.50	●	●	●	●	1.00-2.50	0.10-0.20
TPGX 110304-L	11.00	6.35	3.18	0.40	3.50	●	●	●	●	1.00-3.00	0.15-0.20
TPGX 110308-L	11.00	6.35	3.18	0.80	3.50		●			1.00-3.50	0.15-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

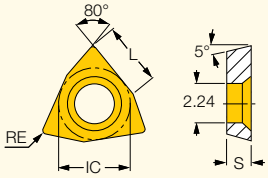
For tools, see pages: A/E-STFPR-X (117) • MG STFPR-X (117)

ISOTURN

WBGT

Trigon Inserts with a 5° Positive Flank Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC908	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WBGT 060102L	2.18	3.97	1.59	0.20	●	●	●	●	0.10-1.00	0.05-0.10

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

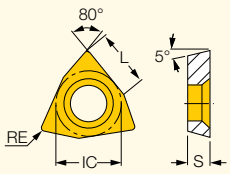
For tools, see pages: E/S-SWUBR/L (118) • MG-SWUBR/L (119) • PICIN-SWUBR/L (386)

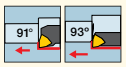
ISOTURN

WBMT

Trigon Inserts with a 5° Positive Flank Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC354	IC350	IC908	IC30N	IC530N	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
WBMT 060101R/L	2.18	3.97	1.59	0.10				●					0.40-2.00	0.10-0.15
WBMT 060102L	2.18	3.97	1.59	0.20	●	●	●		●	●	●	●	0.40-2.00	0.10-0.15
WBMT 060102R	2.18	3.97	1.59	0.20		●	●			●		●	0.40-2.00	0.10-0.15

• WBMT 06...R right-hand inserts used on left-hand tools and WBMT 06...L left-hand inserts used on right-hand tools

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

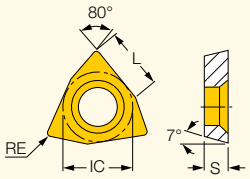
For tools, see pages: E/S-SWUBR/L (118) • MG-SWUBR/L (119) • PICIN-SWUBR/L (386)

ISOTURN

WCGT

Trigon Inserts with a 7° Positive Flank and Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC30N	Recommended Machining Data a_p (mm)	f (mm/rev)
WCGT 020102L	2.18	3.97	1.59	0.20	•	•	0.40-2.00	0.05-0.10
WCGT 020104L	2.18	3.97	1.59	0.40	•	•	0.40-2.00	0.10-0.15

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

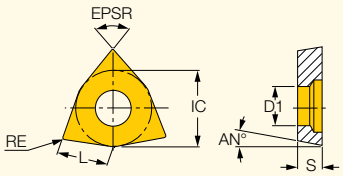
For tools, see pages: A/E-SWUCR (119) • MG-SWUCR (119)

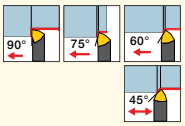
ISOTURN

WPEX

80° and 84° Precision Trigon Inserts with Positive 8° and 12° Clearance for Finishing Applications







Designation	Dimensions L	S	RE	IC	D1	EPSR	AN	Tough ↔ Hard IC08	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
WPEX 040200R/L08	4.00	2.50	0.00	6.60	3.20	84.0	8.0	•		0.20-2.00	0.05-0.20
WPEX 040200R12	4.00	2.50	0.00	6.60	3.20	84.0	12.0	•		0.20-2.00	0.05-0.20
WPEX 040202R/L08	4.00	2.50	0.20	6.60	3.20	84.0	8.0	•		0.20-2.00	0.05-0.20
WPEX 050300R/L08	5.00	3.18	0.00	7.94	3.70	80.0	8.0	•	•	0.20-2.50	0.05-0.20
WPEX 050300R12	5.00	3.18	0.00	7.94	3.70	80.0	12.0	•	•	0.20-2.50	0.05-0.20
WPEX 050302R/L08	5.00	3.18	0.20	7.94	3.70	80.0	8.0	•	•	0.20-2.50	0.05-0.20
WPEX 050302R12	5.00	3.18	0.20	7.94	3.70	80.0	12.0		•	0.20-2.50	0.05-0.20
WPEX 050304R/L08	5.00	3.18	0.40	7.94	3.70	80.0	8.0	•	•	0.20-2.50	0.05-0.20
WPEX 050304R12	5.00	3.18	0.40	7.94	3.70	80.0	12.0		•	0.20-2.50	0.05-0.20
WPEX 060400R/L08	6.00	4.00	0.00	9.52	3.70	80.0	8.0	•	•	0.20-3.00	0.05-0.20
WPEX 060400R/L12	6.00	4.00	0.00	9.52	3.70	80.0	12.0	•	•	0.20-3.00	0.05-0.20
WPEX 060402R/L08	6.00	4.00	0.20	9.52	3.70	80.0	8.0	•	•	0.20-3.00	0.05-0.20
WPEX 060402R/L12	6.00	4.00	0.20	9.52	3.70	80.0	12.0	•	•	0.20-3.00	0.05-0.20
WPEX 060404R/L08	6.00	4.00	0.40	9.52	3.70	80.0	8.0	•	•	0.20-3.00	0.05-0.20
WPEX 060404R12	6.00	4.00	0.40	9.52	3.70	80.0	12.0	•	•	0.20-3.00	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

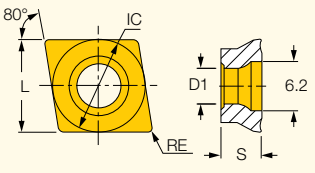
For tools, see pages: SWAPR-PAD (73) • SWAPR/L (73) • SWDPR/L (74)

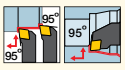
CHAMTURN

CC95MT-SM

Single-Sided 80° Rhombic Inserts for Finishing (CHAMELEON Multifunction Pocket System)







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CC95MT 100504-SM	9.50	9.52	5.00	0.40	4.50	•	•	•	0.50-3.00	0.07-0.24

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

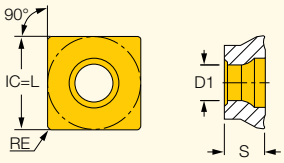
For tools, see pages: S-SUXCR/L-CM (110) • SUXCR/L-CM (54)

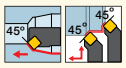
CHAMTURN

SC45MT-SM

Single-Sided Square Inserts for Finishing Applications (CHAMELEON Multifunction Pocket System)







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SC45MT 100508-SM	9.53	5.00	0.80	4.50	●	●	●	0.50-3.00	0.10-0.30

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: S-SUXCR/L-CM (110) • SUXCR/L-CM (54)

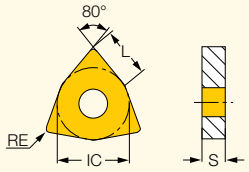
Inserts for Machining Aluminum

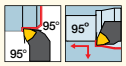
ISOTURN
ALUPTURN POSITIVE DOUBLE SIDED

WNGG-F3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGG 060402-F3N-P	6.52	9.52	4.76	0.20	●	0.20-3.00	0.10-0.30
WNGG 060404-F3N-P	6.52	9.52	4.76	0.40	●	0.40-3.00	0.12-0.35
WNGG 060408-F3N-P	6.52	9.52	4.76	0.80	●	0.80-3.00	0.15-0.40

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

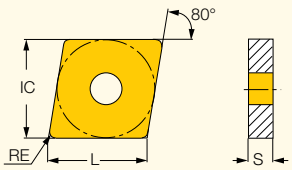
For tools, see pages: A-PWLNR/L-X/G (104) • A/S-MWLNR/L-W (103) • DWLNR/L (10) • MWLNR/L-W (18) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12)
- PWLNR/L-X-JHP-MC (13)

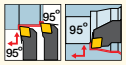
ISOTURN
ALUPTURN POSITIVE DOUBLE SIDED

CNGG-F3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGG 090402-F3N-P	9.70	9.52	4.76	0.20	●	0.30-3.00	0.10-0.30
CNGG 090404-F3N-P	9.70	9.52	4.76	0.40	●	0.40-3.00	0.10-0.30
CNGG 090408-F3N-P	9.70	9.52	4.76	0.80	●	0.80-3.00	0.10-0.30

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

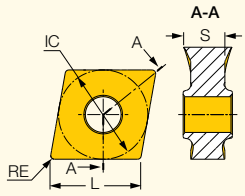
For tools, see pages: A/S-PCLNR/L-X/G (102) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23)
- AVC-PCLNR/L (96)

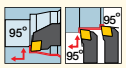
HELITURN LD

CNGX-M3N

Double-Sided Positive Rake Inserts with High Helical and Sharp Edge for Medium Machining on Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGX 090604-M3N-P	9.70	9.52	4.40	0.40	●	0.40-3.00	0.10-0.30
CNGX 090608-M3N-P	9.70	9.52	4.40	0.80	●	0.80-3.00	0.10-0.30

- PCLNR/L...X and A..-PCLNR/L-X are most recommended as they were designed especially for this insert
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

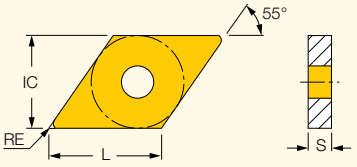
For tools, see pages: A/S-PCLNR/L-X/G (102) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23)

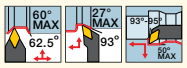
ISOTURN
ALUPTURN POSITIVE DOUBLE SIDED

DNGG-M3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGG 110402-M3N-P	11.63	9.52	4.76	0.20	●	0.30-3.00	0.10-0.30
DNGG 110404-M3N-P	11.63	9.52	4.76	0.40	●	0.30-3.00	0.10-0.30
DNGG 110408-M3N-P	11.63	9.52	4.76	0.80	●	0.30-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

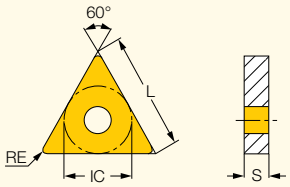
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L (97) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • PDJNR/L (28) • PDJNR/L-JHP (29)

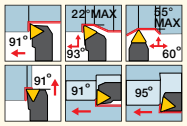
ISOTURN
ALUPTURN POSITIVE DOUBLE SIDED

TNGG-M3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGG 160402-M3N-P	16.50	9.52	4.76	0.20	●	0.30-3.00	0.10-0.30
TNGG 160404-M3N-P	16.50	9.52	4.76	0.40	●	0.30-3.00	0.10-0.30
TNGG 160408-M3N-P	16.50	9.52	4.76	0.80	●	0.30-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

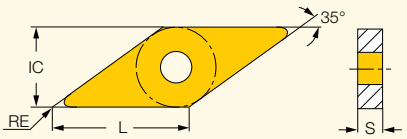
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

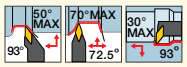
ISOTURN
ALUPTURN POSITIVE DOUBLE SIDED

VNGG-M3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGG 160402-M3N-P	16.60	9.52	4.76	0.20	●	0.20-3.00	0.10-0.25
VNGG 160404-M3N-P	16.60	9.52	4.76	0.40	●	0.40-3.00	0.12-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

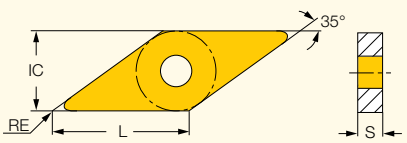
For tools, see pages: AVC-DVUNR/L (97) • MVJNR/L (33) • MVVNN (35)

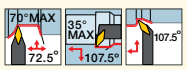
ISOTURN
ALUPTURN POSITIVE DOUBLE SIDED

VNGU-R3N

Double-Sided Sharp-Edged Positive Rake Inserts for Rough Machining on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGU 220612-R3N	22.00	12.70	6.77	1.20	●	1.00-4.50	0.10-0.30
VNGU 220616-R3N	22.00	12.70	6.51	1.60	●	1.50-4.50	0.10-0.35
VNGU 220630-R3N	22.00	12.70	6.35	3.00	●	1.50-4.50	0.15-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

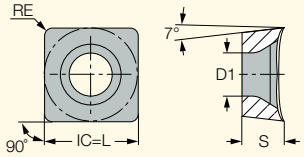
For tools, see pages: A-SVLFNR-AL-JHP (108) • A-SVQNR/L-AL-JHP (108) • SVHNR/L-AL-JHP (34) • SVVNN-AL-JHP (34)

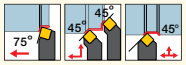
ISOTURN

SCGT-AS

Square Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
SCGT 09T308-AS	9.52	3.97	0.80	4.40	●	0.50-3.00	0.10-0.30
SCGT 120404-AS	12.70	4.76	0.40	5.50	●	1.00-4.00	0.10-0.30
SCGT 120408-AS	12.70	4.76	0.80	5.50	●	1.00-4.00	0.10-0.30

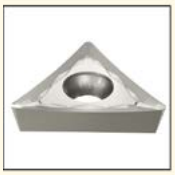
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

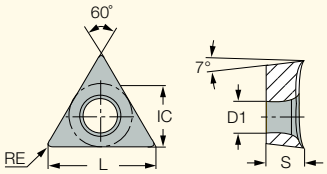
For tools, see pages: SSBCR/L (70) • SSSCR/L (70)

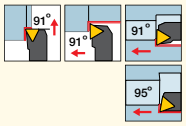
ISOTURN

TCGT-AS

Triangular Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TCGT 110204-AS	11.00	6.35	2.38	0.40	2.80	●	0.20-3.00	0.05-0.30
TCGT 16T304-AS	16.50	9.52	3.97	0.40	4.40	●	0.50-3.00	0.05-0.30
TCGT 16T308-AS	16.50	9.52	3.97	0.80	4.40	●	0.50-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

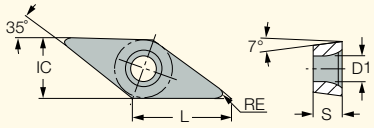
For tools, see pages: E-STFCR-HEAD (115) • S-MTLCR/L-W (114) • S-STFCR/L (115) • S-STLCR/L (115) • STFCR/L (70) • STGCR/L (70)

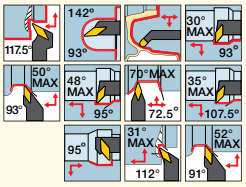
ISOTURN

VCGT-AS

35° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC920	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 110302-AS	11.10	6.35	3.18	0.20	2.90	●	●	0.20-2.50	0.05-0.20
VCGT 110304-AS	11.10	6.35	3.18	0.40	2.90		●	0.50-3.00	0.05-0.25
VCGT 160401-AS	16.60	9.52	4.76	0.10	4.40		●	0.20-2.50	0.05-0.20
VCGT 160402-AS	16.60	9.52	4.76	0.20	4.40		●	0.50-2.50	0.05-0.25
VCGT 160404-AS	16.60	9.52	4.76	0.40	4.40		●	0.50-3.00	0.05-0.25
VCGT 160408-AS	16.60	9.52	4.76	0.80	4.40		●	0.50-3.00	0.10-0.25
VCGT 160412-AS	16.60	9.52	4.76	1.20	4.40		●	0.50-3.00	0.10-0.25
VCGT 220530-AS	22.10	12.70	5.56	3.00	5.50		●	1.50-4.50	0.15-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

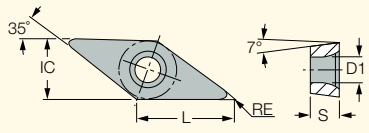
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • AVC-SVUCR/L (95) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • DTF50 SVXCR-16X2 (452) • DTF50 SVXCR-22 (452) • HSK A63WH-SVJCR/L (67) • NQCH-SVACR/L-S-JHP (67) • NQCH-Y-SVJCR-S-JHP (65) • PVACR/L-JHP (68) • PVACR/L-S (64) • S/A-SVJCR/L (114) • SVACR/L (67) • SVJCR-PAD (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVPCR/L (69) • SVVCN (454) • SVXCR/L (454) • Y-SVJCR (65) • Y-SVJCR-JHP (65) • AVC-SVLCR/L (96) • PVACR/L-JHP-MC (68)

ISOTURN

VCGT-AF

Inserts with a Very Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing on Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 220508-AF	22.10	12.70	5.56	0.80	5.50	●	1.00-4.50	0.10-0.25
VCGT 220512-AF	22.10	12.70	5.56	1.20	5.50	●	1.00-4.50	0.10-0.30
VCGT 220516-AF	22.10	12.70	5.56	1.60	5.50	●	1.50-4.50	0.10-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

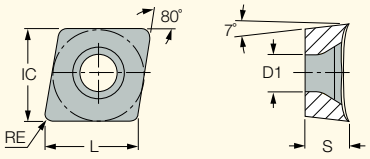
For tools, see pages: A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • DTF50 SVXCR-22 (452)

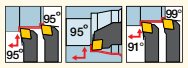
ISOTURN

CCGT-AS

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 060201-AS	6.40	6.35	2.38	0.10	2.80	●	0.50-2.00	0.10-0.20
CCGT 060202-AS	6.40	6.35	2.38	0.20	2.80	●	0.50-2.00	0.10-0.20
CCGT 060204-AS	6.40	6.35	2.38	0.40	2.80	●	0.50-2.00	0.10-0.25
CCGT 09T301-AS	9.70	9.52	3.97	0.10	4.40	●	0.50-2.50	0.10-0.25
CCGT 09T302-AS	9.70	9.52	3.97	0.20	4.40	●	0.50-2.50	0.10-0.25
CCGT 09T304-AS	9.70	9.52	3.97	0.40	4.40	●	0.50-2.50	0.10-0.25
CCGT 09T308-AS	9.70	9.52	3.97	0.80	4.40	●	0.80-3.00	0.10-0.30
CCGT 120402-AS	12.90	12.70	4.76	0.20	5.50	●	0.50-2.50	0.10-0.25
CCGT 120404-AS	12.90	12.70	4.76	0.40	5.50	●	0.50-2.50	0.10-0.25
CCGT 120408-AS	12.90	12.70	4.76	0.80	5.50	●	1.00-3.50	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

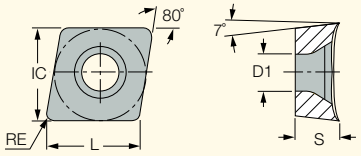
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

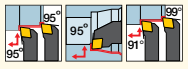
ISOTURN

CCGT-AF

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 09T308-AF	9.70	9.52	3.97	0.80	4.40	●	0.80-3.00	0.15-0.25
CCGT 120408-AF	12.90	12.70	4.76	0.80	5.50	●	1.00-3.50	0.15-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

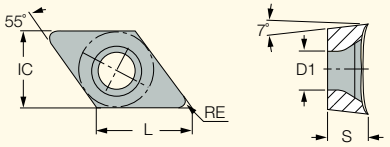
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

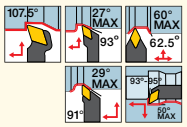
ISOTURN

DCGT-AS

55° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC920	IC20	IC320	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 070201-AS	7.75	6.35	2.38	0.10	2.80		●			0.50-2.00	0.03-0.20
DCGT 070202-AS	7.75	6.35	2.38	0.20	2.80	●	●			0.50-2.00	0.05-0.20
DCGT 070204-AS	7.75	6.35	2.38	0.40	2.80		●			0.50-2.50	0.05-0.25
DCGT 11T301-AS	11.60	9.52	3.97	0.10	4.40		●			0.50-2.50	0.05-0.25
DCGT 11T302-AS	11.60	9.52	3.97	0.20	4.40		●	●	●	0.50-2.50	0.05-0.26
DCGT 11T304-AS	11.60	9.52	3.97	0.40	4.40		●	●	●	0.50-2.50	0.05-0.25
DCGT 11T308-AS	11.60	9.52	3.97	0.80	4.40		●	●		0.80-3.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

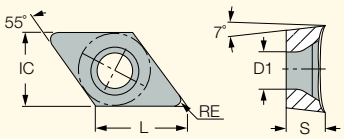
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

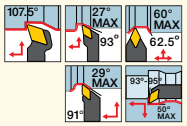
ISOTURN

DCGT-AF

Inserts with a Very Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing on Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 11T304-AF	11.60	9.52	3.97	0.40	4.40	●	0.50-2.50	0.05-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

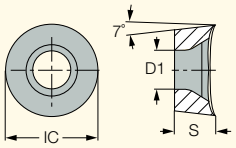
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

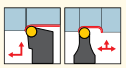
ISOTURN

RCGT-AS

Round Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions IC	S	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
RCGT 0803M0-AS	8.00	3.18	3.40	●	1.00-4.00	0.20-0.40
RCGT 1003M0-AS	10.00	3.18	4.00	●	1.00-5.00	0.20-0.40
RCGT 10T3M0-AS	10.00	3.97	4.40	●	1.00-5.00	0.20-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

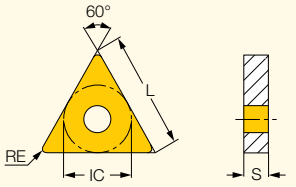
For tools, see pages: SRDCN (72) • SRGCR/L (71)

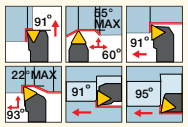
ISOTURN

TNMS-12

Triangular Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMS 160404-12	16.50	9.52	4.76	0.40	●	0.50-3.00	0.07-0.32
TNMS 160408-12	16.50	9.52	4.76	0.80	●	0.50-3.00	0.10-0.35
TNMS 220404-12	22.00	12.70	4.76	0.40	●	1.00-4.00	0.07-0.32
TNMS 220408-12	22.00	12.70	4.76	0.80	●	1.00-4.00	0.10-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

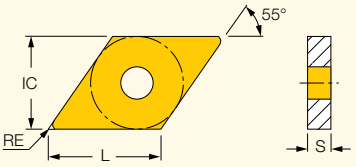
For tools, see pages: A-PTFNR/L-X/G (108) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-PTFNR/L (109)

ISOTURN

DNMS-12

55° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMS 150408-12	15.50	12.70	4.76	0.80	●	1.00-4.00	0.07-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

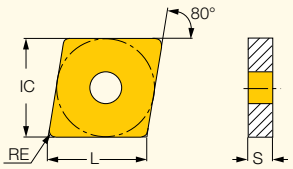
For tools, see pages: A/S-PDUNR/L (106) • C#-PDJNR/L-JHP (29) • PDJNR/L (28) • PDJNR/L-JHP (29)

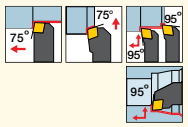
ISOTURN

CNMS-12

80° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMS 120408-12	12.90	12.70	4.76	0.80	●	1.00-4.00	0.10-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

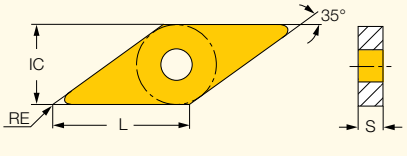
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23)

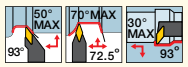
ISOTURN

VNMS-12

35° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMS 160404-12	16.60	9.52	4.76	0.40	●	1.00-3.00	0.07-0.30
VNMS 160408-12	16.60	9.52	4.76	0.80	●	1.00-3.50	0.07-0.33

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

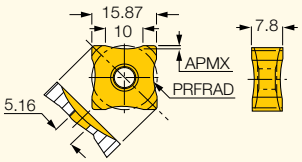
For tools, see pages: MVJNR/L (33) • MVVNN (35)

ISOTURN

SNMX 150708R-..

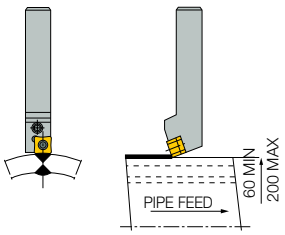
Pipe Skiving Inserts with a Positive Rake Used to Remove the Burr of Welded Tubes





Designation	Dimensions		Tough ↔ Hard	
	PRFRAD	APMX	IC8150	IC418
SNMX 150708R-11	11.00	1.20	●	
SNMX 150708R-13	13.00	1.00	●	
SNMX 150708R-15	15.00	0.86	●	
SNMX 150708R-18	18.00	0.71	●	
SNMX 150708R-20	20.00	0.64	●	
SNMX 150708R-22	22.00	0.58	●	
SNMX 150708R-25	25.00	0.50	●	
SNMX 150708R-27	27.00	0.47	●	
SNMX 150708R-30	30.00	0.42	●	
SNMX 150708R-35	35.00	0.36	●	
SNMX 150708R-40	40.00	0.31	●	
SNMX 150708R-45	45.00	0.28	●	
SNMX 150708R-50	50.00	0.25	●	●
SNMX 150708R-60	60.00	0.21	●	
SNMX 150708R-65	65.00	0.19	●	
SNMX 150708R-70	70.00	0.18	●	
SNMX 150708R-75	75.00	0.17	●	
SNMX 150708R-90	90.00	0.14	●	

For tools, see pages: PSANR/L (51)



These inserts remove the burr immediately after the welding process (material temperature is usually 300-400°C). Cutting speed varies from 40 to 150 m/min, depending on the diameter of the tube.

Recommended:

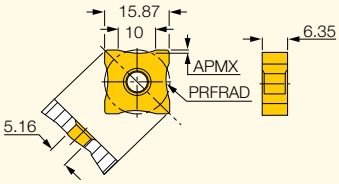
$$R = \frac{D\ (pipe)}{2} + (1\text{-}2\ mm)$$

ISOTURN

SNMX 150608R-..

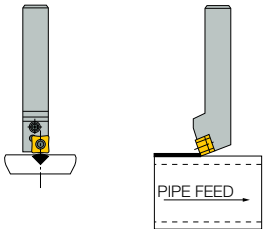
Pipe Skiving Inserts Used to Remove the Burr of Welded Tubes





Designation	Dimensions		
	PRFRAD	APMX	IC418
SNMX 150608R-15	15.00	0.86	●
SNMX 150608R-90	90.00	0.14	●

For tools, see pages: PSANR/L (51)



These inserts remove the burr immediately after the welding process (material temperature is usually 300-400° C). Cutting speed varies from 40 to 150 m/min, depending on the diameter of the tube.

Recommended:

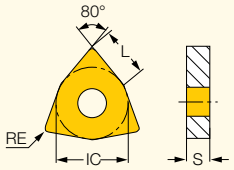
$$R = \frac{D\ (pipe)}{2} + (1\text{-}2\ mm)$$

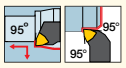
ISOTURN

WNGA-Ceramic

Double-Sided Flat Rake Ceramic Inserts for Machining Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGA 080408T	8.70	12.70	4.76	0.80	•			2.00-4.00	0.20-0.60
WNGA 080412T	8.70	12.70	4.76	1.20	•	•	•	2.00-5.00	0.03-0.95

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

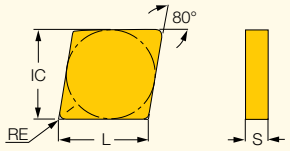
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

ISOTURN

CNGN-Ceramic

80° Rhombic Double-Sided Ceramic Inserts with a T-Land for Machining Cast Iron, Hardened Steel and Nickel Based Alloys







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IW7	IS35	IS25	IS8	IS80	IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGN 120404T	12.90	12.70	4.76	0.40	•					•			1.00-3.00	0.10-0.43
CNGN 120408E	12.90	12.70	4.76	0.80		•							1.00-3.00	0.10-0.50
CNGN 120408T	12.90	12.70	4.76	0.80	•			•		•	•	•	1.00-3.00	0.10-0.50
CNGN 120412E	12.90	12.70	4.76	1.20		•							1.00-5.00	0.10-0.50
CNGN 120412T	12.90	12.70	4.76	1.20	•					•			1.00-4.00	0.10-0.50
CNGN 120416T	12.90	12.70	4.76	1.60	•								1.00-5.00	0.10-0.50
CNGN 120708E	12.90	12.70	7.94	0.80		•							1.00-4.00	0.10-0.50
CNGN 120708T	12.90	12.70	7.94	0.80	•	•	•			•			1.00-4.00	0.10-0.50
CNGN 120712E	12.90	12.70	7.94	1.20		•							1.00-5.00	0.10-0.50
CNGN 120712T	12.90	12.70	7.94	1.20	•		•	•					1.00-4.00	0.10-0.50
CNGN 120716T	12.90	12.70	7.94	1.60	•		•		•				1.00-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

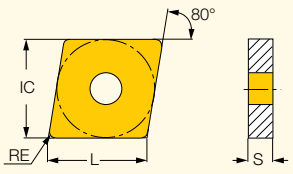
For tools, see pages: CCLNR/L (88)

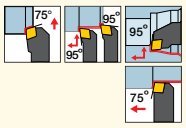
ISOTURN

CNMG-Ceramic

80° Rhombic Double-Sided Inserts with a T-Land for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN23	IN22	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404T	12.90	12.70	4.76	0.40	•		1.00-3.00	0.05-0.20
CNMG 120408T	12.90	12.70	4.76	0.80	•	•	1.00-3.00	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

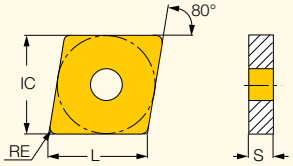
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

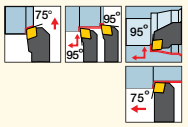
ISOTURN

CNGA-Ceramic

80° Rhombic Double-Sided Inserts with a T-Land for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS35	IS25	IS8	IS80	IS6	IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGA 120404T	12.90	12.70	4.76	0.40						●	●	●	1.00-3.00	0.05-0.20
CNGA 120408T	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	●	1.00-4.00	0.05-0.20
CNGA 120412T	12.90	12.70	4.76	1.20			●		●	●	●	●	1.00-4.00	0.05-0.20
CNGA 120416T	12.90	12.70	4.76	1.60			●	●		●			1.00-5.00	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

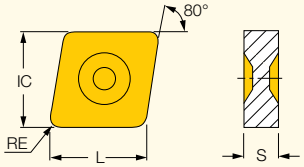
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCBNR/L (26) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCBNR/L (22) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105)

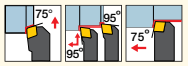
ISOTURN

CNGX-Ceramic

80° Rhombic Double-Sided Dimpled Ceramic Inserts with a T-Land for Machining Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGX 120712T	12.90	12.70	7.94	1.20	●	●	●	1.00-3.00	0.07-0.43
CNGX 120716T	12.90	12.70	7.94	1.60	●	●	●	1.00-3.00	0.07-0.43

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

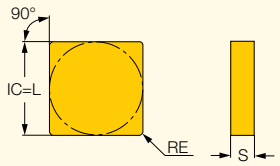
For tools, see pages: TCBNR/L-CH (88) • TCKNR/L-CH (88) • TCLNR/L-CH (88)

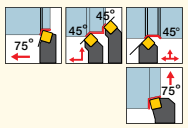
ISOTURN

SNGN-Ceramic

Square Double-Sided Ceramic Inserts with a Flat Rake for Machining Cast Iron, Hardened Steel and Super Alloys







Designation	Dimensions IC	S	RE	Tough ↔ Hard IW7	IS8	IS80	IS6	IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
SNGN 120404T	12.70	4.76	0.40						●		0.10-3.50	0.10-0.50
SNGN 120408T	12.70	4.76	0.80	●	●			●	●	●	0.10-3.50	0.10-0.50
SNGN 120412T	12.70	4.76	1.20	●	●	●	●	●	●	●	0.10-5.00	0.10-0.50
SNGN 120416T	12.70	4.76	1.60	●	●	●			●	●	0.10-5.00	0.10-0.50
SNGN 120708T	12.70	7.94	0.80	●					●	●	0.10-5.00	0.10-0.50
SNGN 120712T	12.70	7.94	1.20	●		●		●			0.10-5.00	0.10-0.50
SNGN 120716T	12.70	7.94	1.60		●				●		0.10-5.00	0.10-0.50
SNGN 150712T	15.88	6.35	1.20	●							0.10-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

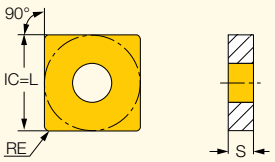
For tools, see pages: CSDNN-CE/CEA (89)

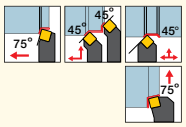
ISOTURN

SNGA-Ceramic

Square Double-Sided Ceramic Inserts with a Flat Rake for Machining Cast Iron and Hardened Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IS8	IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
SNGA 120404T	12.70	4.76	0.40			●		0.10-3.00	0.05-0.30
SNGA 120408T	12.70	4.76	0.80		●	●	●	0.10-3.50	0.05-0.30
SNGA 120412T	12.70	4.76	1.20	●	●			0.10-4.00	0.05-0.30
SNGA 120416T	12.70	4.76	1.60	●				0.10-4.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

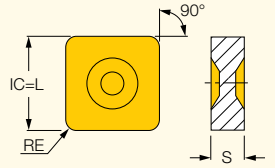
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

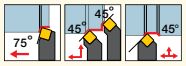
ISOTURN

SNGX-Ceramic

Square Double-Sided Dimpled Ceramic Inserts with a Flat Rake for Machining Cast Iron







Designation	Dimensions IC	S	RE	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (mm)	f (mm/rev)
SNGX 120712T	12.70	7.94	1.20	●	●	●	0.10-5.00	0.10-0.50
SNGX 120716T	12.70	7.94	1.60	●	●	●	0.10-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

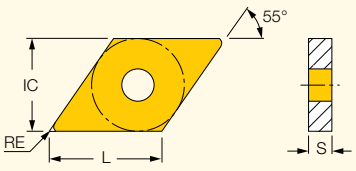
For tools, see pages: TSDNN-CH (89)

ISOTURN

DNGA-Ceramic

55° Rhombic Double-Sided Ceramic Inserts for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGA 150404T	15.50	12.70	4.76	0.40		●	●		0.10-3.00	0.07-0.50
DNGA 150408T	15.50	12.70	4.76	0.80	●	●	●	●	0.10-3.50	0.07-0.50
DNGA 150412T	15.50	12.70	4.76	1.20		●			0.10-4.00	0.07-0.50
DNGA 150604T	15.50	12.70	6.35	0.40		●		●	0.10-3.50	0.07-0.50
DNGA 150608T	15.50	12.70	6.35	0.80		●	●	●	0.10-4.00	0.07-0.50
DNGA 150612T	15.50	12.70	6.35	1.20			●	●	0.10-5.00	0.07-0.50

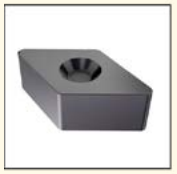
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

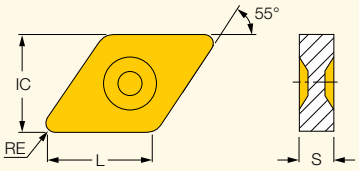
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

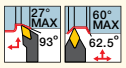
ISOTURN

DNGX-Ceramic

55° Rhombic Double-Sided Dimpled Ceramic Inserts for Machining Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGX 150712T	15.50	12.70	7.94	1.20	●	●	●	0.10-4.00	0.10-0.50
DNGX 150716T	15.50	12.70	7.94	1.60	●		●	0.10-5.00	0.10-0.50

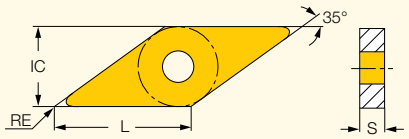
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

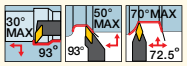
ISOTURN

VNGA-Ceramic

35° Rhombic Double-Sided Ceramic Inserts with a T-Land for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGA 160404T	16.60	9.52	4.76	0.40	●	●	0.70-2.50	0.06-0.30
VNGA 160408T	16.60	9.52	4.76	0.80		●	0.80-3.00	0.08-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

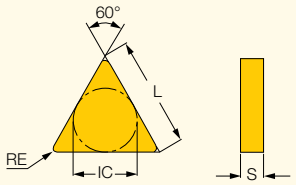
For tools, see pages: MVJNR/L (33) • MVVNN (35)

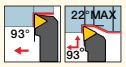
ISOTURN

TNGN-Ceramic

Triangular Double-Sided Ceramic Inserts for Machining Cast Iron, Hardened Steel and Nickel Based Alloys







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IW7	IS8	IS80	IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGN 160408T	16.50	9.52	4.76	0.80				●	●	●	1.00-3.50	0.10-0.35
TNGN 160412T	16.50	9.52	4.76	1.20	●	●	●				0.10-4.00	0.10-0.40

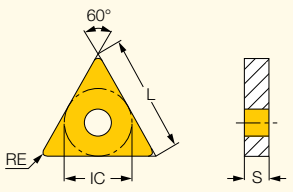
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

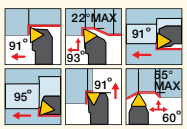
ISOTURN

TNGA-Ceramic

Triangular Double-Sided Ceramic Inserts for Machining Super Alloys and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGA 160404T	16.50	9.52	4.76	0.40	●	●	●	0.10-3.00	0.07-0.50
TNGA 160408T	16.50	9.52	4.76	0.80	●	●	●	0.10-3.50	0.07-0.50
TNGA 160412T	16.50	9.52	4.76	1.20	●			0.10-4.00	0.07-0.50
TNGA 220408T	22.00	12.70	4.76	0.80	●	●	●	0.10-5.00	0.07-0.50
TNGA 220416T	22.00	12.70	4.76	1.60	●			0.10-5.00	0.07-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

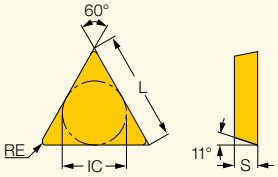
For tools, see pages: A-PTFNR/L-X/G (108) • C#-DTGNR/L (44) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

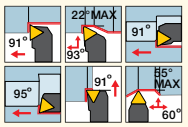
ISOTURN

TPGN-Ceramic

Triangular Ceramic Inserts with an 11° Positive Flank for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGN 090204T	9.60	5.56	2.38	0.40		•		0.10-1.50	0.07-0.30
TPGN 110304T	11.00	6.35	3.18	0.40	•	•	•	0.10-1.50	0.07-0.30
TPGN 110308T	11.00	6.35	3.18	0.80	•	•	•	0.10-3.00	0.07-0.40
TPGN 160304T	16.50	9.52	3.18	0.40	•	•	•	0.10-4.00	0.07-0.50
TPGN 160308T	16.50	9.52	3.18	0.80	•	•	•	0.10-4.00	0.07-0.50

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

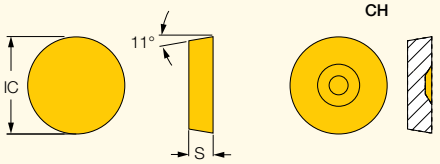
For tools, see pages: CTFPR/L (75) • CTGPR/L (74) • S-CTFPR/L (116)

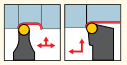
ISOTURN

RPGN-Ceramic

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel







Designation	Dimensions IC	S	Tough ↔ Hard IW7	IS35	IS25	Recommended Machining Data a_p (mm)	f (mm/rev)
RPGN 090300E	9.52	3.17	•			0.10-2.00	0.07-0.20
RPGN 120400E	12.70	4.76		•	•	0.10-3.00	0.07-0.20
RPGN 120400E-CH (1)	12.70	4.76		•	•	0.10-3.00	0.07-0.20
RPGN 120400T	12.70	4.76	•	•	•	0.10-3.00	0.07-0.20
RPGN 120400T-CH (1)	12.70	4.76		•	•	0.10-3.00	0.07-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

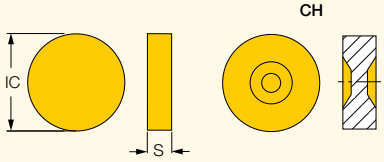
(1) Insert with a dimple

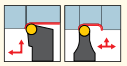
ISOTURN

RNGN-Ceramic

Round Double-Sided Ceramic Inserts for Machining Cast Iron, Nickel Based Alloys and Hardened Steel







Designation	Dimensions IC	S	Tough ↔ Hard IW7	IS35	IS25	IN23	IN22	IN420	Recommended Machining Data a_p (mm)	f (mm/rev)
RNGN 090300T	9.52	3.18	•				•		0.10-2.00	0.07-0.20
RNGN 090400T	9.52	4.76	•						0.10-2.00	0.07-0.20
RNGN 120400T	12.70	4.76	•				•	•	0.10-3.50	0.07-0.50
RNGN 120700 S6 (1)	12.70	7.94	•						0.10-2.00	-
RNGN 120700E	12.70	7.94	•	•	•				0.10-2.00	0.07-0.20
RNGN 120700E-CH (2)	12.70	7.94		•	•				0.10-2.00	0.07-0.20
RNGN 120700T	12.70	7.94	•	•	•	•	•	•	0.10-4.50	0.07-0.50
RNGN 120700T-CH (2)	12.70	7.94		•	•				0.10-4.50	0.07-0.50
RNGN 120700TE	12.70	7.94		•	•				0.10-4.50	0.07-0.50
RNGN 120700T02020	12.70	7.94	•						0.10-2.00	0.07-0.20
RNGN 150700T	15.88	7.94	•						0.10-3.00	0.07-0.20
RNGN 190700T	19.05	7.94	•						0.10-3.00	0.07-0.20
RNGN 190700TE	19.05	7.94		•	•				0.10-3.00	0.07-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

(1) For milling nickel based superalloys; reference recommendations for milling Inconel 718: 0.12 mm/t 900-1000 m/min

(2) Insert with a dimple

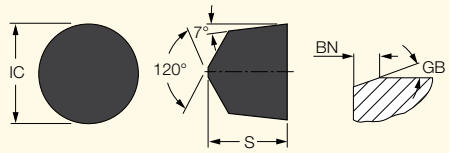
For tools, see pages: CRDNN (90) • CRGNR/L (90)

ISOTURN

RCGX-Ceramic

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel





Designation	Dimensions IC	S	GB	BN	Tough ↔ Hard IW7	IS35	IS25	IN23	Recommended Machining Data a_p (mm)	f (mm/rev)
RCGX 090700E	9.52	7.94	25.0	0.20	●	●	●		0.10-3.00	0.07-0.50
RCGX 090700T	9.52	7.94	25.0	0.20	●	●	●	●	0.10-3.00	0.07-0.50
RCGX 090700TE	9.52	7.94	25.0	0.20			●		0.10-3.00	0.07-0.50
RCGX 120700E	12.70	7.94	25.0	0.20	●	●	●		0.10-4.00	0.07-0.50
RCGX 120700T	12.70	7.94	25.0	0.20	●			●	0.10-4.00	0.07-0.50

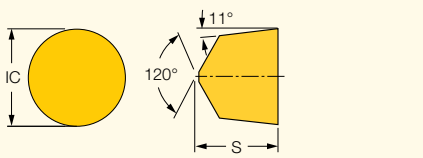
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

ISOTURN

RPGX-Ceramic

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel





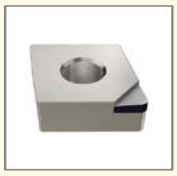
Designation	Dimensions IC	S	Tough ↔ Hard IW7	IS35	IS25	Recommended Machining Data a_p (mm)	f (mm/rev)
RPGX 090700E	9.52	7.94		●	●	0.50-3.00	0.10-0.45
RPGX 090700T	9.52	7.94	●	●	●	0.50-3.00	0.10-0.45
RPGX 120700E	12.70	7.94		●	●	0.50-4.50	0.10-0.45
RPGX 120700T	12.70	7.94	●	●	●	0.50-4.50	0.10-0.45

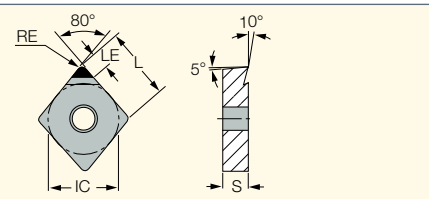
• Tools can be supplied on request. • For user guide and cutting speed recommendations, see pages 122-134, 236-248

ISOTURN

CNMA (PCD)

80° Rhombic Inserts with a Single PCD Top Corner Tip and Positive Rake for Finishing Applications





Designation	Dimensions L	IC	S	RE	LE	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMA 120404D	12.90	12.70	4.76	0.40	3.9	●	0.10-3.00	0.05-0.26
CNMA 120408D	12.90	12.70	4.76	0.80	3.6	●	0.10-3.00	0.05-0.26

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

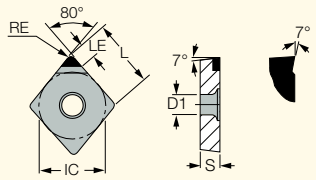
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

ISOTURN

CCMT (PCD)

Inserts with a Single PCD Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Aluminum





Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060202D	6.30	6.35	2.38	0.20	3.1	2.80	●	0.08-3.00	0.05-0.30
CCMT 060204D	6.30	6.35	2.38	0.40	3.0	2.80	●	0.10-3.00	0.05-0.30
CCMT 09T304D	9.70	9.52	3.97	0.40	3.9	4.40	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

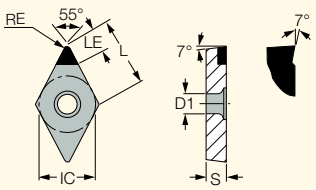
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

ISOTURN

DCMT (PCD)

55° Rhombic Inserts with a PCD Single Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Applications





Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 11T302D	11.60	9.52	3.97	0.20	3.7	4.40	●	0.10-3.00	0.05-0.30
DCMT 11T304D	11.60	9.52	3.97	0.40	3.6	4.40	●	0.10-3.00	0.05-0.30
DCMT 11T308D	11.60	9.52	3.97	0.80	3.3	4.40	●	0.10-3.00	0.05-0.29

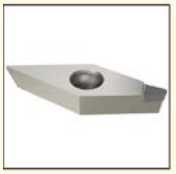
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

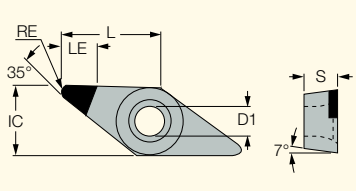
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

ISOTURN

VCMT (CBN)

35° Rhombic Single Brazed Tip Corner Inserts for Finishing Cast Iron





Designation	Dimensions IC	S	RE	L	LE	D1	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404T	9.52	4.76	0.40	16.60	4.40	4.40	●	0.10-3.00	0.05-0.30
VCMT 160408T	9.52	4.76	0.80	16.60	4.00	4.40	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

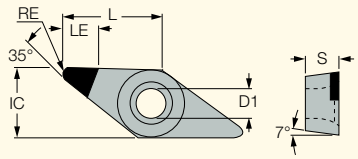
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

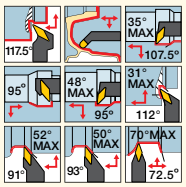
ISOTURN

VCGT-DW (PCD)

Inserts with 7° Clearance and a Single PCD Top Corner Tip Chipformer for Machining Aluminum







Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 160404-DW	16.60	9.52	4.76	0.40	6.60	4.40	●	0.10-3.00	0.05-0.30
VCGT 160408-DW	16.60	9.52	4.76	0.80	6.40	4.40	●	0.10-3.00	0.05-0.30
VCGT 160412-DW	16.60	9.52	4.76	1.20	6.30	4.40	●	0.10-3.00	0.05-0.30
VCGT 220516-DW	22.10	12.70	5.56	1.60	6.30	5.50	●	0.10-3.00	0.05-0.30
VCGT 220520-DW	22.10	12.70	5.56	2.00	6.20	5.50	●	0.10-3.00	0.05-0.30
VCGT 220530-DW	22.10	12.70	5.56	3.00	6.00	5.50	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

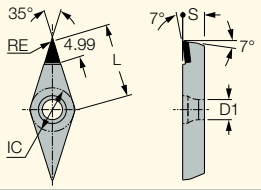
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • DTF50 SVXCR-16X2 (452) • DTF50 SVXCR-22 (452) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

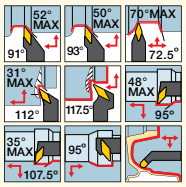
ISOTURN

VCGT (PCD)

35° Rhombic Single Brazed Tip Corner Inserts for Finishing Aluminum (PCD)







Designation	Dimensions IC	S	RE	L	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 160404D	9.52	4.76	0.40	16.60	4.40	●	0.10-3.00	0.05-0.30
VCGT 160408D	9.52	4.76	0.80	16.60	4.40	●	0.10-3.00	0.05-0.30

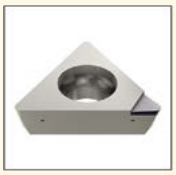
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

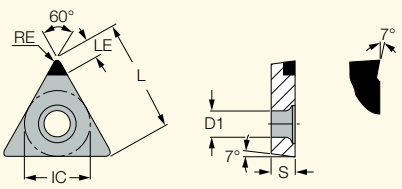
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

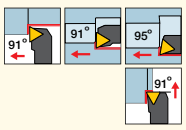
ISOTURN

TCMT (PCD)

Inserts with a Single PCD Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Aluminum







Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204D	11.00	6.35	2.38	0.40	3.8	2.80	●	0.10-3.00	0.05-0.30

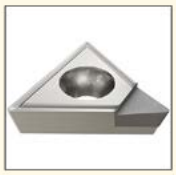
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

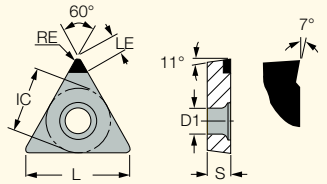
For tools, see pages: E-STFCR-HEAD (115) • S-STFCR/L (115) • S-STLCR/L (115) • STFCR/L (70) • STGCR/L (70)

ISOTURN

TPGX (PCD)

Triangular Inserts with PCD Single Top Corner Brazed Tip, 11° Clearance and Positive Rake Angle for Finishing Aluminum







Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGX 090202	9.52	5.56	2.38	0.20	3.0	2.50	•	0.10-3.00	0.05-0.30
TPGX 090204	9.52	5.56	2.38	0.40	3.0	2.50	•	0.10-3.00	0.05-0.30
TPGX 110302	11.00	6.35	3.18	0.20	3.4	3.50	•	0.10-3.00	0.05-0.30
TPGX 110304	11.00	6.35	3.18	0.40	3.8	3.50	•	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

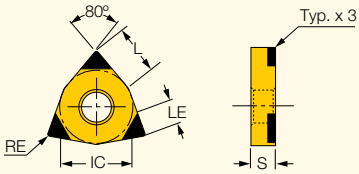
For tools, see pages: A/E-STFPR-X (117) • MG STFPR-X (117)

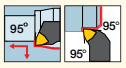
ISOTURN

WNGA-M3 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB20H	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGA 080408-M3	8.70	12.70	4.76	0.80	2.2	•	0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

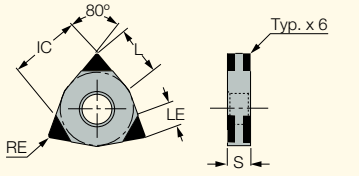
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

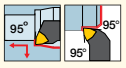
ISOTURN

WNGA-MC/M6 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB55	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGA 080404T-MC	8.70	12.70	4.76	0.40	3.1	•		0.05-0.50	0.05-0.20
WNGA 080408-M6	8.70	12.70	4.76	0.80	2.2		•	0.05-0.50	0.05-0.20
WNGA 080408T-MC	8.70	12.70	4.76	0.80	3.1	•		0.05-0.50	0.05-0.20
WNGA 080412T-MC	8.70	12.70	4.76	1.20	3.1	•		0.05-0.50	0.05-0.20

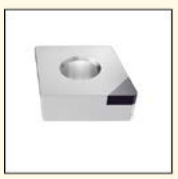
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

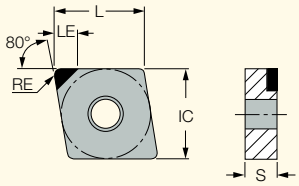
For tools, see pages: A/S-MWLNR/L-W (103) • A/S-PWLNR/L (104) • C#-MULNR/L-MW (16) • C#-PWLNR/L-08-JHP (9) • DWLNR/L (10) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • MWLNR/L-W (18) • PWLNR/L (8) • PWLNR/L-08-JHP (9) • PWLNR/L-X (11) • PWLNR/L-X-JHP (12) • PWLNR/L-X-JHP-MC (13) • S-DWLNR/L (99) • S-MULNR-MW (105) • DWLNR/L-JHP-MC (10)

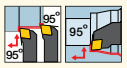
ISOTURN

CNMA-T/M1/WG (CBN)

80° Rhombic Inserts with a Single CBN Top Corner Tip for Machining Cast Iron, Hardened Steel and Super Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB90	IB85	IB20H	IB55	IB50	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMA 120404T	12.90	12.70	4.76	0.40	3.2	●			●	●	0.05-0.50	0.05-0.26
CNMA 120408-M1	12.90	12.70	4.76	0.80	3.5			●			0.05-0.50	0.05-0.30
CNMA 120408T	12.90	12.70	4.76	0.80	3.4	●	●		●		0.05-0.50	0.05-0.30
CNMA 120408T-WG (1)	12.90	12.70	4.76	0.80	3.5	●	●		●	●	0.05-0.50	0.05-0.30
CNMA 120412-M1	12.90	12.70	4.76	1.20	3.5			●			0.05-0.50	0.05-0.30
CNMA 120412T	12.90	12.70	4.76	1.20	4.0				●		0.05-0.50	0.05-0.30

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

(1) Wiper insert for high feed finishing, eliminates grinding.

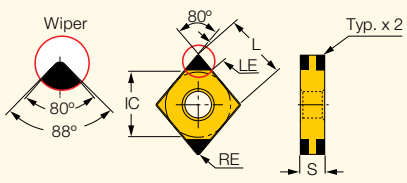
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

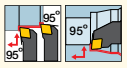
ISOTURN

CNMA-MW4 (CBN)

80° Rhombic Inserts with 4 CBN Wiper Edge Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB25HC	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMA 120408-MW4	12.90	12.70	4.76	0.80	2.2	●	0.05-0.50	0.05-0.40
CNMA 120412-MW4	12.90	12.70	4.76	1.20	2.4	●	0.05-0.50	0.05-0.40

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

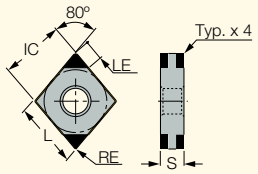
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

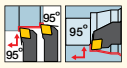
ISOTURN

CNGA-4 (CBN)

4-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB55	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGA 120404T-MC	12.90	12.70	4.76	0.40	3.1		●		0.05-0.50	0.05-0.20
CNGA 120408-M4	12.90	12.70	4.76	0.80	2.2	●		●	0.05-0.50	0.05-0.20
CNGA 120408T-MC	12.90	12.70	4.76	0.80	3.1		●		0.05-0.50	0.05-0.20
CNGA 120408T-WG-MC (1)	12.90	12.70	4.76	0.80	3.1		●		0.05-0.50	0.05-0.20
CNGA 120412-M4	12.90	12.70	4.76	1.20	2.4	●		●	0.05-0.50	0.05-0.20
CNGA 120412T-MC	12.90	12.70	4.76	1.20	3.1		●		0.05-0.50	0.05-0.20

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

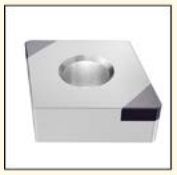
(1) Wiper corner configuration

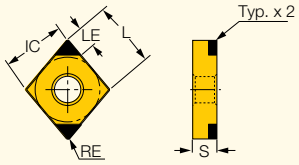
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

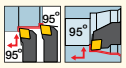
ISOTURN

CNGA-2 (CBN)

80° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB05S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGA 120404-F2	12.90	12.70	4.76	0.40	2.3				●		●	0.05-0.50	0.05-0.20
CNGA 120404-M2	12.90	12.70	4.76	0.40	2.3	●	●		●		●	0.05-0.30	0.05-0.20
CNGA 120404-R2	12.90	12.70	4.76	0.40	2.2			●				0.05-0.50	0.05-0.20
CNGA 120408-F2	12.90	12.70	4.76	0.80	2.2		●		●	●		0.05-0.30	0.05-0.18
CNGA 120408-MW2	12.90	12.70	4.76	0.80	2.2				●		●	0.05-0.50	0.05-0.20
CNGA 120408-M2	12.90	12.70	4.76	0.80	2.2	●		●		●		0.05-0.30	0.05-0.18
CNGA 120408-R2	12.90	12.70	4.76	0.80	2.2			●				0.05-0.50	0.05-0.20
CNGA 120408-S2	12.90	12.70	4.76	0.80	2.2		●					0.05-0.50	0.05-0.20
CNGA 120412-F2	12.90	12.70	4.76	1.20	2.4				●		●	0.05-0.50	0.05-0.20
CNGA 120412-M2	12.90	12.70	4.76	1.20	2.4	●		●		●	●	0.05-0.30	0.05-0.20
CNGA 120412-R2	12.90	12.70	4.76	1.20	2.4				●			0.05-0.50	0.05-0.20

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

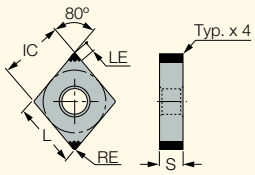
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

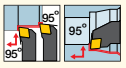
ISOTURN

CNGA-J(CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Recommended Machining Data ap (mm)	f (mm/rev)
CNGA 120408-M4-J	12.90	12.70	4.76	0.80	1.50	0.12-0.80	0.10-0.30
CNGA 120408-R4-J	12.90	12.70	4.76	0.80	1.50	0.12-0.80	0.10-0.30

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

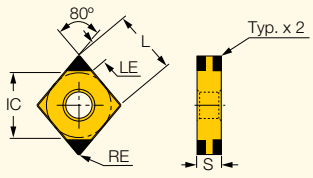
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105)

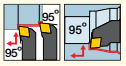
ISOTURN

CNGG-M4HF/M4HM (CBN)

80° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGG 120408-M4HF	12.90	12.70	4.76	0.80	2.2	●	0.20-0.75	0.05-0.20
CNGG 120412-M4HM	12.90	12.70	4.76	1.20	2.4	●	0.50-1.00	0.05-0.20

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

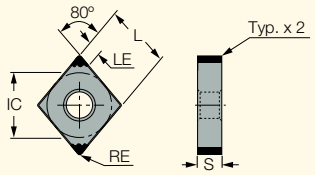
For tools, see pages: A/S-PCLNR/L (101) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105) • A/S-PCLNR/L-X/G (102) • DCLNR/L-JHP-MC (25)

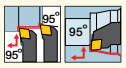
ISOTURN

CNGG-J(CBN)

80° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGG 120408-M4HM-J	12.90	12.70	4.76	0.80	1.50	0.12-0.80	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

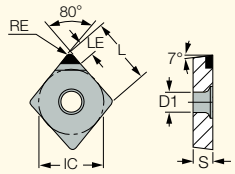
For tools, see pages: A/S-PCLNR/L (101) • A/S-PCLNR/L-X/G (102) • C#-MULNR/L-MW (16) • C#-PCLNR/L-12-JHP (21) • C#-PCLNR/L-X (24) • C#-PCLNR/L-X-JHP (24) • DCLNR/L (25) • DCLNR/L-JHP-MC (25) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PCLNR/L (20) • PCLNR/L-12-JHP (21) • PCLNR/L-X (22) • PCLNR/L-X-JHP (23) • PCLNR/L-X-JHP-MC (23) • S-DCLNR/L (99) • S-MULNR-MW (105)

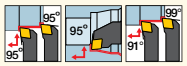
ISOTURN

CCGW/CCMT (CBN)

80° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB05H	IB55	IB10H	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGW 03X102T01015-1	3.63	3.57	1.39	0.20	2.0	1.90	●		●	0.05-0.50	0.05-0.20
CCGW 03X104T01015-1	3.63	3.57	1.39	0.40	2.3	1.90	●		●	0.05-0.50	0.05-0.20
CCGW 04T102T01015-1	4.44	4.37	1.79	0.20	2.0	2.30	●		●	0.05-0.50	0.05-0.20
CCGW 04T104T01015-1	4.44	4.37	1.79	0.40	2.3	2.30	●		●	0.05-0.50	0.05-0.20
CCMT 060202T	6.30	6.35	2.38	0.20	2.6	2.80		●		0.05-0.50	0.05-0.20
CCMT 060204T	6.30	6.35	2.38	0.40	2.7	2.80		●		0.05-0.50	0.05-0.20
CCMT 09T304T	9.70	9.52	3.97	0.40	2.9	4.40		●		0.05-0.50	0.05-0.20
CCMT 09T308T	9.70	9.52	3.97	0.80	3.6	4.40		●		0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

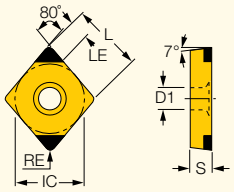
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • PICIN-SCLCR/L (386) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

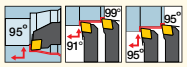
ISOTURN

CCGW/CCMW-2 (CBN)

80° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions IC	L	S	RE	LE	D1	Tough ↔ Hard IB05S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGW 060202-F2	6.35	6.30	2.38	0.20	2.3	2.80			●		●	0.05-0.50	0.05-0.20
CCGW 060204-F2	6.35	6.30	2.38	0.40	2.3	2.80			●		●	0.05-0.50	0.05-0.20
CCGW 09T304-F2	9.52	9.70	3.97	0.40	2.3	4.40			●		●	0.05-0.50	0.05-0.20
CCGW 09T308-F2	9.52	9.70	3.97	0.80	2.2	4.40			●		●	0.05-0.50	0.05-0.20
CCGW 060202-M2	6.35	6.30	2.38	0.20	2.3	2.80					●	0.05-0.50	0.05-0.20
CCGW 060204-M2	6.35	6.30	2.38	0.40	2.3	2.80	●				●	0.05-0.50	0.05-0.20
CCMW 060202-M2	6.35	6.30	2.38	0.20	2.3	2.80		●		●		0.05-0.50	0.05-0.20
CCMW 060204-M2	6.35	6.30	2.38	0.40	2.3	2.80		●		●		0.05-0.50	0.05-0.20
CCGW 09T304-M2	9.52	9.70	3.97	0.40	2.3	4.40	●				●	0.05-0.50	0.05-0.30
CCGW 09T308-M2	9.52	9.70	3.97	0.80	2.2	4.40	●		●		●	0.05-0.50	0.05-0.30
CCMW 09T304-M2	9.52	9.70	3.97	0.40	2.3	4.40		●		●		0.05-0.50	0.05-0.15
CCMW 09T308-M2	9.52	9.70	3.97	0.80	2.2	4.40		●		●		0.05-0.50	0.05-0.30
CCGW 060204-R2	6.35	6.30	2.38	0.40	2.3	2.80			●			0.05-0.50	0.05-0.20
CCGW 09T304-R2	9.52	9.70	3.97	0.40	2.3	4.40			●			0.05-0.50	0.05-0.20
CCGW 09T308-R2	9.52	9.70	3.97	0.80	2.2	4.40			●			0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

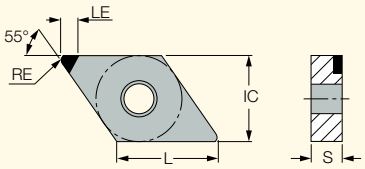
For tools, see pages: A/E/S-SCLCR/L (111) • C#-SCLCR/L-JHP (54) • E-SCLCR/L-HEAD (110) • NQCH-SCACR/L-JHP (55) • PCLCR/L-S (55) • PCLCR/L-S-JHP (56) • SCACR/L-S (55) • SCLCR-PAD (55) • SCLCR/L (54) • AVC-SCLCR/L (95) • PCLCR/L-JHP-MC (56)

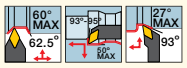
ISOTURN

DNMA (CBN)

CBN Inserts with a Flat Rake for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB55	IB50	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMA 150404T	15.50	12.70	4.76	0.40	2.8	●		0.05-0.50	0.05-0.20
DNMA 150408T	15.50	12.70	4.76	0.80	3.2	●	●	0.05-0.50	0.05-0.20
DNMA 150412T	15.50	12.70	4.76	1.20	3.0	●		0.05-0.50	0.05-0.20
DNMA 150604T	15.50	12.70	6.35	0.40	2.8	●		0.05-0.50	0.05-0.20
DNMA 150608T	15.50	12.70	6.35	0.80	3.2	●		0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

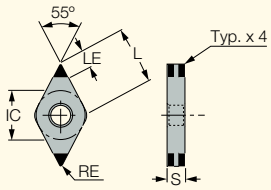


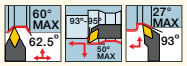
ISOTURN

DNGA-4 (CBN)

55° Rhombic 4-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB55	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGA 150404T-MC	15.50	12.70	4.76	0.40	2.9		●		0.05-0.50	0.05-0.18
DNGA 150408-M4	15.50	12.70	4.76	0.80	2.1	●		●	0.05-0.50	0.05-0.18
DNGA 150408T-MC	15.50	12.70	4.76	0.80	3.0		●		0.05-0.50	0.05-0.18
DNGA 150412-M4	15.50	12.70	4.76	1.20	2.0	●		●	0.05-0.50	0.05-0.18
DNGA 150412T-MC	15.50	12.70	4.76	1.20	3.0		●		0.05-0.50	0.05-0.18
DNGA 150604T-MC	15.50	12.70	6.35	0.40	2.9		●		0.05-0.50	0.05-0.18
DNGA 150608T-MC	15.50	12.70	6.35	0.80	3.0		●		0.05-0.50	0.05-0.18
DNGA 150612T-MC	15.50	12.70	6.35	1.20	3.0		●		0.05-0.50	0.05-0.18

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

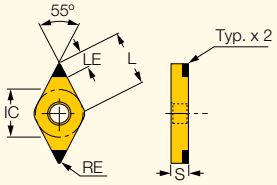
For tools, see pages: A/S-PDUNR/L (106) • AVC-DDUNR/L-VH (98) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • AVC-DDUNR/L (97) • DDJNR/L-JHP-MC (30)

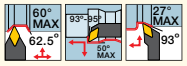
ISOTURN

DNGA-2 (CBN)

55° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGA 150404-F2	15.50	12.70	4.76	0.40	2.5			●		●	0.10-0.50	0.05-0.30
DNGA 150404-M2	15.50	12.70	4.76	0.40	2.5	●		●		●	0.10-0.50	0.05-0.30
DNGA 150408-F2	15.50	12.70	4.76	0.80	2.1			●		●	0.10-0.50	0.05-0.30
DNGA 150408-M2	15.50	12.70	4.76	0.80	2.1	●		●		●	0.10-0.50	0.05-0.30
DNGA 150408-R2	15.50	12.70	4.76	0.80	2.1		●				0.05-0.50	0.05-0.20
DNGA 150412-F2	15.50	12.70	4.76	1.20	2.0			●	●		0.10-0.50	0.05-0.30
DNGA 150412-M2	15.50	12.70	4.76	1.20	2.0	●		●		●	0.10-0.50	0.05-0.30
DNGA 150412-R2	15.50	12.70	4.76	1.20	2.0		●				0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

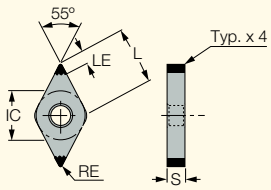
For tools, see pages: C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • DDJNR/L-JHP-MC (30)

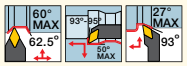
ISOTURN

DNGA-J(CBN)

55° Rhombic Multi-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	RE	LE	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGA 150408-R4-J	15.50	12.70	0.80	1.60	0.12-0.80	0.10-0.30

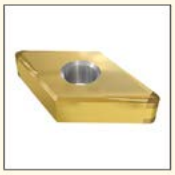
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

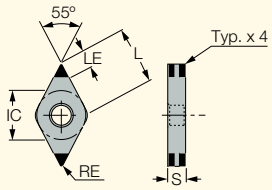
For tools, see pages: A/S-PDUNR/L (106) • C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • DDJNR/L-JHP-MC (30) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106)

ISOTURN

DNGG-M4HF/M4HM (CBN)

55° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGG 150408-M4HF	15.50	12.70	4.76	0.80	2.1	●	0.20-0.75	0.05-0.20
DNGG 150412-M4HM	15.50	12.70	4.76	1.20	2.0	●	0.50-1.00	0.05-0.20

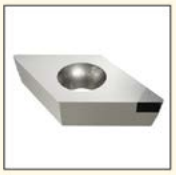
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

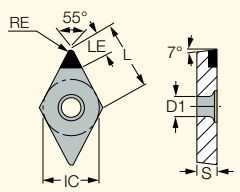
For tools, see pages: C#-DDJNR/L (31) • C#-PDJNR/L-JHP (29) • HSK A63WH-DDJNR/L (31) • HSK A63WH-DDNNN (31) • PDJNR/L (28) • PDJNR/L-JHP (29) • S-DDUNR/L (106) • DDJNR/L-JHP-MC (30)

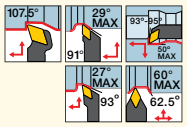
ISOTURN

DCMT (CBN)

55° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 11T304T	11.60	9.52	3.97	0.40	3.4	4.40	●	0.05-0.50	0.05-0.20
DCMT 11T308T	11.60	9.52	3.97	0.80	3.1	4.40	●	0.05-0.50	0.05-0.20

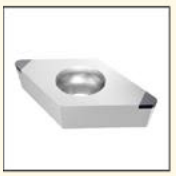
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

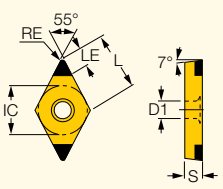
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

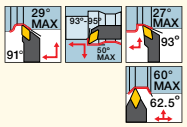
ISOTURN

DCGW/DCMW-2 (CBN)

55° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB05S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGW 070202-F2	7.70	6.35	2.38	0.20	2.5	2.80			●		●	0.05-0.50	0.05-0.30
DCGW 070204-F2	7.70	6.35	2.38	0.40	2.5	2.80			●		●	0.05-0.50	0.05-0.30
DCGW 11T302-F2	11.60	9.52	3.97	0.20	2.5	4.40			●		●	0.05-0.50	0.05-0.30
DCGW 11T304-F2	11.60	9.52	3.97	0.40	2.5	4.40			●		●	0.05-0.50	0.05-0.30
DCGW 11T308-F2	11.60	9.52	3.97	0.80	2.1	4.40			●		●	0.05-0.50	0.05-0.30
DCGW 070202-M2	7.70	6.35	2.38	0.20	2.5	2.80			●		●	0.05-0.50	0.05-0.30
DCGW 070204-M2	7.70	6.35	2.38	0.40	2.5	2.80	●		●		●	0.05-0.50	0.05-0.30
DCGW 070208-M2	7.70	6.35	2.38	0.80	2.5	2.80	●					0.05-0.50	0.05-0.30
DCGW 11T302-M2	11.60	9.52	3.97	0.20	2.1	4.40			●		●	0.05-0.50	0.05-0.30
DCMW 11T304-M2	11.60	9.52	3.97	0.40	2.5	4.40		●		●	●	0.05-0.50	0.05-0.12
DCGW 11T308-M2	11.60	9.52	3.97	0.80	2.1	4.40	●					0.05-0.50	0.05-0.30
DCMW 11T308-M2	11.60	9.52	3.97	0.80	2.1	4.40		●		●	●	0.05-0.50	0.05-0.15
DCGW 11T304T01315	11.60	9.52	3.97	0.40	2.5	4.40	●					0.05-0.50	0.05-0.30
DCGW 11T304-S2	11.60	9.52	3.97	0.40	2.5	4.40	●					0.05-0.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

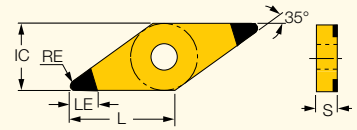
For tools, see pages: A/E/S-SDUCR/L (112) • AVC-SDUCR/L (95) • AVC-SDUCR/L-VH (98) • C#-SDJCR-JHP (59) • C#-SDJCR/L (59) • C#-SDNCN (64) • E-SDUCR/L-HEAD (113) • NQCH-SDACR/L-S-JHP (60) • NQCH-Y-SDJCR-S-JHP (58) • PDACR/L-JHP (62) • PDACR/L-S (57) • SDACR/L (60) • SDHCR/L (59) • SDJCR-PAD (59) • SDJCR/L (58) • SDNCN (64) • Y-SDJCR (58) • Y-SDJCR-JHP (58) • PDACR/L-JHP-MC (62)

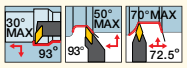
ISOTURN

VNGA-2 (CBN)

35° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGA 160404-F2	16.60	9.52	4.76	0.40	3.1			●		●	0.05-0.50	0.05-0.30
VNGA 160404-M2	16.60	9.52	4.76	0.40	3.1	●		●		●	0.05-0.50	0.05-0.30
VNGA 160408-F2	16.60	9.52	4.76	0.80	2.2			●		●	0.05-0.50	0.05-0.30
VNGA 160408-M2	16.60	9.52	4.76	0.80	2.2	●		●	●		0.05-0.50	0.05-0.30
VNGA 160408-R2	16.60	9.52	4.76	0.80	2.2		●				0.05-0.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

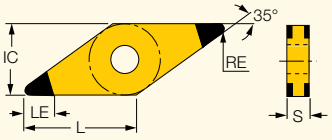
For tools, see pages: MVJNR/L (33) • MVVNN (35)

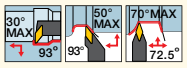
ISOTURN

VNGA-4 (CBN)

35° Rhombic Inserts with 4 CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGA 160408-M4	16.60	9.52	4.76	0.80	2.2	●	●	0.05-0.30	0.02-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

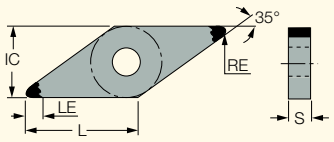
For tools, see pages: MVJNR/L (33) • MVVNN (35)

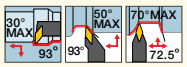
ISOTURN

VNGA-J(CBN)

35° Rhombic Inserts with 4 CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGA 160408-R4-J	16.60	9.53	4.76	0.80	1.70	0.12-0.80	0.10-0.30

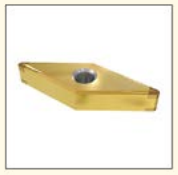
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

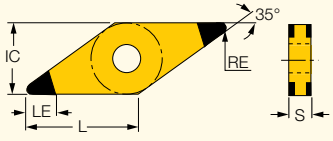
For tools, see pages: MVVNN (35)

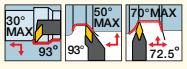
ISOTURN

VNGG-M4HM (CBN)

35° Rhombic Insert with 4 Chipbreaking CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGG 160408-M4HM	16.60	9.52	4.76	0.80	2.2	●	0.50-0.80	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

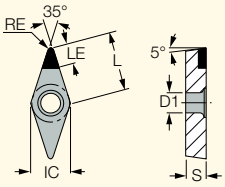
For tools, see pages: MVJNR/L (33) • MVVNN (35)

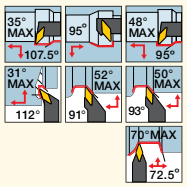
ISOTURN

VBMT (CBN)

Single Corner CBN Tipped Inserts with a Flat Rake for Machining Hardened Steel







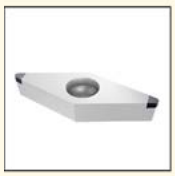
Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB55	IB50	Recommended Machining Data a_p (mm)	f (mm/rev)
VBMT 160404T	16.60	9.52	4.76	0.40	4.5	4.40	●	●	0.05-0.39	0.05-0.11

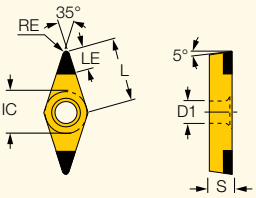
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

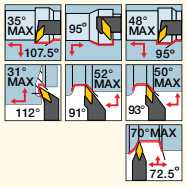
ISOTURN

VBGW/VBMW-2 (CBN)

35° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel







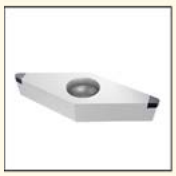
Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
VBGW 110304-F2	11.10	6.35	3.18	0.40	3.1	2.80		●		●	0.10-0.50	0.05-0.20
VBGW 160404-F2	16.60	9.52	4.76	0.40	3.1	4.40		●		●	0.10-0.50	0.05-0.20
VBGW 160408-F2	16.60	9.52	4.76	0.80	2.2	4.40		●		●	0.10-0.50	0.05-0.20
VBMW 110304-M2	11.10	6.35	3.18	0.40	3.1	2.80	●		●	●	0.05-0.50	0.05-0.20
VBGW 160404-M2	16.60	9.52	4.76	0.40	3.1	4.40				●	0.05-0.50	0.05-0.20
VBMW 160404-M2	16.60	9.52	4.76	0.40	3.1	4.40	●		●		0.05-0.50	0.05-0.20
VBGW 160408-M2	16.60	9.52	4.76	0.80	2.2	4.40				●	0.05-0.50	0.05-0.20
VBMW 160408-M2	16.60	9.52	4.76	0.80	2.2	4.40	●		●		0.05-0.39	0.05-0.11

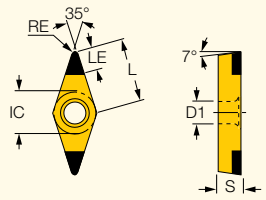
- For user guide and cutting speed recommendations, see pages 122-134, 236-248

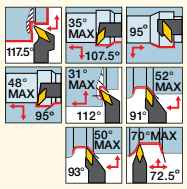
ISOTURN

VCGW-2 (CBN)

35° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB20HC	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGW 160404-F2	16.60	9.52	4.76	0.40	3.1	4.40	●	●	0.10-0.50	0.05-0.30
VCGW 160404-M2	16.60	9.52	4.76	0.40	3.1	4.40	●	●	0.10-0.50	0.05-0.30
VCGW 160408-F2	16.60	9.52	4.76	0.80	2.2	4.40	●	●	0.10-0.50	0.05-0.30
VCGW 160408-M2	16.60	9.52	4.76	0.80	2.2	4.40	●	●	0.10-0.50	0.05-0.30

- For user guide and cutting speed recommendations, see pages 122-134, 236-248

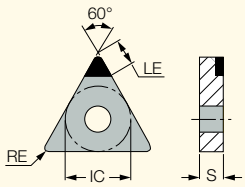
For tools, see pages: AVC-SVLCR/L-VH (98) • A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L (96) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454)

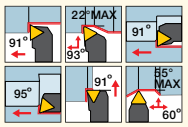
ISOTURN

TNMA (CBN)

Triangular Inserts with a Single Corner CBN Tip for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB85	IB55	IB50	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMA 160404T	16.50	9.52	4.76	0.40	3.9	●	●	●	0.05-0.50	0.05-0.25
TNMA 160408T	16.50	9.52	4.76	0.80	3.5		●		0.05-0.50	0.05-0.25

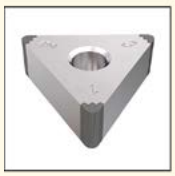
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

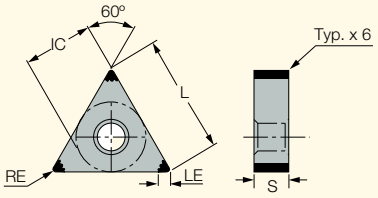
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

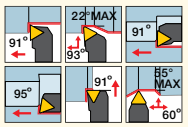
ISOTURN

TNGA-J(CBN)

Triangular Multi-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	RE	LE	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGA 160408-R6-J	16.50	9.52	0.80	1.60	0.12-0.80	0.10-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

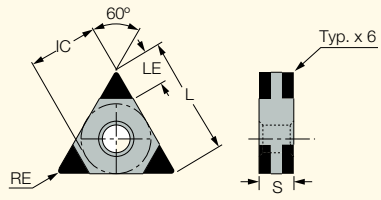
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

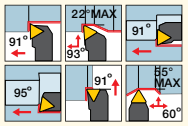
ISOTURN

TNGA-MC/M6 (CBN)

Triangular Multi-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB55	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGA 160404T-MC	16.50	9.52	4.76	0.40	3.2		●		0.05-0.50	0.05-0.20
TNGA 160408-M6	16.50	9.52	4.76	0.80	1.9	●		●	0.05-0.50	0.05-0.20
TNGA 160408T-MC	16.50	9.52	4.76	0.80	1.9		●		0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

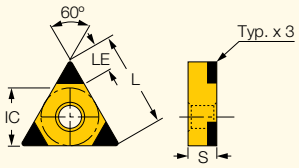
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

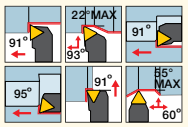
ISOTURN

TNGA-M3 (CBN)

Triangular Inserts with 3 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB20H	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGA 160404-M3	16.50	9.52	4.76	0.40	2.2	●		0.10-0.50	0.05-0.30
TNGA 160408-M3	16.50	9.52	4.76	0.80	1.9	●	●	0.05-0.50	0.05-0.30
TNGA 160412-M3	16.50	9.52	4.76	1.20	2.4	●		0.10-0.50	0.05-0.30

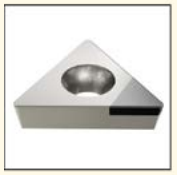
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

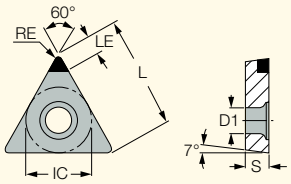
For tools, see pages: A-PTFNR/L-X/G (108) • DTGNR/L (44) • MTENN-W (38) • MTJNR/L-W (38) • PTFNR/L (37) • PTGNR/L (35) • PTGNR/L-X (36) • PTGNR/L-X-JHP (36) • PTGNR/L-X-JHP-MC (37) • S-MTLNR/L-W (109) • S-PTFNR/L (109)

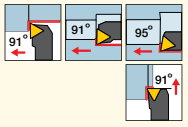
ISOTURN

TCMT (CBN)

Triangular Positive Inserts with a Single CBN Flat Rake Tip for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB55	IB50	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204T	11.00	6.35	2.38	0.40	3.5	2.85	●	●	0.05-0.50	0.05-0.13

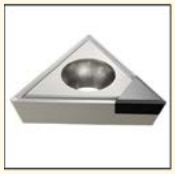
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

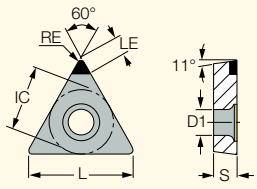
For tools, see pages: E-STFCR-HEAD (115) • S-STFCR/L (115) • S-STLCR/L (115) • STFCR/L (70) • STGCR/L (70)

ISOTURN

TPGX (CBN)

Triangular Inserts with CBN Single Top Corner Brazed Tip, 11° Clearance for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB90	IB50	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGX 090202T	9.52	5.56	2.38	0.20	2.5	2.50	●	●	0.05-0.50	0.03-0.20
TPGX 090204T	9.52	5.56	2.38	0.40	2.6	2.50	●	●	0.05-0.50	0.03-0.20
TPGX 110302T	11.00	6.35	3.18	0.20	3.3	3.50	●	●	0.05-0.50	0.03-0.20
TPGX 110304T	11.00	6.35	3.18	0.40	3.0	3.50	●	●	0.05-0.50	0.03-0.20

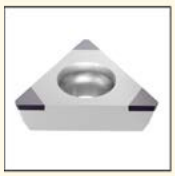
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

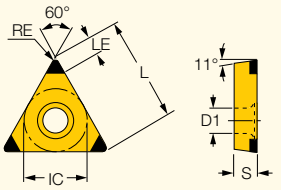
For tools, see pages: A/E-STFPR-X (117) • MG STFPR-X (117)

ISOTURN

TPGW-M3 (CBN)

Triangular Positive Inserts with 3 CBN Tips for Machining Sintered Metals and High Temperature Alloys





Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB05S	IB10HC	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGW 110204-M3	11.00	6.35	2.38	0.40	2.2	2.80	●		0.05-0.50	0.05-0.30
TPGW 110208-M3	11.00	6.35	2.38	0.80	2.2	2.80	●		0.05-0.50	0.05-0.30
TPGW 110304-M3	11.00	6.35	3.18	0.40	2.2	3.40	●	●	0.05-0.50	0.05-0.30
TPGW 110308-M3	11.00	6.35	3.18	0.80	2.1	3.40	●		0.05-0.50	0.05-0.30

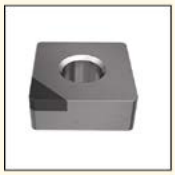
• For user guide and cutting speed recommendations, see pages 122-134, 236-248

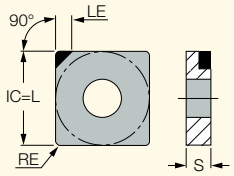
For tools, see pages: A/E-STFPR-X (117)

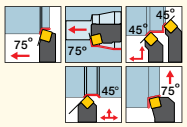
ISOTURN

SNMA (CBN)

Square CBN Tipped Inserts with a Single Flat Rake for Machining Cast Iron and Hardened Steel







Designation	Dimensions IC	S	RE	LE	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
SNMA 120408T	12.70	4.76	0.80	4.5	●	0.05-0.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

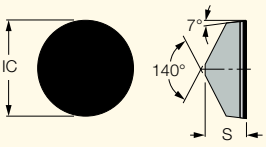
For tools, see pages: C#-MULNR/L-MW (16) • DSBNR/L (40) • DSDNN (39) • DSKNR/L (39) • DSSNR/L (39) • HSK A63WH-MULNR-J12MWX2 (17) • HSK A63WH-MULNR/L-MW (16) • HSK A63WH-MUMNN-MW (17) • MULNR/L-12MW (15) • PSBNR/L (43) • PSDNN (41) • PSDNN-JHP (41) • PSKNR/L (41) • PSSNR/L (42) • PSSNR/L-JHP (42)

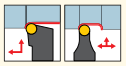
ISOTURN

RCGX (CBN)

CBN Round Inserts with a Flat Rake for Machining Cast Iron and Hardened Steel



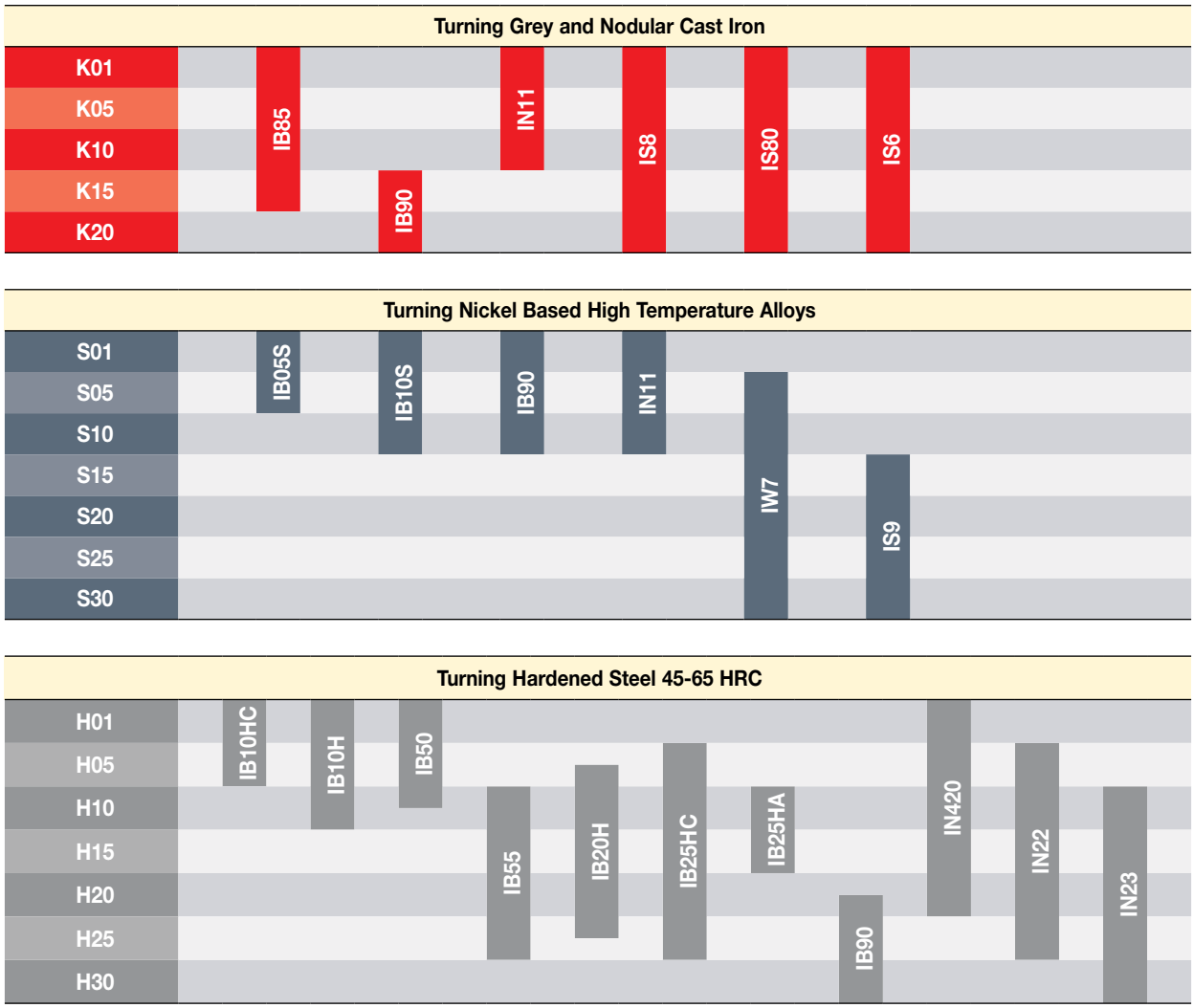




Designation	Dimensions IC	S	IB90	Recommended Machining Data a_p (mm)	f (mm/rev)
RCGX 060300T	6.35	3.18	●	0.05-0.50	0.05-0.25
RCGX 090300T	9.52	3.18	●	0.05-0.50	0.05-0.25
RCGX 120400T	12.70	4.76	●	0.05-0.50	0.05-0.25

• For user guide and cutting speed recommendations, see pages 122-134, 236-248

Application Range of Ceramic Inserts According to ISO Standard

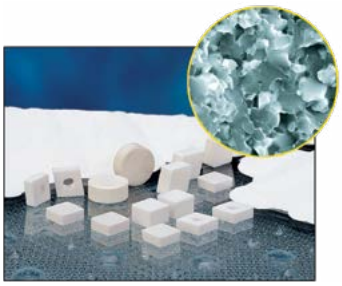


Ceramic Cutting Tools

IN11 Al_2O_3

High Speed Finishing on Cast Iron and Steel

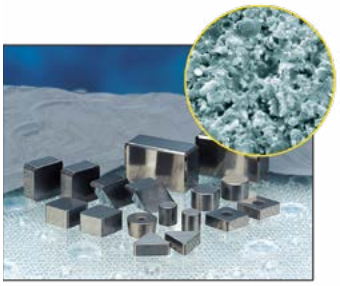
- Improves toughness and wear resistance
- ZrO2 additive
- Good for high speed turning on steel and cast iron



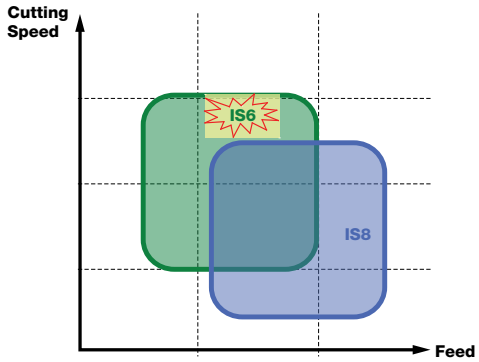
IN22 Al_2O_3-TiCN

Turning of Hardened Steel and Difficult-to-Cut Material

- High speed machining of steel, tool steel, hardened steel, chilled cast iron, high chromium steel, etc.
- Suitable for light roughing-to-finishing of cast iron



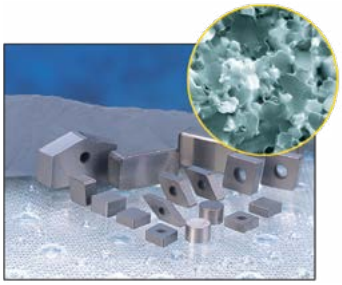
Application Range for Machining Cast Iron



IN23 Al_2O_3-TiC

Medium-to-Finishing Cutting on Cast Iron

- Light interrupted turning on grey cast iron and nodular cast iron
- Milling with finishing conditions on grey cast iron



IS6 SiAlON

Features

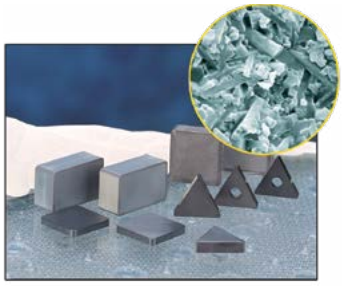
- High speed roughing and finish machining on cast iron
- Higher cutting speeds, when compared to SiN based ceramic grades
- Can be used for both wet and dry machining
- Suitable for turning automotive parts such as brake drums, brake disks, etc.
- High productivity in rough turning on steel mill rolls composed of high-Cr steel, HSS (High Speed Steel) and adamite



IS8 Si3N4

Turning and Milling of Grey Cast Iron

- Roughing and interrupted cutting of cast iron
- Machining on nodular cast iron and superalloy



Ceramic Cutting Tools

IS80 CVD Coated Si3N4

High Speed Rough Turning on Grey Cast Iron

- Multi-layered coating on IS8 matrix
- Roughing and interrupted cutting of cast iron

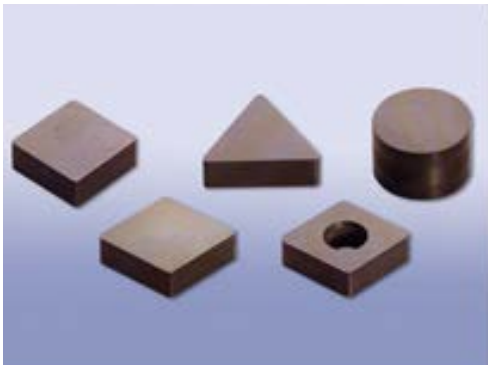


* Coolant is not recommended for interrupted cutting

IS9 Si3N4

Turning Nickel Based Alloys

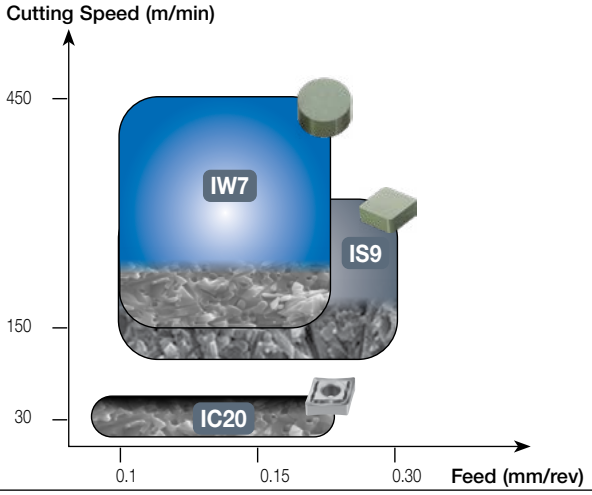
- Very tough Si3N4 ceramic grade with high cutting edge stability
- Machining on nickel based high temprature alloys, in roughing to finishing applications
- Honing is the standard edge preparation



IW7 $AL2O_3$+Sic Whiskers

Main Advantages

- High hardness (HV 2,100)
- High fracture toughness due to SiC (silicon carbide) whisker - reinforced ceramics
- Excellent thermal shock resistance, which enables using coolant and interrupted cut machining
- Excellent for roughing and semi-finishing operations at 8-10 times faster cutting speeds when compared with carbide grades
- Good oxidation resistance due to its alumina substrate



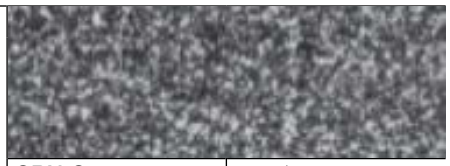
ISO-H Hard Materials Turning

IB10H (fine grain 0.5µm)

Uncoated, fine grain PCBN grade.

Application
Used at medium cutting speed, continuous or light interrupted cut on hardened steels. Provides excellent surface finish. Workpiece hardness range: 50-65 HRC.





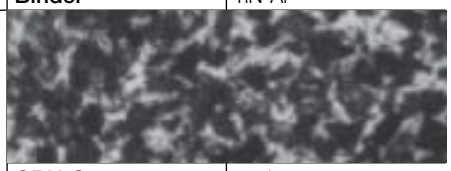
CBN Content	53.5%
Binder	TiN-Al

IB20H

Uncoated, general purpose PCBN grade. Good balance between wear and impact resistance. Composed of both fine and medium CBN grain sizes.

Application
Continuous to medium interrupted cut on hardened steel.





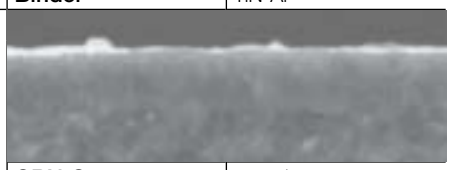
CBN Content	65%
Binder	TiN-Al

IB10HC

TiN coated, PCBN grade with excellent wear resistance. Composed of very fine grain CBN.

Application
Medium to high speed, continuous machining on hardened steel.





CBN Content	53.5%
Binder	TiN-Al

IB25HC

Ti (C, N, O) coated grade, composed of medium CBN grain.

Application
High speed, continuous to light interrupted machining.





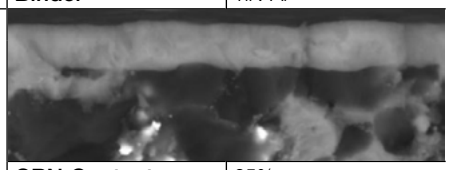
CBN Content	75%
Binder	TiN-Al

IB25HA

Ti (C,N,O) coated grade composed of medium CBN grain.

Application
General purpose machining on hardened steel.





CBN Content	65%
Binder	TiN-Al

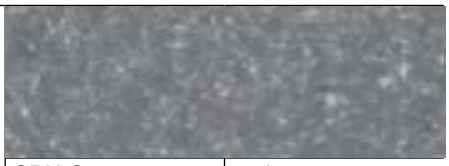
ISO-S

IB05S

Super fine, CBN grain with a very high CBN content.

Application
Turning on ferrous sintered metals.





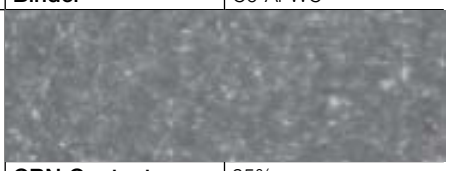
CBN Content	95%
Binder	Co-Al-WC

IB10S

A very high CBN content grade, featuring high hardness.

Application
Turning on ferrous sintered metals such as valve seats and Ti alloys components.



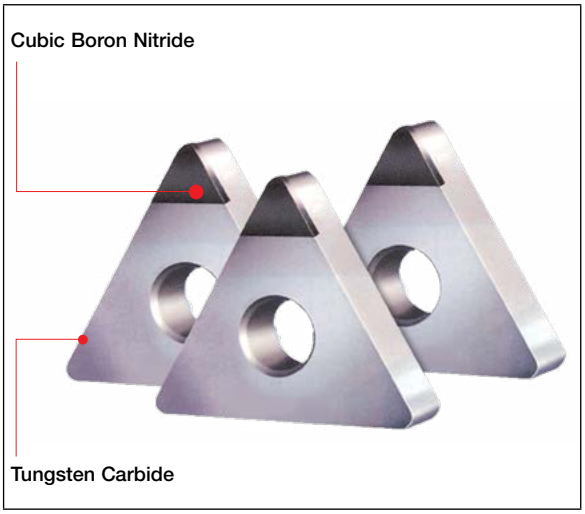


CBN Content	95%
Binder	Co-Al-WC

CBN Inserts

Features

- Suitable for difficult-to-cut materials such as sintered metal, hardened steel and super alloys.
- Saves machining costs and shortens the work cycle by enabling machining of hardened steel.
- Provides an excellent surface finish.
- Significant improvement in productivity by high speed machining on hardened steel.
- Capable of high speed cutting of cast iron.

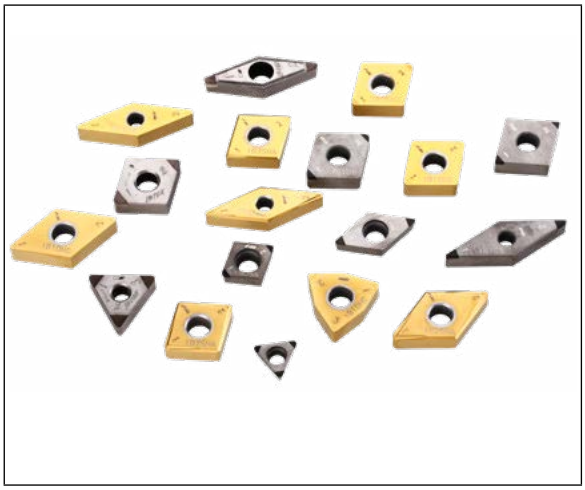


ISCAR's CBN upgrade supports the worldwide increase in demand for CBN tipped inserts.

ISCAR features 7 CBN (Cubic Boron Nitride) grades for two main workpiece material groups:

For hardened steel:
ISO-H: IB10H, IB20H, IB10HC, IB25HC, IB25HA

For high temperature alloys:
ISO-S: IB05S, IB10S



CBN Grades

Grades & Applications for Hardened Steel

Material			New Grade	Composition (% CBN)	Features and Applications
ISO-H UNCOATED	Hardened Steels	Wear Resistance ↑ / Toughness ↓	IB10H	53.5	Excellent surface finish. Super fine grain. Continuous cut.
			IB20H	65	Composed of both fine and medium CBN grains. General-purpose grade for continuous to light interrupted machining.
			IB50	50	Finishing on hardened steel (45-65 HRC) and nodular cast iron. Continuous cutting.
			IB55	60	Semi-finishing on hardened steel (45-65 HRC) and nodular cast iron. Interrupted cutting.
ISO-H COATED		Wear Resistance ↑ / Toughness ↓	IB10HC	53.5	TiN coated grade very fine CBN grain. High speed continuous machining.
			IB25HC	75	Ti (C, N, O) coated CBN grade. High speed continuous to interrupted machining.
			IB25HA	65	Ti (C, N) coated CBN grade. High toughness. General purpose coated grade. Available with two types of chipbreakers (HF, HM).

Grades & Applications for Cast Iron

Material			New Grade	Composition (% CBN)	Features and Applications
ISO-K	Cast Iron & Hard Metal	Wear Resistance ↑ / Toughness ↓	IB85	85	Hardened steel and cast iron (>45 HRC). Grey cast iron and nodular cast irons. Powdered metal/sintered iron. Super alloys/heat resistant alloys. Sintered tungsten carbide >17% Co. High speed cutting of cast iron.
			IB90	90	High speed cutting on cast iron, cutting cemented tungsten carbide, sintered metal and super alloy.

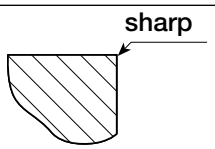
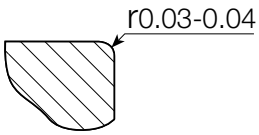
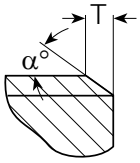
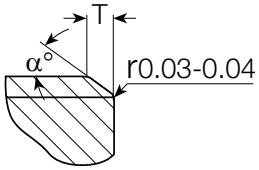
Grades & Applications for High Temperature Alloys

Material			New Grade	Composition (% CBN)	Features and Applications
ISO-S	Exotic Materials	Wear Resistance ↑ / Toughness ↓	IB05S	95	Super fine grain CBN for machining ferrous sintered metals.
			IB10S	95	For machining valve seats, sintered metals and Ti alloys.
			IB90	90	Cutting cemented tungsten carbide, sintered metal and super alloy.

Edge Preparation and Recommended Applications

T-Land Sizes for Standard Items

Grade	T (mm)	a°
IN22	0.20	25°
IN23	0.20	25°
IS80	0.20	25°
IS8	0.20	25°
IS9	0.10	25°
IN11	0.20	20°
IB50	0.14	20°
IB55	0.14	20°
IB85	0.14	20°
IB90	0.14	20°
IS6	0.20	25°
IW7	0.10	25°
IN420	0.2	25°

F		For finishing and super finishing
E		For semi-finishing and finishing f < 0.2 mm/rev
T		For semi-roughing and roughing f > 0.2 mm/rev
S		For heavy roughing and interrupted cutting

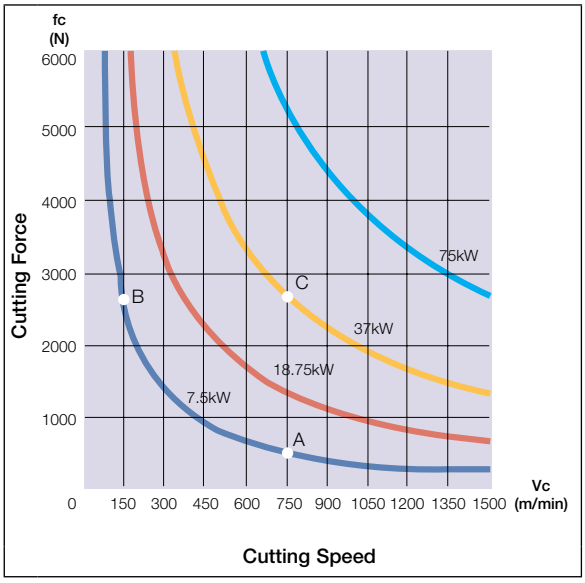
Silicon Nitride for Cast Iron and High Temperature Alloys

What is ISCANITE?
ISCANITE is a cutting tool material containing over 90 percent silicon nitride. ISCANITE is produced by unique hot pressing methods to achieve full density, and provides superior toughness along with high thermal-shock resistance. These characteristics make ISCANITE an ideal cutting tool material with impact resistance near that of coated carbides, and the heat and wear resistance of aluminum-oxide ceramics.

Which material can ISCANITE machine?
ISCANITE is primarily used on cast iron and high temperature alloys, brass and composites. Steel is the only material usually avoided because of various chemical incompatibilities.

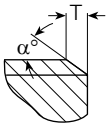
ISCANITE Benefits
ISCANITE will increase your productivity, reduce your machining costs and can drastically reduce tool forces. ISCANITE increases productivity through additional metal removal rates and can fully utilize the machine's potential. Machining costs are reduced with increased tool life, along with less downtime for indexing, gauging, and adjustments.

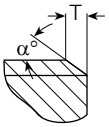
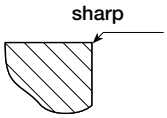
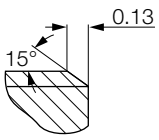
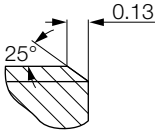
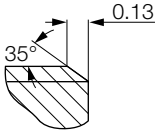
Cutting Speed and Cutting Force
It is preferable to machine at higher cutting speeds and lower cutting forces (Point A is preferred over Point B.) In this case, pressure is reduced on the workpiece and any tendency of the workpiece to move or vibrate. If the available machine power is higher, or the machine can be stepped up, the use higher cutting speeds of 750 m/min is possible, with the same cutting force as at Point B. (See Point C.) The positive influence of the cutting speed and feed on machining conditions: higher cutting speeds are recommended and possible for silicon nitride inserts.



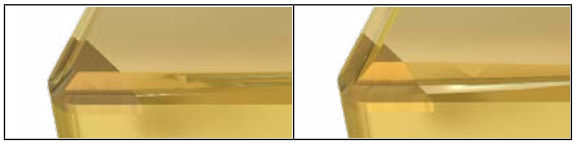
New Edge Preparations

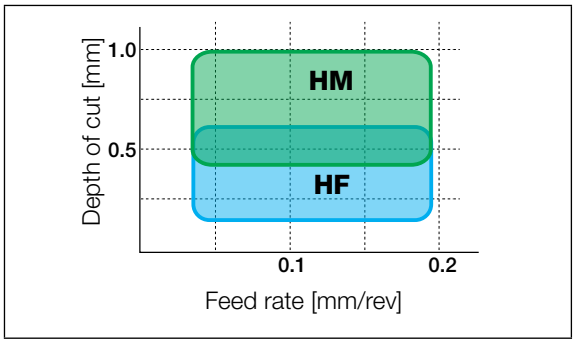
For the following grades: IB10HC, IB10H, IB20H, IB25HC, IB25HA, IB05S, IB10S.

	Existing	
T		For continuous and interrupted cut

	New Edge Preparation Program	
T		For continuous and interrupted cut
S		For high surface finish
F		For finishing at continuous cut
M		For medium, continuous up to light interrupted cut
R		For light to heavy interrupted cut-rough machining

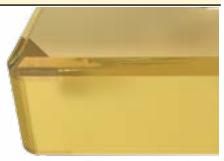
Chip Breaking Area for Hardened Steel



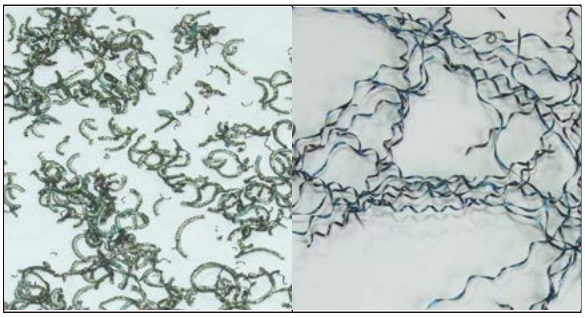


New Innovative Chipbreakers for Hardened Steel

CBN inserts with two types of chipbreakers: HF and HM

Existing Method	New Chipbreakers
 No chip control suitable for long linear cuts	**HF Type** Excellent chip control at small depths of cut  **HM Type** Used for large depth of cut 

When turning hard materials, long and tangled chips are produced. The HF or HM chipformers provide excellent chip control at various depths of cut.

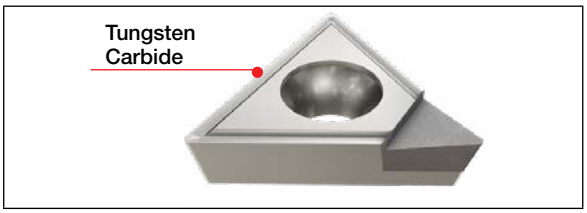


PCD Inserts

Features

- Excellent surface finishing on aluminum, nonferrous metals and non-metal materials.
- Longer tool life in high speed machining, due to high wear resistance and excellent thermal conductivity.

Note: Not for use on steel or cast iron



Grades and Application

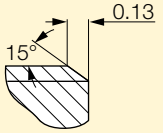
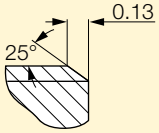
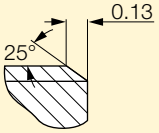
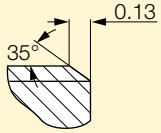
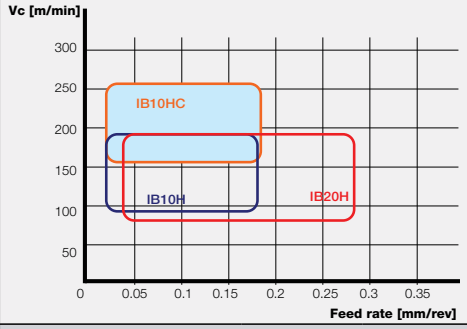
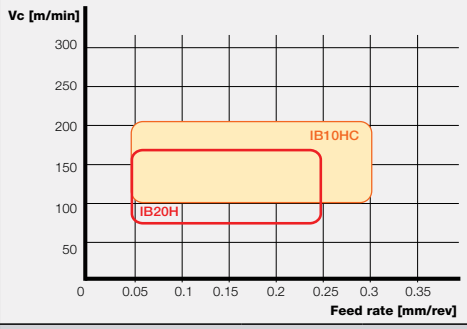
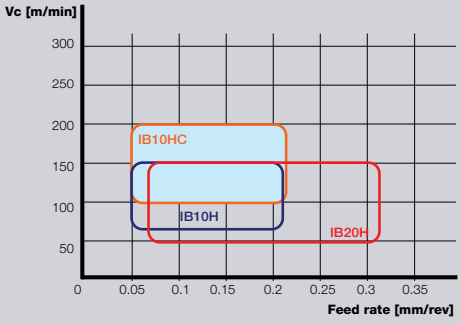
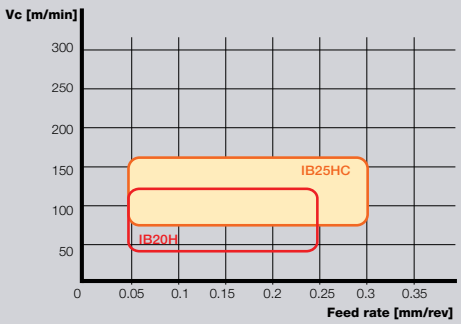
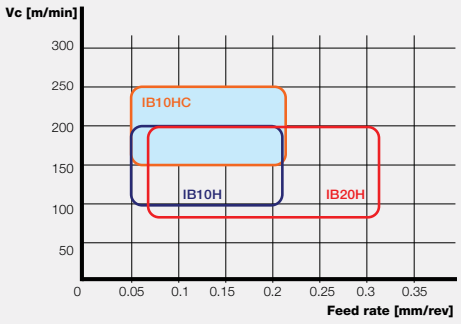
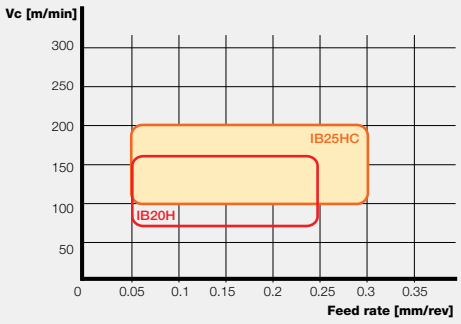
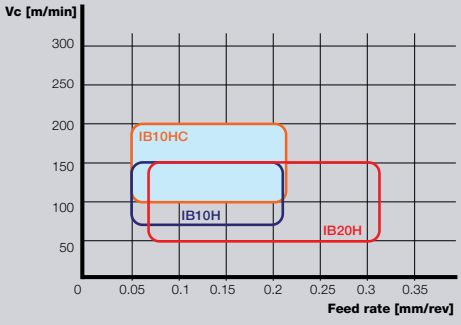
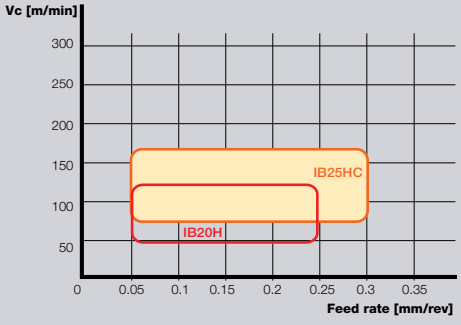
Binder	Diamond Size	Grade	Feature and Application
High Cobalt	8-9 µm	ID5	Suitable for Al alloy (Si < 12%), Cu alloy General purpose cutting of nonferrous metal

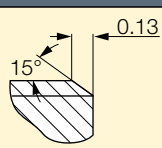
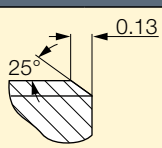
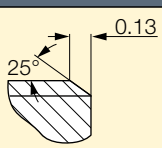
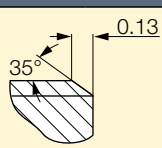
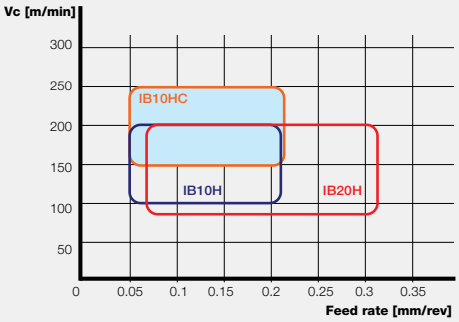
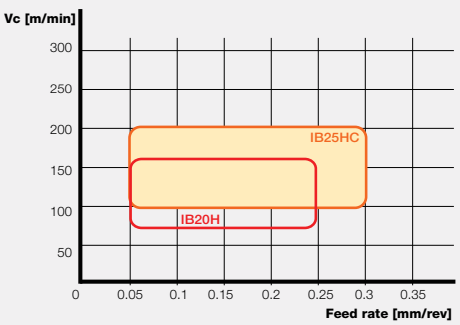
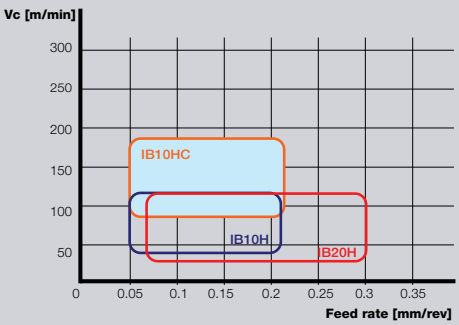
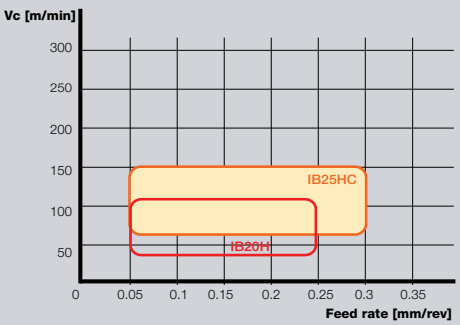
Recommended Cutting Condition Turning

Workpiece	Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)	Grades
Al alloy (4-9% Si)	800-2500	0.1-0.3		ID5
Al alloy (9-14% Si)	600-1280	0.1-0.3	0.05-3.0	ID5
Cu alloy	600-1000	0.05-0.2	0.05-3.0	ID5

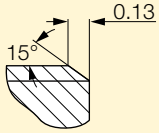
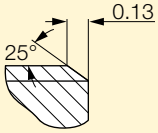
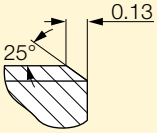
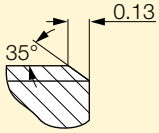
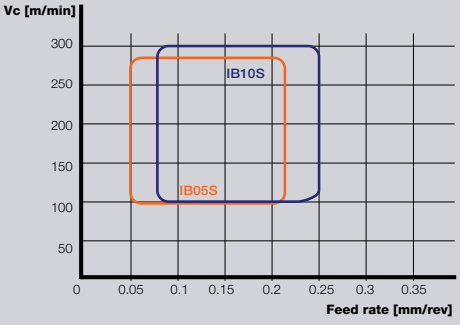
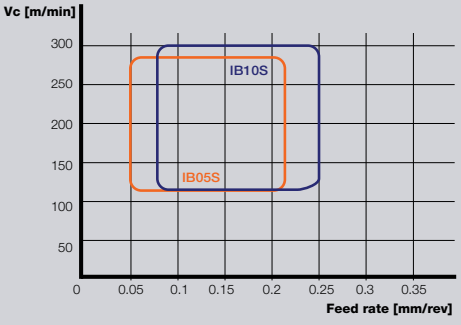
Cutting Parameters and Application Recommendations

Machining Areas of ISO-H Grades

	Continuous Cut		Interrupted Cut	
	F	M	M	R
Recommended Edge Preparation				
Case Hardenend Steel (55-62 HRC)				
Bearing Steel (58-65 HRC)				
High Tensile Steel (45-56 HRC)				
Cold Work Tool Steel (55-64 HRC)				

	Continuous Cut		Interrupted Cut	
	F	M	M	R
Recommended Edge Preparation				
Hot Work Tool Steel (45-56 HRC)				
High Speed Steel (58-66 HRC)				

Machining Areas of ISO-S Grades

	Continuous Cut		Interrupted Cut	
	F	M	M	R
Recommended Edge Preparation				
Sintered Metal (45-68 HRC)				

Machining Data and Speed Recommendations for Turning

ISO	Material		Condition	Tensile Strength Rm [N/mm²=MPa]	Hardness HB	Material Group No.
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quench and temper	850	250	3
		>= 0.55 %C	Annealed	750	220	4
			Quench and temper	1000	300	5
	Low alloy steel and cast steel (less than 5% all element)		Annealed	600	200	6
				930	275	7
			Quench and tempered	1000	300	8
				1200	350	9
	High alloyed steel, cast steel and tool steel		Annealed	680	200	10
			Quench and temper	1100	325	11
			Ferritic/martensitic	680	200	12
			Martensitic	820	240	13

ISO	Material	Condition	Tensile Strength Rm [N/mm²=MPa]	Hardness HB	Material No.
M	Stainless steel	Austenitic	600	180	14

ISO	Material	Condition	Tensile Strength Rm [N/mm²=MPa]	Hardness HB	Material No.
K	Grey cast iron (GG)	Pearlitic/ferritic		180	15
		Pearlitic/martensitic		260	16
	Ductile cast iron (nodular) (GGG)	Ferritic		160	17
		Pearlitic		250	18
	Malleable cast iron	Ferritic		130	19
		Pearlitic		230	20

ISO	Material		Condition	Tensile Strength Rm [N/mm²=MPa]	Hardness HB	Material No.
N	Aluminum-wrought alloys		Not cureable		60	21
			cured		100	22
	Aluminum-cast alloys	<=12% Si	Not cureable		75	23
			cured		90	24
		>12% Si	High temp.		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics			29
			hard rubber			30

ISO	Material		Condition	Tensile Strength Rm [N/mm²=MPa]	Hardness HB	Material No.
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
	Super alloys	Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium Ti alloys			Rm 400		36
			Alpha+beta alloys cured	Rm 1050		37

ISO	Material	Condition	Tensile Strength Rm [N/mm²=MPa]	Hardness HB	Material
H	Hardened steel	Hardened		55 HRC	38
		Hardened		60 HRC	39
	Chilled cast iron	Cast		400	40
	Cast iron	Hardened		55 HRC	41

Cermet		Cermet + PVD		Carbide + PVD	Carbide + CVD				
IC20N	IC30N	IC520N	IC530N	IC3028/830	IC8250	IC8150	IC5005/428	IC807/907	IC8350
250-400	230-380	250-420	230-400	120-200	230-380	280-420	300-450	140-230	125-210
220-350	200-330	220-380	200-350	100-170	200-340	240-380	260-400	120-205	110-185
180-320	160-300	180-350	160-320	80-150	170-300	200-340	220-360	100-180	95-165
210-340	190-320	210-370	190-340	90-160	190-320	220-360	240-380	115-190	105-175
160-300	140-280	160-330	140-300	80-130	160-280	180-320	200-340	95-170	90-155
180-320	160-300	180-350	160-320	80-150	170-300	200-340	220-360	100-180	95-165
170-300	150-280	170-330	150-300	70-130	160-280	200-320	220-340	95-170	90-155
160-250	140-230	160-280	140-250	60-120	140-250	190-300	210-320	85-150	75-135
150-220	130-200	150-250	130-230	50-100	120-220	180-280	200-300	70-130	65-120
180-300	160-280	180-330	160-300	80-130	170-280	200-320	220-340	100-170	95-155
150-220	130-200	150-250	130-230	50-100	120-220	180-280	200-300	70-30	65-120
210-340	190-320	210-370	190-340	90-160	190-320	220-360	240-380		
180-320	160-300	180-350	160-320	80-150	170-300	240-380	260-400		

Cermet + PVD		Carbide + PVD			Carbide + CVD	
IC520N	IC530N	IC807/907	IC808/908	IC3028/830	IC6015	IC6025
150-280	140-250	100-200	90-200	50-120	140-250	120-180

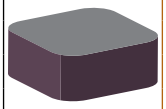
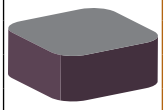
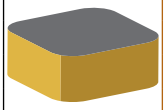
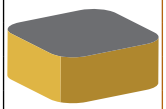
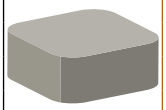
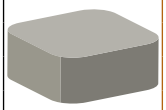
Carbide + CVD			Ceramics				Ceramics + CVD	CBN	
IC5005/ 428	IC5010/ 4028	IC8150	IN11	IN23	IS6	IS8	IS80	IB90/85	IB50
160-300	160-300	140-280		150-400	500-900	80-300			200-400
140-280	140-280	120-240		100-350	500-900	50-250			150-350
350-700	300-600	250-350	300-800	300-600	500-1200	300-1000	400-1000	500-12000	
300-600	250-500	200-300	200-600	200-500	500-1200	250-800	300-800	400-1000	
200-350	250-400	180-320							350-500
180-280	200-320	150-250							150-400

Carbide	PCD
IC20	ID5
1000-2500	600-2500
300-1000	600-2500
300-1000	600-2500
200-600	600-2500
250-600	600-1000
180-400	600-800
150-300	600-800

Carbide		Carbide + PVD				Whiskers	CBN			
IC07	IC20	IC804	IC806	IC907	IC3028	IW7	IB05S	IB10S	IB90	IB85
40-55	35-45			50-80	30-40					
30-45	25-35			40-65	20-30					
30-40	25-30	65 - 105	50-80	45-60	20-25	150-450				
20-30	15-25	50 - 90	40-70	35-45	10-20		100-250	100-250	100-200	120-240
25-35	20-30	40 - 85	30-65	30-50	15-25					
100-160	80-160			150-200	130-160					
50-60	50-60			50-100	30-60					

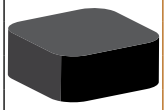
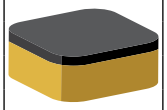
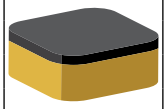
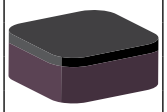
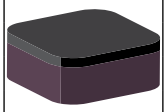
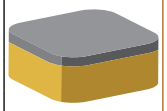
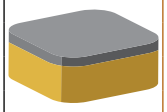
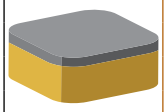
Ceramics				CBN							Carbide + PVD
IN22	IN420	IN23	IS8	IB10HC	IB10H	IB50/55	IB20H	IB25HC	IB25HA	IB85/90	IC907
50-150	60 - 170	40-120		150-350	100-220	100-140	100-220	100-220	90-200	80-140	40-100
50-120	60 - 140	40-100		150-350	100-220	80-120	100-220	100-220	90-200	60-120	30-60
30-200	30 - 230									70-150	
		80-120	60-100							100-140	

ISCAR Turning Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
PVD COATED	IC520N	P05-P25 M05-M15	A hard cermet grade with PVD coating. Suitable for finishing operations on steels and stainless steel at high cutting speeds and low feeds. Features excellent surface finish, very good wear resistance and prevents built-up edge.	TiN TiCN Base		
	IC530N	P25-P35 M20-M30	Tough cermet grade with PVD coating. Recommended for Semi-Finishing and finishing operations on steels at medium to high cutting speeds and low feeds. Features excellent surface finish, high wear resistance, plastic deformation durability and prevents built-up edge.	TiN TiCN Base		
	IC804	S05-S15	A very hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for semi-finishing and finishing operations under stable conditions on high temperature alloys and Titanium alloys moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base		
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base		
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base		
	IC830	P30-P45 M25-M40 S20-S30	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base		
	IC907	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiAlN Base		
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base		

* For coated grades

ISCAR Turning Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
CVD COATED	IC428	K05-K20 H15-H25	A hard substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds.	Al_2O_3 TiC Base		
	IC5005	P05-P15 K05-K15 H15-H25	A very hard substrate with MTCVD coating with a special SUMOTEC surface treatment. Suitable for machining gray and nodular cast iron at high cutting speeds under stable conditions.	TiN Al_2O_3 TiCN Base		
	IC5010	K10-K20	A hard substrate with MTCVD coating with a special SUMOTEC surface treatment. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds, provides very good resistance to chipping.	TiN Al_2O_3 TiCN Base		
	IC6015	M05-M25 S10-S20	A hard substrate with cobalt enriched outer layer and MTCVD coating and a special SUMOTEC surface treatment. Suitable for finishing and medium turning of stainless steel at high cutting speeds. Features long tool life and high wear resistance.	TiN Al_2O_3 TiCN Base		
	IC6025	M15-M35 S20-S30	A very tough substrate with MTCVD coating with a special SUMOTEC surface treatment. Recommended for machining stainless steel at moderate cutting speeds and medium to high feeds. Features very high toughness with excellent results in heavy machining operations, unstable conditions, and interrupted cut.	TiN Al_2O_3 TiCN Base		
	IC8150	P10-P25 M10-M20 K10-K25	A hard substrate with a cobalt enriched layer, MTCVD coating with a special SUMOTEC surface treatment. Recommended for high speed machining of steels, alloy steels and martensitic stainless steel with moderate feeds under stable conditions. Features excellent thermal stability, resistance to wear and plastic deformation durability.	TiN Al_2O_3 TiCN Base		
	IC8250	P15-P35 M15-M25	A tough substrate with a cobalt enriched layer and MTCVD coating with a special SUMOTEC surface treatment. Recommended for general use machining of steels, alloy steels and martensitic stainless steel in a wide range of conditions. Features high toughness and good wear resistance.	TiN Al_2O_3 TiCN Base		
	IC8350	P2O-P45 M20-M30	A very tough substrate with cobalt enriched layer and MTCVD coating and a special SUMOTEC surface treatment. Suitable for machining steels and alloy steels at low to medium cutting speeds and medium to high feeds. Features very high toughness with excellent results in heavy machining, unstable conditions, and interrupted cuts.	TiN Al_2O_3 TiCN Base		

* For coated grades

ISCAR Turning Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
UNCOATED	IC4	N01-N15 S05-S15	A very hard-uncoated carbide grade, suitable for machining aluminum alloys, aluminum alloys with high silicon content and other non-ferrous materials at high cutting speeds.	Base		
	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base		
	IC20	K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base		
CERMET	IC20N	P05-P25 M05-M15	A very hard cermet grade for turning and grooving. Recommended for finishing operations on steels and alloy steels at high cutting speeds and low feeds. Features excellent surface finish, high wear resistance, plastic deformation durability and prevents built-up edge.	Base		
	IC30N	P10-P30 M10-M20	A hard cermet grade, suitable for machining, steels and stainless steel at medium to high cutting speeds and low feeds. Features excellent surface finish, very good wear resistance and prevents built-up edge.	Base		

* For coated grades

Advanced Cutting Materials

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
CBN	IB05H	H05-H10	A high speed grade for continuous machining. The binding force between the particles is now improved by use of coarse PCBN grains which provide excellent wear resistance results.	Base		
	IB05S	S05	A high speed grade for continuous machining. The binding force between the particles is now improved by use of coarse PCBN grains which provide excellent wear resistance results.	Base		
	IB10H	H10	Extra fine PCBN grain size. Suitable for high speed machining of hardened steels (45-65 HRC) under stable conditions.	Base		
	IB10S	S10	Very hard PCBN grade with fine grain size. Suitable for machining auto engine valve seats, sintered metals and Titanium alloys.	Base		
	IB10HC	H10	Extra fine PCBN grain size with PVD coating. Suitable for high speed machining of hardened steels (45-65 HRC) under stable conditions.	TiN Base		
	IB20H	H20	A combination of coarse and fine PCBN grain. Suitable for general and interrupted cutting of hardened steels.	Base		
	IB20HC	H15-H25	Coated PCBN grade for hardened steel turning. High chipping resistance & extremely tough substrate for all-round use.	TiN Base		
	IB25HA	H25	A tough PCBN grade with PVD coating suitable for general cutting of hardened steels.	TiN Base		
	IB25HC	H25	Medium PCBN grain size with PVD coating suitable for light and medium interrupted cutting of hardened steels.	TiN Base		

* For coated grades

Advanced Cutting Materials

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
CBN	IB50	K01-K10 H01-H10	A PCBN grade, suitable for finish turning and grooving operations on hardened steels 45-65 HRC and nodular cast iron in continuous cutting.	Base		
CBN	IB55	K05-K15 H10-H25	A PCBN grade, suitable for finishing operations on hardened steels 45-65 HRC and nodular cast iron under continuous conditions and light interrupted cuts.	Base		
CBN	IB85	K01-K15 S05-S10 H05-H10	A PCBN grade, suitable for high speed machining of cast iron, cemented tungsten carbide, heavy alloys and sintered metals. Excellent for interrupted cutting of hardened steels.	Base		
CBN	IB90	K05-K15 S01-S10 H05-H10	A PCBN grade, suitable for high speed machining of cast iron, cemented tungsten carbide, heavy alloys and sintered metals. Excellent for interrupted cutting of hardened steels.	Base		
PCD	ID5	N01-N10	A PCD brazed tip, suitable for machining aluminum alloys (Si < 12%) and other non-ferrous materials. Features very high wear resistance with high toughness. Suitable for finishing operations and can be used for semi roughning operations and interrupted cut.	Base		
CERAMICS	IN22	K05-K10 H05-H25	Black ceramic (Al_2O_3 + TiCN), suitable for semi-roughing and finishing operations at relatively high cutting speeds of hardened steels and chilled cast iron.	Base		
CERAMICS	IN23	K05-K15 H10-H30	Black ceramic (Al_2O_3 + TiCN), suitable for moderate machining conditions and finishing operations of nodular and gray cast iron.	Base		
CERAMICS	IN110	K01-K10 S01-S10	White ceramic. Features high toughness and wear resistance. Used for high speed turning of cast iron.	Base		
CERAMICS	IN420	K05-K10 H05-H25	Black ceramic (Al_2O_3 + TiCN) with PVD coating suitable for semi-roughing and finishing operations at relatively high cutting speeds ofhardened steels and chilled cast iron.	TiN Base		

* For coated grades

Advanced Cutting Materials

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
CERAMICS	IS6	K01-K10	SiAlON based ceramic grade for high speed machining of cast iron. Used for roughing and finishing under both wet and dry conditions of automotive parts like brake drum, brake discs and more. Provides high productivity also in rough turning of mill rolls made of high-chromium steel and HSS.	Base		
	IS25	S10-S20	Reinforced SiAlON composite grade, features high hardness, suitable for machining high temperature alloys such as Inconel, Waspaloy and Rene under continuous conditions.	Base		
	IS35	S15-S25	Reinforced SiAlON composite grade, features high hardness with excellent toughness. Suitable for machining high temperature alloys such as Inconel, Waspaloy and Rene under continuous and light interrupted cutting conditions.	Base		
	IS80	K01-K20	A silicon nitride (Si_3N_4) ceramic grade, with CVD coating suitable for turning of grey and nodular cast iron at high cutting speeds in roughing and finishing operations. Features high wear resistance and good toughness.	TiN Base		
	IW7	S20-S30 H05-H25	Whisker reinforced ceramic grade for roughing and semi finishing operations of high temperature alloys such as Inconel and Waspaloy on high cutting speeds under stable conditions. Can be used also for hardened steels machining.	Base		

* For coated grades

Key Points for Turning with CBN

Benefits of using CBN inserts

1 Can replace grinding operations, which reduces machining costs.
2 Dimensional stability, which is especially important in mass production. Minimizes the amount of scrapped parts.
3 "Green" approach, due to minimized usage of coolant.

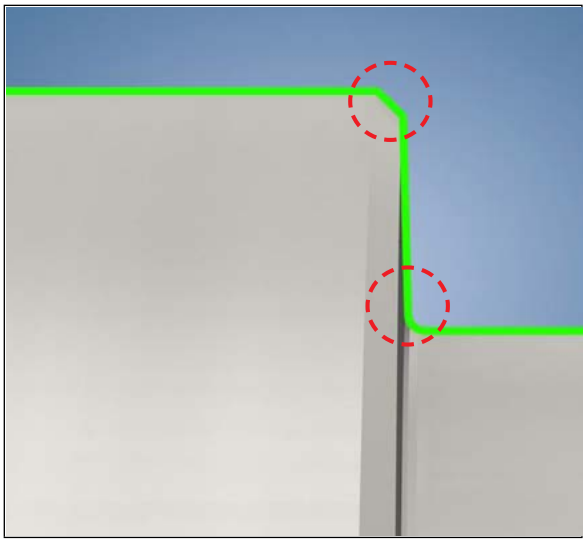
There are a few guidelines to follow to achieve the best results and high productivity when machining hard materials:

- CBN is characterized by hardness of 4500 HV. The high hardness of CBN enables it to machine hard materials at high speeds and feeds.
- Successful HPT (Hard Part Turning) demands not only suitable cutting tools, but also the right conditions, preparation and environment.
- HPT begins with a correct "soft" state machining design that will create the best possible conditions for HPT.

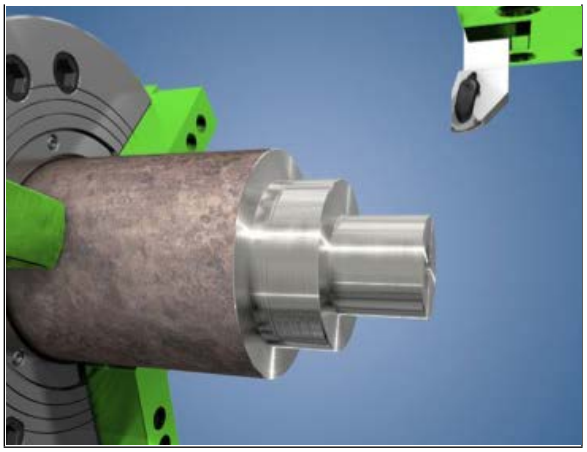
The "soft" state (around 20-40 HRC) is the state in which the workpiece material is yet to be hardened to its final hardness.

Important points when planning the "soft" machining process:

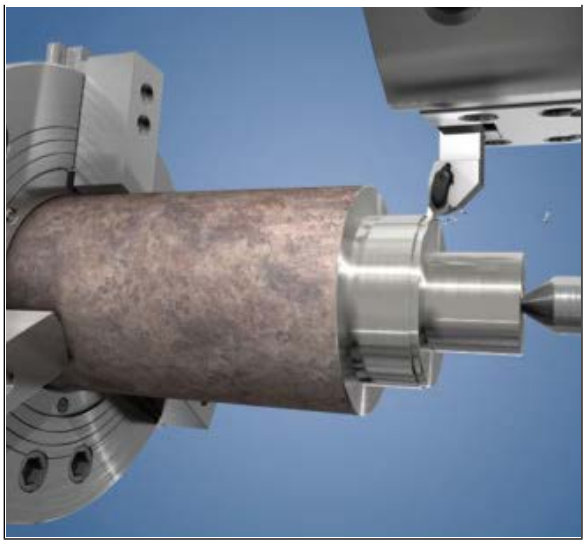
- Avoid burrs
- Keep close dimensional tolerances
- Do not enter or exit a cut suddenly
- Enter and exit by planning radius movements
- Use wiper inserts to achieve superior surface finish
- Do not leave sharp corners (round or chamfer)
- Machine stability, rigidity and thermal stability are vital conditions for producing a high quality finished part. The better the stability of the overall machine concept, the closer the tolerances will be achieved.
- Clamping the workpiece with sufficient force will prevent its movement and improve surface finish. Make sure that you employ wide clamping jaws which offer better grip on the workpiece, compared to ordinary three point jaws.
- Using tailstock in long parts will add even more stability and rigidity to the machining process.
- Large cross section tools further add to system rigidity.
- Coolant-Generally, do not use coolant when machining hard materials. CBN inserts tolerate high cutting temperatures, and therefore have no need for coolant. Avoiding coolant is more economical, environmentally friendly and better because as the material heats up during the turning process, it becomes slightly softer and easier to machine. However, there may be some applications that require using coolant: in cases of continuous turning when high surface finish is required.



Rounding and chamfering at the "soft" state



Rigid clamping of the workpiece and toolholder



Use tailstock in long parts

GROOVE-TURN



Member IMC Group

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Information to Select the Correct Insert

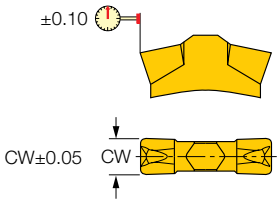
ISCAR has an extensive variety of GROOVE-TURN products. In many cases, you can perform your operation by using several different products. In order to make the optimal selection, these basic parameters need to be defined:

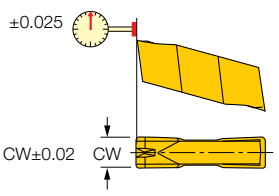
- Insert width **[CW]**
- Necessary tolerance on the insert
- Maximum depth of grooving **[CDX]**
- Application requirement grooving and turning, or only grooving (**E-Type** or not)

According to these parameters:

- Select the most suitable product according to the tables on pages 259-260.
- Select the most suitable chipformer according to the information on pages 261-262.

Utility Inserts		Precision Grooving Inserts	
Pressed to Size Inserts		Peripheral Ground Inserts	
Width	± 0.05	Width	± 0.02
Repeatability	± 0.10	Repeatability	± 0.025





If you don't need the tight tolerance, save money and select a utillity insert (less expensive).

What is an E-type GROOVE-TURN Insert?

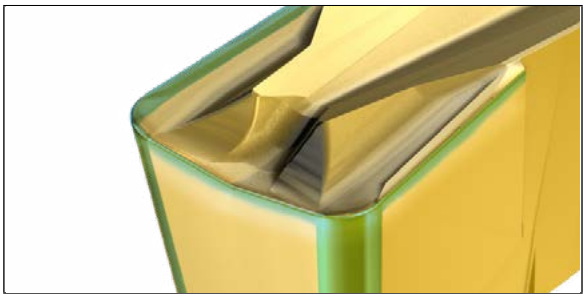
E-type inserts are precision ground grooving inserts with **turning** capability.

These inserts include the letter **E** in their description. (example: GIP 3.00**E**-0.4). This is to distinguish them from precision ground inserts which are not suitable for turning operations and don't include an **E** in their description. (example: GIP 3.00-0.2)

- E-type inserts usually have a larger corner radius
- E-type inserts have a larger honing size

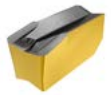
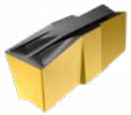


Precision Grooving Insert



E-Type GROOVE-TURN

External GROOVE-TURN Insert Type

	Insert		Properties				CW range	CDX	Page
			Precision Ground	Utility	Number of Cutting Edges	Option for Turning			
PENTACUT		PENTACUT Size 17	✔		5		0.25-3.18	4	309-311
		PENTACUT Size 24	✔		5		0.5-4.23	1-6.5	319-323
		PENTACUT Size 34	✔		5		1.5-4.0	5-10	324-325
HELI-GRIP		HELI-GRIP		✔	2	✔	3-6.35	No depth limit	269-270
TOP-GRIP		TOP-GRIP		✔	2	✔	3-6.35	10.5-18.6	272
CUTGRIP		Short Pocket		✔	1	✔	3-12	No depth limit	287-291
		Short Pocket	✔		2	✔*	0.5-11.0	13**	292-301
		Long Pocket		✔	2	✔*	8.0	27	288-291
		Long Pocket	✔		2	✔	8.0-11.0	27	292-298
HEAVY DUTY		SUMO-GRIP		✔	1	✔	6-14	No depth limit	333
		TIGER		✔	1		10-20	No depth limit	329, 334

* Not on all the products

** On most items

Internal GROOVE-TURN Insert Type

	Insert	Tool	Insert	Utility	Precision	Dmin	CDX	CW	Page
PICCOCUT		PICCO/ MG PCO	PICCO		✔	2.0-7.0	0.4-2.5	0.5-2	399-411
CHAMGROOVE		MG/MGCH	GIQR 8		✔	8.0	0.7-1.5	0.5-4	414-415
		MG/MGCH	GIQR 11		✔	11.0	1.5-2.3	0.75-5	416
		MGCH	GIQR 11-15		✔	15.0	6.3	1-3	417
CUTGRIP		GEHIR/L	GEPI/ GEMI	✔	✔	12.5-16	2.4-3.0	1-3.18	340-343
		GHIR/L	GIFI/GIPI/ GINI/GIMIY	✔	✔	20-49	2.5-8.0	1.53-6.35	344, 349-352
TOP-GRIP		TGIR/L	TGMF	✔		20.5-57	5.5-17.5	3-6.35	353, 272
HELIGRIP		HELIIR/L	GRIP	✔		26-53	5-12	3-6.35	355, 269-270
CUTGRIP		GHIR/L 40-8	GDMF/ GDMY/ GDMN...	✔	✔	65	15-20	8-11	355, 288-289
		GHIC/CGHN	GIP/GIF/GIMN/GIMF/ GIA...	✔	✔	70-250	10-26	2.8-6.35	355-358, 292-300

Chipbreaker Selection

T-Type

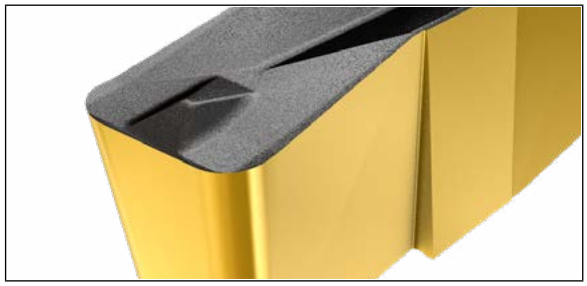
- Optimal performance in a wide range of materials and cutting conditions
- High efficiency in full grooving, partial grooving and turning applications
- Utility inserts only
- Width range External: 2.39-6.35 mm



General Use

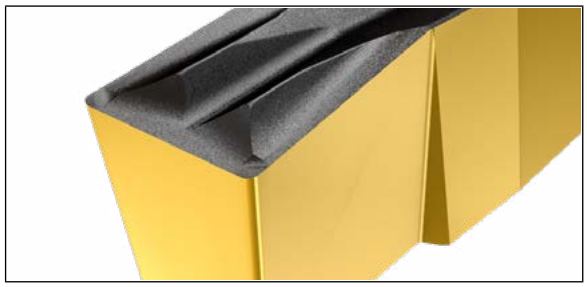
P-Type

- Very “open” geometry
- Medium to high feed in turning and grooving
- Large variety of standard sizes
- Precision ground inserts only
- Width range External: 2.39-6.35 mm
  Internal: 2.39-6.35 mm



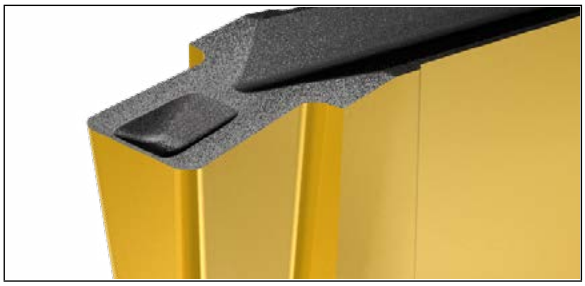
F-Type

- First choice in grooving
- Low to medium feeds in grooving and turning
- Both precision ground and utility inserts
- Width range External: 3.0-10 mm Internal: 3-6 mm



G-Type

- Efficient chipbreaker for narrow width grooves
- Width range: 1-2.3 mm
- No option for turning



Y-Type

- General use in grooving and turning
- Positive top rake reduces cutting forces
- Excellent for long shafts
- Eliminates vibrations
- Both precision ground and utility inserts
- Width range External: 8-20 mm



HG-Y-Type

- General use in grooving and turning
- Efficient for a wide range of materials and cutting conditions
- Utility inserts only
- Width range External: 3-6.35 mm Internal: 3-6.35 mm



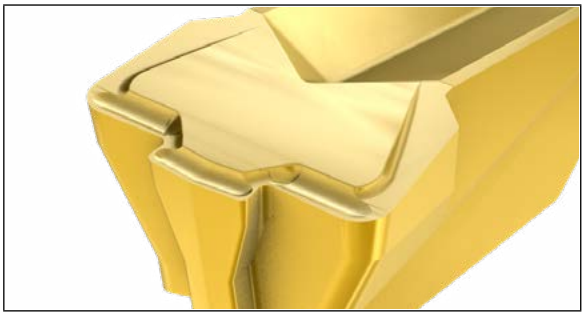
Chipbreaker Selection

Problematic and Specific Materials

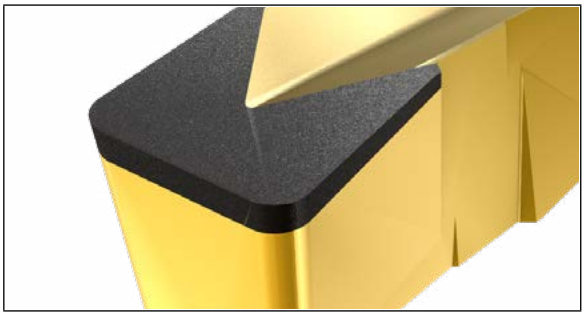
N-Type
- First choice in grooving of problematic, soft & gummy materials
- Very low to medium feeds (from 0.05 mm/rev)
- Both precision ground and utility inserts
- Option for turning
- Width range External: 3-8 mm Internal: 2-5 mm



M-Type
- Unique chipbreaker with splitter chips are split into 3 segments
- Efficient for problematic, soft & gummy materials
- Option for light turning
- Width 8 mm



A-Type
- First choice for machining cast Iron
- Peripheral 15° T-land on a flat top
- Exerts high cutting forces, therefore suitable for stable conditions
- Precision ground inserts only
- Width range External: 3-8 mm



PA-Type
- First choice for machining aluminum
- High positive rake
- Peripheral ground and polished top rake with a very sharp edge
- Suitable also for finish operations on titanium and heat resistant alloys
- Width range External: 3-8 mm



CW-Type
- Unique chipformer for heavy-duty grooving
- Very wide chipbreaking range on carbon and alloy steel
- Width range 14, 17 and 20 mm



Chipbreaker Selection

Profiling (full radius)

Y-Type
- First choice in profiling
- Positive top rake reduces cutting forces
- Excellent for long shafts
- Eliminates vibrations
- Both precision ground and utility inserts
- Width range External: 3-12 mm Internal: 2-3 mm



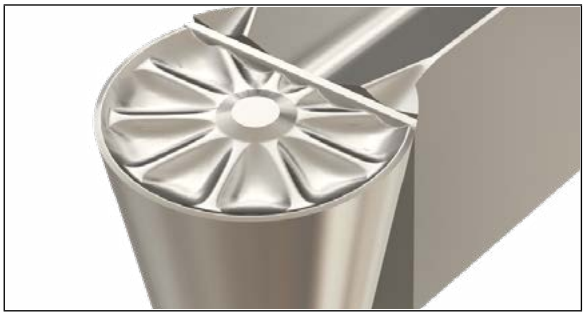
YF-Type
- First choice for profiling ductile materials
- Utility inserts only
- Width range External: 3-8 mm



PA-Type
- First choice for profiling aluminum
- High positive rake
- Peripheral ground and polished top rake with a very sharp edge
- Suitable also for finish operations on titanium and heat resistant alloys
- Width range External: 3-8 mm



YZ-Type
- First choice for profiling ductile aluminum
- Peripheral ground and polished top rake with a very sharp edge
- Width range External: 3-8 mm



H-Type
- Unique chipbreaker for heavy-duty profiling
- Negative T-land for extra edge toughness
- Suitable for heavy interrupted cuts and cast iron machining
- Width: 12 mm



Chipbreaker Width Range

External

Insert Width	G	P	F	Y	N	HG-Y	M	A	PA	T
12				20						
11										
10										
9										
8										
7										
6		6.35				6.35				
5										
4										
3			3.48							
2	2.3	2.39								
1										

Internal

Insert Width	P	F	N	HG-Y
7				
6	6.35			6.35
5				
4				
3				
2	2.39			
1				

Suitable Chipbreaker and Required Feed Range for Workpiece Material

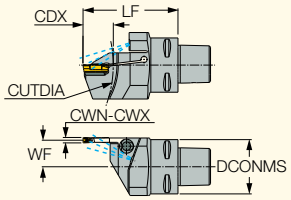
	Alloy Steel		Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
High		P	P	P		
		HG-Y	HG-Y	Y	PA*	A*
Feed		Y	Y	F	P	P
		F	F	PA (finish only)		HG
		T*	T*	T	T	
Low		N				F

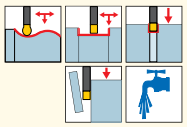
* First Choice

HELI-GRIP CAMFIX

C#-HELIR/L

External Tools for Turning, Grooving and Parting with CAMFIX Exchangeable Shanks





Left-hand shown

Designation	DCONMS	CWN(1)	CWX(2)	WF	LF	CUTDIA(3)	Insert	CP(4)	CDI			
C4 HELIR/L 3T20	40.00	3.00	3.18	20.00	65.00	40.0	GRIP 3, HGN 3	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C4 HELIR/L 4T25	40.00	4.00	4.76	19.60	70.00	50.0	GRIP 4, DGN 4	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C5 HELIR/L 3T20	50.00	3.00	3.18	25.30	65.00	40.0	GRIP 3, HGN 3	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C5 HELIR/L 4T25	50.00	4.00	4.76	24.90	70.00	50.0	GRIP 4, DGN 4	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C5 HELIR/L 5T25	50.00	5.00	5.00	24.40	70.00	50.0	GRIP 5, DGN 5	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C6 HELIR/L 3T20	63.00	3.00	3.18	31.80	65.00	40.0	GRIP 3, HGN 3	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C6 HELIR/L 4T25	63.00	4.00	4.76	31.40	70.00	50.0	GRIP 4, DGN 4	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C6 HELIR/L 5T25	63.00	5.00	5.00	30.90	70.00	50.0	GRIP 5, DGN 5	100	1	SR M6X16 DIN912	HW 5.0	EZ 104
C6 HELIR/L 6T30	63.00	6.00	6.35	30.40	85.00	60.0	GRIP 6, DGN 6	100	1	SR M6X16 DIN912	HW 5.0	EZ 104

- The depth of cut (CDX) for grooving is limited by the part diameter Dmax, for grooving depth capacity, see table below

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum parting diameter

(4) Coolant pressure (Bar)

For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • HGN-C (489) • DGR/L-C DGRC/LC-C (482) • DGN/DGNM-J/JS/JT (483) • HGN-J (489) • HGR/L-C (489) • HGR/L-J/JS (490) • DGR/L-J/JS (484) • DGN-MF (485) • DGN-UT/UA (487) • DGN-W (482) • HGN-UT (490)

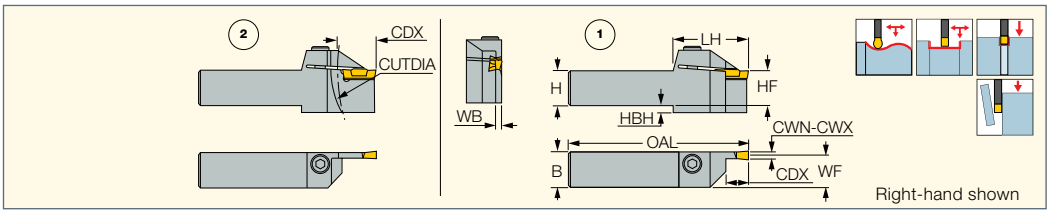
Grooving Depth Capacity

Designation	ØDmax																					
C4 HELIR/L 3T20	∞	∞	∞	∞	1151	384	231	167	131	109	94	83	—	—	—	—	—	—	—	—	—	—
C4 HELIR/L 4T25	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	1127	376	227	163	128	107	—	—	—	—	—
C5 HELIR/L 3T20	∞	∞	∞	1277	426	257	185	145	120	103	91	82	—	—	—	—	—	—	—	—	—	—
C5 HELIR/L 4T25	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	1301	434	261	188	148	122	105	—	—	—	—	—
C5 HELIR/L 5T25	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	1301	434	261	188	148	122	105	—	—	—	—	—
C6 HELIR/L 3T20	∞	787	394	264	199	161	136	118	105	95	87	81	—	—	—	—	—	—	—	—	—	—
C6 HELIR/L 4T25	∞	∞	∞	∞	∞	∞	1957	653	393	282	221	182	156	137	122	111	102	—	—	—	—	—
C6 HELIR/L 5T25	∞	∞	∞	∞	∞	∞	1957	653	393	282	221	182	156	137	122	111	102	—	—	—	—	—
C6 HELIR/L 6T30	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	1879	627	377	271	212	175	150	131	118	107	99
CDX	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

HELI-GRIP

HELIR/L

External Holders for Turning, Grooving and Parting



Designation	CDX[2]	CWN[3]	CWX[4]	Fig.	CUTDIA[5]	H	HF	B	WF	OAL	LH	WB	HBH	Insert
HELIR/L 1212-3T12	12.00	3.00	3.18	1.	-	12.0	12.0	12.0	10.80	135.00	30.0	2.40	4.0	GRIP-3..., HG.-3
HELIR/L 1616-3T12	12.00	3.00	3.18	1.	-	16.0	16.0	16.0	14.80	135.00	30.0	2.40	-	GRIP-3..., HG.-3
HELIR/L 2020-3T12	12.00	3.00	3.18	1.	-	20.0	20.0	20.0	18.80	135.00	29.0	2.40	-	GRIP-3..., HG.-3
HELIR/L 2525-3T12	12.00	3.00	3.18	1.	-	25.0	25.0	25.0	23.80	135.00	29.0	2.40	-	GRIP-3..., HG.-3
HELIR/L 1616-4T12	12.00	4.00	4.76	1.	-	16.0	16.0	16.0	14.40	135.00	29.0	3.20	-	GRIP-4..., DG.-4
HELIR/L 2020-4T12	12.00	4.00	4.76	1.	-	20.0	20.0	20.0	18.40	135.00	29.0	3.20	-	GRIP-4..., DG.-4
HELIR/L 2525-4T12	12.00	4.00	4.76	1.	-	25.0	25.0	25.0	23.40	135.00	29.0	3.20	-	GRIP-4..., DG.-4
HELIR/L 2020-5T12	12.00	5.00	5.00	1.	-	20.0	20.0	20.0	17.90	135.00	29.0	4.20	-	GRIP-5..., DG.-5
HELIR/L 2525-5T12	12.00	5.00	5.00	1.	-	25.0	25.0	25.0	22.90	135.00	29.0	4.20	-	GRIP-5..., DG.-5
HELIR/L 2525-6T12	12.00	6.00	6.35	1.	-	25.0	25.0	25.0	22.40	135.00	29.0	5.20	-	GRIP-6..., DG.-6
HELIR/L 1616-3T20 [1]	-	3.00	3.18	2.	40.0	16.0	16.0	16.0	14.80	140.00	36.4	2.40	-	GRIP-3..., HG.-3
HELIR/L 2020-3T20 [1]	-	3.00	3.18	2.	40.0	20.0	20.0	20.0	18.80	140.00	36.4	2.40	-	GRIP-3..., HG.-3
HELIR/L 2525-3T20 [1]	-	3.00	3.18	2.	40.0	25.0	25.0	25.0	23.80	140.00	36.4	2.40	-	GRIP-3..., HG.-3
HELIR/L 3232-3T20 [1]	-	3.00	3.18	2.	40.0	32.0	32.0	32.0	30.80	150.00	36.4	2.40	-	GRIP-3..., HG.-3
HELIR/L 1616-4T20	-	4.00	4.76	2.	40.0	16.0	16.0	16.0	14.40	140.00	38.0	3.20	4.0	GRIP-4..., DG.-4
HELIR/L 2020-4T25	-	4.00	4.76	2.	50.0	20.0	20.0	20.0	18.40	140.00	42.0	3.20	-	GRIP-4..., DG.-4
HELIR/L 2525-4T25	-	4.00	4.76	2.	50.0	25.0	25.0	25.0	23.40	140.00	42.0	3.20	-	GRIP-4..., DG.-4
HELIR/L 3232-4T25	-	4.00	4.76	2.	50.0	32.0	32.0	32.0	30.40	150.00	43.0	3.20	-	GRIP-4..., DG.-4
HELIR/L 2020-5T25	-	5.00	5.00	2.	50.0	20.0	20.0	20.0	17.90	140.00	42.0	4.20	-	GRIP-5..., DG.-5
HELIR/L 2525-5T25	-	5.00	5.00	2.	50.0	25.0	25.0	25.0	22.90	140.00	42.0	4.20	-	GRIP-5..., DG.-5
HELIR/L 3232-5T25	-	5.00	5.00	2.	50.0	32.0	32.0	32.0	29.90	150.00	43.0	4.20	-	GRIP-5..., DG.-5
HELIR/L 2525-6T30	-	6.00	6.35	2.	60.0	25.0	25.0	25.0	22.40	140.00	51.4	5.20	-	GRIP-6..., DG.-6
HELIR/L 3232-6T30	-	6.00	6.35	2.	60.0	32.0	32.0	32.0	29.40	150.00	51.4	5.20	-	GRIP-6..., DG.-6

- For tool type as shown in Fig.2, CDX for grooving is limited by the part diameter Dmax, for grooving depth capacity, see table below
- For user guide, see pages 419-428, 432-436

[1] DGN inserts are not suitable for this tool
[2] Does not depend on the workpiece diameter
[3] Minimum cutting width
[4] Maximum cutting width
[5] Maximum parting diameter

For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • HGN-C (489) • DGR/L-C DGRC/LC-C (482) • DGN/DGNM-J/JS/JT (483) • HGN-J (489) • HGR/L-C (489) • HGR/L-J/JS (490) • DGR/L-J/JS (484) • DGN-UT/UA (487) • DGN-W (482) • HGN-UT (490) • DGN-MF (485)

Spare Parts

Designation		
HELIR/L 1212-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 2020-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 2525-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-4T12	SR M5X16 DIN912	HW 4.0
HELIR/L 2020-4T12	SR M5X16 DIN912	HW 4.0
HELIR/L 2525-4T12	SR M5X16 DIN912	HW 4.0
HELIR/L 2020-5T12	SR M6X16 DIN912	HW 5.0
HELIL 2525-5T12	SR M6X16 DIN912	HW 5.0
HELIR 2525-5T12	SR M6X20 DIN912	HW 5.0
HELIL 2525-6T12	SR M6X20 DIN912	HW 5.0
HELIR 2525-6T12	SR M6X16 DIN912	HW 5.0
HELIL 1616-3T20	SR M6X20 DIN912	HW 5.0
HELIR 1616-3T20	SR M6X16 DIN912	HW 5.0
HELIR/L 2020-3T20	SR M6X16 DIN912	HW 5.0
HELIR/L 2525-3T20	SR M6X20 DIN912	HW 5.0
HELIR/L 3232-3T20	SR M6X20 DIN912	HW 5.0
HELIR/L 1616-4T20	SR M6X20 DIN912	HW 5.0
HELIR/L 2020-4T25	SR M6X16 DIN912	HW 5.0
HELIR/L 2525-4T25	SR M6X20 DIN912	HW 5.0
HELIR/L 3232-4T25	SR M6X20 DIN912	HW 5.0
HELIR/L 2020-5T25	SR M6X16 DIN912	HW 5.0
HELIR/L 2525-5T25	SR M6X20 DIN912	HW 5.0
HELIR/L 3232-5T25	SR M6X20 DIN912	HW 5.0
HELIR/L 2525-6T30	SR M6X20 DIN912	HW 5.0
HELIR/L 3232-6T30	SR M6X20 DIN912	HW 5.0

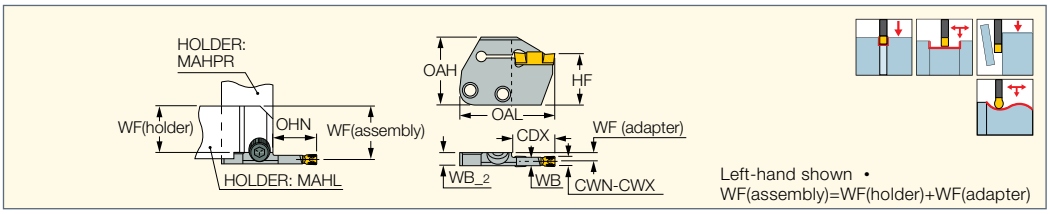
Depth Capacity

Designation	ØDmax												
HELIR/L 1616-3T20	∞	∞	∞	∞	∞	∞	194	80	–	–	–	–	–
HELIR/L 2020-3T20	∞	∞	∞	∞	∞	299	123	80	–	–	–	–	–
HELIR/L 2525-3T20	∞	∞	∞	815	229	136	99	79	–	–	–	–	–
HELIR/L 3232-3T20	∞	604	261	169	127	103	89	79	–	–	–	–	–
HELIR/L 1616-4T20	∞	∞	∞	∞	∞	505	132	78	–	–	–	–	–
HELIR/L 2020-4T20	∞	∞	∞	∞	∞	∞	∞	∞	∞	185	98	–	–
HELIR/L 2525-4T20	∞	∞	∞	∞	∞	∞	∞	368	233	136	98	–	–
HELIR/L 3232-4T20	∞	∞	∞	∞	∞	626	270	175	149	–	98	–	–
HELIR/L 2020-5T20	∞	∞	∞	∞	∞	∞	∞	∞	∞	182	98	–	–
HELIR/L 2525-5T20	∞	∞	∞	∞	∞	∞	∞	368	233	136	98	–	–
HELIR/L 3232-5T20	∞	∞	∞	∞	∞	626	270	175	149	–	98	–	–
HELIR/L 2525-6T20	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	354	135	98
HELIR/L 3232-6T20	∞	∞	∞	∞	∞	∞	∞	∞	1718	345	194	121	98
CDX	6.5	8.0	10.0	12.0	14.0	16.0	18.0	20.0	21.0	23.0	25.0	28.0	30.0

HELI-GRIP
MODULAR-GRIP

HGPAD

Adapters for Turning, Grooving and Parting



Designation	CWN[1]	CWX[2]	CDX[3]	OHN[4]	WF[5]	WB	WB_2	OAL	OAH	HF	Insert
HGPAD 3R/L-T12	3.00	3.20	12.00	15.2	4.80	2.50	6.0	39.70	32.0	24.0	GRIP 3, HGN 3
HGPAD 3R/L-T20	3.00	3.20	20.00	21.2	4.80	2.50	6.0	45.70	32.0	24.0	GRIP 3, HGN 3
HGPAD 4R/L-T12	4.00	4.76	12.00	18.7	4.40	3.30	6.0	43.20	32.0	24.0	GRIP 4, DGN 4
HGPAD 4R/L-T20	4.00	4.76	20.00	21.2	4.40	3.30	6.0	45.70	32.0	24.0	GRIP 4, DGN 4
HGPAD 5R/L-T12	5.00	5.00	12.00	18.7	3.90	4.20	6.0	43.20	32.0	24.0	GRIP 5, DGN 5
HGPAD 5R/L-T20	5.00	5.00	20.00	21.2	3.90	4.20	6.0	45.70	32.0	24.0	GRIP 5, DGN 5
HGPAD 6R/L-T12	6.00	6.35	12.00	18.7	3.40	5.20	6.0	43.20	32.0	24.0	GRIP 6, DGN 6
HGPAD 6R/L-T22	6.00	6.35	22.00	23.2	3.40	5.20	6.0	47.70	32.0	24.0	GRIP 6, DGN 6

• DO-GRIP DGN, HGN inserts can be used for grooving only • For user guide, see pages 419-428, 432-436

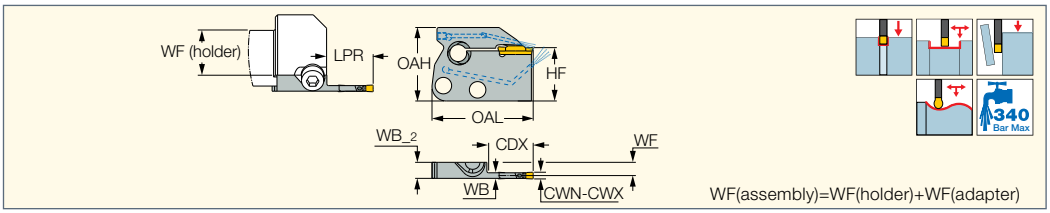
[1] Minimum cutting width
[2] Maximum cutting width
[3] Cutting depth maximum
[4] Minimum overhang
[5] WF(adapter)

For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • HGN-C (489) • DGN/DGNM-J/JS/JT (483) • HGN-J (489) • HGR/L-C (489) • HGR/L-J/JS (490) • DGN-MF (485) • DGN-UT/UA (487) • DGN-W (482) • HGN-UT (490)

HELI-GRIP JET-CUT
MODULAR-GRIP

HGPAD-JHP

Adapters with High-Pressure Coolant Channels Carrying HELI-GRIP Inserts



Designation	CWN[1]	CWX[2]	CDX[3]	LPR	WF	WB	WB_2	OAL	OAH	HF
HGPAD 3R/L-T20-JHP	3.00	3.20	20.00	21.0	5.95	2.50	7.2	45.70	33.0	24.0
HGPAD 4R/L-T20-JHP	4.00	4.76	20.00	21.0	5.55	3.30	7.2	45.70	33.0	24.0
HGPAD 5R/L-T20-JHP	5.00	5.00	20.00	21.0	5.10	4.20	7.2	45.70	33.0	24.0
HGPAD 6R/L-T22-JHP	6.00	6.35	22.00	23.0	4.60	5.20	7.2	47.70	33.0	24.0

• For user guide and accessories, see pages 419-436

[1] Minimum cutting width
[2] Maximum cutting width
[3] Cutting depth maximum

For inserts, see pages: DGN-MF (485) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • HGN-C (489) • DGN/DGNM-J/JS/JT (483) • HGN-J (489) • HGR/L-C (489) • HGR/L-J/JS (490) • DGN-UT/UA (487) • HGN-UT (490) • DGN-W (482)

For holders, see pages: ABC MAHDR-#-XL-JHP (782) • C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • MS##-##-MG-JHP (757) • MS-ES#####-GWS-MG-JHP (759) • TR TNK36 MAHDL-R-XL-JHP (782) • TR45 MAHDR-#-XL-JHP (781) • TR45TNL MAHDN-R-XL-JHP (781) • V## MAHD#-#-XL-##-JHP (778) • V## MAHD-XL-JHP (779) • MAHPR/L-JHP (281) • MAHR/L-JHP (279)

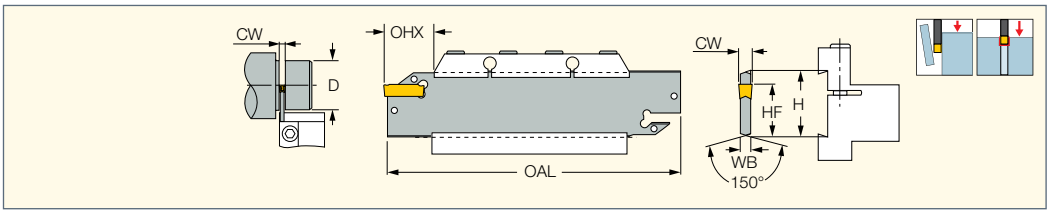
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
HGPAD 3R/L-T20-JHP	5-7	6-8	7-9
HGPAD 4R/L-T20-JHP	9-11	10-12	11-13
HGPAD 5R/L-T20-JHP	11-13	12-14	13-15
HGPAD 6R/L-T22-JHP	16-18	16-18	19-21

DO-GRIP TWISTED 2-SIDED HELI-GRIP

HGFH

Parting and Grooving Blades for 3 mm GRIP Inserts



Designation	H	CW	WB	OAL	HF	OHX(1)	CUTDIA(2)	
HGFH 26-3	26.0	3.00	2.40	110.00	21.4	37.5	75.0	EDG 23B*
HGFH 32-3	32.0	3.00	2.40	150.00	24.8	50.0	100.0	EDG 23B*

(1) Maximum overhang
(2) Maximum parting diameter
* Optional, should be ordered separately

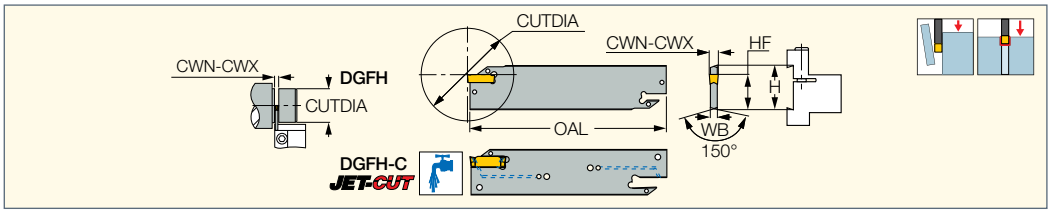
For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • HGN-C (489) • HGR/L-C (489) • HGN-J (489) • HGN-UT (490) • HGR/L-J/JS (490)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

DO-GRIP TWISTED 2-SIDED HELI-GRIP

DGFH

Parting and Grooving Blades with and without Coolant Channels Carrying DO-GRIP and HELI-GRIP Inserts



Designation	H	CWN(4)	CWX(5)	WB	OAL	HF	CUTDIA	Insert
DGFH 26-1.4	26.0	1.40	1.40	2.50 (7)	110.00	21.4	26.0	DG. 14..
DGFH 26-2 (1)	26.0	1.90 (6)	2.50	1.60	110.00	21.4	39.0 (8)	DG. 1.../DG. 2...
DGFH 26-3 (1)	26.0	3.00 (6)	3.18	2.40	110.00	21.4	39.0 (8)	DG. 1.../DG. 3...
DGFH 26C-3 (2)	26.0	3.00	3.18	2.40	110.00	21.4	39.0 (8)	DGNC/DGRC/DGLC 3...
DGFH 26-4	26.0	4.00	4.00	3.20	110.00	21.4	80.0	DG. 4.../GRIP 4...
DGFH 32-1.4	32.0	1.40	1.40	2.50 (7)	150.00	24.8	26.0	DG. 14
DGFH 32-2 (1)	32.0	1.90 (6)	2.50	1.80	150.00	24.8	39.0 (8)	DG. 1.../DG. 2...
DGFH 32-3 (1)	32.0	3.00 (6)	3.18	2.40	150.00	24.8	39.0 (8)	DG. 1.../DG. 3...
DGFH 32C-3 (2)	32.0	3.00	3.18	2.40	150.00	24.8	39.0 (8)	DGNC/DGRC/DGLC 3...
DGFH 32-4	32.0	4.00	4.00	3.20	150.00	24.8	100.0	DG. 4.../GRIP 4...
DGFH 32C-4 (3)	32.0	4.00	4.00	3.20	150.00	24.8	69.0	DGNC/DGRC/DGLC 4...
DGFH 32-5	32.0	5.00	5.00	4.00	150.00	24.8	120.0	DG. 5.../GRIP 5...
DGFH 32-6	32.0	6.00	6.35	5.20	150.00	24.8	120.0	DG. 6.../GRIP 6...
DGFH 45-3	45.0	3.00 (6)	3.18	2.40	225.00	38.0	160.0	DG. 1.../DG. 3...
DGFH 45-4	45.0	4.00	4.10	3.20	225.00	38.0	160.0	DG. 4.../GRIP 4...
DGFH 45-5	45.0	4.80	5.00	4.00	225.00	38.0	160.0	DG. 5.../GRIP 5...
DGFH 45-6	45.0	6.00	6.40	5.20	225.00	38.0	160.0	DG. 6.../GRIP 6...

• DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified • For user guide, see pages 419-428, 432-436
(1) For CUTDIA 50 mm, use single-ended insert (should be modified by the user)
(2) Blades with frontal coolant holes (JET-CUT) • For CUTDIA 50 mm, use single-ended insert (should be modified by the user)
(3) These blades are suitable for turning, using GRIP 4 inserts • Blades with frontal coolant holes (JET-CUT) (4) Minimum cutting width (5) Maximum cutting width (6) For DG. 1... insert, modify holder (7) Thickness at the D.O.C. area is 1.0 mm (8) Maximum diameter with double-sided inserts.

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN/DGNC/DGNM-C (481) • DGR/L-C DGRC/LC-C (482) • DGN/DGNM-J/JS/JT (483) • DGR/L-J/JS (484) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • GRIP (269) • GRIP (full radius) (270)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBK (617) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

Spare Parts

Designation						
DGFH 26-1.4	EDG 23B*					
DGFH 26-2	EDG 23A*					
DGFH 26-3	EDG 23A*					
DGFH 26C-3	EDG 23A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 26-4	EDG 23A*					
DGFH 32-1.4	EDG 23B*					
DGFH 32-2	EDG 33A*					
DGFH 32-3	EDG 33A*					
DGFH 32C-3	EDG 33A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 32-4	EDG 33A*					
DGFH 32C-4	EDG 33A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 32-5	EDG 33A*					
DGFH 32-6	EDG 33A*					
DGFH 45-3	EDG 33A*					
DGFH 45-4	EDG 33A*					
DGFH 45-5	EDG 33A*					
DGFH 45-6	EDG 33A*					

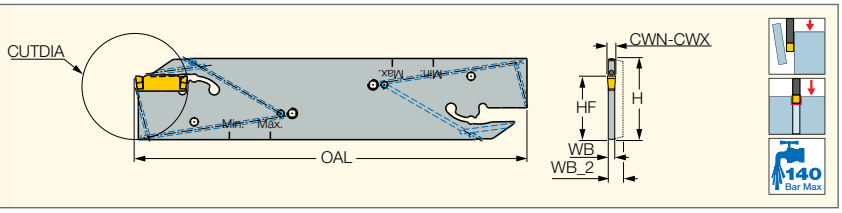
* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED JETCUT

DGFH-JHP

Parting and Grooving Blades with Channels for Low and High-Pressure Coolant Carrying DO-GRIP Inserts





Designation	CWN[2]	CWX[3]	WB	WB_2	OAL	H	HF	CUTDIA	Insert			
DGFH 32-2-JHP [1]	1.90 [4]	2.50	1.80	2.5	150.00	32.0	24.8	39.0	DG. 1.../DG. 2...		SGC 340	EDG 33A-JHP*
DGFH 32-3-JHP	3.00 [4]	3.18	2.50	-	152.00	32.0	24.8	90.0	DG. 1.../DG. 3...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-4-JHP	4.00	4.00	3.20	-	152.00	32.0	24.9	90.0	DG. 4.../GRIP 4...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-5-JHP	5.00	5.00	4.00	-	152.00	32.0	24.9	90.0	DG. 5.../GRIP 5...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-6-JHP [1]	6.00	6.35	5.20	-	160.00	32.0	24.9	90.0	DG. 6.../GRIP 6...		SGC 340	EDG 33A-JHP*

- For user guide and accessories, see pages 419-436

[1] Only an upper channel
[2] Minimum cutting width
[3] Maximum cutting width
[4] For DG. 1... insert, modify holder
* Optional, should be ordered separately

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484) • GRIP (269) • GRIP (full radius) (270)

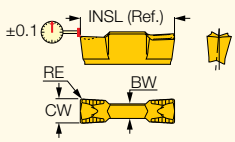
For holders, see pages: TGTBU-JHP (497)

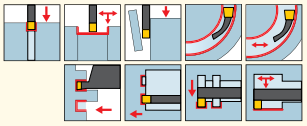
HELI-GRIP

GRIP

Utility Double-Ended Inserts for External, Internal and Face Machining







No depth penetration limit

Designation	Dimensions CW	RE	CWTOL[1]	RETOL[2]	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIP 3002Y	3.00	0.20	0.05	0.050	15.80	2.30	●	●	●	●	●			●	●	●	0.25-1.80	0.14-0.18	0.07-0.11	0.08-0.20	0.10-0.20
GRIP 3003Y	3.00	0.30	0.05	0.050	15.80	2.30	●	●	●	●	●	●	●	●			0.40-1.80	0.15-0.19	0.07-0.11	0.08-0.20	0.10-0.20
GRIP 318-040Y	3.18	0.40	0.05	0.050	15.80	2.30	●			●	●	●		●			0.50-1.90	0.17-0.22	0.07-0.12	0.08-0.20	0.10-0.20
GRIP 4002Y	4.00	0.20	0.05	0.050	19.00	2.80	●	●	●	●	●			●	●		0.25-2.40	0.16-0.21	0.09-0.14	0.10-0.24	0.15-0.30
GRIP 4004Y	4.00	0.40	0.05	0.050	19.00	2.80	●	●	●	●	●	●	●	●	●	●	0.50-2.40	0.18-0.24	0.09-0.15	0.10-0.24	0.15-0.30
GRIP 476-080Y	4.76	0.80	0.05	0.050	19.00	3.10	●	●		●	●	●		●			1.00-2.80	0.21-0.33	0.10-0.20	0.10-0.24	0.15-0.30
GRIP 5005Y	5.00	0.50	0.05	0.050	19.00	3.30	●	●	●	●	●	●	●	●	●	●	0.60-3.00	0.20-0.30	0.11-0.20	0.12-0.24	0.15-0.35
GRIP 5008Y	5.00	0.80	0.05	0.050	19.00	3.40	●	●		●	●	●	●	●	●		1.00-3.00	0.23-0.35	0.11-0.21	0.12-0.24	0.15-0.35
GRIP 6005Y	6.00	0.50	0.05	0.050	19.00	4.20	●	●		●	●	●	●	●	●		0.60-3.60	0.22-0.36	0.13-0.23	0.12-0.28	0.15-0.40
GRIP 6008Y	6.00	0.80	0.05	0.050	19.00	4.20	●	●		●	●	●	●	●	●		1.00-3.60	0.24-0.42	0.13-0.25	0.12-0.28	0.15-0.40
GRIP 635-080Y	6.35	0.80	0.05	0.050	19.00	4.20		●		●	●	●		●			1.00-3.80	0.25-0.44	0.14-0.27	0.12-0.28	0.15-0.40

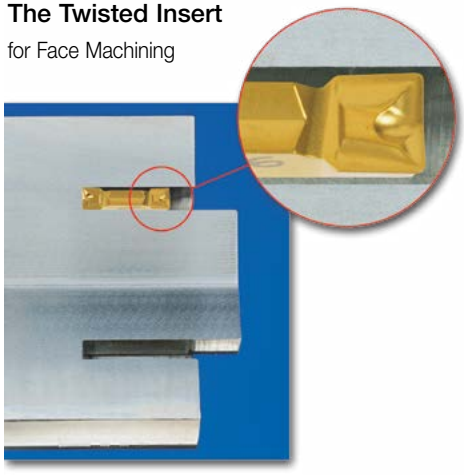
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Cutting width tolerance (+/-)
[2] Corner radius tolerance (+/-)

For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • DGFH (268) • DGFH-JHP (269) • DGFS (469) • DGTR/L (476) • HELIIR/L (355) • HELIR/L (266) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFIR/L-MC (574) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGAER/L-3 (565) • HGAIR/L-3 (568) • HGFH (268) • HGHR/L-3 (558) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574)

The Twisted Insert

for Face Machining



The double-ended, twisted insert body makes it possible to machine deeper than the insert's length.
A unique chipformer for controlled chip flow in axial and radial directions.
The rear angle is slanted in relation to the frontal edge so it does not come into contact with the machined groove surface as the tool penetrates deeply into the workpiece.

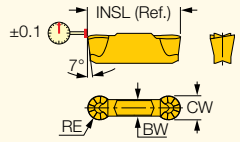


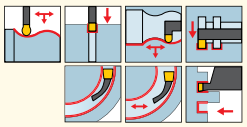
HELIGRIP

GRIP (full radius)

Utility Double-Ended Full Radius Inserts for External, Internal and Face Machining







No depth penetration limit

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIP 3015Y	3.00	1.50	0.05	0.050	15.80	2.10	●	●	●	●	●	●	●	●	●	●	0.00-1.50	0.18-0.26	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 318-159Y	3.18	1.59	0.05	0.050	15.80	2.30				●	●			●			0.00-1.50	0.19-0.28	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 4020Y	4.00	2.00	0.05	0.050	19.00	2.80	●	●	●	●	●	●	●	●	●	●	0.00-2.00	0.20-0.34	0.09-0.17	0.10-0.24	0.15-0.30
GRIP 476-238Y	4.76	2.38	0.05	0.050	19.00	3.20				●	●	●		●			0.00-2.30	0.21-0.40	0.10-0.20	0.10-0.24	0.15-0.30
GRIP 5025Y	5.00	2.50	0.05	0.050	19.00	3.40	●	●		●	●	●		●	●	●	0.00-2.50	0.23-0.42	0.11-0.21	0.12-0.24	0.15-0.35
GRIP 6030Y	6.00	3.00	0.05	0.050	19.00	4.20	●	●	●	●	●	●	●	●	●		0.00-3.00	0.24-0.50	0.13-0.25	0.12-0.28	0.15-0.40
GRIP 635-318Y	6.35	3.18	0.05	0.050	19.00	4.00				●	●			●			0.00-3.10	0.25-0.53	0.14-0.27	0.12-0.28	0.15-0.40

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

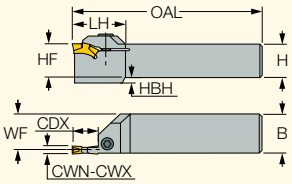
(2) Corner radius tolerance (+/-)

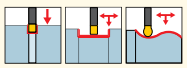
For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • DGFH (268) • DGFH-JHP (269) • DGFS (469) • DGTR/L (476) • HELIIR/L (355) • HELIR/L (266) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFHR/L-6T (561) • HFIR/L-MC (574) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGAER/L-3 (565) • HGAIR/L-3 (568) • HGFH (268) • HGHR/L-3 (558) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574)

TOPGRIP

TGDR/L

External Holders for Turning, Grooving and Profiling





Right-hand shown

Designation	CWN(1)	CWX(2)	CDX(3)	H	HF	B	OAL	LH	WF	HBH	Insert		
TGDR/L 1616-3M	3.00	3.00	7.50	16.0	16.0	16.0	100.00	30.5	14.80	6.0	TGMF 3	SR M5X12 DIN912	HW 4.0(a)
TGDR/L 2020-3M	3.00	3.00	7.50	20.0	20.0	20.0	125.00	30.5	18.70	-	TGMF 3	SR M5X12 DIN912	HW 4.0(a)
TGDR/L 2525-3M	3.00	3.00	7.50	25.0	25.0	25.0	140.00	30.5	23.70	-	TGMF 3	SR M5X12 DIN912	HW 4.0(a)
TGDR/L 1616-4M	4.00	5.00	9.00	16.0	16.0	16.0	100.00	32.2	14.20	6.0	TGMF 4/TGMF 5	SR M5X12 DIN912	HW 4.0(a)
TGDR/L 2020-4M	4.00	5.00	9.00	20.0	20.0	20.0	125.00	32.2	18.20	6.0	TGMF 4/TGMF 5	SR M5X12 DIN912	HW 4.0(a)
TGDR/L 2525-4M	4.00	5.00	15.50	25.0	25.0	25.0	140.00	34.0	23.20	-	TGMF 4/TGMF 5	SR M5X12 DIN912	HW 4.0(a)
TGDR/L 2525-5M	5.00	5.00	18.00	25.0	25.0	25.0	140.00	37.0	22.70	-	TGMF 5	SR M5X12 DIN912	HW 4.0(a)
TGDR/L 3232-5M	5.00	5.00	22.00	32.0	32.0	32.0	150.00	45.0	29.80	-	TGMF 5	SR M6X12DIN912	HW 5.0(a)
TGDR/L 2525-6M	6.00	6.35	22.00	25.0	25.0	25.0	150.00	43.0	22.50	-	TGMF 6	SR M6X16 DIN912	HW 5.0(a)
TGDR/L 3232-6M	6.00	6.35	22.00	32.0	32.0	32.0	150.00	43.0	29.50	-	TGMF 6	SR M6X16 DIN912	HW 5.0(a)

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Grooving depth is limited by the insert

(a) For optional key with limited tightening torque see page 427

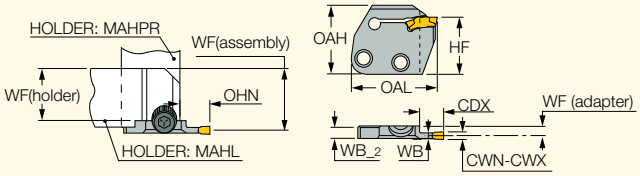
For inserts, see pages: TGMA (272) • TGMF (full radius) (272) • TGMF/P (272)

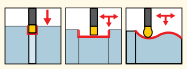
TOPGRIP

MODULARGRIP

TGPAD

Adapters Carrying TGMF / TGMP Groove-Turn Inserts





Left-hand shown • WF(assembly)=WF(holder)+WF(adapter)

Designation	CWN(1)	CWX(2)	CDX(3)	WF(4)	WB	WB_2	OHN(5)	OAL	HF	OAH
TGPAD 3R/L-T9	3.00	3.00	9.00	4.00	2.40	5.2	12.7	37.20	24.0	30.0
TGPAD 4R/L-T16	4.00	5.00	16.00	3.50	3.40	5.2	17.2	41.70	24.0	30.0
TGPAD 5R/L-T16	5.00	5.00	16.00	3.00	4.40	5.2	17.2	41.70	24.0	30.0
TGPAD 6R/L-T22	6.00	6.35	22.00	3.50	5.00	6.0	23.2	47.10	24.0	32.0

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Grooving depth is limited by the insert

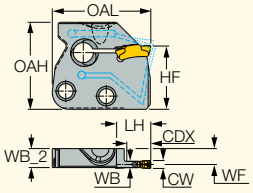
(4) WF(adapter)

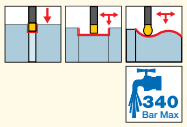
(5) Minimum overhang

For inserts, see pages: TGMA (272) • TGMF (full radius) (272) • TGMF/P (272)

TOP-GRIP JETCUT
MODULAR-GRIP

TGPAD-JHP
Adapters with Channels for High-Pressure Coolant Carrying TGMF / TGMP Groove-Turn Inserts





Left-hand shown

Designation	CWN(1)	CWX(2)	CDX(3)	WF	WB	WB_2	LH	OAL	HF	OAH
TGPAD 3R/L-T9-JHP	3.00	3.00	9.00	4.00	2.40	5.2	12.7	37.20	24.0	30.00
TGPAD 4R/L-T16-JHP	4.00	5.00	16.00	3.50	3.40	5.2	17.2	41.70	24.0	30.00
TGPAD 5R/L-T16-JHP	5.00	5.00	16.00	3.00	4.40	5.2	17.2	41.70	24.0	30.00
TGPAD 6R/L-T22-JHP	6.00	6.35	22.00	3.50	5.00	6.0	23.2	47.10	24.0	32.00

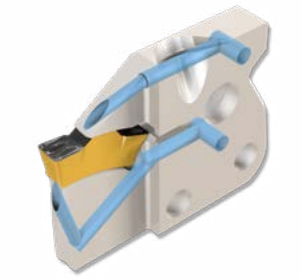
- For user guide, see pages 419-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Grooving depth is limited by the insert

For inserts, see pages: TGMF (full radius) (272) • TGMF/P (272)

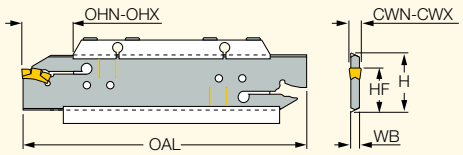
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
tgpad 3R/L-T9-JHP	11-17	17-23	23-26
tgpad 4R/L-T16-JHP	20-25	25-31	31-34
tgpad 5R/L-T16-JHP	27-33	33-39	39-43
tgpad 6R/L-T22-JHP	30-35	35-41	41-44



TOP-GRIP

TGHN-D
Double-Ended Blades Carrying Utility Inserts for Grooving and Turning



Designation	H	CWN(1)	CWX(2)	OHN(3)	OHX(4)	HF	OAL	WB	Insert
TGHN 26-3D	26.0	3.00	3.00	10.0	15.0	21.4	110.00	2.40	TGMF 3
TGHN 26-4D	26.0	4.00	5.00	10.0	15.0	21.4	110.00	3.20	TGMF 4, TGMF/P 5
TGHN 26-5D	26.0	5.00	5.00	10.0	20.0	21.4	110.00	4.00	TGMF/P 5
TGHN 32-3D	32.0	3.00	3.00	10.0	18.0	24.8	150.00	2.40	TGMF 3
TGHN 32-4D	32.0	4.00	5.00	12.0	21.0	24.8	150.00	3.20	TGMF 4, TGMF/P 5
TGHN 32-5D	32.0	5.00	5.00	12.0	26.0	24.8	150.00	4.00	TGMF/P 5
TGHN 32-6D	32.0	6.00	6.35	16.0	26.0	24.8	150.00	5.20	TGMF 6

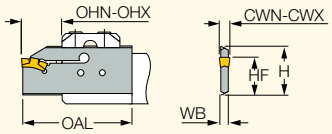
- Use the drilled holes on blade for min. and max. overhang • Grooving depth is limited by the insert • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum overhang
(4) Maximum overhang

For inserts, see pages: TGMA (272) • TGMF (full radius) (272) • TGMF/P (272)
For holders, see pages: SGTBU/SGTBN (616) • UBHCR/L (618)

TOP-GRIP

TGHN-S
Single-Ended Blades Carrying Utility Inserts for Grooving and Turning



Designation	H	CWN(1)	CWX(2)	OHN(3)	OHX(4)	HF	OAL	WB	Insert
TGHN 32-3S	32.0	3.00	3.00	10.0	18.0	24.8	48.30	2.40	TGMF 3
TGHN 32-5S	32.0	5.00	5.00	12.0	25.0	24.8	54.00	4.00	TGMF/P 5
TGHN 32-6S	32.0	6.00	6.35	16.0	25.0	24.8	55.70	5.20	TGMF 6

- Use the drilled holes on blade for min. and max. overhang • Grooving depth is limited by the insert • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum overhang
(4) Maximum overhang

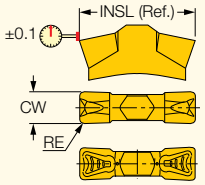
For inserts, see pages: TGMA (272) • TGMF (full radius) (272) • TGMF/P (272)
For holders, see pages: C#-TBU (623) • IM-TBU (633) • UBHCR/L (618)

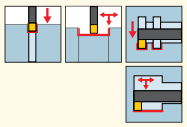
TOP-GRIP

TGMF/P

Utility Double-Ended Inserts for External and Internal Grooving and Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC20	IC20N	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
TGMF 302	3.00	0.20	0.05	0.050	13.50	10.50	●	●	●	●	●	●	0.25-1.80	0.14-0.18	0.07-0.11
TGMF 304	3.00	0.40	0.05	0.050	13.55	10.30	●	●	●	●	●	●	0.50-1.80	0.16-0.20	0.07-0.12
TGMF 402	4.00	0.20	0.05	0.050	17.70	14.70	●	●	●	●	●	●	0.20-2.40	0.16-0.21	0.09-0.14
TGMF 404	4.00	0.40	0.05	0.050	17.70	14.60	●	●	●	●	●	●	0.50-2.40	0.18-0.24	0.09-0.15
TGMP 506	5.00	0.60	0.05	0.050	17.60	15.00		●			●		0.75-3.00	0.21-0.32	0.11-0.20
TGMF 508	5.00	0.80	0.05	0.050	17.80	14.20	●	●	●	●	●	●	1.00-3.00	0.23-0.35	0.11-0.21
TGMF 635-080	6.35	0.80	0.05	0.050	22.15	18.60	●	●	●	●	●	●	1.00-3.80	0.25-0.44	0.14-0.27

• DMIN for internal application=20.5 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

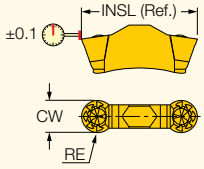
For tools, see pages: TGDR/L (270) • TGHN 26-M (354) • TGHN-D (271) • TGHN-S (271) • TGIR/L-C (353) • TGPAD (270) • TGPAD-JHP (271)

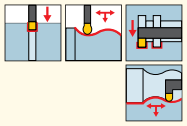
TOP-GRIP

TGMF (full radius)

Utility Double-Ended Full Radius Inserts for External and Internal Grooving and Profiling







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC20	IC5010	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
TGMF 315	3.00	1.50	0.05	0.050	13.50	11.40	●	●	●	●	●		0.00-1.50	0.18-0.26	0.07-0.13
TGMF 420	4.00	2.00	0.05	0.050	17.80	14.90	●	●	●	●	●	●	0.00-2.00	0.20-0.34	0.09-0.17
TGMF 525	5.00	2.50	0.05	0.050	17.75	14.30	●	●	●	●		●	0.00-2.50	0.23-0.42	0.11-0.21
TGMF 630	6.00	3.00	0.05	0.050	22.15	18.30	●	●	●	●			0.00-3.00	0.24-0.50	0.13-0.25

• Can cut arcs to 250° • DMIN for internal application=20.5 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

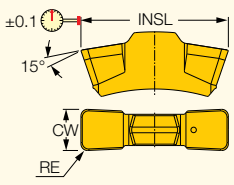
For tools, see pages: TGDR/L (270) • TGHN 26-M (354) • TGHN-D (271) • TGHN-S (271) • TGIR/L-C (353) • TGPAD (270) • TGPAD-JHP (271)

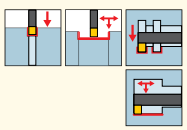
TOP-GRIP

TGMA

Utility Double-Ended Inserts for External and Internal Grooving and Turning of Cast Iron







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	CDX(3)	IC5010	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
TGMA 304K	3.00	0.40	0.05	0.050	13.50	10.30	●	0.50-1.80	0.12-0.20	0.07-0.13
TGMA 404K	4.00	0.40	0.05	0.050	18.00	14.60	●	0.50-2.40	0.16-0.27	0.09-0.18
TGMA 408K	4.00	0.80	0.05	0.050	18.00	14.50	●	1.00-2.40	0.18-0.32	0.09-0.19
TGMA 508K	5.00	0.80	0.05	0.050	18.00	15.00	●	1.00-3.00	0.23-0.40	0.11-0.24
TGMA 608K	6.00	0.80	0.05	0.050	22.40	18.60	●	1.00-3.60	0.27-0.48	0.14-0.29

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

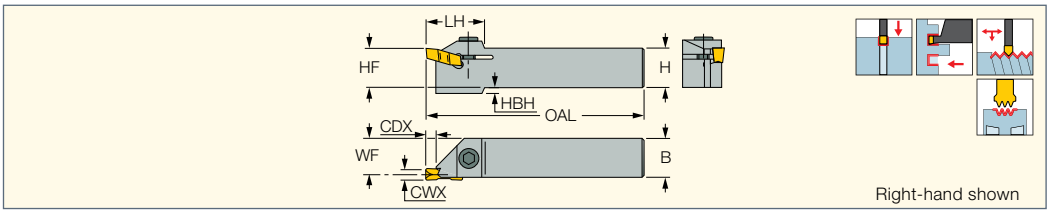
(3) Cutting depth maximum

For tools, see pages: TGDR/L (270) • TGHN 26-M (354) • TGHN-D (271) • TGHN-S (271) • TGIR/L-C (353) • TGPAD (270)

CUTGRIP

GHMR/L

Toolholders for Shallow Radial and Axial Grooving with Narrow and Special Profile Inserts



Designation	CWX[2]	CDX[3]	H	HF	B	OAL	LH	WF	HBH		
GHML 12	4.00	4.80	12.0	12.0	12.0	110.00	25.0	10.80	4.0	SR 76-1021	T-20/5
GHMR 12	4.80	4.80	12.0	12.0	12.0	110.00	25.0	10.80	4.0		
GHMR/L 16	4.80	4.80	16.0	16.0	16.0	115.00	25.0	14.50	-	SR M6X16 DIN912	HW 5.0
GHMR 16-3 ST [1]	5.00	4.80	16.0	16.0	16.0	78.00	25.0	15.00	-	SR M6X16 DIN912	HW 5.0
GHMR/L 20	6.40	4.80	20.0	20.0	20.0	125.00	25.0	18.50	-	SR M6X16 DIN912	HW 5.0
GHMR/L 25	6.40	4.80	25.0	25.0	25.0	140.00	25.0	23.50	-	SR M6X16 DIN912	HW 5.0
GHMR/L 32	6.40	4.80	32.0	32.0	32.0	150.00	25.0	30.20	-	SR M6X16 DIN912	HW 5.0

• Use for recessing: light turning, small depth of cut (a_p=0.1-0.5 mm) and small feed (f=0.1 mm/rev) • For user guide, see pages 419-428, 432-436

[1] For Star and multi-spindle machines

[2] Maximum cutting width

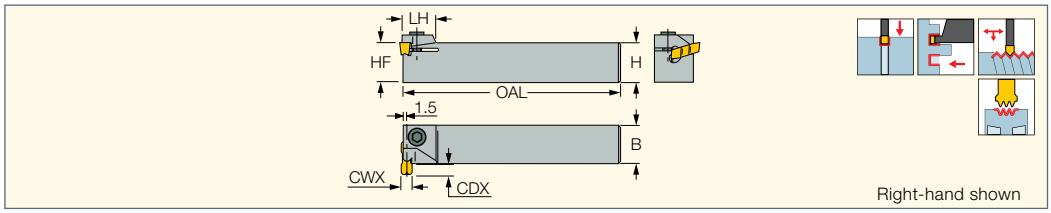
[3] Cutting depth maximum

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292)
• GIG (296) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523)
• GIMF (288) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (flat top W<M) (295)
• GIP (full radius W<M) (295) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIP-RX/LX (302) • GIP-UN (303)
• GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299)
• GPV (304) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

CUTGRIP

GHMPR/L

Perpendicular Toolholders for Shallow Radial and Axial Grooving with Narrow and Special Profile Inserts



Designation	CWX[1]	CDX[2]	H	HF	B	OAL	LH		
GHMPR/L 16	4.80	4.80	16.0	16.0	16.0	110.00	17.0	SR M6X16 DIN912	HW 5.0
GHMPR/L 20	6.40	4.80	20.0	20.0	20.0	120.00	17.0	SR M6X16 DIN912	HW 5.0
GHMPR/L 25	6.40	4.80	25.0	25.0	25.0	135.00	17.0	SR M6X16 DIN912	HW 5.0

• Use for recessing: light turning, small depth of cut (a_p=0.1-0.5 mm) and small feed (f=0.1 mm/rev) • For user guide, see pages 419-428, 432-436

[1] Maximum cutting width

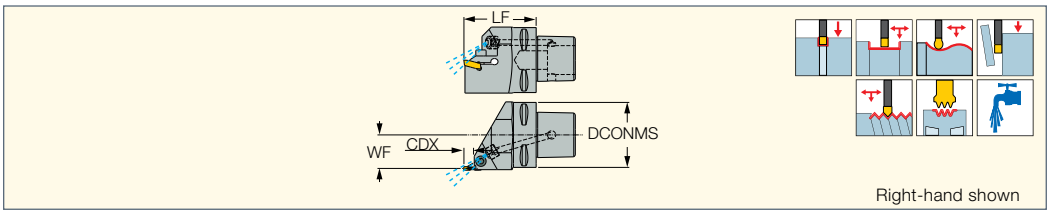
[2] Cutting depth maximum

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292)
• GIG (296) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523)
• GIMF (288) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (flat top W<M) (295)
• GIP (full radius W<M) (295) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIP-RX/LX (302) • GIP-UN (303)
• GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299)
• GPV (304) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

CUTGRIP CAMFIX

C#-GHDR/L

External Grooving, Turning and Parting Toolholders with CAMFIX Exchangeable Tapered Shanks



Designation	CWN[2]	CWX[3]	DCONMS	CDX[4]	LF	WF	CP[5]	CDI
C4 GHDR/L-3	2.80	4.00	40.00	9.00	55.00	20.00	100	1
C5 GHDR/L-3	2.80	4.00	50.00	9.00	55.00	24.00	100	1
C6 GHDR-3	2.80	4.00	63.00	9.00	55.00	32.00	100	1
C4 GHDR/L-4	4.00	5.00	40.00	10.00	55.00	20.00	100	1
C5 GHDR/L-4	4.00	5.00	50.00	10.00	55.00	24.00	100	1
C6 GHDR/L-4	4.00	5.00	63.00	10.00	55.00	32.00	100	1
C5 GHDR/L-5	5.00	6.40	50.00	12.00	55.00	24.00	100	1
C6 GHDR/L-5	5.00	6.40	63.00	12.00	55.00	32.00	100	1
C6 GHDR/L-8 [1]	7.00	8.40	63.00	25.00	70.00	30.00	100	1

- When using GPV and TIP inserts, toolholder must be modified according to insert profile to ensure clearance

[1] Used with GIF 8, GIA 8, GIPA 8, GDMM, GIDA, GDMY, GDMF, GDMU inserts
[2] Minimum cutting width
[3] Maximum cutting width
[4] Cutting depth maximum
[5] Coolant pressure (Bar)

For inserts, see pages: GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GIA-K (long pocket) (299) • GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF (long pocket) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIP-UN (303) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPA/GIDA 8 (full radius) (302) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • GPV (304) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

Spare Parts

Designation			
C4 GHDR/L-3	SR M5X20DIN912	HW 4.0[a]	EZ 104
C5 GHDR/L-3	SR M5X20DIN912	HW 4.0[a]	EZ 104
C6 GHDR-3	SR M5X16 DIN912	HW 4.0[a]	EZ 125
C4 GHDR/L-4	SR M6X20 DIN912	HW 5.0[a]	EZ 104
C5 GHDR/L-4	SR M6X20 DIN912	HW 5.0[a]	EZ 104
C6 GHDR/L-4	SR M6X16 DIN912	HW 5.0[a]	EZ 125
C5 GHDR/L-5	SR M6X25 DIN912	HW 5.0[a]	EZ 104
C6 GHDR/L-5	SR M6X16 DIN912	HW 5.0[a]	EZ 125
C6 GHDL-8	SR M6X20 DIN912	HW 5.0[a]	EZ 146
C6 GHDR-8	SR M6X25 DIN912	HW 5.0[a]	EZ 146

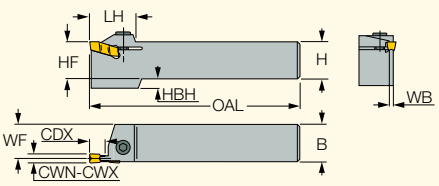
[a] For optional key with limited tightening torque see page 428



CUTGRIP

GHDR/L (short pocket)

External Tools for Turning, Grooving and Parting



Right-hand shown

Designation	CWN[4]	CWX[5]	CDX[6]	H	HF	B	OAL	LH	WF	WB	HBH		
GHDR/L 12-3	2.80	4.00	8.00	12.0	12.0	12.0	110.00	25.0	10.80	2.40	4.0	SR 76-1021	T-20/5[a]
GHDR/L 16-3	2.80	4.00	9.00	16.0	16.0	16.0	110.00	26.0	14.80	2.40	4.0	SR M5X16 DIN912	HW 4.0[a]
GHDR/L 16-3 ST [1]	2.80	4.00	9.00	16.0	16.0	16.0	78.00	24.0	15.00	2.20	4.0	SR M5X16 DIN912	HW 4.0[a]
GHDR/L 20-3	2.80	4.00	9.00	20.0	20.0	20.0	120.00	26.0	18.80	2.40	-	SR M5X16 DIN912	HW 4.0[a]
GHDR/L 25-3	2.80	4.00	9.00	25.0	25.0	25.0	135.00	26.0	23.80	2.40	-	SR M5X16 DIN912	HW 4.0[a]
GHDR/L 16-4	4.00	5.00	10.00	16.0	16.0	16.0	110.00	26.0	14.40	3.20	4.0	SR M6X16 DIN912	HW 5.0[a]
GHDR 16-4 ST [1]	4.00	5.40	10.00	16.0	16.0	16.0	78.00	24.6	14.00	3.40	4.0	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 20-4	4.00	5.00	10.00	20.0	20.0	20.0	120.00	26.0	18.40	3.20	-	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 25-4	4.00	5.00	10.00	25.0	25.0	25.0	135.00	27.0	23.40	3.20	-	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 32-4	4.00	5.00	10.00	32.0	32.0	32.0	150.00	27.0	30.40	3.20	-	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 20-5	5.00	6.40	12.00	20.0	20.0	20.0	120.00	29.0	17.90	4.20	-	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 25-5	5.00	6.40	12.00	25.0	25.0	25.0	135.00	29.0	22.90	4.20	-	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 32-5	5.00	6.40	12.00	32.0	32.0	32.0	150.00	29.0	29.90	4.20	-	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 25-6	6.00	6.40	12.00	25.0	25.0	25.0	135.00	29.0	22.30	5.40	-	SR M6X16 DIN912	HW 5.0[a]
GHDR/L 25-P8 [2]	7.00	10.00	16.50	25.0	25.0	25.0	150.00	35.7	21.80	6.50	-	SR M8X20DIN912	HW 6.0[a]
GHDR/L 32-P8 [3]	7.00	10.00	16.50	32.0	32.0	32.0	170.00	35.7	28.80	6.50	-	SR M8X20DIN912	HW 6.0[a]

- For using TIP and GPV inserts, toolholder seat needs to be modified according to insert profile to ensure clearance.
- For user guide, see pages 419-428, 432-436

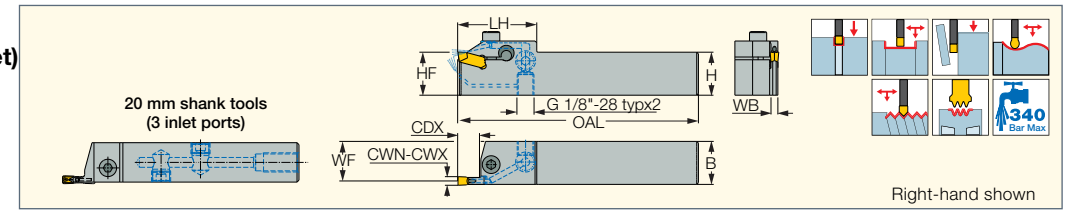
[1] For Star and multi-spindle machines.
[2] Used with GIMF, GIMY, GIPY, GIMM, GITM, GPV inserts.
[3] Used with GIMT, GIMN, GIMF, GIMY, GIPY, GIMM,GITM,GPV Inserts
[4] Minimum cutting width
[5] Maximum cutting width
[6] Cutting depth maximum
[a] For optional key with limited tightening torque see page 428

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292)
• GIG (296) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523)
• GIMF (288) • GIMM 8CC (583) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297)
• GIP (flat top W<M) (295) • GIP (full radius W<M) (295) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294)
• GIP-UN (303) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299)
• GITM (full radius) (299) • GPV (304) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671)
• TIP-P-UN (664) • TIP-WT (641)

CUTGRIP JETCUT

GHDR/L-JHP (short pocket)

Grooving and Turning Tools
with Channels for High-Pressure Coolant



Designation	CWN[2]	CWX[3]	H	CDX[4]	B	OAL	LH	WF	WB	HF
GHDR/L 20-3-JHP	2.80	4.00	20.0	9.00	20.0	120.00	29.0	18.80	2.40	20.0
GHDR/L 25-3-JHP	2.80	4.00	25.0	9.00	25.0	140.00	44.0	23.80	2.40	25.0
GHDR/L 20-4-JHP	4.00	5.00	20.0	10.00	20.0	120.00	29.0	18.40	3.20	20.0
GHDR/L 25-4-JHP	4.00	5.00	25.0	10.00	25.0	140.00	45.0	23.40	3.20	25.0
GHDR/L 25-5-JHP	5.00	6.40	25.0	12.00	25.0	140.00	46.0	22.90	4.20	25.0
GHDR/L 25-P8-JHP [1]	7.00	10.00	25.0	16.50	25.0	150.00	50.0	21.80	6.50	25.0

- For using TIP and GPV inserts, toolholder seat needs to be modified according to insert profile to ensure clearance
- For user guide and accessories see pages 419-436

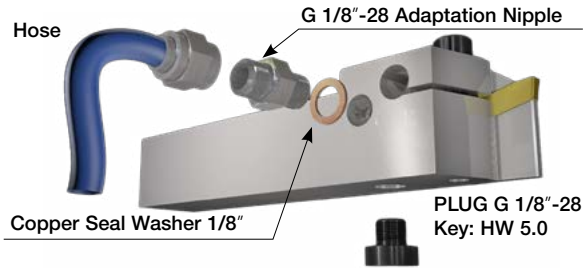
[1] Used with GIMF, GIMY, GIPY, GIMM, GITM, GPV, GIMY-F, GIMM 8CC,GIMT,GIMN,GITM (full radius), GIMY (full radius) inserts.
[2] Minimum cutting width
[3] Maximum cutting width
[4] Cutting depth maximum

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292)
• GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288)
• GIMM 8CC (583) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296)
• GIP-E (293) • GIP-E (full radius) (294) • GIP-UN (303) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375)
• GIPY (300) • GITM (299) • GITM (full radius) (299) • GPV (304) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658)
• TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
GHDR/L 20-3-JHP	5-7	7-9	9-11
GHDR/L 20-4-JHP	6-8	10-12	12-14
GHDR/L 25-3-JHP	6-8	8-10	10-12
GHDR/L 25-4-JHP	10-12	14-16	16-18
GHDR/L 25-5-JHP	13-16	19-21	22-24

GHDR...-JHP



Spare Parts

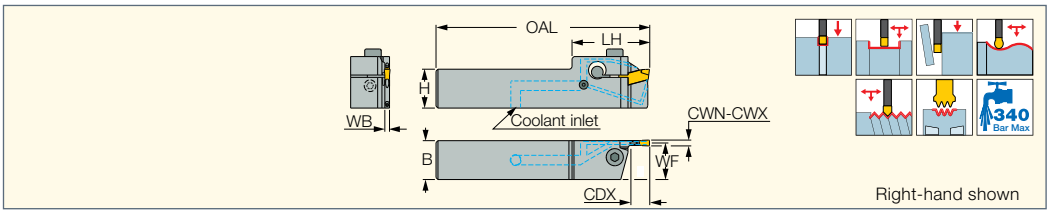
Designation				
GHDR/L 20-3-JHP	SR M5X16 DIN912	HW 4.0[a]	PLG G1/8 TL360	HW 5.0
GHDR/L 25-3-JHP	SR M5X20DIN912	HW 4.0[a]	PLG 1/8ISO1179	HW 5.0
GHDR/L 20-4-JHP	SR M6X16 DIN912		PLG G1/8 TL360	HW 5.0
GHDR/L 25-4-JHP	SR M6X20 DIN912		PLG 1/8ISO1179	HW 5.0
GHDR/L 25-5-JHP	SR M6X20 DIN912		PLG 1/8ISO1179	HW 5.0
GHDR/L 25-P8-JHP	SR M6X20 DIN912		PLG 1/8ISO1179	HW 5.0

[a] For optional key with limited tightening torque see page 428

CUTGRIP JETCUT

GHDR/L-JHP-MC
(short pocket)

Grooving and Turning Tools with Bottom Inlet Coolant Channels



Designation	CWN[1]	CWX[2]	H	CDX	B	OAL	LH	WF	WB
GHDR/L 20-3-JHP-MC	2.80	4.00	20.0	9.00	20.0	110.00	40.0	18.80	2.40
GHDR/L 25-3-JHP-MC	2.80	4.00	25.0	9.00	25.0	123.00	37.0	23.80	2.40
GHDR/L 20-4-JHP-MC	4.00	5.00	20.0	10.00	20.0	110.00	40.0	18.40	3.20
GHDR/L 25-4-JHP-MC	4.00	5.00	25.0	10.00	25.0	123.00	37.0	23.40	3.20
GHDR/L 25-5-JHP-MC	5.00	6.40	25.0	12.00	25.0	123.00	37.0	22.90	4.20

- For using TIP and GPV inserts, toolholder seat needs to be modified according to insert profile to ensure clearance
- For user guide and accessories see pages 419-436

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288) • GIMM 8CC (583) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIP-UN (303) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • GPV (304) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

Spare Parts

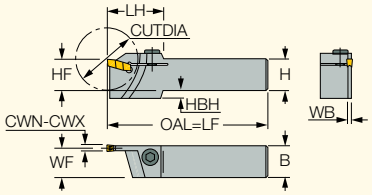
Designation		
GHDR/L 20-3-JHP-MC	SR M5X16 DIN912	HW 4.0
GHDR/L 25-3-JHP-MC	SR M5X20DIN912	HW 4.0
GHDR/L 20-4-JHP-MC	SR M6X20 DIN912	HW 5.0
GHDR/L 25-4-JHP-MC	SR M6X20 DIN912	HW 5.0
GHDR/L 25-5-JHP-MC	SR M6X20 DIN912	HW 5.0

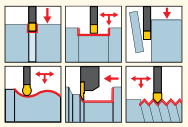


CUTGRIP

GHGR/L

External Holders for Deep Grooving and Parting





Left-hand shown

Designation	CWN[3]	CWX[4]	CUTDIA[5]	H	HF	B	OAL	LH	WF	WB	HBH		
GHGR/L 20-2 [1]	0.40	2.40	34.0	20.0	20.0	20.0	120.00	33.0	19.20	1.70	-	SR M5X16 DIN912	HW 4.0[a]
GHGR/L 25-2 [1]	0.40	2.40	34.0	25.0	25.0	25.0	140.00	33.0	24.20	1.70	-	SR M5X16 DIN912	HW 4.0[a]
GHGL 16-3	3.00	4.00	40.0	16.0	16.0	16.0	110.00	36.0	14.70	2.50	4.0	SR M6X16 DIN912	HW 5.0[a]
GHGR 16-3	3.00	4.00	40.0	16.0	16.0	16.0	110.00	36.0	14.70	2.50	-		
GHGR/L 16-3 ST [2]	3.00	4.00	34.0	16.0	16.0	16.0	78.00	33.0	15.00	2.40	4.0	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 20-3	3.00	4.00	40.0	20.0	20.0	20.0	120.00	36.0	18.70	2.50	-	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 25-3	3.00	4.00	40.0	25.0	25.0	25.0	140.00	36.0	23.70	2.50	-	SR M6X16 DIN912	HW 5.0[a]
GHGR 16-4	4.00	5.00	40.0	16.0	16.0	16.0	110.00	36.0	14.40	3.20	4.0	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 20-4	4.00	5.00	40.0	20.0	20.0	20.0	120.00	36.0	18.20	3.50	-	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 25-4	4.00	5.00	40.0	25.0	25.0	25.0	140.00	36.0	23.20	3.50	-	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 25-425	4.00	5.00	50.0	25.0	25.0	25.0	140.00	41.0	23.20	3.50	-	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 25-5	5.00	6.40	50.0	25.0	25.0	25.0	140.00	41.0	22.90	4.20	-	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 32-5	5.00	6.40	50.0	32.0	32.0	32.0	150.00	41.0	29.90	4.20	-	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 25-630	6.00	8.00	60.0	25.0	25.0	25.0	140.00	45.0	22.30	5.40	-	SR M6X16 DIN912	HW 5.0[a]
GHGR/L 32-632	6.00	8.00	64.0	32.0	32.0	32.0	170.00	50.0	29.40	5.40	-	SR M6X16 DIN912	HW 5.0[a]

- For machining depth over 13 mm, a single-ended insert is required (GIM, GIMF,GIMY,GIMT,GIMN)
- CDX for grooving depth depends on part diameter Dmax
- For grooving a part with a diameter larger than CUTDIA, see next table
- For using TIP inserts, tool holder seat needs to be modified according to insert profile to ensure clearance
- For user guide, see pages 419-428, 432-436

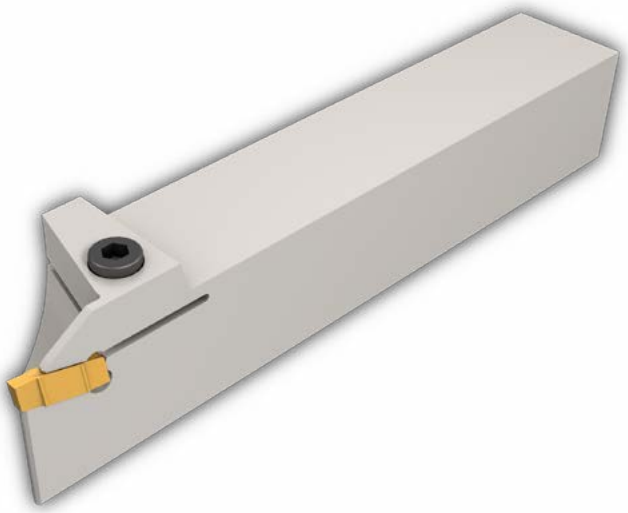
[1] In the case of inserts with CW<2 mm, tool pocket should be ground to 0.3 mm thinner than the insert's grooving width.
[2] For Star and multi-spindle machines.
[3] Minimum cutting width
[4] Maximum cutting width
[5] Maximum parting diameter
[a] For optional key with limited tightening torque see page 428

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292)
• GIG (296) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523)
• GIMF (288) • GIMM 8CC (583) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297)
• GIP (flat top W<M) (295) • GIP (full radius W<M) (295) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294)
• GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299)
• TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

Depth Capacity*

Designation	ØDmax												
GHGR/L 16-3	—	—	—	—	40	50	68	80	120	290	1000	—	—
GHGR/L 20-2	—	—	—	—	—	—	66	80	120	270	1000	—	—
GHGR/L 20-3	—	—	—	—	40	50	68	80	120	290	1000	—	—
GHGR/L 20-4	—	—	—	—	40	50	68	80	120	290	1000	—	—
GHGR/L 25-2	—	—	—	—	—	—	66	72	86	110	130	220	320
GHGR/L 25-3	—	—	—	—	40	80	105	120	190	450	1500	—	—
GHGR/L 25-4	—	—	—	—	40	80	105	120	190	450	1500	—	—
GHGR/L 25-425	—	—	99	135	350	700	—	—	—	—	—	—	—
GHGR/L 25-5	—	—	50	130	300	600	—	—	—	—	—	—	—
GHGR/L 25-630	—	100	350	—	—	—	—	—	—	—	—	—	—
GHGR/L 32-5	—	—	50	130	300	600	—	—	—	—	—	—	—
GHGR 32-632	—	—	—	—	—	—	—	—	—	—	—	—	—
CDX	32	30	25	23	20	19	17	16	14	12	11	9	8

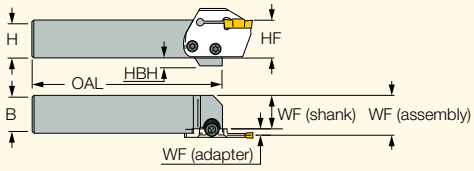
* For over 13 mm depth: GIM, GIMF,GIMT,GIMN and GIMY, GPV (single ended insert) only.



MODULAR-GRIP

MAHR/L

Adapter Holders for all GRIP Systems



Left-hand shown •
WF(assembly)=WF(shank)+WF(adapter)

Designation	H	B	HF	OAL	HBH	WF[1]
MAHR/L 20	20.0	20.0	20.0	130.00	10.0	17.1
MAHR/L 25	25.0	25.0	25.0	130.00	5.0	22.1
MAHR/L 32	32.0	32.0	32.0	140.00	-	29.1

[1] WF(shank)

For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)

Spare Parts

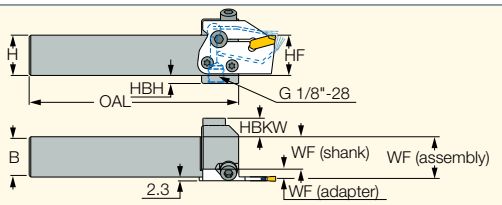
Designation						
MAHR/L	SR M5-04451	T-20/5	SR 14-519	SR M6X20-XT[a]	HW 5.0	SR M6X6DIN551 14H/22H

[a] For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools

MODULAR-GRIP
JETCUT

MAHR/L-JHP

Holders with High-Pressure Coolant Channels for MODULAR-GRIP Adapters



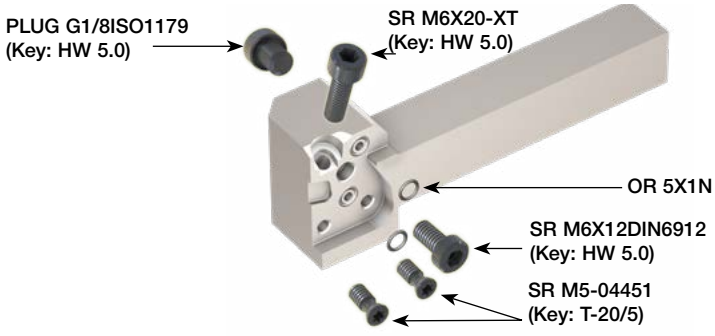
Left-hand shown •
WF(assembly)=WF(shank)+WF(adapter)

Designation	H	B	OAL	HBH	WF[1]	HBKW	HF
MAHR/L 20-JHP	20.0	20.0	130.00	10.0	15.1	16.50	20.0
MAHR/L 25-JHP	25.0	25.0	130.00	5.0	20.1	11.50	25.0
MAHR/L 32-JHP	32.0	32.0	140.00	-	27.1	4.50	32.0

• For user guide and accessories, see pages 419-436

[1] WF(shank)

For tools, see pages: HFPAD-JHP (562) • PCADRS/LS-JHP (317) • TGPAD-JHP (271) • CGPAD-JHP (282) • DGPAD-JHP (480) • TAGPAD-JHP (500) • HGPAD-JHP (267) • PCADR/L-JHP (317) • CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)



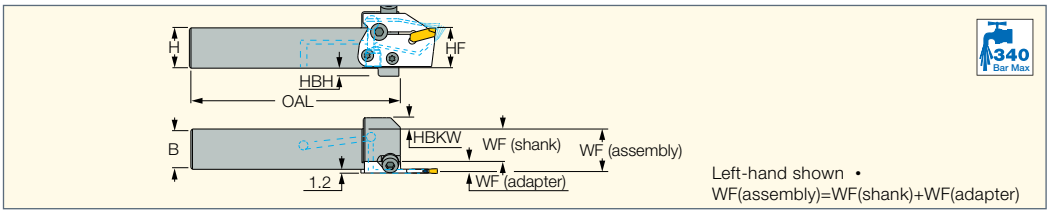
Spare Parts

Designation							
MAHR/L-JHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	PLG 1/8ISO1179

MODULAR-GRIP
JETCUT

MAHR/L-JHP-MC

Holders with Bottom Inlets for High-Pressure Coolant Channels Carrying MODULAR-GRIP Grooving and Turning Adapters



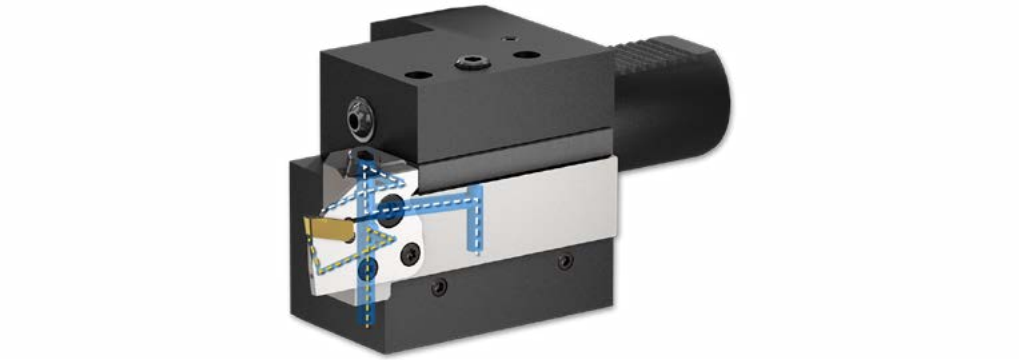
Left-hand shown •
WF(assembly)=WF(shank)+WF(adapter)

Designation	H	B	OAL	HBH	WF[1]	HBKW	HF
MAHR/L 20-JHP-MC	20.0	20.0	98.00	10.0	14.0	6.00	20.0
MAHR/L 25-JHP-MC	25.0	25.0	98.00	5.0	19.0	-	25.0

• For CDX, refer to the adapters data.

(1) WF(shank)

For tools, see pages: HFPAD-JHP (562) • PCADRS/LS-JHP (317) • TGPAD-JHP (271) • CGPAD-JHP (282) • DGPAD-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • TAGPAD-JHP (500) • CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)



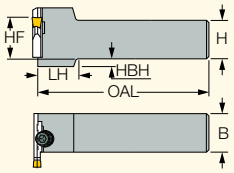
Spare Parts

Designation						
MAHR/L-JHP-MC	SR M6X20-XT	HW 5.0	SR M5-04451	T-20/5	SR M6X12DIN6912	OR 5X1N

MODULAR-GRIP

MAHPR/L

Holders for Perpendicularly Mounted Adapters for all GRIP Systems



Right-hand shown

Designation	H	B	HF	OAL	LH	HBH
MAHPR/L 20	20.0	20.0	20.0	140.00	25.0	10.0
MAHPR/L 25	25.0	25.0	25.0	140.00	25.0	5.0
MAHPR/L 32	32.0	32.0	32.0	150.00	25.0	-

For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)

Spare Parts

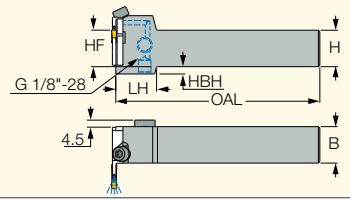
Designation						
MAHPR/L	SR M5-04451	T-20/5	SR 14-519	SR M6X20-XT[a]	HW 5.0	SR M6X6DIN551 14H/22H

(a) For CGPAD, HGPAD, TGPAD and HFPAD adapters. Supplied with the tools.

MODULAR-GRIP
JET-CUT

MAHPR/L-JHP

Holders with High-Pressure Coolant Channels for MODULAR-GRIP Perpendicularly Mounted Adapters

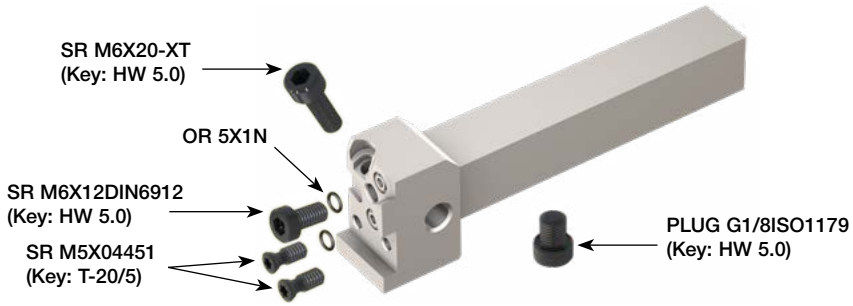


Right-hand shown

Designation	H	B	OAL	LH	HBH	HF
MAHPR/L 20-JHP	20.0	20.0	140.00	28.0	10.0	20.0
MAHPR/L 25-JHP	25.0	25.0	140.00	28.0	5.0	25.0
MAHPR/L 32-JHP	32.0	32.0	150.00	-	-	32.0

• For user guide and accessories, see pages 419-436

For tools, see pages: DGPAD-JHP (480) • HFPAD-JHP (562) • PCADRS/LS-JHP (317) • TAGPAD-JHP (500) • TGPAD-JHP (271) • CGPAD-JHP (282) • HGPAD-JHP (267) • PCADR/L-JHP (317) • CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)



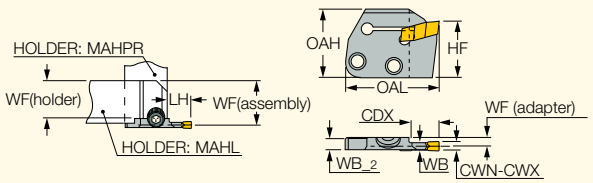
Spare Parts

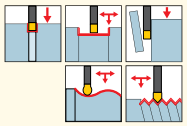
Designation							
MAHPR/L-JHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	PLG 1/8ISO1179

CUT-GRIP
MODULAR-GRIP

CGPAD

Adapters for CUT-GRIP Inserts





Left-hand shown
• WF(assembly)=WF(holder)+WF(adapter)

Designation	CWN(1)	CWX(2)	CDX(3)	LH	WF(4)	WB	WB_2	OAL	OAH	HF
CGPAD 3R/L-T16	2.80	4.00	16.00	17.3	4.00	2.40	5.2	42.00	30.0	24.0
CGPAD 3R/L-T22	2.80	4.00	22.00	23.0	4.00	2.40	5.2	47.70	30.0	24.0
CGPAD 4R/L-T16	4.00	5.00	16.00	17.3	3.60	3.50	5.2	42.00	30.0	24.0
CGPAD 4R/L-T22	4.00	5.00	22.00	23.0	3.50	3.50	5.2	47.70	30.0	24.0
CGPAD 5R/L-T16	5.00	6.40	16.00	17.3	3.10	4.50	5.2	42.00	30.0	24.0
CGPAD 5R/L-T22	5.00	6.40	22.00	23.0	3.00	4.50	5.2	47.70	30.0	24.0
CGPAD 8R/L-T16	6.40	8.00	16.00	17.3	3.00	6.00	6.0	42.00	30.0	24.0
CGPAD 8R/L-T22	6.40	8.00	22.00	23.0	3.00	6.00	6.0	47.70	30.0	24.0

• For using TIP insert, toolholder seat needs to be modified according to insert profile to ensure clearance • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(4) WF(adapter)

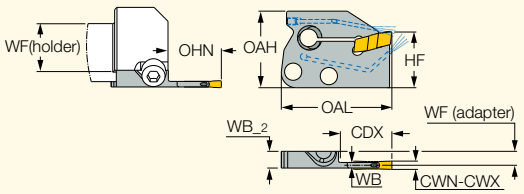
For inserts, see pages: GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288) • GIMM 8CC (583) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIP-UN (303) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

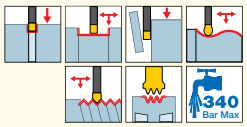
For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633)

CUT-GRIP JETCUT
MODULAR-GRIP

CGPAD-JHP

Adapters with High-Pressure Coolant Channels Carrying CUT-GRIP Inserts





Left-hand shown
• WF(assembly)=WF(holder)+WF(adapter)

Designation	CWN[1]	CWX[2]	CDX[3]	OHN[4]	WF[5]	WB	WB_2	OAL	OAH	HF
CGPAD 3R/L-T16-JHP	2.80	4.00	16.00	17.3	6.00	2.40	7.2	42.00	33.0	24.0
CGPAD 3R/L-T22-JHP	2.80	4.00	22.00	23.0	6.00	2.40	7.2	47.70	33.0	24.0
CGPAD 4R/L-T16-JHP	4.00	5.00	16.00	17.3	5.45	3.50	7.2	42.00	33.0	24.0
CGPAD 4R-T22-JHP	4.00	5.00	22.00	23.0	5.45	3.50	7.2	47.70	33.0	24.0
CGPAD 5R/L-T16-JHP	5.00	6.40	16.00	17.3	4.95	4.50	7.2	42.00	33.0	24.0
CGPAD 5R-T22-JHP	5.00	6.40	22.00	23.0	4.95	4.50	7.2	47.70	33.0	24.0
CGPAD 8R/L-T22-JHP	6.40	8.00	22.00	23.0	4.20	6.00	7.2	47.00	33.0	24.0

• For using TIP insert, toolholder seat needs to be modified according to insert profile to ensure clearance • For user guide and accessories see pages 419-436

[1] Minimum cutting width
[2] Maximum cutting width
[3] Cutting depth maximum
[4] Minimum overhang
[5] WF(adapter)

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIP-UN (303) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • GPV (304) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

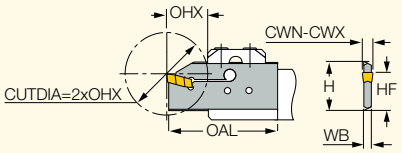
Flow Rate vs. Pressure

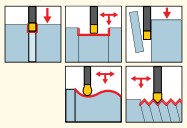
Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
CGPAD 3R/L-T16-JHP	6-8	7-9	8-10
CGPAD 3R-T22-JHP	5-7	6-8	7-9
CGPAD 4R/L-T16-JHP	10-12	11-13	12-14
CGPAD 5R/L-T16-JHP	12-14	16-18	19-21

CUT-GRIP

CGHN-S

Single-Ended Blades for External Machining





Designation	H	CWN[1]	CWX[2]	OHN[3]	OHX[4]	HF	OAL	WB
CGHN 32-3S	32.0	2.80	4.00	10.0	19.0	24.8	51.00	2.40
CGHN 32-4S	32.0	3.50	5.00	12.0	21.0	24.8	53.00	3.20
CGHN 32-5S	32.0	4.40	6.40	12.0	25.0	24.8	56.00	4.00
CGHN 32-6S	32.0	5.50	6.40	12.0	25.0	24.8	56.00	5.20

• When using a double-ended insert, grooving depth is limited by the insert • For user guide, see pages 419-428, 432-436

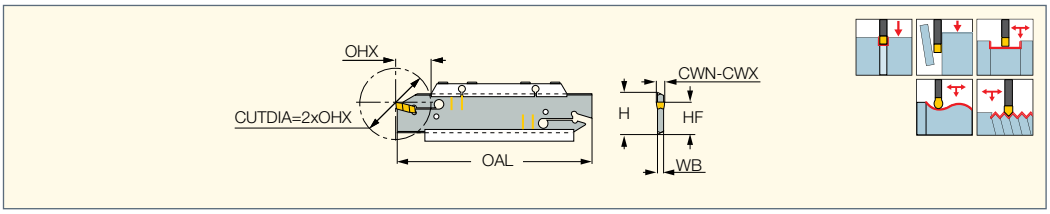
[1] Minimum cutting width
[2] Maximum cutting width
[3] Minimum overhang
[4] Maximum overhang

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

For holders, see pages: C#-TBU (623) • IM-TBU (633) • UBHCR/L (618)

CUTGRIP

CGHN-D
Double-Ended Blades for External Grooving and Turning



Designation	H	CWN(1)	CWX(2)	OHN(3)	OHX(4)	HF	OAL	WB
CGHN 26-3D	26.0	2.80	4.00	10.0	15.0	21.4	110.00	2.40
CGHN 26-4D	26.0	3.50	4.50	10.0	15.0	21.4	110.00	3.20
CGHN 26-5D	26.0	4.40	6.40	10.0	20.0	21.4	110.00	4.00
CGHN 32-3D	32.0	2.80	4.00	10.0	19.0	24.8	150.00	2.40
CGHN 32-4D	32.0	3.50	5.00	12.0	21.0	24.8	150.00	3.20
CGHN 32-5D	32.0	4.40	6.40	12.0	26.0	24.8	150.00	4.00
CGHN 32-6D	32.0	5.50	6.40	12.0	26.0	24.8	150.00	5.20

- Use the yellow lines on blade for min. and max. overhang • When using TIP inserts, toolholder seat needs to be modified according to insert profile to ensure clearance
- When using a double-ended insert, grooving depth is limited by the insert • For user guide, see pages 419-428, 432-436

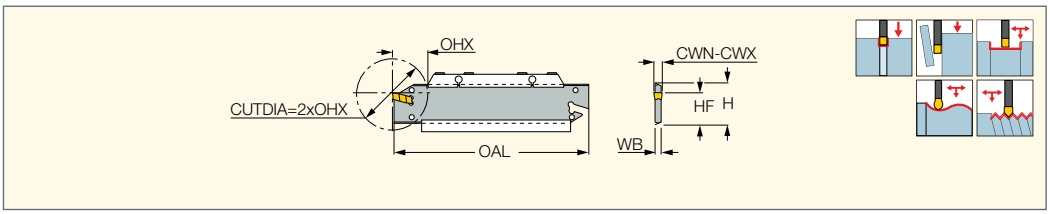
(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum overhang
(4) Maximum overhang

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292)
• GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288)
• GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293)
• GIP-E (full radius) (294) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300)
• GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671)
• TIP-P-UN (664) • TIP-WT (641)

For holders, see pages: SGTBU/SGTBN (616) • UBHCR/L (618)

CUTGRIP

CGHN-DG
Double-Ended Blades for External Grooving and Turning Self-Clamped Inserts



Designation	H	CWN(1)	CWX(2)	OHX(3)	OHX_2(4)	HF	OAL	WB	
CGHN 32-3DG	32.0	2.80	4.00	50.0	25.0	24.8	150.00	2.40	EDG 44A*
CGHN 32-4DG	32.0	3.50	5.00	50.0	30.0	24.8	150.00	3.20	EDG 44A*
CGHN 32-5DG	32.0	4.40	6.40	60.0	33.0	24.8	150.00	4.00	EDG 44A*
CGHN 32-6DG	32.0	5.50	6.40	60.0	35.0	24.8	150.00	5.20	EDG 44A*

- DO-GRIP clamping insert is self-retained for long overhang • When using TIP inserts, toolholder seat needs to be modified according to insert profile to ensure clearance
- When using a double-ended insert, grooving depth is limited by the insert • For user guide, see pages 419-428, 432-436

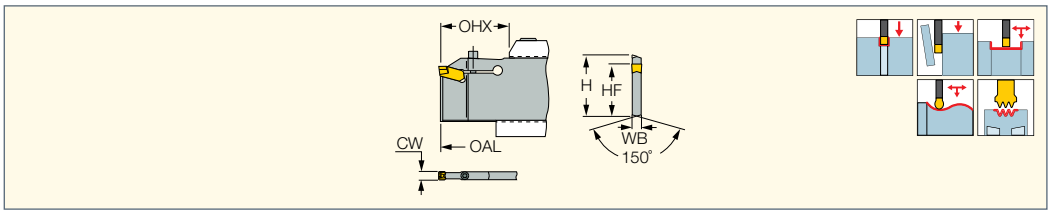
(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum overhang for grooving
(4) Maximum overhang for turning
* Optional, should be ordered separately

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292)
• GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288)
• GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293)
• GIP-E (full radius) (294) • GIP-UN (303) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375)
• GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658)
• TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBU/SGTBN (616) • UBHCR/L (618)

CUTGRIP

CGHN-P8
Blades for Deep Grooving and Turning



Designation	CW	OHX(3)	CDX(4)	WB	HF	H	OAL		
CGHN 52-P8 (1)	8.00	50.0	43.00	7.40	45.0	52.6	190.00	SR 76-1637	HW 4.0
CGHN 53-P8 (2)	8.00	70.0	63.00	7.40	45.0	52.6	260.00	SR 76-1637	HW 4.0

- For user guide, see pages 419-428, 432-436

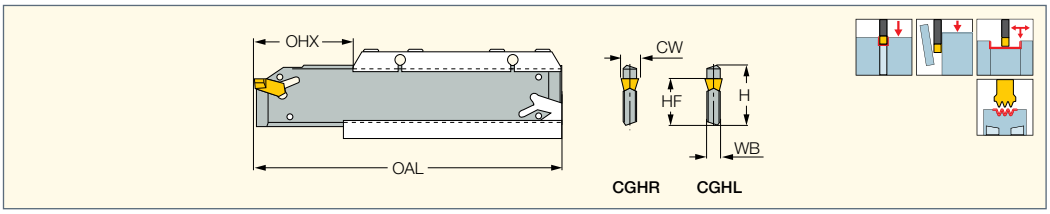
(1) If CUTDIA (workpiece) is smaller than 200 mm, then CDX=48; if CUTDIA (workpiece) is larger than 200 mm, then CDX=43
(2) If CUTDIA (workpiece) is smaller than 200 mm, then CDX=68; if CUTDIA (workpiece) is larger than 200 mm, then CDX=63
(3) Maximum overhang
(4) Cutting depth maximum

For inserts, see pages: GIMF (288) • GIMM 8CC (583) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIPY (300)
For holders, see pages: SGTBK (617) • SGTBU/SGTBN (616)

CUTGRIP

CGHR/L-P8DG

Double-Ended Heavy Duty Self-Clamped Grooving and Turning Blades



Designation	CW	OHX(1)	WB	HF	H	OAL	
CGHR/L 32-P8DG	8.00	40.0	6.80	24.8	32.0	150.00	EDG 44A*

- For user guide, see pages 419-428, 432-436

(1) Minimum overhang • If CUTDIA (workpiece) is smaller than 200 mm, then CDX=48; if CUTDIA (workpiece) is larger than 200 mm, then CDX=43

* Optional, should be ordered separately

For inserts, see pages: GIMF (288) • GIMM 8CC (583) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIPY (300)

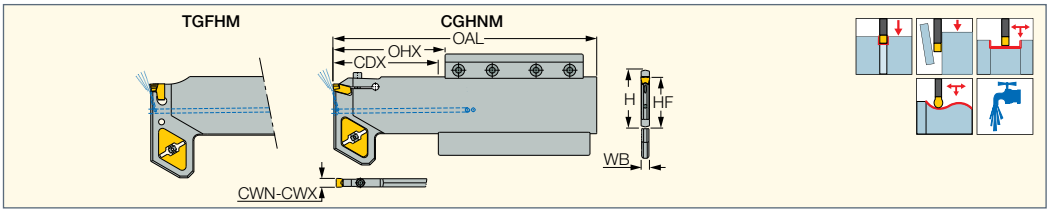
For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBK (617) • SGTBU/SGTBN (616)

CUTGRIP

WHISPERLINE ANTI-VIBRATION

Anti-Vibration Blades

Anti-Vibration Blades for Deep Grooving and Turning



Designation	CWN(1)	CWX(2)	OHX(3)	CDX(4)	WB	HF	H	OAL	Insert						
CGHNM 53-6DG-AV	5. 50	6.40	100.0	93.00	5.20	45.0	52.6	235.00	GIMF/N/T/Y 6 GIM 6	SGCU 341	OR 30X3 NBR	EDG 44A*	T-6/5	SGC 340	
TGFHM 53K-8-AV	7.70	9.00	100.0	93.00	7.40	45.0	52.6	235.00	TAG/TAGB 8	SGCU 341	OR 30X3 NBR	ETG 8-12*	T-6/5	SGC 340	
CGHNM 53-P8-AV	8.00	8.00	100.0	93.00 (5)	7.40	45.0	52.6	235.00	GIMY/F/MM 8	SGCU 341	OR 30X3 NBR		T-6/5	SGC 340	HW 4.0

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum overhang

(4) Cutting depth maximum

(5) For CUTDIA<200 CDX=98

* Optional, should be ordered separately

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIM-C (521) • GIMF (288) • GIMM 8CC (583) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP-E (293) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TAG N-C/W/M (506) • TAGB/TAGBA (333)

For holders, see pages: SGTBK (617) • SGTBU/SGTBN (616)

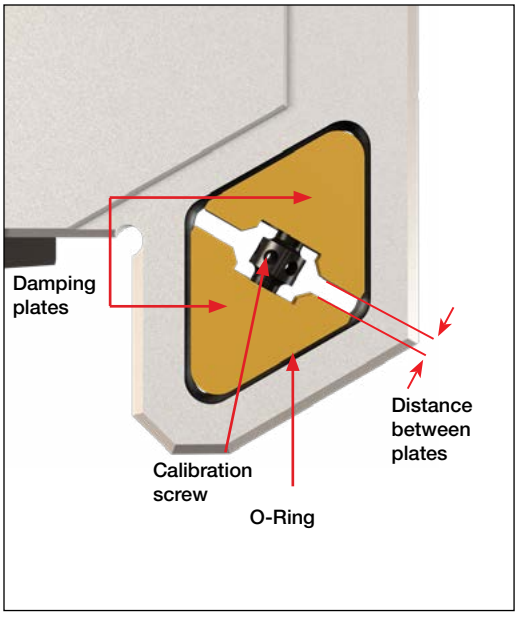
User Guide

- To maintain a stable and controlled machining process use constant RPM (G97).
- Each blade is pre-calibrated in laboratory conditions for an overhang of 100 mm.
- Although the pre-calibration is suitable for a wide range of overhangs, sometimes fine-tuning calibration is necessary, depends on the overhang and clamping rigidity of the machine.
- Before making fine tuning calibration try to optimize the cutting conditions. First step should be reducing the RPM.

Fine-Tuning Calibration

For shorter overhangs / more rigid clamping conditions, it is recommended to increase the compression of the O-ring by rotating the calibration screw clockwise (make sure the distance between the damping plates increases).

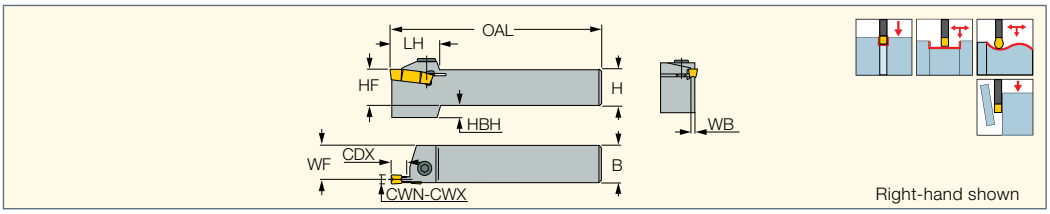
- For longer overhangs / less rigid clamping conditions, it is recommended to decrease the compression of the O-ring by rotating the calibration screw counter clockwise (make sure the distance between the damping plates decreases).
- The fine-tuning resolution should be about a half-turn for each 30 mm difference in the overhang.
- To restore the initial setup, use the distance between the damping plates imprinted on the blade.



CUT-GRIP

GHDR/L (long pocket)

External Tools for Grooving, Turning and Parting



Designation	CWN(1)	CWX(2)	CDX(3)	H	B	OAL	WF	WB	LH	HBH	HF		
GHDR/L 25-8	6.60	8.30	25.00	25.0	25.0	150.00	22.00	6.00	40.0	7.6	25.0	SR M6X16 DIN912	HW 5.0(a)
GHDR/L 3225-8	6.60	8.30	25.00	32.0	25.0	168.50	22.00	5.90	40.0	-	32.0	SR M6X16 DIN912	HW 5.0(a)
GHDR/L 25-812	6.60	8.30	12.00	25.0	25.0	140.00	22.00	5.90	33.0	-	25.0	SR M6X16 DIN912	HW 5.0(a)
GHDR/L 32-8	6.60	8.30	25.00	32.0	32.0	170.00	29.00	6.00	40.0	-	32.0	SR M6X16 DIN912	HW 5.0(a)
GHDL 32-812	6.60	8.30	12.00	32.0	32.0	160.00	29.00	5.90	33.0	-	32.0	SR M6X16 DIN912	HW 5.0(a)
GHDR/L 32-836	7.00	8.30	36.00	32.0	32.0	170.00	28.90	6.30	56.0	8.0	32.0	SR M8X20DIN912	HW 6.0(a)
GHDR/L 25-10	8.60	11.10	25.00	25.0	25.0	150.00	21.30	7.40	43.0	7.6	25.0	SR M8X20DIN912	HW 6.0(a)
GHDR/L 32-10	8.60	11.10	25.00	32.0	32.0	170.00	28.30	7.40	43.0	-	32.0	SR M8X20DIN912	HW 6.0(a)
GHDR/L 40-10	8.60	11.10	25.00	40.0	40.0	200.00	36.30	7.40	43.0	-	40.0	SR M8X20DIN912	HW 6.0(a)

- For user guide, see pages 419-428, 432-436

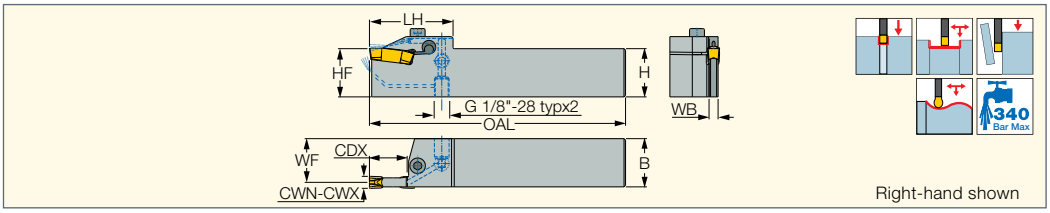
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(a) For optional key with limited tightening torque see page 428

For inserts, see pages: GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GDPY (293) • GIA-K (long pocket) (299) • GIF (long pocket) (298) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIPA/GIDA 8 (full radius) (302)

CUT-GRIP JET CUT

GHDR/L-JHP (long pocket)

CUT-GRIP Tools with Channels for High-Pressure Coolant for Grooving and Turning



Designation	CWN(1)	CWX(2)	CDX(3)	H	B	OAL	LH	WF	WB	HF
GHDL 32-8-JHP	6.60	8.30	25.00	32.0	32.0	170.00	55.5	29.00	6.00	32.0
GHDR 32-8-JHP	6.60	8.30	25.00	32.0	32.0	170.00	55.0	29.00	6.00	32.0

- For user guide and accessories see pages 419-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

For inserts, see pages: GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GIA-K (long pocket) (299) • GIF (long pocket) (298) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIPA/GIDA 8 (full radius) (302)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
GHDR/L 32-8-JHP	13-16	19-21	22-24

Spare Parts

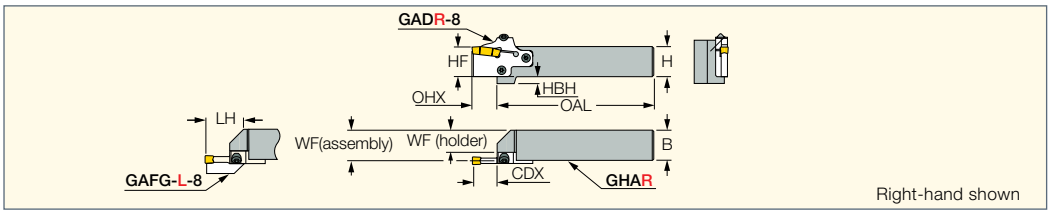
Designation			
GHDR/L 32-8-JHP	SR M6X25 DIN912	HW 5.0(a)	PLG 1/8ISO1179

(a) For optional key with limited tightening torque see page 428

CUT-GRIP

GHAR/L-8

External Holders for Grooving and Turning Adapters



Designation	H	HF	B	WF(1)	OAL	LH	OHX(2)	HBH	TGA(3)	CDX(4)	FG(5)				
GHAR/L 25-8	25.0	25.0	25.0	16.0	124.50	45.0	25.50	14.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0
GHAR/L 32-8	32.0	32.0	32.0	23.0	144.50	45.0	25.50	7.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0

- Adapters GADR/L-8 for turning and grooving, GAFG-R/L-8 for face-grooving (to be ordered separately)

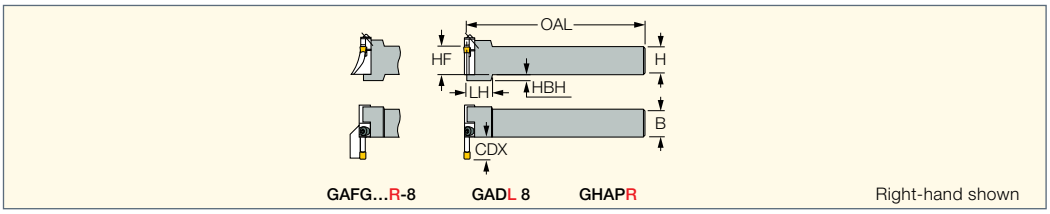
(1) WF(holder)
(2) Maximum overhang
(3) Adapter for Turning & Grooving
(4) See specific adapter dimensions
(5) Adapter for Face Grooving

For tools, see pages: GADR/L-8 (286) • GAFG-R/L-8 (580) • PCADR/L 34N-RE (318)

CUTGRIP

GHAPR/L-8

External Holders for Grooving and Turning Perpendicularly Oriented Adapters



Designation	H	HF	B	OAL	LH	HBH	TGA(1)	CDX(2)	FG(3)				
GHAPR/L 32-8	32.0	32.0	32.0	155.00	30.0	7.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0

- Adapters GADR/L-8 for turning and grooving, GAFG-R/L-8 for face-grooving (to be ordered separately)

(1) Adapter for Turning & Grooving

(2) See specific adapter dimensions

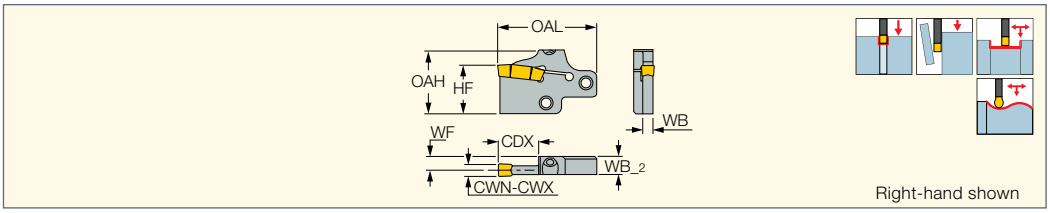
(3) Adapter for Face Grooving

For tools, see pages: GADR/L-8 (286) • GAFG-R/L-8 (580) • PCADR/L 34N-RE (318)

CUTGRIP

GADR/L-8

Adapters for up to 25 mm Deep Machining



Designation	CWN(1)	CWX(2)	CDX(3)	WB	HF	OAH	OAL	WB_2	WF
GADR/L 8	6.60	8.30	25.50	6.00	32.0	42.0	63.00	12.0	9.00

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

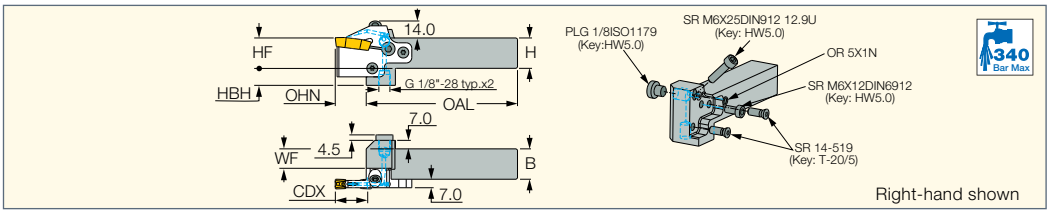
For inserts, see pages: GDMA (300) • GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GIA-K (long pocket) (299) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIPA/GIDA 8 (full radius) (302)

For holders, see pages: C#-GHAD-8 (625) • C#-GHAPR/L-8 (626) • GHAPR/L-8 (286) • GHAR/L-8 (285) • IM-GHAD-8 (634)

CUTGRIP JETCUT

GHAR/L-JHP

Holders with High-Pressure Coolant Channels for Grooving and Turning Adapters



Designation	H	HF	B	WF	OAL	OHN(1)	HBH	CDX(2)
GHAR/L 25-8-JHP	25.0	25.0	25.0	16.0	124.50	25.00	14.0	25.50

- For user guide and accessories see pages 419-438

(1) Minimum overhang

(2) See specific adapter dimensions

For tools, see pages: GADR/L-JHP (287)

Spare Parts

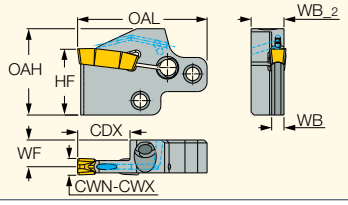
Designation							
GHAR/L-JHP	SR 14-519	T-20/5	OR 5X1N	SR M6X12DIN6912	SR M6X25 DIN912	PLG 1/8ISO1179	HW 5.0X120 MM

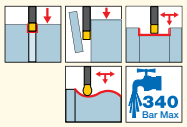
CUTGRIP JETCUT

GADR/L-JHP

Adapters with High-Pressure Coolant Channels Carrying Groove-Turn Inserts for up to 25 mm Deep Machining







Right-hand shown

Designation	CWN(1)	CWX(2)	CDX(3)	WB	HF	OAH	OAL	WB_2	WF
GADR/L 8-JHP	6.60	8.30	25.50	6.00	32.0	42.0	63.00	17.0	14.00
GADR/L 10-JHP	8.60	10.30	25.50	7.40	32.0	42.0	63.00	17.7	14.00

- For user guide and accessories see pages 419-438

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

For inserts, see pages: GDMA (300) • GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GDPY (293) • GIA-K (long pocket) (299) • GIF (long pocket) (298) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIPA/GIDA 8 (full radius) (302)

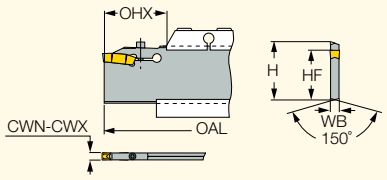
Flow Rate vs. Pressure

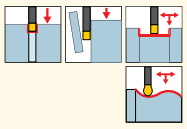
Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
GADR/L-JHP	15-17	23-25	27-29

CUTGRIP

CGHN-8-10D

Heavy Duty Deep Grooving and Turning Blades





Designation	CWN(1)	CWX(2)	OHX(3)	WB	HF	H	OAL		
CGHN 52-8D	8.00	8.30	50.0	7.40	45.0	52.6	190.00	SR 76-1637	HW 4.0
CGHN 53-8D	8.00	8.30	70.0	7.40	45.0	52.6	260.00	SR 76-1637	HW 4.0
CGHN 52-10D	10.00	11.00	70.0	9.20	45.0	52.6	190.00	SR 76-1289	HW 5.0
CGHN 53-10D	10.00	11.00	100.0	9.20	45.0	52.6	260.00	SR 76-1289	HW 5.0

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum overhang • When using a double-ended insert, grooving depth is limited by the insert

For inserts, see pages: GDMF (288) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GDPY (293) • GIA-K (long pocket) (299) • GIF (long pocket) (298) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIPA/GIDA 8 (full radius) (302)

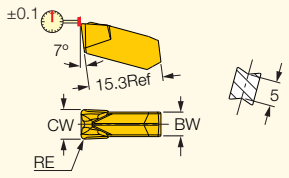
For holders, see pages: SGTBK (617) • SGTBU/SGTBN (616)

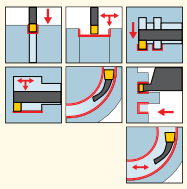
CUTGRIP

GIMT

Utility Single-Ended Inserts for Grooving and Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC07	IC806	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMT 302	3.00	0.20	0.05	0.050	2.40	•	•	•	•	•	0.50-1.80	0.10-0.22	0.07-0.15
GIMT 304	3.00	0.40	0.05	0.050	2.40	•	•	•	•	•	0.50-1.80	0.10-0.22	0.07-0.15
GIMT 402	4.00	0.20	0.05	0.050	3.40	•	•	•	•	•	0.50-2.40	0.15-0.25	0.09-0.20
GIMT 404	4.00	0.40	0.05	0.050	3.40	•	•	•	•	•	0.50-2.40	0.15-0.25	0.09-0.20
GIMT 508	5.00	0.80	0.05	0.050	4.00	•	•	•	•	•	1.00-3.00	0.20-0.35	0.11-0.22
GIMT 608	6.00	0.80	0.05	0.050	5.00	•	•	•	•	•	1.00-3.60	0.22-0.40	0.13-0.25

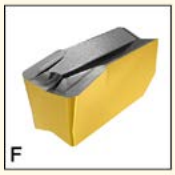
- DMIN for internal applications = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

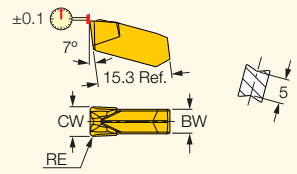
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

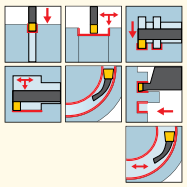
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

CUTGRIP

GIMF
Utility Single-Ended Inserts
for Grooving and Turning





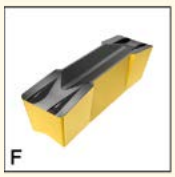


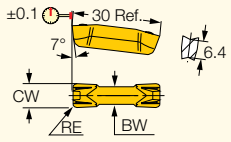
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC1030	IC8250	IC1010	IC808	IC908	IC20	IC5010	IC428	IC806	IC907	IC4	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMF 406	4.00	0.60	0.05	0.050	3.40	●		●		●	●	●	●	●	●	●	●	●	0.75-2.40	0.19-0.25	0.09-0.16
GIMF 502	5.00	0.20	0.05	0.050	4.00			●				●							0.25-3.00	0.18-0.26	0.11-0.18
GIMF 508	5.00	0.80	0.05	0.050	4.00	●		●		●	●	●	●	●	●		●	●	1.00-3.00	0.23-0.35	0.11-0.21
GIMF 605	6.00	0.50	0.05	0.050	5.00	●				●									0.60-3.60	0.22-0.36	0.13-0.23
GIMF 608	6.00	0.80	0.05	0.050	5.00	●	●	●	●	●	●	●	●		●		●	●	1.00-3.60	0.24-0.42	0.13-0.25
GIMF 808	8.00	0.80	0.05	0.050	6.00	●		●		●									1.00-4.80	0.32-0.56	0.18-0.34

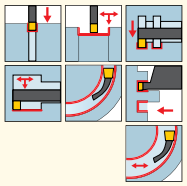
• DMIN for internal applications = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGFG 51-P8 (580) • CGHN 26-M (356) • CGHN 32-DGM (358)
• CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-P8 (283) • CGHN-S (282) • CGHR/L-P8DG (284) • CGPAD (281) • CGPAD-JHP (282)
• GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273)
• GHMR/L (273)

CUTGRIP

GDMF
Utility Double-Ended Inserts
for Grooving and Turning







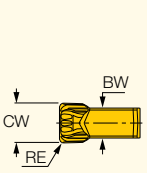
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC5010	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMF 808	8.00	0.80	0.05	0.050	27.00	6.00	●	●	●	●	●	1.00-4.80	0.32-0.56	0.18-0.34

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285)
• GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

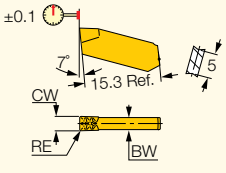
CUTGRIP

GIMY
Utility Single-Ended Inserts
for Grooving and Turning

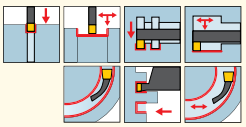




GIMY 8, 10



GIMY 3



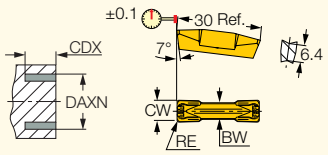
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC806	IC4	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMY 304	3.00	0.40	0.05	0.050	2.40	●	●			●	●	●	●	0.50-1.80	0.16-0.20	0.07-0.12
GIMY 808	8.00	0.80	0.05	0.050	6.00	●	●	●	●	●	●			1.00-4.80	0.32-0.56	0.18-0.34
GIMY 1008	10.00	0.80	0.05	0.050	8.00	●		●						1.00-6.00	0.35-0.65	0.22-0.40

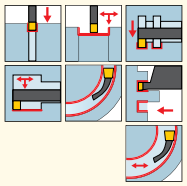
• DMIN for internal applications =70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGFG 51-P8 (580) • CGHN 26-M (356) • CGHN 32-DGM (358)
• CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-P8 (283) • CGHN-S (282) • CGHR/L-P8DG (284) • CGPAD (281) • CGPAD-JHP (282)
• GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273)
• GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

CUTGRIP

GDMY
Utility Double-Ended Inserts
for Grooving and Turning







Designation	Dimensions							Tough ↔ Hard							Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	CDX(4)	IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 808	8.00	0.80	0.05	0.050	6.00	50.0	27.00	•	•	•	•	•	•	•	1.00-4.80	0.32-0.56	0.18-0.34

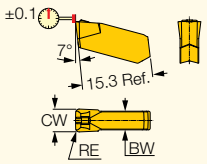
• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Cutting depth maximum

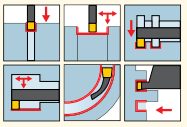
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

CUTGRIP

GIMN
Utility Single-Ended Inserts
for Grooving and Turning
Ductile Materials







Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	IC908	IC907	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMN 302	3.00	0.20	0.05	0.050	2.40		•	0.30-1.20	0.07-0.11	0.04-0.09
GIMN 406	4.00	0.60	0.05	0.050	3.40		•	0.75-1.60	0.11-0.18	0.05-0.14
GIMN 508	5.00	0.80	0.05	0.050	4.10	•	•	1.00-2.00	0.15-0.25	0.06-0.18
GIMN 608	6.00	0.80	0.05	0.050	5.00		•	1.00-2.40	0.18-0.30	0.07-0.22

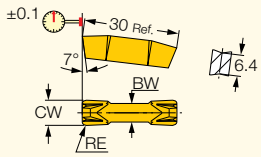
• DMIN for internal applications = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

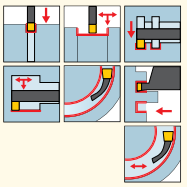
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

CUTGRIP

GDMN
Utility Double-Ended Inserts
for Grooving and Turning
Ductile Materials







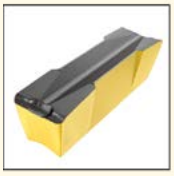
Designation	Dimensions						Tough ↔ Hard				Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	IC830	IC8250	IC808	IC907	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMN 808	8.00	0.80	0.05	0.050	27.00	6.00	•	•	•	•	1.00-3.20	0.20-0.35	0.10-0.30

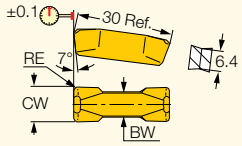
• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

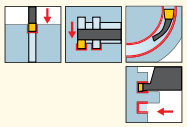
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

CUTGRIP

GDMU
Utility Inserts for Heavy Grooving on Ductile Materials







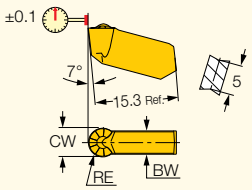
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	Recommended Machining Data f groove (mm/rev)
GDMU 808	8.00	0.80	0.05	0.050	6.00	•	•	0.10-0.24

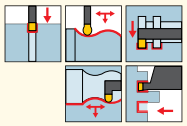
• For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

CUTGRIP

GIMY (full radius)
Utility Single-Ended Inserts for Grooving and Profiling







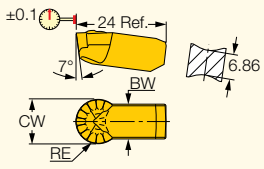
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC806	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMY 315	3.00	1.50	0.05	0.050	2.40	•	•	•	•	•	•	•	•	0.00-1.50	0.18-0.26	0.07-0.13
GIMY 420	4.00	2.00	0.05	0.050	3.20	•	•	•	•	•	•	•	•	0.00-2.00	0.20-0.28	0.09-0.17
GIMY 525	5.00	2.50	0.05	0.050	3.90	•	•	•	•	•	•	•	•	0.00-2.50	0.23-0.42	0.11-0.21
GIMY 630	6.00	3.00	0.05	0.050	5.00	•	•	•	•	•	•	•	•	0.00-3.00	0.24-0.50	0.13-0.25
GIMY 635-318	6.35	3.18	0.05	0.050	5.10	•	•	•		•				0.00-3.10	0.25-0.53	0.14-0.27
GIMY 840	8.00	4.00	0.05	0.050	5.60	•	•	•	•	•				0.00-4.00	0.32-0.67	0.18-0.34

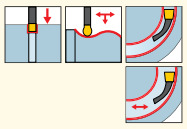
• DMIN for internal application=70 mm • Can cut arcs to 250° • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGFG 51-P8 (580) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-P8 (283) • CGHN-S (282) • CGHR/L-P8DG (284) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

CUTGRIP

GIMY 1260
Utility Single-Ended Inserts for External Grooving and Profiling







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMY 1260	12.00	6.00	0.05	0.050	9.50	•	•	•	•	•	0.00-6.00	0.42-0.86	0.26-0.45

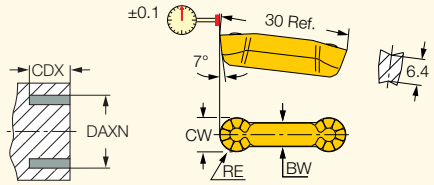
• Toolholder seat needs to be modified according to insert profile to ensure clearance • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
For tools, see pages: CGHR/L-12-14D (333) • GHDR/L/N 12/14 (333)

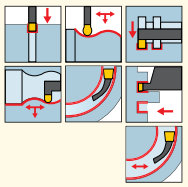
CUTGRIP

GDMY (full radius)

Utility Double-Ended Full Radius Inserts for Grooving and Profiling







Designation	Dimensions							Tough ↔ Hard								Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	CDX	IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC806	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 840	8.00	4.00	0.05	0.050	5.60	50.0	25.00	●	●	●	●	●	●	●	●	0.00-4.00	0.32-0.67	0.18-0.34

• Can cut arcs to 250° • DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

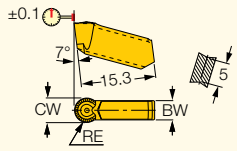
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDKR/L (446) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

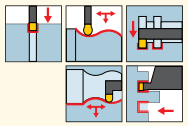
CUTGRIP

GIMY-F

Utility Single-Ended Inserts for Grooving and Profiling Ductile Materials







Designation	Dimensions					Tough ↔ Hard					Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	IC8250	IC808	IC908	IC806	IC804	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMY 315F	3.00	1.50	0.05	0.050	2.40		●				0.00-1.50	0.18-0.26	0.07-0.13
GIMY 525F	5.00	2.50	0.05	0.050	3.90		●		●		0.00-2.50	0.23-0.42	0.11-0.21
GIMY 630F	6.00	3.00	0.05	0.050	5.00		●	●	●	●	0.00-3.00	0.24-0.50	0.13-0.25
GIMY 840F	8.00	4.00	0.05	0.050	5.60	●					0.00-4.00	0.32-0.67	0.18-0.34

• DMIN for internal applications =70 mm • Can cut arcs to 250° • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

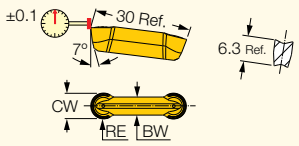
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGFG 51-P8 (580) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-P8 (283) • CGHN-S (282) • CGHR/L-P8DG (284) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

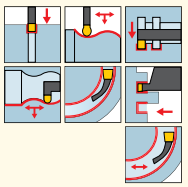
CUTGRIP

GDMY-F

Utility Double-Ended Inserts for Grooving and Profiling Ductile Materials







Designation	Dimensions						Tough ↔ Hard		Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC808	IC908	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 840F	8.00	4.00	0.05	0.050	5.60	25.00	●	●	0.00-4.00	0.32-0.67	0.18-0.34

• DMIN for internal applications = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

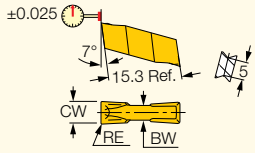
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

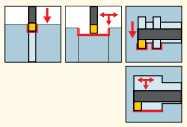
CUTGRIP

GIF-E (W=4-6)

Precision Double-Ended Inserts for Grooving and Turning







Designation	Dimensions						Tough ↔ Hard						Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC830	IC8250	IC808	IC908	IC20	IC807	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIF 4.00E-0.40	4.00	0.40	0.02	0.030	3.20	13.00	●	●	●	●	●	●	0.50-2.40	0.18-0.24	0.09-0.15
GIF 4.00E-0.60	4.00	0.60	0.02	0.050	3.20	13.00	●	●			●		0.75-2.40	0.19-0.25	0.09-0.16
GIF 4.00E-0.80	4.00	0.80	0.02	0.050	3.20	13.00	●	●	●	●	●	●	1.00-2.40	0.20-0.28	0.09-0.17
GIF 5.00E-0.40	5.00	0.40	0.02	0.030	4.00	13.00	●	●	●		●		0.50-3.00	0.20-0.30	0.11-0.19
GIF 5.00E-0.60	5.00	0.60	0.02	0.050	4.00	13.00	●	●			●		0.75-3.00	0.21-0.32	0.11-0.20
GIF 5.00E-0.80	5.00	0.80	0.02	0.050	4.00	13.00	●	●	●	●	●	●	1.00-3.00	0.23-0.35	0.11-0.21
GIF 6.00E-0.40	6.00	0.40	0.02	0.030	4.80	13.00	●	●	●		●		0.50-3.60	0.22-0.36	0.13-0.23
GIF 6.00E-0.80	6.00	0.80	0.02	0.050	4.80	13.00	●	●	●	●	●		1.00-3.60	0.24-0.42	0.13-0.25
GIF 6.00E-1.20	6.00	1.20	0.02	0.050	4.80	13.00		●			●		1.45-3.60	0.24-0.46	0.13-0.25

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

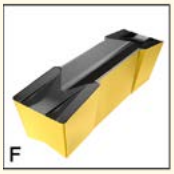
(3) Cutting depth maximum

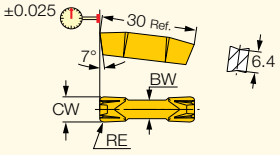
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

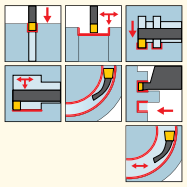
CUTGRIP

GIF-E (W=8,10)

Precision Double-Ended Inserts for Grooving and Turning







Designation	Dimensions						Tough ↔ Hard									Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC806	IC807	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIF 8.00E-0.40	8.00	0.40	0.02	0.030	6.00	27.00		●	●	●						0.50-4.80	0.29-0.48	0.18-0.31
GIF 8.00E-0.80	8.00	0.80	0.02	0.050	6.00	27.00	●	●	●	●	●	●	●	●	●	1.00-4.80	0.32-0.56	0.18-0.34
GIF 8.00E-1.20	8.00	1.20	0.02	0.050	6.00	27.00	●	●	●	●	●	●	●			1.45-4.80	0.32-0.62	0.18-0.34
GIF 10.00E-0.80	10.00	0.80	0.02	0.050	8.00	27.00	●	●	●	●	●	●	●		●	1.00-6.00	0.35-0.65	0.22-0.40
GIF 10.00E-1.20	10.00	1.20	0.02	0.050	8.00	27.00	●	●	●	●	●			●		1.45-6.00	0.35-0.72	0.22-0.40

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

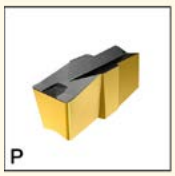
(3) Cutting depth maximum

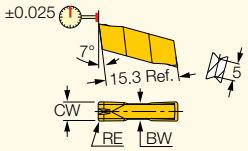
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

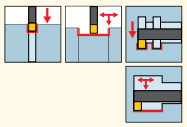
CUTGRIP

GIP-E

Precision Double-Ended Inserts for Grooving and Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC5010	IC428	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIP 3.00E-0.00	3.00	0.00	0.02	0.030	2.40	13.00	●											0.00-1.80	0.12-0.16	0.07-0.11
GIP 3.00E-0.20	3.00	0.20	0.02	0.030	2.40	13.00	●	●	●	●		●			●	●	●	0.25-1.80	0.15-0.20	0.08-0.13
GIP 3.00E-0.40	3.00	0.40	0.02	0.030	2.40	13.00	●	●	●	●	●	●	●	●	●	●		0.50-1.80	0.17-0.22	0.08-0.14
GIP 3.00E-0.80	3.00	0.80	0.02	0.050	2.40	13.00		●										1.00-1.80	0.19-0.26	0.08-0.15
GIP 4.00E-0.40	4.00	0.40	0.02	0.030	3.20	13.00	●	●	●	●	●	●	●	●	●	●	●	0.50-2.40	0.19-0.26	0.10-0.18
GIP 4.00E-0.60	4.00	0.60	0.02	0.050	3.20	13.00	●	●	●	●	●		●	●				0.75-2.40	0.21-0.28	0.10-0.19
GIP 4.00E-0.80	4.00	0.80	0.02	0.050	3.20	13.00	●	●	●	●	●		●	●	●	●		1.00-2.40	0.22-0.31	0.10-0.20
GIP 4.78E-0.55	4.78	0.55	0.02	0.050	4.00	13.00	●	●	●		●		●	●				0.70-2.80	0.21-0.31	0.12-0.20
GIP 5.00E-0.40	5.00	0.40	0.02	0.030	4.00	13.00	●	●	●		●				●			0.50-3.00	0.22-0.33	0.13-0.21
GIP 5.00E-0.60	5.00	0.60	0.02	0.050	4.00	13.00	●	●	●		●	●						0.75-3.00	0.23-0.35	0.13-0.22
GIP 5.00E-0.80	5.00	0.80	0.02	0.050	4.00	13.00	●	●	●		●		●	●				1.00-3.00	0.24-0.39	0.13-0.23
GIP 5.55E-0.55	5.55	0.55	0.02	0.050	4.80	13.00		●										0.70-3.30	0.21-0.36	0.14-0.23
GIP 6.00E-0.80	6.00	0.80	0.02	0.050	4.80	13.00		●	●		●		●	●				1.00-3.60	0.26-0.46	0.15-0.27
GIP 6.00E-1.20	6.00	1.20	0.02	0.050	4.80	13.00		●			●							1.45-3.60	0.26-0.51	0.15-0.27
GIP 6.35E-0.80	6.35	0.80	0.02	0.050	4.80	13.00	●	●	●		●							1.00-3.80	0.27-0.49	0.16-0.29

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

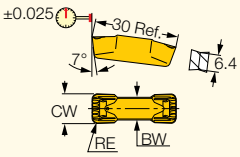
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

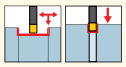
CUTGRIP

GDPY

Precision Double-Ended Inserts for External Heavy-Duty Grooving and Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDPY 10.00-0.80	10.00	0.80	0.02	0.050	8.00	●	●	●	1.00-6.00	0.35-0.65	0.22-0.40
GDPY 10.00-1.20	10.00	1.20	0.02	0.050	8.00	●			1.45-6.00	0.45-0.80	0.22-0.40
GDPY 10.00-2.00	10.00	2.00	0.02	0.050	8.00	●		●	2.40-6.00	0.35-0.78	0.22-0.40
GDPY 11.00-1.20	11.00	1.20	0.02	0.050	8.00	●			1.45-6.60	0.39-0.73	0.24-0.41
GDPY 11.00-2.00	11.00	2.00	0.02	0.050	8.00	●			2.40-6.60	0.39-0.79	0.24-0.41

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

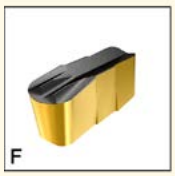
(2) Corner radius tolerance (+/-)

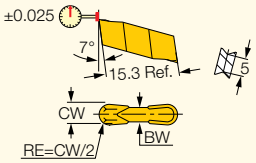
For tools, see pages: CGHN-8-10D (287) • GADR/L-JHP (287) • GHDR/L (long pocket) (285)

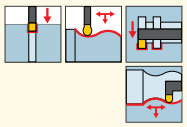
CUTGRIP

GIF-E (W=4-6 full radius)

Precision Double-Ended
Full Radius Inserts for
Profiling and Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIF 4.00E-2.00	4.00	2.00	0.02	0.050	3.20	11.80	●	●	●	●	0.00-2.00	0.20-0.34	0.09-0.17
GIF 5.00E-2.50	5.00	2.50	0.02	0.050	4.00	11.30	●	●		●	0.00-2.50	0.23-0.42	0.11-0.21
GIF 6.00E-3.00	6.00	3.00	0.02	0.050	4.80	10.80	●	●		●	0.00-3.00	0.24-0.50	0.13-0.25

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

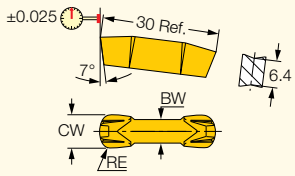
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

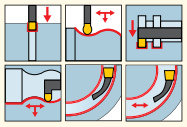
CUTGRIP

GIF-E (W=8,10 full radius)

Precision Double-Ended
Full Radius Inserts for
Profiling and Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIF 8.00E-4.00	8.00	4.00	0.02	0.050	6.00		●	0.00-4.00	0.32-0.67	0.18-0.34
GIF 10.00E-5.00	10.00	5.00	0.02	0.050	8.00	●	●	0.00-5.00	0.35-0.78	0.22-0.40

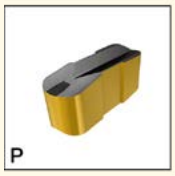
• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

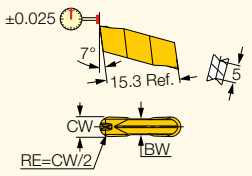
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

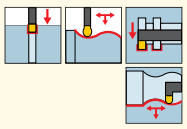
CUTGRIP

GIP-E (full radius)

Precision Double-Ended
Full Radius Inserts for
Profiling and Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIP 3.00E-1.50	3.00	1.50	0.02	0.050	2.40	12.30	●	●	●	●	●			●	●	0.00-1.50	0.18-0.28	0.08-0.15
GIP 4.00E-2.00	4.00	2.00	0.02	0.050	3.20	11.80	●	●	●	●	●	●	●	●		0.00-2.00	0.20-0.34	0.10-0.20
GIP 5.00E-2.50	5.00	2.50	0.02	0.050	4.00	11.30		●			●	●	●			0.00-2.50	0.25-0.42	0.13-0.23
GIP 6.00E-3.00	6.00	3.00	0.02	0.050	4.80	10.80		●			●					0.00-3.00	0.27-0.54	0.15-0.27
GIP 6.35E-3.18	6.35	3.18	0.02	0.050	4.80	10.63		●			●					0.00-3.10	0.29-0.57	0.16-0.29

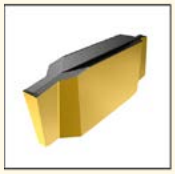
• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

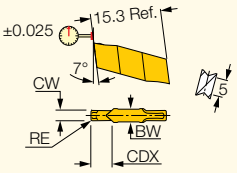
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

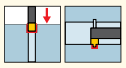
CUTGRIP

GIP (flat top W<M)

Flat Top Precision
Double-Ended Inserts
for Grooving







Designation	Dimensions						Tough ↔ Hard						Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	IC830	IC808	IC908	IC20	IC20N	IC807	f groove (mm/rev)
GIP 0.50-0.00	0.50	0.00	0.02	0.030	1.00	2.20		●		●			0.02-0.04
GIP 0.80-0.00	0.80	0.00	0.02	0.030	1.60	2.20		●		●			0.02-0.04
GIP 1.04-0.00	1.04	0.00	0.02	0.030	2.00	2.20	●	●	●	●		●	0.02-0.05
GIP 1.20-0.00	1.20	0.00	0.02	0.030	2.00	2.20	●	●	●	●		●	0.03-0.05
GIP 1.40-0.00	1.40	0.00	0.02	0.030	2.00	2.20	●	●	●	●			0.03-0.06
GIP 1.47-0.00	1.47	0.00	0.02	0.030	2.50	2.20	●	●	●	●			0.03-0.06
GIP 1.57-0.15	1.57	0.15	0.02	0.030	2.70	2.20	●	●	●	●		●	0.04-0.06
GIP 1.70-0.10	1.70	0.10	0.02	0.030	3.00	2.20	●	●	●	●	●		0.04-0.07
GIP 1.78-0.18	1.78	0.18	0.02	0.030	3.00	2.20	●	●	●	●			0.04-0.07
GIP 1.96-0.15	1.96	0.15	0.02	0.030	3.00	2.20	●	●	●	●	●	●	0.04-0.08

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

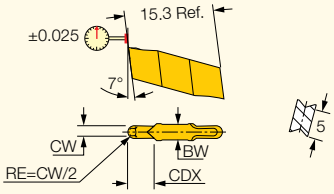
For tools, see pages: GHDR/L (short pocket) (275) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

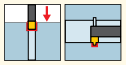
CUTGRIP

GIP (full radius W<M)

Flat Top Precision
Double-Ended Inserts with
Full Radius for Grooving







Designation	Dimensions						Tough ↔ Hard						Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	IC830	IC808	IC908	IC20	IC806	IC807	f groove (mm/rev)
GIP 1.00-0.50	1.00	0.50	0.02	0.050	2.00	2.20		●	●			●	0.03-0.06
GIP 1.40-0.70	1.40	0.70	0.02	0.050	2.00	2.20		●	●				0.04-0.07
GIP 1.57-0.79	1.57	0.79	0.02	0.050	2.70	2.20	●	●	●	●		●	0.04-0.08
GIP 2.00-1.00	2.00	1.00	0.02	0.050	3.00	2.20	●	●	●	●	●	●	0.05-0.11
GIP 2.39-1.20	2.39	1.20	0.02	0.050	4.70	2.40		●	●	●		●	0.06-0.12

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

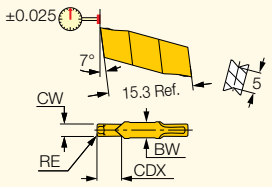
(3) Cutting depth maximum

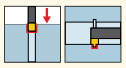
For tools, see pages: GHDR/L (short pocket) (275) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

CUTGRIP

GIG
Precision Double-Ended Inserts for Grooving







Designation	Dimensions						Tough ↔ Hard			Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	IC830	IC808	IC20	f groove (mm/rev)
GIG 1.04-0.00	1.04	0.00	0.02	0.030	2.00	2.20		●		0.02-0.03
GIG 1.20-0.00	1.20	0.00	0.02	0.030	2.00	2.20		●		0.02-0.03
GIG 1.25-0.10	1.25	0.10	0.02	0.030	2.00	2.20	●	●		0.02-0.04
GIG 1.40-0.00	1.40	0.00	0.02	0.030	2.00	2.20		●		0.02-0.04
GIG 1.45-0.10	1.45	0.10	0.02	0.030	2.00	2.20	●	●		0.02-0.04
GIG 1.47-0.00	1.47	0.00	0.02	0.030	2.50	2.20		●		0.02-0.04
GIG 1.50-0.10	1.50	0.10	0.02	0.030	2.50	2.20	●	●		0.02-0.04
GIG 1.57-0.15	1.57	0.15	0.02	0.030	2.70	2.20		●		0.03-0.05
GIG 1.70-0.10	1.70	0.10	0.02	0.030	3.00	2.20		●		0.03-0.05
GIG 1.78-0.18	1.78	0.18	0.02	0.030	3.00	2.20		●		0.03-0.05
GIG 1.85-0.15	1.85	0.15	0.02	0.030	3.00	2.20	●	●		0.03-0.05
GIG 1.86-0.15	1.86	0.15	0.02	0.030	3.00	2.20		●		0.03-0.05
GIG 1.96-0.15	1.96	0.15	0.02	0.030	3.00	2.20		●		0.03-0.06
GIG 2.00-0.20	2.00	0.20	0.02	0.030	3.00	2.20	●	●	●	0.04-0.06
GIG 2.22-0.15	2.22	0.15	0.02	0.030	3.50	2.20		●		0.04-0.06
GIG 2.30-0.20	2.30	0.20	0.02	0.030	3.50	2.20	●	●		0.04-0.07

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

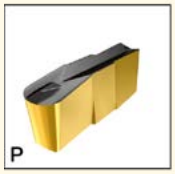
(2) Corner radius tolerance (+/-)

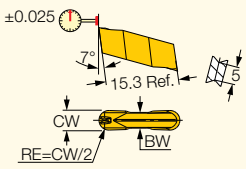
(3) Cutting depth maximum

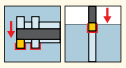
For tools, see pages: GHDR/L (short pocket) (275) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

CUTGRIP

GIP (full radius)
Precision Double-Ended Full Radius Inserts for Grooving







Designation	Dimensions						Tough ↔ Hard					Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	IC830	IC8250	IC808	IC20	IC804	f groove (mm/rev)
GIP 3.00-1.50	3.00	1.50	0.02	0.050	12.30	2.40				●	●	0.08-0.15
GIP 3.18-1.59	3.18	1.59	0.02	0.050	12.20	2.40	●	●	●	●		0.08-0.16
GIP 3.98-1.99	3.98	1.99	0.02	0.050	11.80	3.20		●		●		0.10-0.20
GIP 4.78-2.39	4.78	2.39	0.02	0.050	11.40	4.80		●		●		0.12-0.22
GIP 5.00-2.50	5.00	2.50	0.02	0.050	11.30	4.00				●		0.13-0.23

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

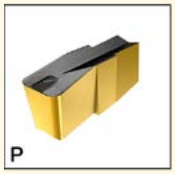
(3) Cutting depth maximum

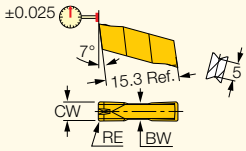
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

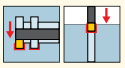
CUTGRIP

GIP

Precision Double-Ended Inserts for Grooving







Designation	Dimensions						Tough ↔ Hard								Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	IC830	IC8250	IC808	IC908	IC20	IC20N	IC806	IC807	f groove (mm/rev)
GIP 2.22-0.15	2.22	0.15	0.02	0.030	3.50	2.20	•		•	•	•			•	0.05-0.09
GIP 2.39-0.15	2.39	0.15	0.02	0.030	4.70	2.40	•		•	•	•			•	0.05-0.09
GIP 2.47-0.20	2.47	0.20	0.02	0.030	5.00	2.40	•		•	•	•	•		•	0.06-0.10
GIP 2.70-0.10	2.70	0.10	0.02	0.030	13.00	2.40	•		•	•	•			•	0.06-0.10
GIP 2.70-0.20	2.70	0.20	0.02	0.030	13.00	2.40			•		•				0.07-0.11
GIP 2.87-0.20	2.87	0.20	0.02	0.030	13.00	2.40	•		•	•	•				0.07-0.12
GIP 3.00-0.00	3.00	0.00	0.02	0.030	13.00	2.40	•		•		•				0.07-0.11
GIP 3.00-0.20	3.00	0.20	0.02	0.030	13.00	2.40	•		•	•	•		•	•	0.08-0.13
GIP 3.00-0.40	3.00	0.40	0.02	0.030	13.00	2.40					•				0.08-0.14
GIP 3.15-0.15	3.15	0.15	0.02	0.030	13.00	2.40	•	•	•	•	•	•			0.07-0.12
GIP 3.18-0.20	3.18	0.20	0.02	0.030	13.00	2.40	•	•	•		•			•	0.08-0.13
GIP 3.30-0.10	3.30	0.10	0.02	0.030	13.00	2.40	•	•	•		•				0.07-0.12
GIP 3.48-0.20	3.48	0.20	0.02	0.030	13.00	3.20		•			•				0.09-0.15
GIP 3.56-0.20	3.56	0.20	0.02	0.030	13.00	3.20		•			•				0.09-0.15
GIP 3.74-0.20	3.74	0.20	0.02	0.030	13.00	3.20		•	•		•				0.09-0.16
GIP 3.98-0.20	3.98	0.20	0.02	0.030	13.00	3.20	•	•	•	•	•			•	0.10-0.17
GIP 4.00-0.80	4.00	0.80	0.02	0.050	13.00	3.20					•				0.10-0.20
GIP 4.23-0.10	4.23	0.10	0.02	0.030	13.00	3.20	•	•	•		•				0.10-0.16
GIP 5.00-0.40	5.00	0.40	0.02	0.030	13.00	4.00					•				0.13-0.21
GIP 6.00-0.40	6.00	0.40	0.02	0.030	13.00	4.80					•				0.15-0.25
GIP 6.00-0.80	6.00	0.80	0.02	0.050	13.00	4.80					•				0.15-0.27

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

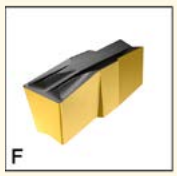
(3) Cutting depth maximum

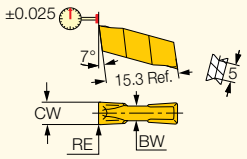
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

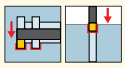
CUTGRIP

GIF

Precision Double-Ended Inserts for Grooving







Designation	Dimensions						Tough ↔ Hard				Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC830	IC8250	IC808	IC20	f groove (mm/rev)
GIF 3.48-0.20	3.48	0.20	0.02	0.030	3.20	13.00	•	•	•	•	0.08-0.12
GIF 3.56-0.20	3.56	0.20	0.02	0.030	3.20	13.00		•	•		0.08-0.13
GIF 3.74-0.20	3.74	0.20	0.02	0.030	3.20	13.00		•	•		0.08-0.13
GIF 3.98-0.20	3.98	0.20	0.02	0.030	3.20	13.00	•	•	•	•	0.09-0.14
GIF 4.23-0.10	4.23	0.10	0.02	0.030	3.20	13.00	•	•	•		0.08-0.13
GIF 4.45-0.15	4.45	0.15	0.02	0.030	4.00	13.00	•	•	•	•	0.09-0.14
GIF 4.78-0.55	4.78	0.55	0.02	0.050	4.00	13.00		•	•	•	0.11-0.18
GIF 4.86-0.30	4.86	0.30	0.02	0.030	4.00	13.00		•	•	•	0.11-0.18
GIF 5.28-0.20	5.28	0.20	0.02	0.030	4.00	13.00		•	•	•	0.12-0.18
GIF 5.39-0.20	5.39	0.20	0.02	0.030	4.00	13.00		•	•	•	0.12-0.19
GIF 5.90-0.20	5.90	0.20	0.02	0.030	4.80	13.00		•	•		0.12-0.21
GIF 6.35-0.50	6.35	0.50	0.02	0.050	4.80	13.00		•	•	•	0.14-0.24
GIF 6.35-0.55	6.35	0.55	0.02	0.050	4.80	13.00		•	•		0.14-0.24

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

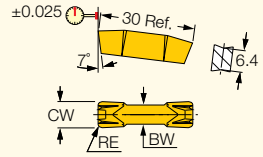
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

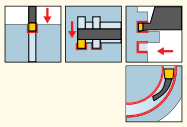
CUTGRIP

GIF (long pocket)

Precision Double-Ended Inserts for Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC20	IC806	Recommended Machining Data f groove (mm/rev)	f face-groove (mm/rev)
GIF 8.00-0.40	8.00	0.40	0.02	0.030	6.00	27.00	●	●	0.18-0.31	0.14-0.23
GIF 8.00-0.80	8.00	0.80	0.02	0.050	6.00	27.00	●	●	0.18-0.34	0.14-0.25

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

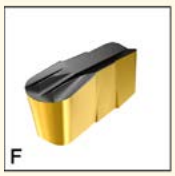
(3) Cutting depth maximum

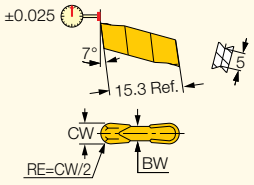
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579)

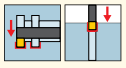
CUTGRIP

GIF (full radius)

Precision Double-Ended Full Radius Inserts for Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC8250	IC808	IC20	Recommended Machining Data f groove (mm/rev)
GIF 4.78-2.39	4.78	2.39	0.02	0.050	4.00	11.40	●	●		0.11-0.20
GIF 6.35-3.18	6.35	3.18	0.02	0.050	4.80	10.60			●	0.14-0.27

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

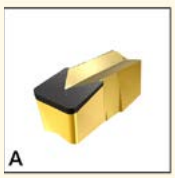
(3) Cutting depth maximum

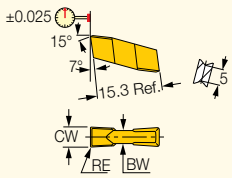
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

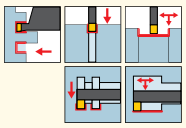
CUTGRIP

GIA-K (W=3-6)

Flat Top Precision Double-Ended Inserts with T-Land for Machining Cast Iron







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC5010	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIA 3.00K-0.40	3.00	0.40	0.02	0.030	2.40	13.00	●	●	0.50-1.80	0.12-0.20	0.07-0.13
GIA 4.00K-0.40	4.00	0.40	0.02	0.030	3.20	13.00	●	●	0.50-2.40	0.16-0.27	0.09-0.18
GIA 4.00K-0.80	4.00	0.80	0.02	0.050	3.20	13.00	●	●	1.00-2.40	0.18-0.32	0.09-0.19
GIA 5.00K-0.80	5.00	0.80	0.02	0.050	4.00	13.00	●	●	1.00-3.00	0.23-0.40	0.11-0.24
GIA 6.00K-0.80	6.00	0.80	0.02	0.050	4.80	13.00	●	●	1.00-3.60	0.27-0.48	0.14-0.29

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

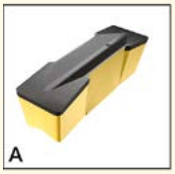
(3) Cutting depth maximum

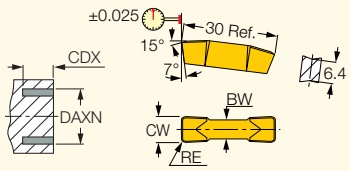
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

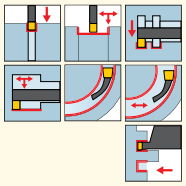
CUTGRIP

GIA-K (long pocket)

Flat Top Precision
Double-Ended Inserts with
T-Land for Machining Cast Iron







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	DAXN(4)	Tough ↔ Hard IC5010	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIA 8.00K-0.80	8.00	0.80	0.02	0.050	6.00	25.00	160.0	●	●	1.00-4.80	0.36-0.64	0.18-0.38
GIA 8.00K-1.20	8.00	1.20	0.02	0.050	6.00	25.00	160.0	●	●	1.45-4.80	0.36-0.70	0.18-0.38

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum
(4) Minimum axial grooving diameter

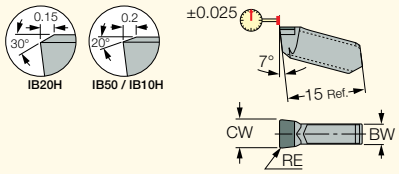
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

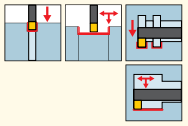
CUTGRIP

GITM

CBN Tipped Inserts for
Turning and Grooving on
Hard Ferrous Materials







HARD MATERIALS

Designation	Dimensions CW	RE	RETOL(1)	CWTOL(2)	BW	Tough ↔ Hard IB20H	IB50	IB10H	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GITM 3.00K-0.20	3.00	0.20	0.050	0.02	2.40	●	●	●	0.00-0.30	0.02-0.07	0.02-0.05
GITM 4.00K-0.20	4.00	0.20	0.050	0.02	3.20	●	●	●	0.00-0.40	0.03-0.09	0.02-0.07
GITM 5.00K-0.40	5.00	0.40	0.050	0.02	4.00	●	●	●	0.00-0.50	0.05-0.13	0.03-0.10
GITM 6.00K-0.40	6.00	0.40	0.050	0.02	4.95	●	●	●	0.00-0.60	0.05-0.15	0.04-0.12
GITM 8.00K-0.40	8.00	0.40	0.050	0.02	6.00		●		0.00-0.80	0.07-0.20	0.05-0.16

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Corner radius tolerance (+/-)
(2) Cutting width tolerance (+/-)

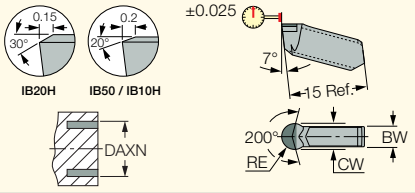
For tools, see pages: Anti-Vibration Blades (268) • C#-GHDR/L (259) • CGHN 26-M (340) • CGHN 32-DGM (342) • CGHN 32-M (341) • CGHN-D (266) • CGHN-DG (267) • CGHN-S (266) • CGPAD (265) • CGPAD-JHP (265) • GHDR/L (short pocket) (259) • GHDR/L-JHP (short pocket) (260) • GHDR/L-JHP-MC (short pocket) (261) • GHGR/L (262) • GHMPR/L (258) • GHMR/L (258) • GHSR/L (357) • GHSR/L-JHP-SL (358)

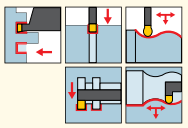
CUTGRIP

GITM (full radius)

Full Radius CBN Tipped Inserts
for Grooving and Turning on
Hard Ferrous Materials







HARD MATERIALS

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	Tough ↔ Hard IB20H	IB50	IB10H	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GITM 3.00K-1.50	3.00	1.50	0.02	0.050	2.40	160.0	●	●	●	0.00-0.30	0.03-0.10	0.02-0.06
GITM 4.00K-2.00	4.00	2.00	0.02	0.050	3.20	160.0	●	●	●	0.00-0.40	0.04-0.14	0.02-0.09
GITM 5.00K-2.50	5.00	2.50	0.02	0.050	3.90	160.0	●	●		0.00-0.50	0.05-0.18	0.03-0.11
GITM 6.00K-3.00	6.00	3.00	0.02	0.050	5.00	160.0	●	●	●	0.00-0.60	0.06-0.22	0.04-0.13
GITM 8.00K-4.00	8.00	4.00	0.02	0.050	5.60	160.0		●		0.00-0.80	0.08-0.29	0.05-0.17

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter

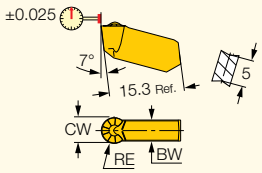
For tools, see pages: Anti-Vibration Blades (268) • C#-GHDR/L (259) • CGHN 26-M (340) • CGHN 32-DGM (342) • CGHN 32-M (341) • CGHN-D (266) • CGHN-DG (267) • CGHN-S (266) • CGPAD (265) • CGPAD-JHP (265) • GHDR/L (short pocket) (259) • GHDR/L-JHP (short pocket) (260) • GHDR/L-JHP-MC (short pocket) (261) • GHGR/L (262) • GHMPR/L (258) • GHMR/L (258) • GHSR/L (357) • GHSR/L-JHP-SL (358)

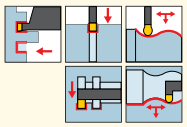
CUTGRIP

GIPY

Single-Ended Full Radius Sharp Edged Precision Inserts for Profiling High Temperature Alloys







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC20	IC320	IC07	IC806	IC907	IC4	IC804	Recommended Machining Data f turn (mm/rev)	f groove (mm/rev)
GIPY 3.00-1.50	3.00	1.50	0.02	0.050	2.40	●	●		●	●	●	●	0.19-0.28	0.08-0.15
GIPY 4.00-2.00	4.00	2.00	0.02	0.050	3.20	●	●		●	●	●	●	0.22-0.37	0.10-0.20
GIPY 5.00-2.50	5.00	2.50	0.02	0.050	3.90	●	●		●	●	●	●	0.24-0.46	0.13-0.23
GIPY 6.00-3.00	6.00	3.00	0.02	0.050	5.00	●	●		●	●	●		0.26-0.55	0.15-0.27
GIPY 8.00-4.00	8.00	4.00	0.02	0.050	5.60	●	●	●	●	●			0.34-0.74	0.20-0.36

• Can cut arcs to 250° • DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

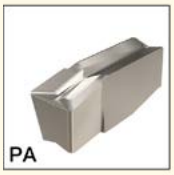
(2) Corner radius tolerance (+/-)

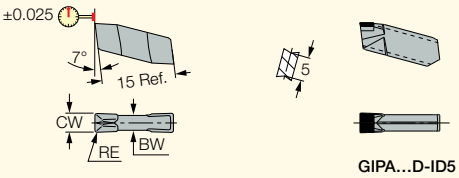
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGFG 51-P8 (580) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-P8 (283) • CGHN-S (282) • CGHR/L-P8DG (284) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

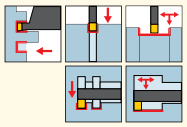
CUTGRIP

GIPA (W=3-6)

Double-Ended Precision Ground Inserts with a Polished Top Rake for Machining Aluminum







Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	BW	Tough ↔ Hard IC20	ID5	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIPA 3.00-0.20	3.00	0.20	0.02	0.030	2.40	●		0.25-1.80	0.12-0.20	0.08-0.14
GIPA 3.00-0.20-D (1)	3.00	0.20	0.02	0.030	2.40		●	0.25-1.80	0.12-0.25	0.09-0.16
GIPA 4.00-0.40	4.00	0.40	0.02	0.030	3.20	●		0.50-2.40	0.14-0.31	0.10-0.20
GIPA 5.00-0.40	5.00	0.40	0.02	0.030	4.00	●		0.50-3.00	0.16-0.34	0.11-0.23
GIPA 6.00-0.40	6.00	0.40	0.02	0.030	4.80	●		0.50-3.60	0.19-0.41	0.11-0.26

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Single-ended PCD tipped insert

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

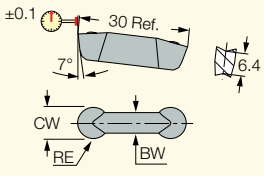
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

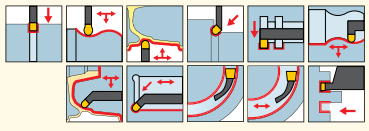
CUTGRIP

GDMA

Utility Double-Ended Insert with a Polished Top Rake for Machining Aluminum







Can cut arcs to 250°

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC07	IC507	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMA 840	8.00	4.00	0.05	0.050	5.60	●	●	0.00-4.00	0.24-0.67	0.14-0.38

• For heavy-duty machining • DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

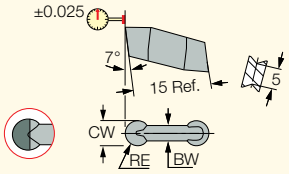
For tools, see pages: GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDKR/L (446) • GHIFR/L-A (445) • GHIR/L (W=7.0-8.3) (355) • GHIUR/L-C-A (15° & 27.5°) Bars (444) • GHIUR/L-UC (444)

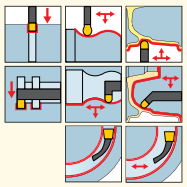
CUTGRIP

GIPA (full radius W=3-6)

Precision Double-Ended Inserts with Polished Top Rake for Machining Aluminum







Designation	Dimensions CW	RE	CWTOL[4]	RETOL[5]	BW	Tough ↔ Hard IC20	IC806	IC4	ID5	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIPA 3.00-1.50	3.00	1.50	0.02	0.050	2.40	●				0.00-1.50	0.15-0.30	0.08-0.16
GIPA 3.00-1.50-D [1]	3.00	1.50	0.02	0.050	2.40				●	0.00-1.50	0.19-0.36	0.09-0.19
GIPA 4.00-2.00	4.00	2.00	0.02	0.050	3.20	●	●			0.00-2.00	0.20-0.43	0.10-0.22
GIPA 4.00-2.00-D [1]	4.00	2.00	0.02	0.050	3.20				●	0.00-2.00	0.25-0.53	0.12-0.26
GIPA 4.00-2.00YZ-D [2]	4.00	2.00	0.02	0.050	3.20				●	0.00-2.00	0.25-0.53	0.12-0.26
GIPA 5.00-2.50	5.00	2.50	0.02	0.050	3.90	●	●			0.00-2.50	0.21-0.48	0.09-0.24
GIPA 5.00-2.50-D [1]	5.00	2.50	0.02	0.050	3.90				●	0.00-2.50	0.22-0.60	0.11-0.30
GIPA 5.00-2.50YZ-D [2]	5.00	2.50	0.02	0.050	3.90				●	0.00-2.50	0.22-0.60	0.11-0.30
GIPA 6.00-3.00	6.00	3.00	0.02	0.050	4.80	●		●		0.00-3.00	0.21-0.58	0.11-0.29
GIPA 6.00-3.00-D [1]	6.00	3.00	0.02	0.050	4.80				●	0.00-3.00	0.26-0.72	0.13-0.36
GIPA 6.00-3.00YZ	6.00	3.00	0.02	0.050	4.80	●				0.00-3.00	0.21-0.58	0.11-0.29
GIPA 6.00-3.00YZ-D [2]	6.00	3.00	0.02	0.050	4.80				●	0.00-3.00	0.26-0.72	0.13-0.36
GIPA 6.00-3.00CB [3]	6.00	3.00	0.02	0.050	4.80				●	0.00-3.00	0.21-0.58	0.11-0.29

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Single-ended PCD tipped insert

[2] Single-ended molded PCD chipformer tipped insert

[3] Single-ended flat PCD tipped insert with chip deflector

[4] Cutting width tolerance (+/-)

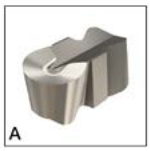
[5] Corner radius tolerance (+/-)

For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDKR/L (446) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHIFR/L-A (445) • GHIUR/L-C-A (15° & 27.5°) Bars (444) • GHIUR/L-UC (444) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)







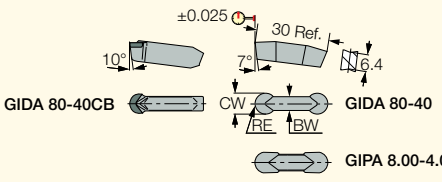


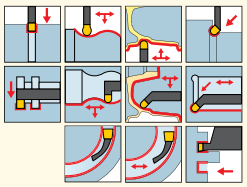
CUTGRIP

GIPA/GIDA 8 (full radius)

Precision Double-Ended Inserts with Polished Top Rake for Machining Aluminum







Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	BW	Tough ↔ Hard IC20	IC4	ID5	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIDA 80-40	8.00	4.00	0.02	0.050	5.60	●	●		0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40-D	8.00	4.00	0.02	0.050	5.60			●	0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40CB-D (1)	8.00	4.00	0.02	0.050	5.60			●	0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40YZ	8.00	4.00	0.02	0.050	5.60	●	●		0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40YZ-D	8.00	4.00	0.02	0.050	5.60			●	0.00-4.00	0.35-0.96	0.18-0.48
GIPA 8.00-4.00	8.00	4.00	0.02	0.050	6.00	●			0.00-4.00	0.24-0.67	0.14-0.38

• ID5 is a single-ended PCD tipped insert • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Should not be clamped on tools with "A" suffix

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDKR/L (446) • GHDR/L (long pocket) (285) • GHDR/L-8A (445) • GHDR/L-JHP (long pocket) (285) • GHFGR/L-8 (579) • GHIFR/L-A (445) • GHIR/L (W=7.0-8.3) (355) • GHIUR/L-C-A (15° & 27.5°) Bars (444) • GHIUR/L-UC (444)









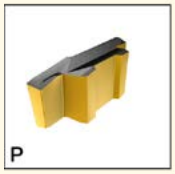


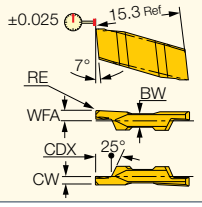


CUTGRIP

GIP-RX/LX

Precision Double-Ended Inserts for External Grooving Next to a Shoulder







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	WFA	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
GIP 0.80-0.00R/LX	0.80	0.00	0.02	0.030	1.60	2.40	1.6	●		0.02-0.04
GIP 1.00-0.00R/LX	1.00	0.00	0.02	0.030	2.00	2.40	1.6	●		0.02-0.05
GIP 1.19-0.1RX	1.19	0.10	0.02	0.030	2.00	2.40	1.6		●	0.03-0.05
GIP 1.57-0.15 R/LX	1.57	0.15	0.02	0.030	2.70	2.40	1.7	●		0.04-0.06
GIP 1.57-0.79RX	1.57	0.79	0.02	0.030	2.80	2.40	1.7		●	0.04-0.08
GIP 2.00-0.15 R/LX	2.00	0.15	0.02	0.030	3.00	2.40	1.7	●		0.05-0.08
GIP 2.39-0.15 RX	2.39	0.15	0.02	0.030	3.50	2.40	1.7	●		0.05-0.09
GIP 2.39-1.19RX	2.39	1.19	0.02	0.050	3.90	2.40	1.7		●	0.06-0.12

• Toolholder seat needs to be modified according to insert profile to ensure clearance. • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

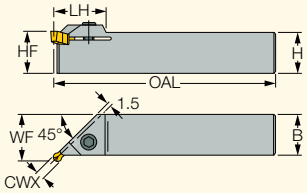
(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

For tools, see pages: GHMPR/L (273) • GHMR/L (273)

CUTGRIP

GHMUR/L
External Holders for
45° Undercutting



Right-hand shown

Designation	CWX(1)	H	HF	B	OAL	LH	WF		
GHMUR/L 16	4.80	16.0	16.0	16.0	112.00	25.0	19.00	SR M6X16 DIN912	HW 5.0
GHMUR/L 20	6.40	20.0	20.0	20.0	122.00	25.0	23.00	SR M6X16 DIN912	HW 5.0
GHMUR/L 25	6.40	25.0	25.0	25.0	137.00	25.0	28.00	SR M6X16 DIN912	HW 5.0

- For D>100 mm, GIP/GIF inserts can be used (clearance types UN, D or G are not required).

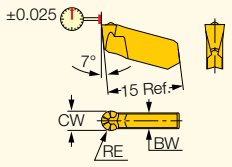
(1) Maximum cutting width

For inserts, see pages: GIMY-UN (303) • GIP-UN (303)

CUTGRIP

GIMY-UN
Utility Single-Ended Inserts
for External Undercutting





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC8250	Recommended Machining Data f groove (mm/rev)
GIMY 315-UN	3.00	1.50	0.05	0.050	2.40	2.00	●	0.05-0.15
GIMY 420-UN	4.00	2.00	0.05	0.050	3.20	2.50	●	0.05-0.15

- For 45° undercutting on D 100 mm, regular GIMY inserts may be used. • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

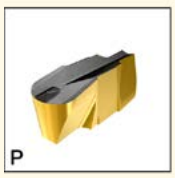
(2) Corner radius tolerance (+/-)

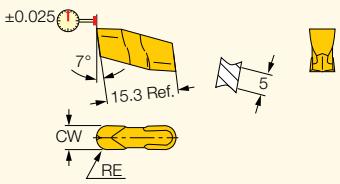
(3) Cutting depth maximum

For tools, see pages: GHMUR/L (303)

CUTGRIP

GIP-UN
Precision Double-Ended Inserts
for External Undercutting





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DMIN	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC20	Recommended Machining Data f groove (mm/rev)
GIP 3.00-1.50UN	3.00	1.50	0.05	0.050	35.00	2.40	4.00	●	●	●	●	0.05-0.15
GIP 4.00-2.0UN	4.00	2.00	0.05	0.050	35.00	3.20	4.00		●		●	0.05-0.15

- Not recommended for turning. • For undercutting at 45° and D100 mm, other GIP inserts apply as well
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

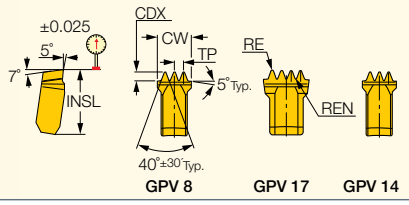
(3) Cutting depth maximum

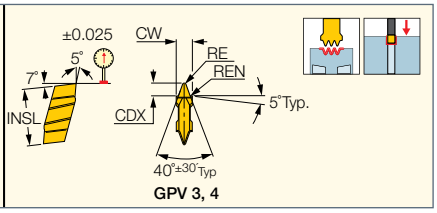
For tools, see pages: C#-GHDR/L (274) • CGHN-DG (283) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHMPR/L (273) • GHMR/L (273) • GHMUR/L (303)

CUTGRIP

GPV
Precision Inserts for Grooving
Multi V-Ribbed Pulleys







Designation	Dimensions CW	TP[5]	CDX[6]	RE	REN	NT	INSL	Tough ↔ Hard IC8250	IC5010	IC428	Recommended Machining Data f groove (mm/rev)
GPV 3-2.34-1 [1]	2.80	2.34	2.21	0.32	0.20	1	15.30	●	●		0.06-0.15
GPV 4-3.56-1 [1]	4.03	3.56	3.42	0.45	0.30	1	15.30	●	●	●	0.06-0.15
GPV 8-2.34-3 [2]	7.48	2.34	2.21	0.32	0.20	3	15.30	●		●	0.06-0.15
GPV 14-2.34-4 [3]	9.82	2.34	2.21	0.32	0.20	4	24.00	●	●	●	0.06-0.15
GPV 14-3.56-3 [3]	11.14	3.56	3.42	0.45	0.30	3	24.00	●	●	●	0.06-0.15
GPV 17-3.56-4 [4]	14.68	3.56	3.42	0.45	0.30	4	24.00	●	●	●	0.06-0.15

• Toolholder seat needs to be modified according to insert profile to ensure clearance. • For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Use holders which are suitable for GIP 3 / GIP 4

[2] Use holders which are suitable for GIMY 808

[3] Use holders which are suitable for TIGER 14

[4] Use holders which are suitable for TIGER 17

[5] Thread pitch

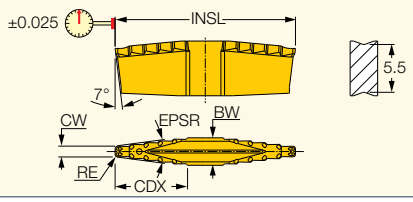
[6] Cutting depth maximum

For tools, see pages: C#-GHDR/L (274) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHDR/L/N 12/14 (333) • GHMPR/L (273) • GHMR/L (273)

CUTGRIP

GDK
Inserts for Rough Grooving
V-Shaped Piston Grooves





Designation	Dimensions CW	RE	CWTOL[1]	RETOL[2]	CDX[3]	EPSR	INSL	BW	IC808	Recommended Machining Data f groove (mm/rev)
GDK 1.5-MS	1.50	0.50	0.02	0.000	8.40	14.0	21.00	3.50	●	0.15-0.25
GDK 1.81-MS	1.81	0.50	0.02	0.000	8.40	12.0	19.70	3.50	●	0.15-0.25

• For steel grooves

[1] Cutting width tolerance (+/-)

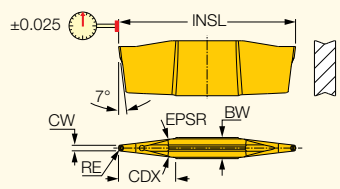
[2] Corner radius tolerance (+/-)

[3] Cutting depth maximum

CUTGRIP

GDP
Inserts for Precision Grooving
of V-Shaped Piston Grooves





Designation	Dimensions CW	RE	CWTOL[1]	RETOL[2]	CDX[3]	EPSR	INSL	BW	Tough ↔ Hard IC308	IC908	Recommended Machining Data f groove (mm/rev)
GDP 1.20-0.30-4768V2Q	1.20	0.30	0.02	0.000	6.50	11.0	25.00	2.40	●		0.12-0.18
GDP 1.55-0.30-1404Q	1.55	0.30	0.02	0.000	6.50	10.0	20.90	3.50		●	0.12-0.18

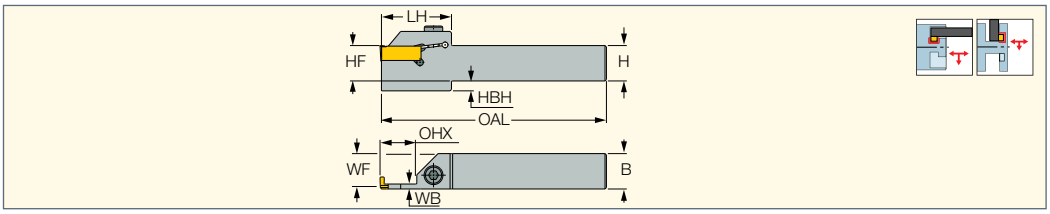
[1] Cutting width tolerance (+/-)

[2] Corner radius tolerance (+/-)

[3] Cutting depth maximum

CUTGRIP

HLPGR/L
Tools for L-Type LPGIR/L Inserts



Designation	OHX(1)	H	HF	HBH	B	WB	WF	OAL	LH	Insert		
HLPGR/L 2525-12-A3.5-T25	25.00	25.0	25.0	7.0	25.0	3.50	23.30	160.00	50.0	LPGIR/L 12	SR M6X20 DIN912	HW 5.0
HLPGR/L 3225-12-A3.5-T25	25.00	32.0	32.0	-	25.0	3.50	23.30	160.00	50.0	LPGIR/L 12	SR M6X20 DIN912	HW 5.0
HLPGR/L 2525-12-A4.5-T30	30.00	25.0	25.0	7.0	25.0	4.50	22.80	160.00	55.0	LPGIR/L 12	SR M6X20 DIN912	HW 5.0
HLPGR/L 3225-12-A4.5-T30	30.00	32.0	32.0	-	25.0	4.50	22.80	160.00	55.0	LPGIR/L 12	SR M6X20 DIN912	HW 5.0
HLPGR/L 2525-16-A6-T30	30.00	25.0	25.0	7.0	25.0	6.00	22.00	160.00	55.0	LPGIR/L 16	SR M6X20 DIN912	HW 5.0
HLPGR/L 3225-16-A6-T30	30.00	32.0	32.0	-	25.0	6.00	22.00	160.00	55.0	LPGIR/L 16	SR M6X20 DIN912	HW 5.0

- In case of face penetration prior to radial grooving, please check that the lower insert support is relieved from the groove's outer diameter

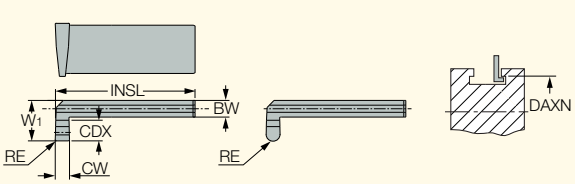
(1) Cutting depth maximum

For inserts, see pages: LPGIR/L (305)

CUTGRIP

LPGIR/L
Inserts for Axial Grooves Inside Radial Grooves and for Radial Grooves Inside Axial Grooves





Right-hand shown

Designation	Dimensions									IC907
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	INSL	W1	DAXN(3)	
LPGIR/L 12-8-2T4PR	2.00	0.20	0.02	0.030	4.00	3.50	30.00	8.00	200.0	●
LPGIR/L 12-8-210T4	2.00	1.00	0.02	0.030	4.00	3.50	30.00	8.00	200.0	●
LPGIR/L 12-8.5-3T5PR	3.00	0.30	0.02	0.030	3.50	4.50	30.00	8.50	200.0	●
LPGIR/L 12-8.5-315T5	3.00	1.50	0.02	0.030	3.50	4.50	30.00	8.50	200.0	●
LPGIR/L 12-9.5-4T6PR	4.00	0.40	0.02	0.030	3.50	5.50	30.00	9.50	200.0	●
LPGIR/L 12-9.5-420T6	4.00	2.00	0.02	0.030	3.50	5.50	30.00	9.50	200.0	●
LPGIR/L 12-11-5T6.5PR	5.00	0.40	0.02	0.030	4.50	6.00	30.00	11.00	200.0	●
LPGIR/L 12-11-525T6.5	5.00	2.50	0.02	0.030	4.50	6.00	30.00	11.00	200.0	●
LPGIR/L 16-15.5-3T9PR	3.00	0.30	0.02	0.030	6.00	8.50	30.60	15.50	200.0	●
LPGIR/L 16-15.5-315T9	3.00	1.50	0.02	0.030	6.00	8.50	30.60	15.50	200.0	●
LPGIR/L 16-15.5-4T9PR	4.00	0.40	0.02	0.030	6.00	8.50	30.60	15.50	200.0	●
LPGIR/L 16-15.5-420T9	4.00	2.00	0.02	0.030	6.00	8.50	30.60	15.50	200.0	●
LPGIR/L 16-15.5-5T9PR	5.00	0.40	0.02	0.030	6.00	8.50	30.60	15.50	200.0	●
LPGIR/L 16-15.5-525T9	5.00	2.50	0.02	0.030	6.00	8.50	30.60	15.50	200.0	●

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

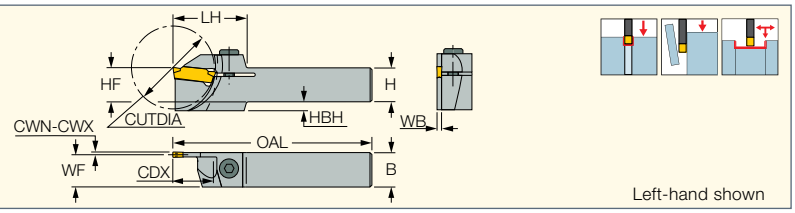
(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

For tools, see pages: HLPGR/L (305)

CUTGRIP

PHGR/L
Holders for External Grooving and Turning



Left-hand shown

Designation	CWN(1)	CWX(2)	CUTDIA(3)	CDX(4)	H	HF	B	OAL	LH	WF	HBH	WB	Insert		
PHGR/L 16-2.4	2.40	3.18	34.0	17.00	16.0	16.0	16.0	110.00	33.0	15.10	5.5	1.90	GDMW 2.4	SR M5X16 DIN912	HW 4.0
PHGR/L 20-2.4	2.40	3.18	34.0	17.00	20.0	20.0	20.0	120.00	33.0	19.10	-	1.90	GDMW 2.4	SR M5X16 DIN912	HW 4.0
PHGR/L 25-2.4	2.40	3.18	34.0	17.00	25.0	25.0	25.0	140.00	33.0	24.10	-	1.90	GDMW 2.4	SR M5X16 DIN912	HW 4.0

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

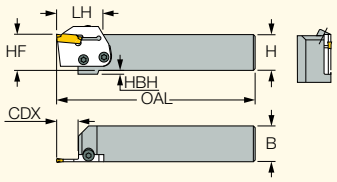
(3) Maximum parting diameter.

(4) Cutting depth maximum

For inserts, see pages: GDMW 2.4 (306)

CUTGRIP

PHAR/L
External Machining Holders
for PADR/L Adapters



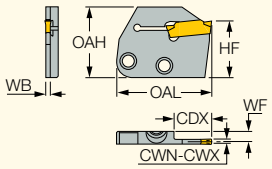
Right-hand shown

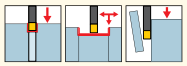
Designation	CDX[1]	H	HF	B	OAL	HBH	Adapter[2]				
PHAR/L 20	16.30	20.0	20.0	20.0	140.00	10.0	PADR/L 2.4	SR 76-1368	HW 4.0	SR M5-04451	T-20/5
PHAR/L 25	16.30	25.0	25.0	25.0	140.00	5.0	PADR/L 2.4	SR 76-1368	HW 4.0	SR M5-04451	T-20/5

[1] Cutting depth maximum
[2] Adapters to be ordered separately.
For tools, see pages: PADR/L (306)

CUTGRIP

PADR/L
Adapters for GDMW/GDMY
Groove-Turn Inserts





Left-hand shown

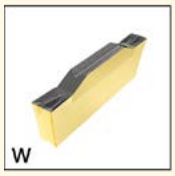
Designation	CWN[1]	CWX[2]	CDX[3]	OAL	WB	HF	OAH	WF	Insert
PADR/L 2.4	2.40	3.18	16.30	41.00	1.90	24.0	30.0	4.20	GDMW 2.4

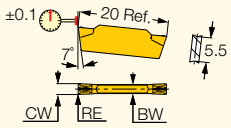
- For user guide, see pages 419-428, 432-436

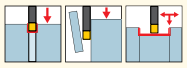
[1] Minimum cutting width
[2] Maximum cutting width
[3] Cutting depth maximum
For inserts, see pages: GDMW 2.4 (306)
For holders, see pages: PHAR/L (306)

CUTGRIP

GDMW 2.4
Utility Double-Ended
Inserts for External Turning,
Grooving and Parting







Designation	Dimensions						Tough ↔ Hard					Recommended Machining Data		
	CW	RE	CWTOL[1]	RETOL[2]	BW	CDX[3]	IC830	IC808	IC908	IC20	IC20N	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMW 2.4	2.40	0.18	0.04	0.030	2.00	18.00	●	●	●	●	●	0.25-1.50	0.07-0.12	0.05-0.08

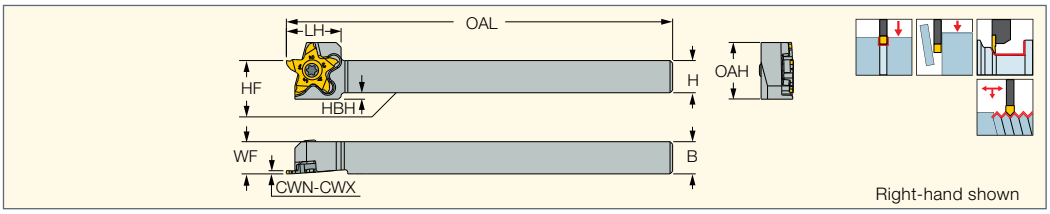
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Cutting width tolerance (+/-)
[2] Corner radius tolerance (+/-)
[3] Cutting depth maximum
For tools, see pages: PADR/L (306) • PHGR/L (305) • PHSR/L (373)

PENTACUT PARTING & GROOVING LINE

PCHRS/LS-17

Tools Carrying Inserts with 5 Cutting Edges for Grooving, Parting and Recessing Next to High Shoulders



Designation	H	B	CWN[1]	CWX[2]	WF	OAL	LH	HBH	OAH	HF
PCHR/LS 0810-17	8.0	10.0	0.25	3.18	10.00	120.00	17.0	4.0	13.60	8.0
PCHR/LS 10-17	10.0	10.0	0.25	3.18	10.00	120.00	17.0	2.0	15.60	10.0
PCHR/LS 12-17	12.0	12.0	0.25	3.18	12.00	120.00	17.0	-	17.60	12.0
PCHR/LS 16-17	16.0	16.0	0.25	3.18	16.00	120.00	17.0	-	21.60	16.0
PCHR/LS 20-17	20.0	20.0	0.25	3.18	20.00	120.00	17.0	-	25.60	20.0
PCHR/LS 25-17	25.0	25.0	0.25	3.18	25.00	120.00	17.0	-	30.60	25.0

- Use right-hand inserts on right-hand tools and vice versa

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309)

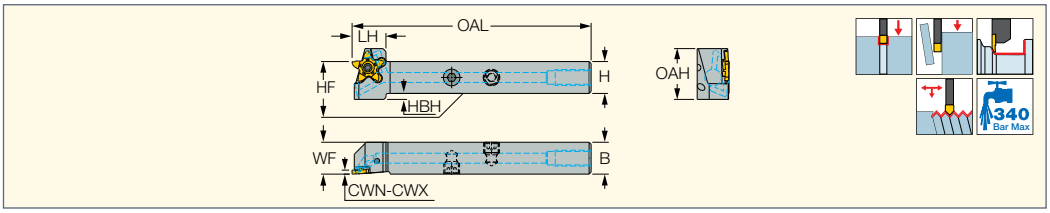
Spare Parts

Designation		
PCHLS 0810-17	SR M4-39432	T-1508/5
PCHRS 0810-17	SR M4-39432L	T-1508/5
PCHLS 10-17	SR M4-39432	T-1508/5
PCHRS 10-17	SR M4-39432L	T-1508/5
PCHLS 12-17	SR M4-39432	T-1508/5
PCHRS 12-17	SR M4-39432L	T-1508/5
PCHLS 16-17	SR M4-39432	T-1508/5
PCHRS 16-17	SR M4-39432L	T-1508/5
PCHLS 20-17	SR M4-39432	T-1508/5
PCHRS 20-17	SR M4-39432L	T-1508/5
PCHLS 25-17	SR M4-39432	T-1508/5
PCHRS 25-17	SR M4-39432L	T-1508/5

PENTACUT PARTING & GROOVING LINE

PCHRS/LS-17-JHP

Tools Carrying Inserts with 5 Cutting Edges for Shallow Profiling Next to High Shoulders



Designation	H	B	WF	OAL	LH	HBH	HF	OAH
PCHR/LS 10-17-JHP	10.0	10.0	10.00	100.00	17.0	8.0	10.0	24.50
PCHR/LS 12-17-JHP	12.0	12.0	12.00	100.00	17.0	6.0	12.0	24.50
PCHR/LS 16-17-JHP	16.0	16.0	16.00	120.00	17.0	3.0	16.0	25.50
PCHR/LS 20-17-JHP	20.0	20.0	20.00	120.00	17.0	-	20.0	26.50
PCHR/LS 25-17-JHP	25.0	25.0	25.00	120.00	17.0	-	25.0	31.50

- Use right-hand inserts on right-hand tools and vice versa

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309) • PENTA 17R/L-SP-RS (310)

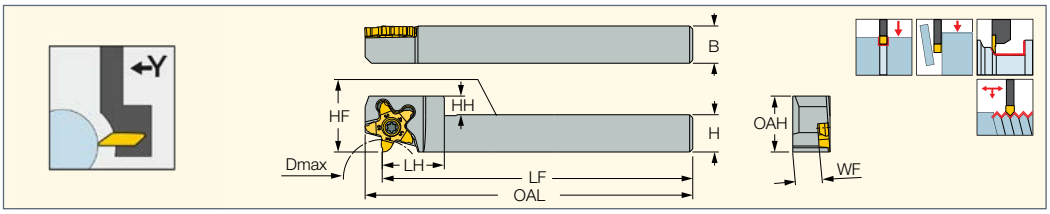
Spare Parts

Designation				
PCHLS 10-17-JHP	SR M4-39432	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 10-17-JHP	SR M4-39432L	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 12-17-JHP	SR M4-39432	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 12-17-JHP	SR M4-39432L	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 16-17-JHP	SR M4-39432	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 16-17-JHP	SR M4-39432L	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 20-17-JHP	SR M4-39432	T-1508/5	HW 5.0	PLG G1/8 TL360
PCHRS 20-17-JHP	SR M4-39432L	T-1508/5	HW 5.0	PLG G1/8 TL360
PCHLS 25-17-JHP	SR M4-39432	T-1508/5		
PCHRS 25-17-JHP	SR M4-39432L	T-1508/5		

NEOYSWISS AXIS
PENTACUT PARTING & GROOVING LINE

Y-PCHRS-17

Y Axis Swiss Type Tools
- 5 Cutting Edged Inserts for Grooving, Parting and Recessing Next to High Shoulders



Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max
Y-PCHRS 12-17	12.0	12.0	6.0	20.0	12.0	8.60	18.00	100.00	105.50	25.0 (1)
Y-PCHRS 16-17	16.0	16.0	2.0	20.0	16.0	12.30	18.00	125.00	130.50	38.0 (1)

- Use right-hand inserts on right-hand tools and vice versa

(1) for grooving

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309)

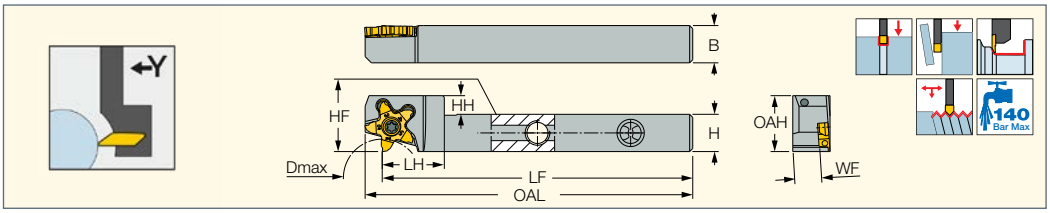
Spare Parts

Designation		
Y-PCHRS-17	T-1508/5	SR M4-39432L

NEOYSWISS AXIS
PENTACUT PARTING & GROOVING LINE

Y-PCHRS-17-JHP

Y Axis Swiss Type JETCUT Tools
- 5 Cutting Edged Inserts for Grooving, Parting and Recessing Next to High Shoulders



Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max
Y-PCHRS 12-17-JHP	12.0	12.0	6.0	20.0	12.0	8.60	18.00	100.00	105.50	25.0 (1)
Y-PCHRS 16-17-JHP	16.0	16.0	2.0	20.0	16.0	12.30	18.00	125.00	130.50	38.0 (1)

- Use right-hand inserts on right-hand tools and vice versa

(1) for grooving

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309)

Spare Parts

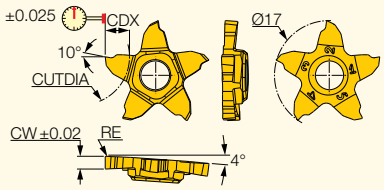
Designation		
Y-PCHRS-17-JHP	HW 5/32"	T-1508/5

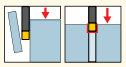
PENTACUT PARTING & GROOVING LINE

PENTA 17-P-RS/LS

Pentagonal Inserts for Grooving and Parting Soft Materials, Thin and Miniature Parts







Designation	Dimensions CW	RE	CDX	CUTDIA	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17N025P000R/LS	0.25	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N030P000R/LS	0.30	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N033P000R/LS	0.33	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N043P000R/LS	0.43	0.00	1.00	2.0	●	0.02-0.04
PENTA 17N050P000R/LS	0.50	0.00	2.00	4.0	●	0.02-0.04
PENTA 17N075P000R/LS	0.75	0.00	2.50	5.0	●	0.02-0.04
PENTA 17N080P000R/LS	0.80	0.00	2.50	5.0	●	0.02-0.04
PENTA 17N095P000R/LS	0.95	0.00	3.00	6.0	●	0.02-0.05
PENTA 17N100P010R/LS	1.00	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N120P010R/LS	1.20	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N140P010R/LS	1.40	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N150P010R/LS	1.50	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N157P010R/LS	1.57	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N170P010R/LS	1.70	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N178P010R/LS	1.78	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N196P010R/LS	1.96	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N200P010R/LS	2.00	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N222P010R/LS	2.22	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N230P010R/LS	2.30	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N239P010R/LS	2.39	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N247P010R/LS	2.47	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N250P010R/LS	2.50	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N270P010R/LS	2.70	0.10	4.00	8.0	●	0.02-0.09
PENTA 17N287P010R/LS	2.87	0.10	4.00	8.0	●	0.02-0.10
PENTA 17N300P010R/LS	3.00	0.10	4.00	8.0	●	0.02-0.10
PENTA 17N318P010R/LS	3.18	0.10	4.00	8.0	●	0.02-0.10

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

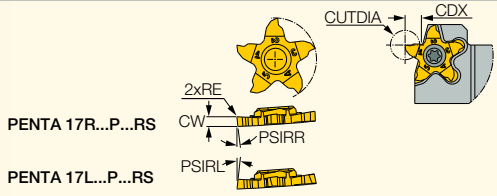
For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

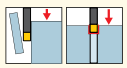
PENTACUT PARTING & GROOVING LINE

PENTA 17R/L-P-RS

Lead Angle Edge Pentagonal Inserts (5 edges) for Parting Miniature Parts







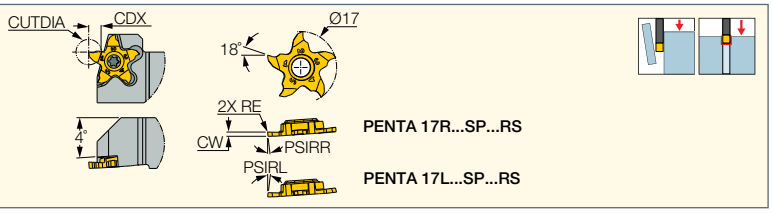
Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17L100P-15D-RS	1.00	0.05	3.00	6.0	15.0	-	●	0.02-0.03
PENTA 17L100P-6D-RS	1.00	0.05	3.00	6.0	6.0	-	●	0.02-0.04
PENTA 17R100P-15D-RS	1.00	0.05	3.00	6.0	-	15.0	●	0.02-0.03
PENTA 17R100P-6D-RS	1.00	0.05	3.00	6.0	-	6.0	●	0.02-0.04
PENTA 17L150P-15D-RS	1.50	0.05	4.00	8.0	15.0	-	●	0.02-0.03
PENTA 17L150P-6D-RS	1.50	0.05	4.00	8.0	6.0	-	●	0.02-0.04
PENTA 17R150P-15D-RS	1.50	0.05	4.00	8.0	-	15.0	●	0.02-0.03
PENTA 17R150P-6D-RS	1.50	0.05	4.00	8.0	-	6.0	●	0.02-0.04
PENTA 17L200P-15D-RS	2.00	0.05	4.00	8.0	15.0	-	●	0.02-0.03
PENTA 17L200P-6D-RS	2.00	0.05	4.00	8.0	6.0	-	●	0.02-0.04
PENTA 17R200P-15D-RS	2.00	0.05	4.00	8.0	-	15.0	●	0.02-0.03
PENTA 17R200P-6D-RS	2.00	0.05	4.00	8.0	-	6.0	●	0.02-0.04

For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

PENTACUT PARTING & GROOVING LINE

PENTA 17R/L-SP-RS

Pentagonal Inserts (5 edges) with a High Positive Rake for Parting Soft Materials



Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1007	Recommended Machining Data f groove (mm/rev)
PENTA 17L03SP6D-RS	0.30	0.00	0.60	1.2	6.0	-	●	0.02-0.03
PENTA 17R03SP6D-RS	0.30	0.00	0.60	1.2	-	6.0	●	0.02-0.03
PENTA 17L05SP6D-RS	0.50	0.00	2.00	4.0	6.0	-	●	0.02-0.04
PENTA 17R05SP6D-RS	0.50	0.00	2.00	4.0	-	6.0	●	0.02-0.04
PENTA 17L08SP6D-RS	0.80	0.00	2.50	5.0	6.0	-	●	0.02-0.04
PENTA 17R08SP6D-RS	0.80	0.00	2.50	5.0	-	6.0	●	0.02-0.04
PENTA 17L10SP6D-RS	1.00	0.00	3.00	6.0	6.0	-	●	0.02-0.05
PENTA 17R10SP6D-RS	1.00	0.00	3.00	6.0	-	6.0	●	0.02-0.05

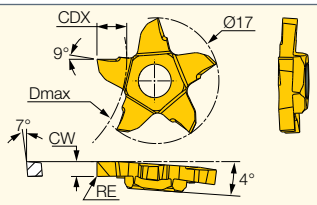
For tools, see pages: PCADRS/LS-JHP (317) • PCHRS/LS-17-JHP (307)

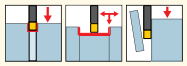
PENTACUT PARTING & GROOVING LINE

PENTA 17-NP-RS/LS

Pentagonal Inserts for Precision Grooving and Turning Next to High Shoulder Applications







Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	D max	IC1008	Recommended Machining Data ap (mm)	f turn (mm/rev)	f groove (mm/rev)
PENTA 17-100NP08R/LS	1.00	0.020	0.08	0.020	3.00	32.0 (3)	●	0.05-0.70	0.02-0.06	0.03-0.06
PENTA 17-200NP08R/LS	2.00	0.020	0.08	0.020	4.00	32.0 (3)	●	0.05-2.50	0.05-0.15	0.05-0.09
PENTA 17-300NP08R/LS	3.00	0.020	0.08	0.020	4.00	32.0 (3)	●	0.05-3.10	0.05-0.19	0.05-0.11

• When turning to the opposite side of chipformer, maximum CDX is 0.5 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) for grooving

For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

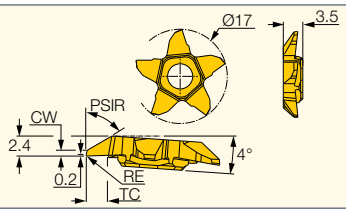
Designation	Dimensions CW	RE	CDX	Dmax as a function of depth of cut (CDX) CDX≤2.5	CDX≤3.0	CDX≤3.5	CDX≤3.8	CDX≤4.0
PENTA 17-100NP08-R/LS	1.00	0.08	3.00	N.L.	100	-	-	-
PENTA 17-200NP08-R/LS	2.00	0.08	4.00	N.L.	100	75	45	32
PENTA 17-300NP08-R/LS	3.00	0.08	4.00	N.L.	100	75	45	32

PENTACUT PARTING & GROOVING LINE

PENTA 17-ER/EL

Back Turning Pentagonal Inserts for Short Chipping Materials







Designation	Dimensions CW	RE	PSIR	Tc	IC1008	Recommended Machining Data ap (mm)	f turn (mm/rev)
PENTA 17EL00-07K0LS	0.70	0.00	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17ER00-07K0RS	0.70	0.00	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17EL08-07K0LS	0.70	0.08	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17ER08-07K0RS	0.70	0.08	60.0	4.0	●	0.05-2.50	0.01-0.15

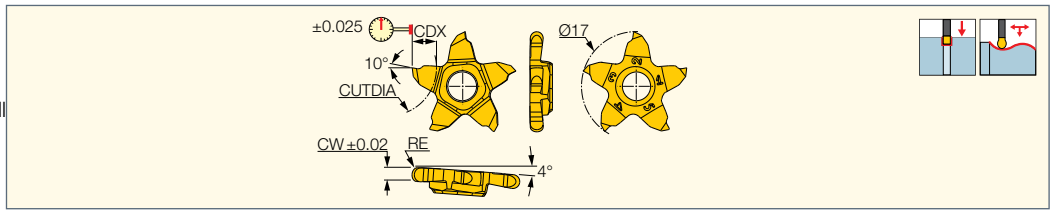
• For cutting speed recommendations and user guide, see pages 419-428, 432-436

For tools, see pages: PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

PENTACUT
PARTING & GROOVING LINE

PENTA 17-P-RS/LS
(full radius)

Precision Grooving Pentagonal Full Radius Inserts for Soft Materials



Designation	Dimensions CW	RE	CDX	CUTDIA	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17N080P040R/LS	0.80	0.40	2.50	5.0	•	0.02-0.04
PENTA 17N100P050R/LS	1.00	0.50	3.00	6.0	•	0.02-0.05
PENTA 17N157P079R/LS	1.57	0.79	4.00	8.0	•	0.02-0.07
PENTA 17N200P100R/LS	2.00	1.00	4.00	8.0	•	0.02-0.08
PENTA 17N239P120R/LS	2.39	1.20	4.00	8.0	•	0.02-0.08

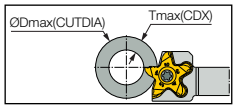
• For cutting speed recommendations and user guide, see pages 419-428, 432-436

For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

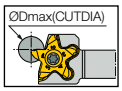
Designation	Dmax as a function of depth of cut (T) W ±0.02	R	Tmax	T<2.3	T<2.5	T<3.0	T<3.5	T<3.8	T<4.0	Parting to center Dmax.
PENTA 17N025P000RS/LS	0.25	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N030P000RS/LS	0.30	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N033P000RS/LS	0.33	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N043P000RS/LS	0.43	0.00	1.0*	---	---	---	---	---	---	2
PENTA 17N050P000RS/LS	0.50	0.00	2.0*	---	---	---	---	---	---	4
PENTA 17N075P000RS/LS	0.75	0.00	2.5	N.L.		---	---	---	---	5
PENTA 17N080P000RS/LS	0.80	0.00	2.5	N.L.		---	---	---	---	
PENTA 17N095P000RS/LS	0.95	0.00		N.L.			---	---	---	
PENTA 17N100P010RS/LS	1.00	0.10		N.L.	400		---	---	---	
PENTA 17N100P050RS/LS	1.00	0.50	3.0	N.L.		100	---	---	---	6
PENTA 17N120P010RS/LS	1.20	0.10		N.L.			---	---	---	
PENTA 17N140P010RS/LS	1.40	0.10		N.L.			---	---	---	
PENTA 17N150P010RS/LS	1.50	0.10		N.L.						
PENTA 17N157P010RS/LS	1.57	0.10		N.L.						
PENTA 17N157P079RS/LS	1.57	0.79		N.L.						
PENTA 17N170P010RS/LS	1.70	0.10		N.L.						
PENTA 17N178P010RS/LS	1.78	0.10		N.L.						
PENTA 17N196P010RS/LS	1.96	0.10		N.L.						
PENTA 17N200P010RS/LS	2.00	0.10		N.L.						
PENTA 17N200P100RS/LS	2.00	1.00		N.L.						
PENTA 17N222P010RS/LS	2.22	0.10		N.L.	400	100	55	32	20	8
PENTA 17N230P010RS/LS	2.30	0.10	4.0	N.L.						
PENTA 17N239P010RS/LS	2.39	0.10		N.L.						
PENTA 17N239P120RS/LS	2.39	1.20		N.L.						
PENTA 17N247P010RS/LS	2.47	0.10		N.L.						
PENTA 17N250P010RS/LS	2.50	0.10		N.L.						
PENTA 17N270P010RS/LS	2.70	0.10		N.L.						
PENTA 17N287P010RS/LS	2.87	0.10		N.L.						
PENTA 17N300P010RS/LS	3.00	0.10		N.L.						
PENTA 17N318P010RS/LS	3.18	0.10		N.L.	400	100	55	32	25	

1. N.L. = NO LIMIT
2. *For precision grooving Dmax = N.L.
3. PENTA 17...RS to be clamped on PCHRS ...-17 holders, PENTA 17...LS to be clamped on PCHLS ...-17 holders.

Parting Hollow Bars



Parting to Center



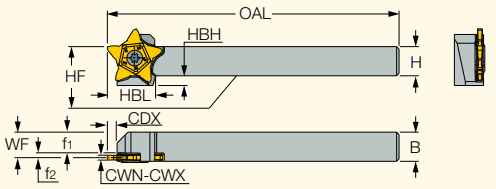
PENTACUT
PARTING & GROOVING LINE

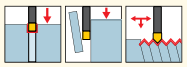
PCHR/L-24

Grooving, Parting and Recessing Holders Carrying Inserts with 5 Cutting Edges

CWN-CWX	f_2
0.50-3.20	2.0
3.21-4.23	2.5
4.24-5.20	3.0
5.21-6.20	3.5
6.21-8.20	4.5

$WF=f_1+f_2$





Right-hand shown

Designation	H	HF	B	CWN[2]	CWX[3]	f1	CDX[4]	OAL	LH	HBH
PCHR/L 10-24	10.0	10.0	10.0	0.50	3.20	6.5	6.50	120.00	19.5	6.0
PCHR/L 12-24	12.0	12.0	12.0	0.50	3.20	8.5	6.50	120.00	19.5	4.0
PCHR/L 16-24	16.0	16.0	16.0	0.50	3.20	12.5	6.50	120.00	19.5	-
PCHR/L 20-24	20.0	20.0	20.0	0.50	3.20	16.5	6.50	120.00	19.5	-
PCHR/L 25-24	25.0	25.0	25.0	0.50	3.20	21.5	6.50	135.00	19.5	-
PCHR/L 16-24-5	16.0	16.0	16.0	3.21	5.20	11.5	6.40	120.00	21.5	4.0
PCHR/L 20-24-5	20.0	20.0	20.0	3.21	5.20	15.5	6.40	120.00	21.5	-
PCHR/L 25-24-5	25.0	25.0	25.0	3.21	5.20	20.5	6.40	135.00	21.5	-
PCHR/L 25-24-8 [1]	25.0	25.0	25.0	5.21	8.20	18.5	6.50	135.00	19.5	-

- WF=f1+f2 (according to insert width (CW) being used)

[1] Used with special inserts only

[2] Minimum cutting width

[3] Maximum cutting width

[4] For specific information, refer to insert data

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664) • PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320) • PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530) • PENTA 24R/L-Z (533)

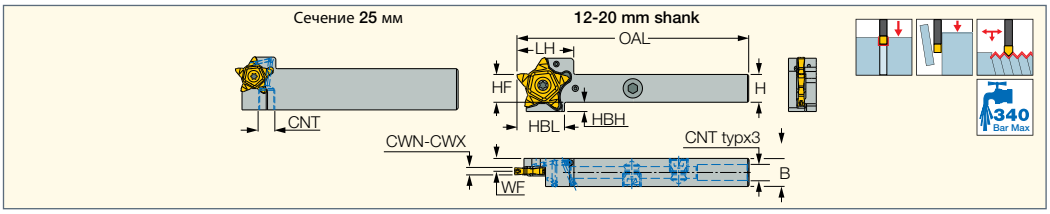
Spare Parts

Designation		
PCHL 10-24	SR 16-212-01397L	
PCHR 10-24	SR 16-212-01397	
PCHL 12-24	SR 16-212-01397L	
PCHR 12-24	SR 16-212-01397	
PCHL 16-24	SR 16-212-01397L	
PCHR 16-24	SR 16-212-01397	
PCHL 20-24	SR 16-212-01397L	
PCHR 20-24	SR 16-212-01397	
PCHL 25-24	SR 16-212-01397L	
PCHR 25-24	SR 16-212-01397	
PCHR/L 16-24-5	SR PCHR/L-8-06642	T-15/5
PCHR/L 20-24-5	SR PCHR/L-8-06642	T-15/5
PCHR/L 25-24-5	SR PCHR/L-8-06642	T-15/5
PCHR/L 25-24-8	SR PCHR/L-8-06642	T-15/5

PENTACUT JETCUT PARTING & GROOVING LINE

PCHR/L-24-JHP

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Channels for High-Pressure Coolant



Designation	H	HF	B	CWN(1)	CWX(2)	CDX(3)	WF	OAL	LH	HBL	HBH	CNT	Insert
PCHR/L 12-24-JHP	12.0	12.0	12.0	0.50	3.20	6.50	5.50	100.00	24.5	20.50	4.0	UNF 5/16-24	PENTA 24
PCHR/L 16-24-JHP	16.0	16.0	16.0	0.50	3.20	6.50	9.50	120.00	24.5	-	-	UNF 5/16-24	PENTA 24
PCHR/L 20-24-JHP	20.0	20.0	20.0	0.50	3.20	6.50	13.50	135.00	24.5	-	-	G 1/8-28	PENTA 24
PCHR/L 25-24-JHP	25.0	25.0	25.0	0.50	3.20	6.50	18.50	135.00	24.5	-	-	G 1/8-28	PENTA 24

- For user guide and accessories see pages 419-438

(1) Minimum cutting width

(2) Maximum cutting width • Up to 6.2 mm width may be ordered on request.

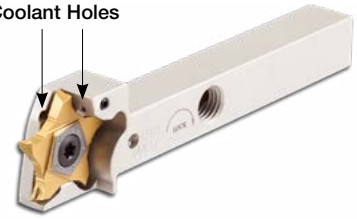
(3) For specific information, refer to insert data.

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664) • PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320) • PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530) • PENTA 24R/L-Z (533)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
PCHR/L 12-24-JHP	5-8	9-11	11-13
PCHR/L 16/20/25-24-JHP	12-14	14-16	16-18

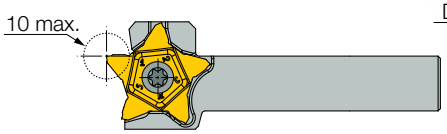
Coolant Holes



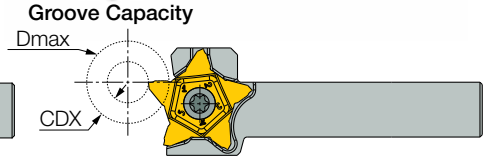
(2) Grooving Depth CDX Relative to Dmax

CDX	3.5	4	4.5	5
Dmax	No-limit	210	135	50

Cut-off to Center



Groove Capacity



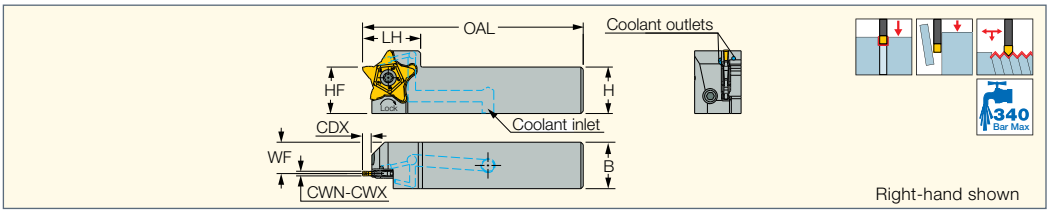
Spare Parts

Designation				
PCHL 12-24-JHP	SR 16-212-01397L-L8.5	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHR 12-24-JHP	SR 16-212-01397-L8.5	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHL 16-24-JHP	SR 16-212-01397L		SR 5/16UNF TL360	HW 5/32"
PCHR 16-24-JHP	SR 16-212-01397		SR 5/16UNF TL360	HW 5/32"
PCHL 20-24-JHP	SR 16-212-01397L		PLG G1/8 TL360	HW 5.0
PCHR 20-24-JHP	SR 16-212-01397		PLG G1/8 TL360	HW 5.0
PCHL 25-24-JHP	SR 16-212-01397L			
PCHR 25-24-JHP	SR 16-212-01397			

PENTACUT JETCUT PARTING & GROOVING LINE

PCHR/L-24-JHP-MC

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Bottom Inlets for High-Pressure Coolant



Designation	H	HF	B	CWN(1)	CWX(2)	CDX(3)	WF	OAL	LH	Insert
PCHR/L 20-24-JHP-MC	20.0	20.0	20.0	0.50	3.20	6.50	13.50	95.00	25.0	PENTA 24
PCHR/L 25-24-JHP-MC	25.0	25.0	25.0	0.50	3.20	6.50	18.50	110.00	25.0	PENTA 24

- For user guide and accessories see pages 419-438

(1) Minimum cutting width

(2) Maximum cutting width • Up to 6.2 mm width may be ordered on request.

(3) For specific information, refer to insert data.

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664) • PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320) • PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530) • PENTA 24R/L-Z (533)

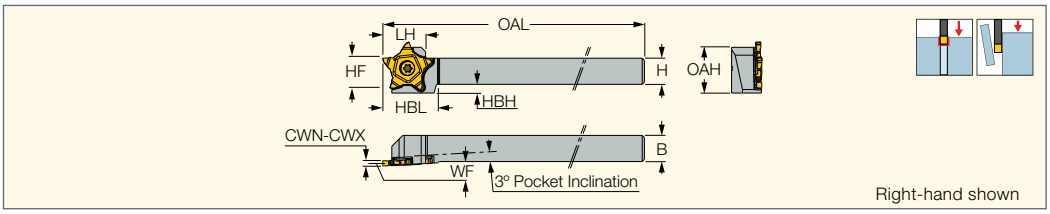
Spare Parts

Designation	
PCHL 20-24-JHP-MC	SR 16-212-01397L
PCHR 20-24-JHP-MC	SR 16-212-01397
PCHL 25-24-JHP-MC	SR 16-212-01397L
PCHR 25-24-JHP-MC	SR 16-212-01397

PENTACUT PARTING & GROOVING LINE

PCHRS/LS

Holders Carrying Inserts with 5 Cutting Edges for Grooving, Parting and Recessing Next to High Shoulders



Designation	H	B	CWN(1)	CWX(2)	OAL	LH	HBL	HBH	OAH	HF		
PCHR/LS 12-24	12.0	12.0	0.80	4.80	120.00	19.5	24.50	4.0	21.0	12.0	SR 16-212-01397R/LS	T-2010/5
PCHR/LS 16-24	16.0	16.0	0.80	4.80	120.00	19.5	-	-	21.0	16.0	SR 16-212-01397R/LS	T-2010/5
PCHR/LS 20-24	20.0	20.0	0.80	4.80	120.00	19.5	-	-	25.0	20.0	SR 16-212-01397R/LS	T-2010/5
PCHR/LS 25-24	25.0	25.0	0.80	4.80	135.00	19.5	-	-	30.0	25.0	SR 16-212-01397R/LS	T-2010/5

(1) Minimum cutting width
(2) Maximum cutting width

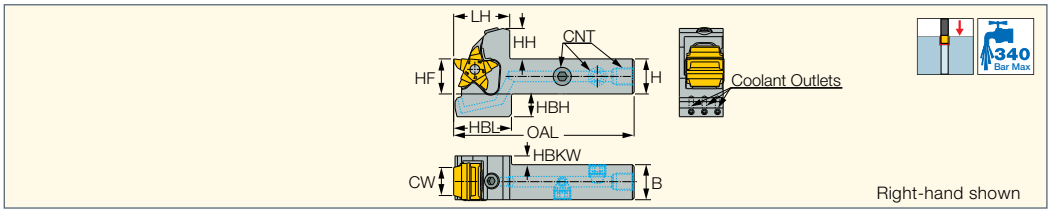
For inserts, see pages: PENTA 24N-J-RS (323) • PENTA 24N-RS/LS (323)



PENTACUT PARTING & GROOVING LINE

PCHR/L-27-JHP-MC

Tools Carrying Pentagonal Wide Inserts for Specially Tailored Profiles



Designation	CW	H	B	HF	LH	HBL	HH	HBH	HBKW	OAL	CNT
PCHR/L 20-27-10-JHP-MC	10.00	20.0	20.0	20.0	32.0	33.0	17.4	13.0	5.00	103.00	G1/8
PCHR/L 25-27-10-JHP-MC	10.00	25.0	25.0	25.0	32.0	33.0	17.4	8.0	-	118.00	G1/8
PCHR/L 20-27-15-JHP-MC	15.00	20.0	20.0	20.0	32.0	33.0	17.4	13.0	5.00	103.00	G1/8
PCHR/L 25-27-15-JHP-MC	15.00	25.0	25.0	25.0	32.0	33.0	17.4	8.0	-	118.00	G1/8
PCHR/L 20-27-20-JHP-MC	20.00	20.0	20.0	20.0	32.0	33.0	17.4	13.0	5.00	103.00	G1/8
PCHR/L 25-27-20-JHP-MC	20.00	25.0	25.0	25.0	32.0	33.0	17.4	8.0	-	118.00	G1/8

For inserts, see pages: PENTAS 27 blanks (323)

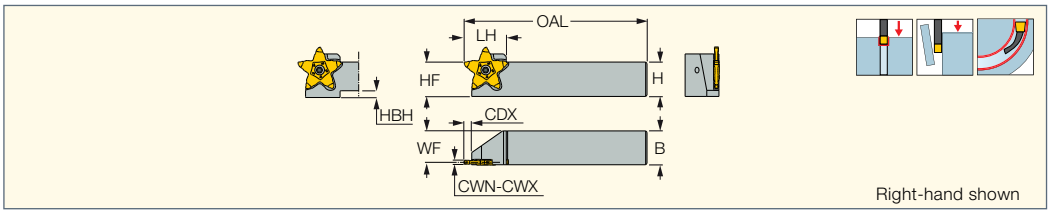
Spare Parts

Designation								
PCHR/L 20-27-20-JHP-MC	SR M3X6 ISO7380 SS	HW 3.0	SR M6X6 DIN913	SR M6X6 DIN913 TL360	PUSH ROD - 40529	HW 4.0	PLG G1/8 TL360	HW 5.0
PCHL 25-27-20-JHP-MC	SR M3X6 ISO7380 SS	HW 3.0	SR M6X6 DIN913	SR M6X6 DIN913 TL360	PUSH ROD - 40529	HW 4.0	PLG G1/8 TL360	HW 5.0
PCHR 25-27-20-JHP-MC					PUSH ROD - 40529	HW 4.0		

PENTACUT PARTING & GROOVING LINE

PCHR/L-34

Grooving, Parting and Recessing Holders Carrying Inserts with 5 Cutting Edges



Designation	H	HF	B	CWN(2)	CWX(3)	WF	CDX(4)	OAL	LH	HBH		
PCHR/L 16-34	16.0	16.0	16.0	1.50	4.00	14.20	10.00	120.00	31.0	9.0	SR 16-212-01397	
PCHR/L 20-34	20.0	20.0	20.0	1.50	4.00	18.20	10.00	120.00	31.0	6.0	SR 16-212-01397	
PCHR/L 25-34	25.0	25.0	25.0	1.50	4.00	23.20	10.00	135.00	31.0	-	SR 16-212-01397	
PCHR/L 25-34-8 (1)	25.0	25.0	25.0	3.19	8.20	22.50	10.00	135.00	31.0	-	SR PCHR-8-06642	T-15/5
PCHR/L 32-34	32.0	32.0	32.0	1.50	4.00	30.10	10.00	135.00	31.0	-	SR 16-212-01397	

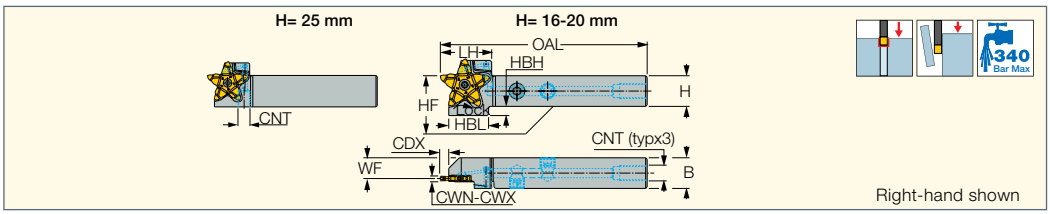
(1) Used with special inserts only
(2) Minimum cutting width
(3) Maximum cutting width
(4) For specific information, refer to insert data

For inserts, see pages: PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535) • PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

PENTACUT PARTING & GROOVING LINE JETCUT

PCHR/L-34-JHP

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Channels for High-Pressure Coolant



Designation	H	HF	B	CWN(1)	CWX(2)	CDX(3)	WF	OAL	LH	HBH	CNT	Insert
PCHR/L 16-34-JHP	16.0	16.0	16.0	1.50	4.00	10.00	9.60	120.00	33.5	9.0	UNF 5/16-24	PENTA 34
PCHR/L 20-34-JHP	20.0	20.0	20.0	1.50	4.00	10.00	13.60	135.00	33.5	6.0	G1/8-28	PENTA 34
PCHR/L 25-34-JHP	25.0	25.0	25.0	1.50	4.00	10.00	18.60	135.00	33.5	-	G1/8-28	PENTA 34

• For user guide and accessories, see pages 419-438
(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data

For inserts, see pages: PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535) • PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

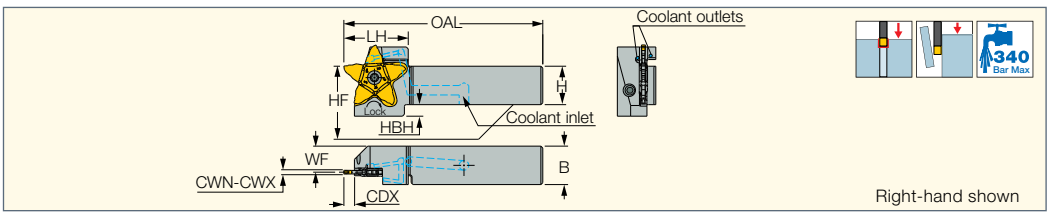
Spare Parts

Designation			
PCHR/L 16-34-JHP	SR 16-212-01397	SR 5/16UNF TL360	HW 5/32"
PCHR/L 20-34-JHP	SR 16-212-01397	PLG G1/8 TL360	HW 5.0
PCHR/L 25-34-JHP	SR 16-212-01397		

PENTACUT PARTING & GROOVING LINE JETCUT

PCHR/L-34-JHP-MC

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Bottom Inlets for High-Pressure Coolant



Designation	H	HF	B	CWN(1)	CWX(2)	CDX(3)	WF	OAL	LH	HBH	Insert
PCHR/L 20-34-JHP-MC	20.0	20.0	20.0	1.50	4.00	10.00	13.55	103.50	33.5	6.0	PENTA 34
PCHR/L 25-34-JHP-MC	25.0	25.0	25.0	1.50	4.00	10.00	18.55	118.50	33.5	-	PENTA 34

• For user guide and accessories, see pages 419-438
(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data

For inserts, see pages: PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535) • PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

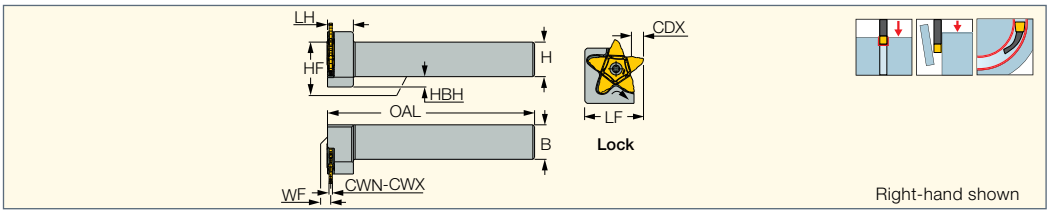
Spare Parts

Designation	
PCHR/L-34-JHP-MC	SR 16-212-01397

PENTACUT
PARTING & GROOVING LINE

PCHPR/L

Perpendicular Holders Carrying Inserts with 5 Cutting Edges for Facing, Grooving, Parting and Recessing



Designation	H	B	CWN(1)	CWX(2)	CDX(3)	HF	WF	LF	OAL	LH	HBH
PCHPR/L 16-24	16.0	16.0	0.50	3.20 (4)	6.50	16.0	1.50 (5)	23.5	120.00	11.5	-
PCHPR/L 20-24	20.0	20.0	0.50	3.20 (4)	6.50	20.0	1.50 (5)	28.0	120.00	11.5	-
PCHPR/L 25-24	25.0	25.0	0.50	3.20 (4)	6.50	25.0	1.50 (5)	33.0	135.00	11.5	-
PCHPR/L 20-34	20.0	20.0	1.40	4.00	10.00	20.0	1.90	34.0	120.00	15.0	6.0
PCHPR/L 25-34	25.0	25.0	1.40	4.00	10.00	25.0	1.90	34.0	135.00	15.0	-

(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data
(4) Up to 6.2 mm width may be ordered on request
(5) Valid for inserts with CW<3.2 mm

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664)
• PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320)
• PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530)
• PENTA 24R/L-Z (533) • PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535)
• PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

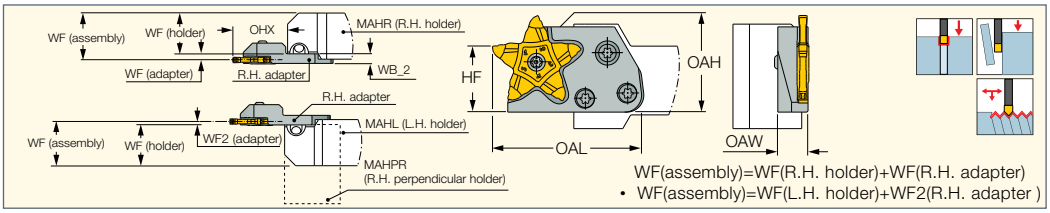
Spare Parts

Designation		
PCHPL 16-24	SR 16-212-01397	T-20/5
PCHPR 16-24	SR 16-212-01397L	T-20/5
PCHPL 20-24	SR 16-212-01397	T-20/5
PCHPR 20-24	SR 16-212-01397L	T-20/5
PCHPL 25-24	SR 16-212-01397	T-20/5
PCHPR 25-24	SR 16-212-01397L	T-20/5
PCHPR/L 20-34	SR 16-212-01397	T-20/5
PCHPR/L 25-34	SR 16-212-01397	T-20/5

PENTACUT
PARTING & GROOVING LINE
MODULAR-GRIP

PCADR/L

Adapters for PENTACUT Grooving Inserts



Designation	CWN(1)	CWX(2)	OHX(3)	OAL	WF(4)	WF2	OAW	WB_2	HF	OAH
PCADR/L 24N	0.50	3.18 (5)	17.00	41.50	3.20	2.00	9.00	5.2	24.0	30.3
PCADR/L 34N	1.50	4.00	29.60	54.20	3.35	1.85	11.00	5.2	24.0	31.0

• CDX and CUTDIA according to insert limitation
(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum overhang
(4) WF (adapter)
(5) Up to 6.2 mm width may be ordered on request

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664)
• PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320)
• PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530)
• PENTA 24R/L-Z (533) • PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535)
• PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

For holders, see pages: MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625)
• C#-MAHDR-45 (623) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633)
• C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280)

Spare Parts

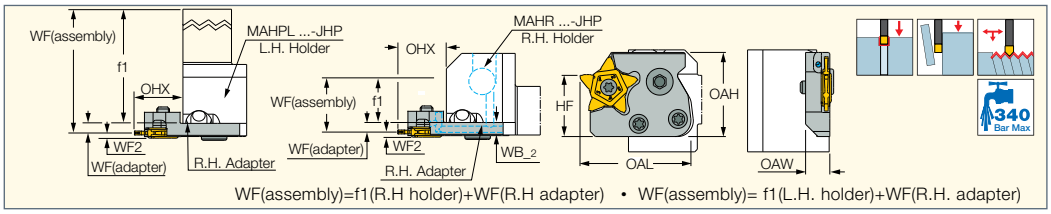
Designation	
PCADL 24N	SR 16-212-01397L(a)
PCADR 24N	SR 16-212-01397
PCADR/L 34N	SR 16-212-01397

(a) For left-hand holders

PENTACUT JETCUT PARTING & GROOVING LINE
MODULARGRIP

PCADR/L-JHP

Adapters with High-Pressure Coolant Holes for PENTACUT Grooving Inserts



Designation	CWN(1)	CWX(2)	OHX(3)	OAL	WF(4)	WF2	OAW	WB_2	HF	OAH	Insert
PCADR/L 24-JHP	0.50	3.18 (5)	19.30	43.80	5.20	2.00	10.00	7.2	24.0	33.0	PENTA 24
PCADR/L 34-JHP	1.50	4.00	27.80	54.20	5.35	2.15	11.00	7.2	24.0	33.0	PENTA 34

• CDX and CUTDIA according to insert limitation • For user guide and accessores, see pages 419-438

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum overhang

(4) WF(adapter)

(5) Up to 6.2 mm width can be ordered on request

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664) • PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320) • PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530) • PENTA 24R/L-Z (533) • PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535) • PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

For holders, see pages: ABC MAHDR-#-XL-JHP (782) • C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L-JHP-MC (280) • MS##-##-MG-JHP (757) • MS-ES#####-GWS-MG-JHP (759) • TR TNK36 MAHDL-R-XL-JHP (782) • TR45 MAHDR-#-XL-JHP (781) • TR45TNL MAHDN-R-XL-JHP (781) • V## MAHD#-#-XL-##-JHP (778) • V## MAHD-XL-JHP (779)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
PCADR/L 24-JHP	9-11	11-13	12-14

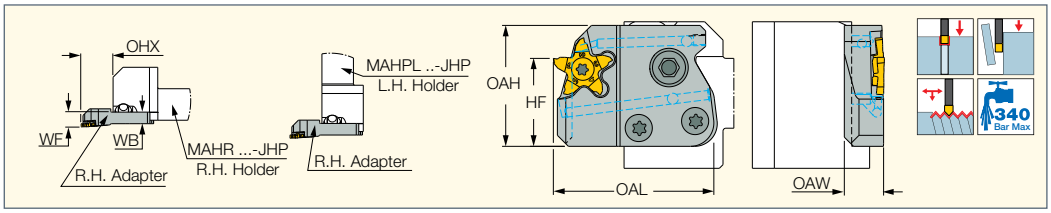
Spare Parts

Designation	
PCADL 24-JHP	SR 16-212-01397L
PCADR 24-JHP	SR 16-212-01397
PCADR/L 34-JHP	SR 16-212-01397

PENTACUT JETCUT PARTING & GROOVING LINE

PCADRS/LS-JHP

Adapters with High-Pressure Coolant Holes for PENTACUT 17



Designation	CWN(1)	CWX(2)	OHX(3)	OAL	WF	OAW	WB	HF	OAH	Insert
PCADR/LS 17-JHP	0.25	3.18	19.30	43.80	8.95	10.70	7.0	24.0	33.0	PENTA 17

• CDX and CUTDIA according to insert limitation • For user guide and accessores, see pages 419-438

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum overhang

For inserts, see pages: PENTA 17-MT-RS/LS (383) • PENTA 17-P-RS/LS (309) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309) • PENTA 17R/L-SP-RS (310)

For holders, see pages: ABC MAHDR-#-XL-JHP (782) • C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • DT##/2 MAHD#-#-XL-JHP (758) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L-JHP-MC (280) • MS##-##-MG-JHP (757) • MS-ES#####-GWS-MG-JHP (759) • TR TNK36 MAHDL-R-XL-JHP (782) • TR45 MAHDR-#-XL-JHP (781) • TR45TNL MAHDN-R-XL-JHP (781) • V## MAHD#-#-XL-##-JHP (778) • V## MAHD-XL-JHP (779)

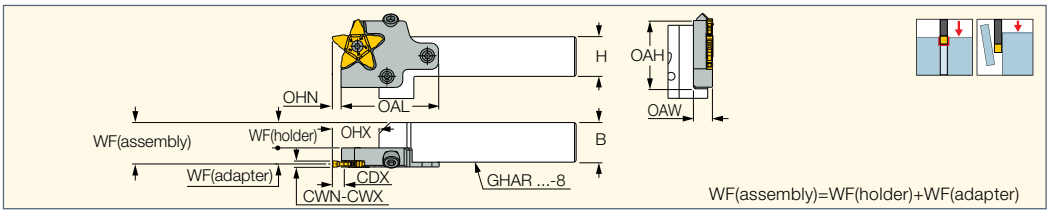
Spare Parts

Designation		
PCADLS 17-JHP	SR M4-39432	T-1508/5
PCADRS 17-JHP	SR M4-39432L	T-1508/5

PENTACUT PARTING & GROOVING LINE

PCADR/L 34N-RE

Reinforced Adapters for PENTACUT Grooving Inserts



Designation	CWN(1)	CWX(2)	OHN(3)	OHX(4)	OAL	WF(5)	OAH	OAW	
PCADR/L 34N-RE	1.50	4.00	5.50	29.50	61.50	10.15	42.0	12.00	SR 16-212-01397

- CDX and CUTDIA according to insert limitation
- H, B, and WF(holder) according to holder being used

(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum overhang
(4) Maximum overhang
(5) WF(adapter)

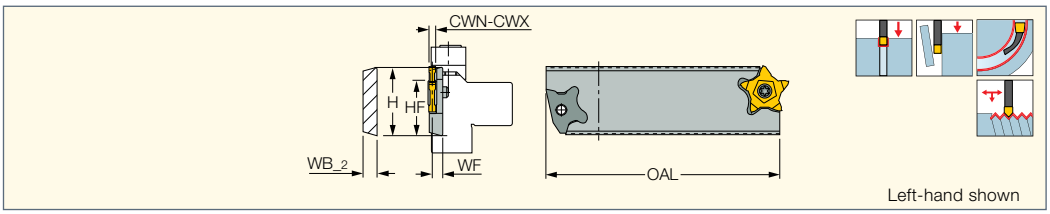
For inserts, see pages: PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535) • PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

For holders, see pages: C#-GHAD-8 (625) • C#-GHAPR/L-8 (626) • GHAPR/L-8 (286) • GHAR/L-8 (285) • IM-GHAD-8 (634)

PENTACUT PARTING & GROOVING LINE

PCHBR/L

Double-Ended Parting and Grooving Blades for PENTACUT Inserts



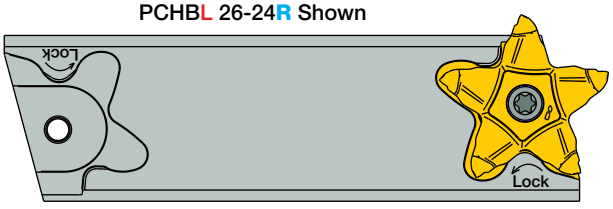
Designation	H	CWN(2)	CWX(3)	HF	WF(4)	OAL	WB_2	Insert	
PCHBL 26-24R	26.0	0.50	6.20	21.4	7.00	110.00	8.5	PENTA 24	SR 16-212-01397L
PCHBR 26-24L	26.0	0.50	6.20	21.4	7.00	110.00	8.5	PENTA 24	SR 16-212-01397
PCHBR 26-24R	26.0	0.50	6.20	21.4	1.50	110.00	8.5	PENTA 24	
PCHBL 32-24R	32.0	0.50	6.20	24.8	7.00	110.00	8.5	PENTA 24	SR 16-212-01397L
PCHBR 32-24L	32.0	0.50	6.20	24.8	7.00	110.00	8.5	PENTA 24	SR 16-212-01397
PCHBL 26-34R (1)	26.0	1.50	4.00	21.4	7.15	110.00	8.5	PENTA 34	SR 16-212-01397
PCHBR 26-34L (1)	26.0	1.50	4.00	21.4	7.15	110.00	8.5	PENTA 34	SR 16-212-01397
PCHBR 26-34R (1)	26.0	1.50	4.00	21.4	1.35	110.00	8.5	PENTA 34	
PCHBL 32-34R	32.0	1.50	4.00	24.8	7.15	110.00	8.5	PENTA 34	SR 16-212-01397
PCHBR 32-34L	32.0	1.50	4.00	24.8	7.15	110.00	8.5	PENTA 34	SR 16-212-01397

- For insert/blade orientation, see the following drawings

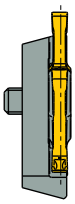
(1) Single pocket blade
(2) Minimum cutting width
(3) Maximum cutting width
(4) To the center of inserts up to 4.15 mm width

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664) • PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320) • PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530) • PENTA 24R/L-Z (533) • PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535) • PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

PCHBL 26-24R Shown

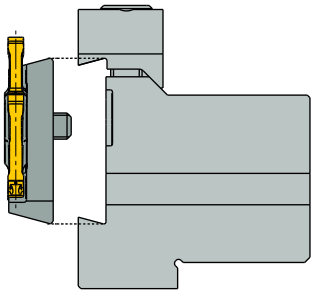


PCHBL 26-24L

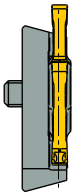


Left-hand blade

PCHBL 26-24R

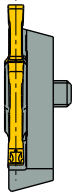


PCHBR 26-24L



Right-hand blade

PCHBR 26-24R



Pocket location on the blade

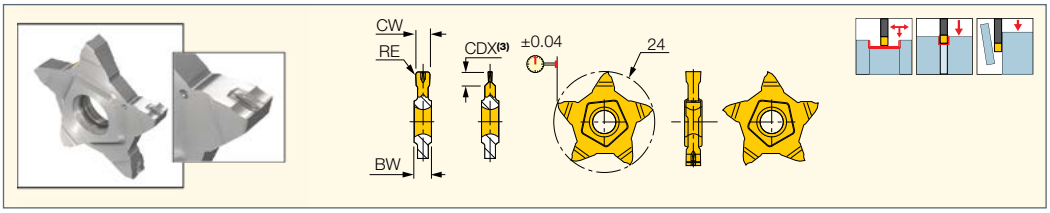
Identification System for Standard Inserts

PENTA	24	N	150	J	010
Family name	Circular circumference of the insert	Insert lead angle (K) N, R, L	Cutting edge width CW(mm) x100	Chipbreaker style J, Z	Corner radius RE (mm)x100 for neutral insert. (k=0) Or lead angle for right- or left-hand inserts.

PENTACUT PARTING & GROOVING LINE

PENTA 24N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Tubes, Small and Thin-Walled Parts



Designation	Dimensions						Tough ↔ Hard				Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC1010	IC1008	IC908	IC807G	f groove (mm/rev)
PENTA 24N050J000	0.50	0.00	0.02	0.020	4.00	1.00			•		0.02-0.04
PENTA 24N050J004	0.50	0.04	0.02	0.020	4.00	2.50		•			0.02-0.05
PENTA 24N080J000	0.80	0.00	0.02	0.020	4.00	1.60			•		0.02-0.05
PENTA 24N100J004	1.00	0.04	0.02	0.020	4.00	3.50			•		0.03-0.07
PENTA 24N100J006	1.00	0.06	0.02	0.020	4.00	3.50		•		•	0.03-0.07
PENTA 24N104J000	1.04	0.00	0.02	0.020	4.00	2.00			•		0.02-0.07
PENTA 24N120J000	1.20	0.00	0.02	0.020	4.00	2.00			•	•	0.03-0.07
PENTA 24N125J010	1.25	0.10	0.02	0.020	4.00	2.00			•		0.03-0.07
PENTA 24N140J000	1.40	0.00	0.02	0.020	4.00	2.00			•		0.03-0.08
PENTA 24N147J000	1.47	0.00	0.02	0.020	4.00	2.50			•		0.03-0.08
PENTA 24N150J010	1.50	0.10	0.00	0.020	4.00	5.00	•	•	•	•	0.03-0.10
PENTA 24N157J015	1.57	0.15	0.02	0.030	4.00	3.00			•	•	0.00-0.12
PENTA 24N170J010	1.70	0.10	0.02	0.030	4.00	3.00			•	•	0.03-0.12
PENTA 24N178J018	1.78	0.18	0.02	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N185J015	1.85	0.15	0.02	0.030	4.00	3.00			•		0.04-0.12
PENTA 24N196J015	1.96	0.15	0.02	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N196J040	1.96	0.40	0.02	0.030	4.00	3.00			•		0.03-0.10
PENTA 24N200J020	2.00	0.20	0.02	0.030	4.00	6.00	•	•	•	•	0.04-0.12
PENTA 24N222J015	2.22	0.15	0.02	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N230J020	2.30	0.20	0.02	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N239J015	2.39	0.15	0.02	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N247J020	2.47	0.20	0.02	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N270J010	2.70	0.10	0.02	0.020	4.00	5.00			•		0.04-0.16
PENTA 24N287J020	2.87	0.20	0.02	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N300J000	3.00	0.00	0.02	0.020	4.00	6.50			•		0.04-0.10
PENTA 24N300J020	3.00	0.20	0.02	0.030	4.00	6.50	•		•	•	0.04-0.16
PENTA 24N300J040	3.00	0.40	0.02	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N315J015	3.15	0.15	0.02	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N318J020	3.18	0.20	0.02	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N330J010	3.30	0.10	0.02	0.030	5.00	6.40			•		0.04-0.16
PENTA 24N348J020	3.48	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N356J020	3.56	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N374J020	3.74	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N398J020	3.98	0.20	0.02	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N400J040	4.00	0.40	0.02	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N423J010	4.23	0.10	0.02	0.030	5.00	6.20			•		0.04-0.18

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving and parting depth relative to part diameter, see page 322

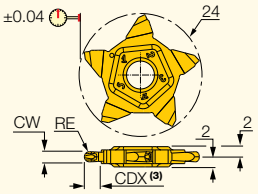
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

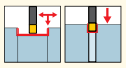
PENTACUT PARTING & GROOVING LINE

PENTA 24N-J (full radius)

Precision Grooving Pentagonal Full Radius Inserts for Soft Materials







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	Tough ↔ Hard IC908	IC807G	Recommended Machining Data f groove (mm/rev)
PENTA 24N100J050	1.00	0.50	0.02	0.050	3.50	●		0.03-0.07
PENTA 24N120J060	1.20	0.60	0.02	0.050	2.00	●		0.03-0.07
PENTA 24N140J070	1.40	0.70	0.02	0.050	2.00	●		0.05-0.08
PENTA 24N157J079	1.57	0.79	0.02	0.050	3.00	●	●	0.05-0.08
PENTA 24N200J100	2.00	1.00	0.02	0.050	3.00	●	●	0.05-0.12
PENTA 24N239J120	2.39	1.20	0.02	0.050	5.00	●		0.06-0.16
PENTA 24N300J150	3.00	1.50	0.02	0.050	6.50	●	●	0.06-0.20
PENTA 24N318J159	3.18	1.59	0.02	0.050	6.50	●		0.06-0.20
PENTA 24N400J200	4.00	2.00	0.02	0.050	6.25	●		0.06-0.20

• Recessing is possible only with 2.39 mm and wider inserts. • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving depth relative to part diameter, see page 322

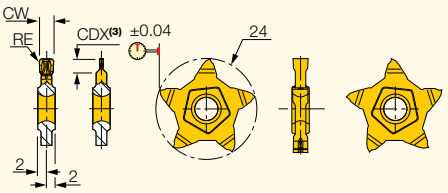
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

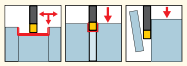
PENTACUT PARTING & GROOVING LINE

PENTA 24N-C

Parting and Grooving Inserts with 5 Cutting Edges for Parting Bars, Hard Materials and Tough Applications







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150C010	1.50	0.10	0.02	0.050	5.00	●	0.05-0.11
PENTA 24N157C015	1.57	0.15	0.02	0.050	3.00	●	0.05-0.12
PENTA 24N170C010	1.70	0.10	0.02	0.050	3.00	●	0.05-0.13
PENTA 24N178C018	1.78	0.18	0.02	0.050	3.00	●	0.05-0.14
PENTA 24N196C015	1.96	0.15	0.02	0.050	3.00	●	0.05-0.15
PENTA 24N200C020	2.00	0.20	0.02	0.050	6.00	●	0.05-0.16
PENTA 24N222C015	2.22	0.15	0.02	0.050	3.50	●	0.05-0.16
PENTA 24N230C020	2.30	0.20	0.02	0.050	3.50	●	0.06-0.17
PENTA 24N239C015	2.39	0.15	0.02	0.050	5.00	●	0.07-0.18
PENTA 24N247C020	2.47	0.20	0.02	0.050	5.00	●	0.08-0.18
PENTA 24N270C010	2.70	0.10	0.02	0.050	6.20	●	0.09-0.18
PENTA 24N287C020	2.87	0.20	0.02	0.050	6.20	●	0.10-0.18
PENTA 24N300C020	3.00	0.20	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N300C040	3.00	0.40	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N318C020	3.18	0.20	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N478C055	4.78	0.55	0.02	0.050	6.20	●	0.10-0.25
PENTA 24N486C040	4.86	0.40	0.02	0.050	6.20	●	0.10-0.25
PENTA 24N500C040	5.00	0.40	0.02	0.050	6.20	●	0.10-0.25

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see page 322

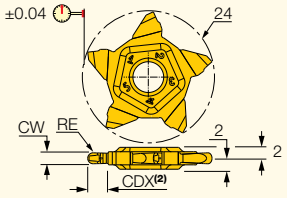
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

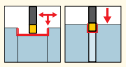
PENTACUT
PARTING & GROOVING LINE

PENTA 24N-C (full radius)

Full Radius Grooving Inserts with 5 Cutting Edges for Hard Materials and Tough Applications







Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N157C079	1.57	0.79	0.02	3.00	●	0.04-0.12
PENTA 24N200C100	2.00	1.00	0.02	3.00	●	0.04-0.16
PENTA 24N239C120	2.39	1.20	0.02	5.00	●	0.06-0.18
PENTA 24N300C150	3.00	1.50	0.02	6.20	●	0.10-0.25

- Recessing is possible only with 2.39 mm and wider inserts
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

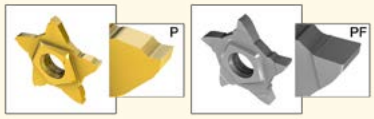
(2) For grooving depth relative to part diameter, see page 322

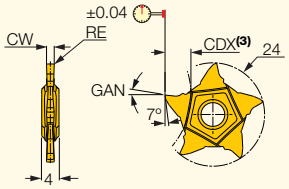
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

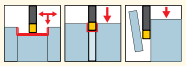
PENTACUT
PARTING & GROOVING LINE

PENTA 24N-PF/P

Pentagonal Inserts with a High Positive Flat Rake for Parting and Precision Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	GAN	Tough ↔ Hard IC1008	IC908	IC30N	Recommended Machining Data f groove (mm/rev)
PENTA 24N050PF005	0.50	0.05	0.02	0.020	2.50	6.0			●	0.01-0.04
PENTA 24N075PF005	0.75	0.05	0.02	0.020	2.50	6.0			●	0.02-0.05
PENTA 24N095PF005	0.95	0.05	0.02	0.020	4.00	6.0			●	0.02-0.05
PENTA 24N100P005	1.00	0.05	0.02	0.020	3.50	12.0	●			0.02-0.05
PENTA 24N100PF010	1.00	0.10	0.02	0.020	4.00	6.0		●	●	0.03-0.06
PENTA 24N125PF020	1.25	0.20	0.02	0.020	5.00	6.0			●	0.03-0.06
PENTA 24N145PF020	1.45	0.20	0.02	0.020	6.20	6.0			●	0.03-0.06
PENTA 24N150P005	1.50	0.05	0.02	0.020	5.00	12.0	●			0.02-0.07
PENTA 24N150PF020	1.50	0.20	0.02	0.030	6.00	6.0		●	●	0.03-0.09
PENTA 24N175PF020	1.75	0.20	0.02	0.030	6.20	6.0			●	0.02-0.08
PENTA 24N185PF020	1.85	0.20	0.02	0.030	6.00	6.0			●	0.03-0.10
PENTA 24N200P005	2.00	0.05	0.02	0.020	6.00	12.0	●			0.02-0.08
PENTA 24N200PF020	2.00	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.10
PENTA 24N230PF020	2.30	0.20	0.02	0.030	6.20	6.0			●	0.04-0.14
PENTA 24N239PF015	2.39	0.15	0.02	0.030	6.50	6.0		●		0.04-0.14
PENTA 24N250PF020	2.50	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.14
PENTA 24N300PF020	3.00	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.14
PENTA 24N300PF030	3.00	0.30	0.02	0.030	6.20	6.0			●	0.04-0.15
PENTA 24N400PF020	4.00	0.20	0.02	0.030	6.50	6.0			●	0.04-0.16
PENTA 24N400PF040	4.00	0.40	0.02	0.030	6.20	6.0			●	0.04-0.16

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

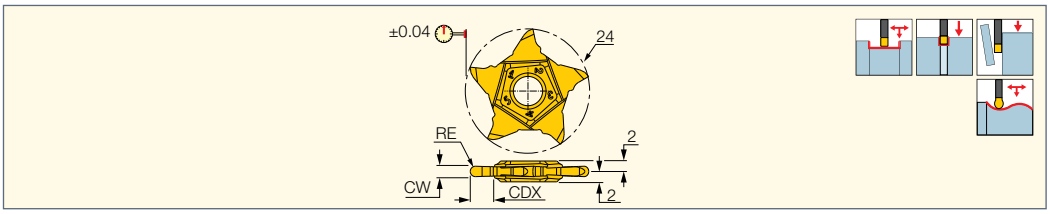
(3) For grooving and parting depths relative to part diameter, see page 322

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 24N-PF (full radius)

Full Radius Pentagonal Inserts with a High Positive Flat Rake for Parting and Precision Grooving



Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	GAN	IC30N	Recommended Machining Data f groove (mm/rev)
PENTA 24N100PF050	1.00	0.50	0.02	4.50	6.0	●	0.03-0.06
PENTA 24N150PF075	1.50	0.75	0.02	6.20	6.0	●	0.03-0.06
PENTA 24N200PF100	2.00	1.00	0.02	6.20	6.0	●	0.04-0.10
PENTA 24N250PF125	2.50	1.25	0.02	6.20	6.0	●	0.04-0.14
PENTA 24N300PF150	3.00	1.50	0.02	6.20	6.0	●	0.04-0.15
PENTA 24N400PF200	4.00	2.00	0.02	6.20	6.0	●	0.04-0.16

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

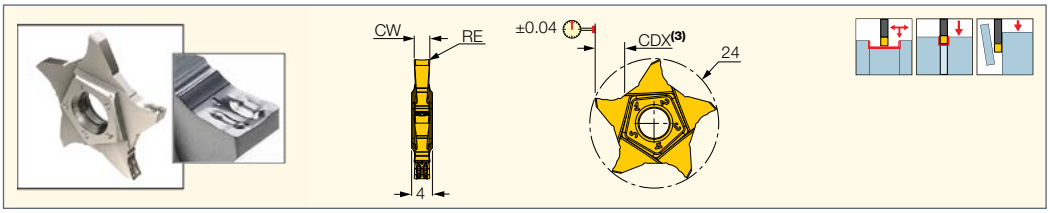
(2) For grooving and parting depths relative to part diameter, see page 322

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 24N-Z

Inserts with 5 Cutting Edges for Grooving and Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150Z010	1.50	0.10	0.02	0.020	5.00	●	0.05-0.08
PENTA 24N200Z020	2.00	0.20	0.02	0.030	6.40	●	0.04-0.12
PENTA 24N300Z020	3.00	0.20	0.02	0.000	6.40	●	0.04-0.16

- Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters • Suitable for machining soft materials and bearing steel at low to medium feeds
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

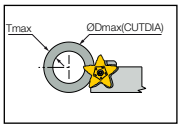
(1) Cutting width tolerance (+/-)

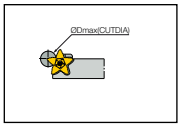
(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see page 322

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts										
CW±0.02	CDX(3)	CDX / ØDmax	T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.5	T≤6.4
CW=0.50 (1)	1.0	1.0 / N.L.	-	-	-	-	-	-	-	-
CW=0.50 (2)	2.5			250						
CW=0.80	1.6	1.6 / N.L.	-	-	-	-	-	-	-	-
CW=1.00	3.5		N.L.	250	-	-	-	-	-	-
1.04≤CW≤1.40	2.0	2.0 / N.L.	-	-	-	-	-	-	-	-
CW=1.47	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-
CW=1.50	5.0		N.L.	470	210	70	30	-	-	-
1.57≤CW≤1.96	3.0		N.L.	-	-	-	-	-	-	-
CW=2.00	6.0(4)		N.L.	470	210	130	75	45	20	-
2.22≤CW≤2.30	3.5		N.L.	250	-	-	-	-	-	-
2.39≤CW≤2.50	5.0		N.L.	470	210	70	30	-	-	-
2.70≤CW≤3.18	6.4		N.L.	470	210	135	100	70	40	20





(1) Refers to PENTA 24N050J000 - a precision grooving insert (2) Refers to PENTA 24N050J004 - a parting insert (3) CUTDIA for parting = 2 x CDX

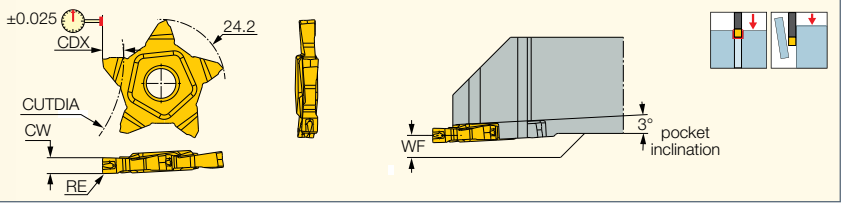
(4) For full radius insert, CDX = 3.0, ØDmax = No limit

PENTACUT
PARTING & GROOVING LINE

PENTA 24N-J-RS

Parting and Precision Grooving Pentagonal Inserts for Next to High Shoulder Applications





Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	CUTDIA	WF	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N157J020RS	1.57	0.20	0.20	3.00	-	1.20	●	0.03-0.10
PENTA 24N157J079RS	1.57	0.79	0.20	3.00	-	1.20	●	0.04-0.12
PENTA 24N200J020RS	2.00	0.20	0.20	3.00	-	1.00	●	0.04-0.12
PENTA 24N239J020RS	2.39	0.20	0.20	5.00	30.0 (3)	0.80	●	0.04-0.14
PENTA 24N239J119RS	2.39	1.19	0.20	5.00	30.0 (3)	0.80	●	0.04-0.16
PENTA 24N300J020RS	3.00	0.20	0.20	6.20	16.0 (3)	0.40	●	0.04-0.16
PENTA 24N318J020RS	3.18	0.20	0.20	6.20	16.0 (3)	0.40	●	0.04-0.16
PENTA 24N318J159RS	3.18	1.59	0.20	6.20	16.0 (3)	0.40	●	0.04-0.16

(1) Cutting width tolerance (+/-)
(2) Cutting depth maximum
(3) for grooving

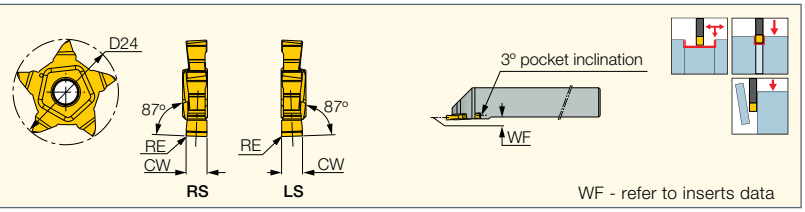
For tools, see pages: PCHRS/LS (314)

PENTACUT
PARTING & GROOVING LINE

PENTA 24N-RS/LS

Pentagonal Inserts for Parting and Precision Grooving Next to High Shoulder Applications





Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	CUTDIA	WF	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N080NF010R/LS	0.80	0.10	0.02	1.60	- (3)	1.60	●	0.03-0.05
PENTA 24N100NF010R/LS	1.00	0.10	0.02	1.80	- (3)	1.50	●	0.03-0.06
PENTA 24N119NF010R/LS	1.19	0.10	0.02	2.00	- (3)	1.40	●	0.03-0.06
PENTA 24N157NF020R/LS	1.57	0.20	0.02	3.00	- (3)	1.20	●	0.03-0.08
PENTA 24N157NF079R/LS	1.57	0.79	0.02	3.00	- (3)	1.20	●	0.03-0.08
PENTA 24N200NF020R/LS	2.00	0.20	0.02	3.00	- (3)	1.00	●	0.03-0.10
PENTA 24N239NF020R/LS	2.39	0.20	0.02	5.00	40.0	0.80	●	0.03-0.12
PENTA 24N239NF119R/LS	2.39	1.19	0.02	5.00	40.0	0.80	●	0.03-0.12
PENTA 24N300NF020R/LS	3.00	0.20	0.02	6.20	16.0	0.50	●	0.04-0.14
PENTA 24N318NF020R/LS	3.18	0.20	0.02	6.50	13.0	0.40	●	0.04-0.14
PENTA 24N318NF159R/LS	3.18	1.59	0.02	6.50	13.0	0.40	●	0.04-0.14
PENTA 24N400NF020RS	4.00	0.20	0.02	6.50	13.0	1.00	●	0.04-0.16
PENTA 24N480NF020R/LS	4.80	0.20	0.02	6.50	13.0	1.60	●	0.04-0.16

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

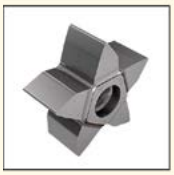
(1) Cutting width tolerance (+/-)
(2) Cutting depth maximum
(3) No limit

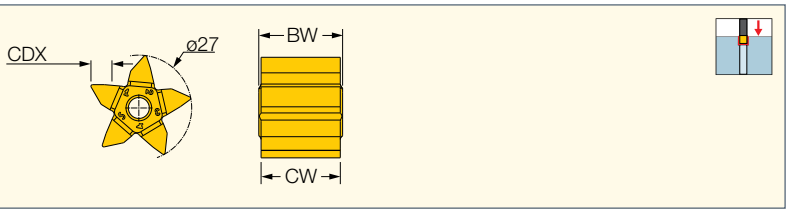
For tools, see pages: PCHRS/LS (314)

PENTACUT
PARTING & GROOVING LINE

PENTAS 27 blanks

Blank Inserts with 5 Wide Cutting Edges for the Production of Special Profile Contours





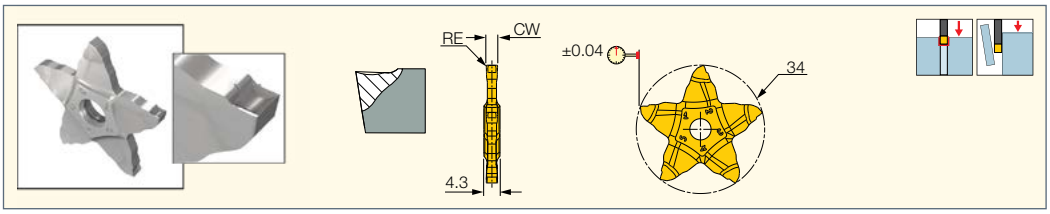
Designation	Dimensions CW	CDX	BW	IC08
PENTAS 27-10FT	10.00	4.00	11.80	●
PENTAS 27-15FT	15.00	4.00	16.80	●
PENTAS 27-20FT	20.00	4.00	21.80	●

For tools, see pages: PCHR/L-27-JHP-MC (314)

PENTACUT PARTING & GROOVING LINE

PENTA 34N-PB

Parting and Grooving Pentagonal Inserts for Parting Bearing Steel and Other Ductile Materials



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150PB015	1.50	0.15	0.02	0.030	8.50	●	0.03-0.06
PENTA 34N200PB020	2.00	0.20	0.02	0.030	8.50	●	0.03-0.08
PENTA 34N300PB020	3.00	0.20	0.02	0.030	9.50	●	0.03-0.10

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

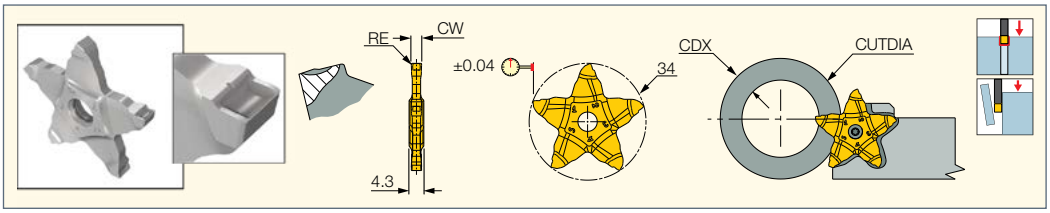
(3) For grooving and parting depths relative to part diameter, see page 324

For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

PENTACUT PARTING & GROOVING LINE

PENTA 34N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150C015	1.50	0.15	0.02	0.030	8.00	●	0.03-0.07
PENTA 34N200C020	2.00	0.20	0.02	0.030	8.00	●	0.04-0.14
PENTA 34N200C100	2.00	1.00	0.02	0.050	8.00	●	0.05-0.16
PENTA 34N222C015	2.22	0.15	0.02	0.030	8.00	●	0.05-0.14
PENTA 34N230C020	2.30	0.20	0.02	0.030	8.00	●	0.05-0.14
PENTA 34N239C015	2.39	0.15	0.02	0.030	8.00	●	0.05-0.15
PENTA 34N239C120	2.39	1.20	0.02	0.050	8.00	●	0.05-0.18
PENTA 34N247C020	2.47	0.20	0.02	0.030	8.00	●	0.05-0.18
PENTA 34N250C020	2.50	0.20	0.02	0.030	8.00	●	0.05-0.18
PENTA 34N270C010	2.70	0.10	0.02	0.030	10.00	●	0.05-0.18
PENTA 34N287C020	2.87	0.20	0.02	0.030	10.00	●	0.05-0.18
PENTA 34N300C000	3.00	0.00	0.02	0.000	10.00	●	0.04-0.10
PENTA 34N300C020	3.00	0.20	0.02	0.030	10.00	●	0.06-0.22
PENTA 34N300C040	3.00	0.40	0.02	0.030	10.00	●	0.06-0.25
PENTA 34N300C150	3.00	1.50	0.02	0.050	10.00	●	0.06-0.20
PENTA 34N315C015	3.15	0.15	0.02	0.030	10.00	●	0.06-0.20
PENTA 34N318C020	3.18	0.20	0.02	0.030	10.00	●	0.06-0.22
PENTA 34N330C010	3.30	0.10	0.02	0.020	10.00	●	0.06-0.20
PENTA 34N348C020	3.48	0.20	0.02	0.030	10.00	●	0.06-0.25
PENTA 34N350C025	3.50	0.25	0.02	0.030	10.00	●	0.06-0.30
PENTA 34N398C020	3.98	0.20	0.02	0.030	10.00	●	0.06-0.30
PENTA 34N400C030	4.00	0.30	0.02	0.030	10.00	●	0.06-0.30

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

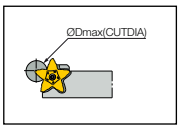
(1) Cutting width tolerance (+/-)

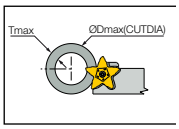
(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see page 324

For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

	ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts						
CW±0.02	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤8.5	T≤9.0	T≤10.0
1.50 ≤ CW ≤ 2.69	N.L.	350	165	100	55	-	-
2.70 ≤ CW ≤ 4.00						55	20





CUTDIA for parting = 2 x CDX

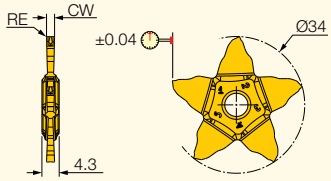
N.L. = No Limit

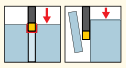
PENTACUT
PARTING & GROOVING LINE

PENTA 34N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150J015	1.50	0.15	0.02	0.002	8.50	●	0.03-0.10
PENTA 34N200J020	2.00	0.20	0.02	0.002	8.50	●	0.04-0.12
PENTA 34N200J100	2.00	1.00	0.02	0.002	8.50	●	0.05-0.12
PENTA 34N239J015	2.39	0.15	0.02	0.002	8.50	●	0.04-0.16
PENTA 34N239J120	2.39	1.20	0.02	0.002	8.50	●	0.06-0.16
PENTA 34N250J020	2.50	0.20	0.02	0.002	8.50	●	0.04-0.16
PENTA 34N270J010	2.70	0.10	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J000	3.00	0.00	0.02	0.000	10.00	●	0.04-0.10
PENTA 34N300J020	3.00	0.20	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J040	3.00	0.40	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J150	3.00	1.50	0.02	0.002	10.00	●	0.06-0.20
PENTA 34N318J020	3.18	0.20	0.02	0.002	10.00	●	0.20-0.16

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

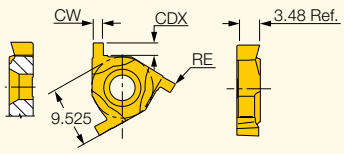
(3) For grooving and parting depths relative to part diameter, see page 324

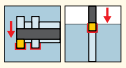
For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

GTGA

Precision Shallow Grooving Inserts with 3 Cutting Edges







GTGA 16 ER/IL shown

Designation	Dimensions CW	CDX(1)	CWTOL(2)	RE	RETOL(3)	Tough ↔ Hard IC528	IC508	Recommended Machining Data f groove (mm/rev)
GTGA 16EL/IR 100	1.00	1.55	0.02	0.10	0.030	●	●	0.02-0.03
GTGA 16ER/IL 100	1.00	1.55	0.02	0.10	0.030	●	●	0.02-0.03
GTGA 16EL/IR 120	1.20	1.60	0.02	0.10	0.030	●	●	0.02-0.03
GTGA 16ER/IL 120	1.20	1.60	0.02	0.10	0.030	●	●	0.02-0.03
GTGA 16EL/IR 140	1.40	1.80	0.02	0.10	0.030	●	●	0.02-0.04
GTGA 16ER/IL 140	1.40	1.80	0.02	0.10	0.030	●	●	0.02-0.04
GTGA 16EL/IR 170	1.70	2.00	0.02	0.10	0.030	●	●	0.03-0.05
GTGA 16ER/IL 170	1.70	2.00	0.02	0.10	0.030	●	●	0.03-0.05
GTGA 16EL/IR 195	1.95	2.00	0.02	0.10	0.030	●	●	0.03-0.06
GTGA 16ER/IL 195	1.95	2.00	0.02	0.10	0.030	●	●	0.03-0.06
GTGA 16EL/IR 225	2.25	2.10	0.02	0.10	0.030	●	●	0.04-0.06
GTGA 16ER/IL 225	2.25	2.10	0.02	0.10	0.030	●	●	0.04-0.06

• Inserts for right-hand external grooving can be used as left-hand internal grooving • Use with anvil AE 16-0 on external tools and with anvil AI 16-0 on internal tools

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting depth maximum

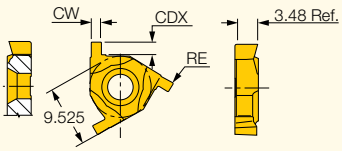
(2) Cutting width tolerance (+/-)

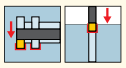
(3) Corner radius tolerance (+/-)

For tools, see pages: AVC-D-SIR/L (707) • C#-SER/L (701) • C#-SIR/L (705) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702) • SIR/L (703)

GTMA
Utility Shallow Grooving Inserts with 3 Cutting Edges







GTMA 16 ER/IL shown

Designation	Dimensions CW	CDX[1]	CWTOL[2]	RE	RETOL[3]	IC508	Recommended Machining Data f groove (mm/rev)
GTMA 16ER/IL 120	1.20	1.60	0.05	0.10	0.050	●	0.02-0.03
GTMA 16ER/IL 140	1.40	1.80	0.05	0.10	0.050	●	0.02-0.04
GTMA 16ER/IL 160	1.60	2.00	0.05	0.10	0.050	●	0.03-0.05
GTMA 16ER/IL 175	1.75	2.00	0.05	0.10	0.050	●	0.03-0.05
GTMA 16ER/IL 195	1.95	2.00	0.05	0.10	0.050	●	0.03-0.06
GTMA 16ER/IL 222	2.22	2.10	0.05	0.10	0.050	●	0.04-0.06

- Inserts for right-hand external grooving can be used as left-hand internal grooving
- Use with anvil AE 16-0 on external tools and with anvil AI 16-0 on internal tools
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Cutting depth maximum
[2] Cutting width tolerance (+/-)
[3] Corner radius tolerance (+/-)

For tools, see pages: AVC-D-SIR/L (707) • C#-SER/L (701) • C#-SIR/L (705) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702) • SIR/L (703)

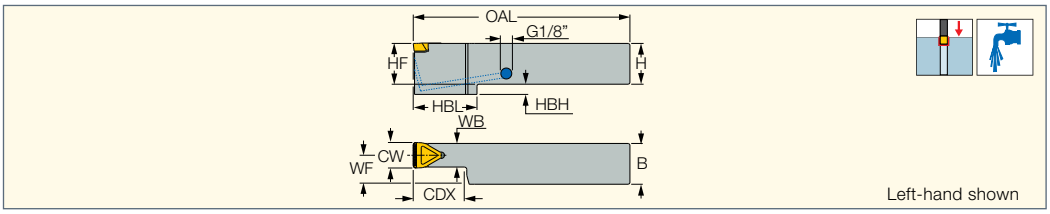
HEAVY DUTY



DOVE IQ GRIP TIGER LINE

THDR/L-IQ

External Holders for Wide Grooving Inserts



Designation	CW	CDX(1)	H	HF	B	OAL	WB	WF	HBH	HBL
THDR/L 2525-10T20-IQ	10.00	20.00	25.0	25.0	25.0	170.00	9.20	20.40	8.0	30.0
THDR/L 3232-10T20-IQ	10.00	20.00	32.0	32.0	32.0	170.00	9.20	27.40	8.0	30.0
THDR/L 2525-12T20-IQ	12.00	20.00	25.0	25.0	25.0	170.00	11.00	19.50	8.0	30.0
THDR/L 3232-12T20-IQ	12.00	20.00	32.0	32.0	32.0	170.00	11.00	26.50	8.0	30.0
THDR/L 2525-14T20-IQ	14.00	20.00	25.0	25.0	25.0	170.00	13.00	18.50	8.0	30.0
THDR/L 3232-14T20-IQ	14.00	20.00	32.0	32.0	32.0	170.00	13.00	25.50	8.0	30.0
THDR/L 3232-16T40-IQ	16.00	40.00	32.0	32.0	32.0	170.00	14.80	24.60	8.0	48.0
THDR/L 4040-16T50-IQ	16.00	50.00	40.0	40.0	40.0	180.00	14.80	32.60	-	-
THDR 3232-18T40-IQ	18.00	40.00	32.0	32.0	32.0	170.00	16.50	23.80	8.0	48.0
THDR 4040-18T50-IQ	18.00	50.00	40.0	40.0	40.0	180.00	16.50	31.80	-	-
THDR/L 3232-20T40-IQ	20.00	40.00	32.0	32.0	32.0	170.00	18.00	23.00	8.0	48.0
THDR/L 4040-20T50-IQ	20.00	50.00	40.0	40.0	40.0	180.00	18.00	31.00	-	-

- For grooving only

(1) Cutting depth maximum

For inserts, see pages: TIGER-IQ (329)



Spare Parts

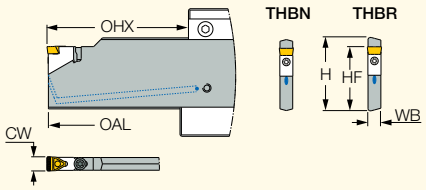
Designation				
THDR/L 2525-10T20-IQ	PIN 5.5 INJ	SR M6-26392	BLD T15/S7	SW6-T
THDR/L 3232-10T20-IQ	PIN 5.5 INJ	SR M6-26392	BLD T15/S7	SW6-T
THDR/L 2525-12T20-IQ	PIN 5.5 INJ	SR M6-26392	BLD T15/S7	SW6-T
THDR/L 3232-12T20-IQ	PIN 5.5 INJ	SR M6-26392	BLD T15/S7	SW6-T
THDR/L 2525-14T20-IQ	PIN 5.5 INJ	SR M6-26392	BLD T15/S7	SW6-T
THDR/L 3232-14T20-IQ	PIN 5.5 INJ	SR M6-26392	BLD T15/S7	SW6-T
THDR/L 3232-16T40-IQ	PIN 6.5 INJ 7000944	SR M8-26393	BLD T20/S7	SW6-T
THDR/L 4040-16T50-IQ	PIN 6.5 INJ 7000944	SR M8-26393	BLD T20/S7	SW6-T
THDR 3232-18T40-IQ	PIN 6.5 INJ 7000944	SR M8-26393	BLD T20/S7	SW6-T
THDR 4040-18T50-IQ	PIN 6.5 INJ 7000944	SR M8-26393	BLD T20/S7	SW6-T
THDR/L 3232-20T40-IQ	PIN 6.5 INJ 7000944	SR M8-26393	BLD T20/S7	SW6-T
THDR/L 4040-20T50-IQ	PIN 6.5 INJ 7000944	SR M8-26393	BLD T20/S7	SW6-T

DOVE IQ GRIP TIGER LINE

THBR/L/N-IQ

Blades Carrying Cartridges for Wide Grooving Inserts





Designation	CW	OHX[3]	CDX[4]	WB	OAL	HF	H						
THBN 53K-10-IQ [1]	10.00	100.0	93.00	9.00	260.00	45.2	52.6	SR M5X3.5PL	SR M5X23-A90	BLD IP20/S7	SW6-T	SGC 340	SGCU 341
THBR/L 53K-12-IQ [2]	12.00	100.0	93.00	10.80	260.00	45.2	52.6	SR M5X3.5PL	SR M5X23-A90	BLD IP20/S7	SW6-T	SGC 340	SGCU 341
THBR/L 53K-14-IQ [2]	14.00	100.0	93.00	12.60	260.00	45.2	52.6	SR M5X3.5PL	SR M5X23-A90	BLD IP20/S7	SW6-T	SGC 340	SGCU 341

- For user guide, see pages 419-428, 432-436

[1] Cartridges have to be ordered separately.

[2] For best performance use SGTBU...-14 holder blocks

[3] Maximum overhang

[4] If workpiece diameter is smaller than 200 mm, then CDX=98, if workpiece diameter is larger than 200 mm, then CDX=93.

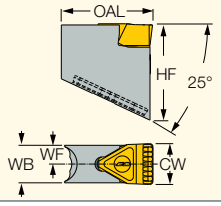
For tools, see pages: CR THDN-IQ (329)

DOVE IQ GRIP TIGER LINE

CR THDN-IQ

Cartridges for Blades Carrying Wide Grooving Inserts





Designation	CW	WF	HF	OAL	WB				
CR THDN-10-IQ	10.00	4.60	24.0	22.60	9.20	SR M6-26392	PIN 5.5 INJ	BLD T15/S7	SW6-T
CR THDN-12-IQ	12.00	5.50	23.7	23.60	11.00	SR M6-26392	PIN 5.5 INJ	BLD T15/S7	SW6-T
CR THDN-14-IQ	14.00	6.50	23.7	24.20	13.00	SR M6-26392	PIN 5.5 INJ	BLD T15/S7	SW6-T

- For user guide, see pages 419-428, 432-436

For inserts, see pages: TIGER-IQ (329)

For holders, see pages: THBR/L/N-IQ (329)

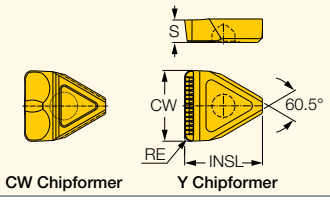
DOVE IQ GRIP TIGER LINE

TIGER-IQ

Utility Single-Ended Inserts for External Heavy Grooving and Deep Machining







Designation	Dimensions CW	RE	CWTOL[1]	RETOL[2]	S	INSL	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
TIGER 1008Y-IQ	10.00	0.80	0.08	0.050	5.05	13.30	●	●	0.20-0.35
TIGER 1212Y-IQ	12.00	1.20	0.08	0.050	5.05	14.00	●	●	0.20-0.40
TIGER 1415-CW-IQ	14.00	1.50	0.08	0.050	5.15	16.10		●	0.22-0.45
TIGER 1415Y-IQ	14.00	1.50	0.08	0.050	5.15	16.10	●	●	0.22-0.45
TIGER 1615Y-IQ	16.00	1.50	0.08	0.050	6.35	20.00	●	●	0.22-0.50
TIGER 1820Y-IQ	18.00	2.00	0.08	0.050	6.35	20.90	●	●	0.25-0.55
TIGER 2020-CW-IQ	20.00	2.00	0.08	0.050	6.35	22.00		●	0.25-0.60
TIGER 2020Y-IQ	20.00	2.00	0.08	0.050	6.35	22.00	●	●	0.25-0.60

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Cutting width tolerance (+/-)

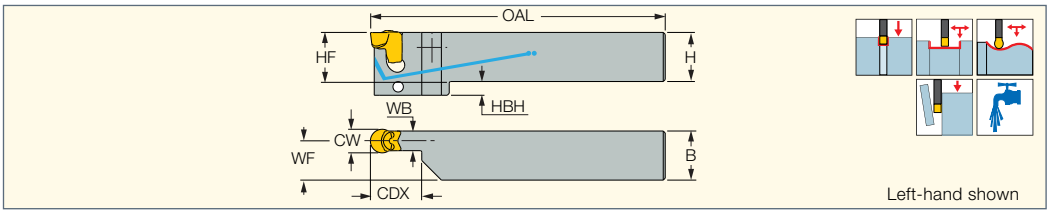
[2] Corner radius tolerance (+/-)

For tools, see pages: CR THDN-IQ (329) • THDR/L-IQ (328)

SUMO-GRIP HEAVY DUTY LINE

TGBHR/L

Toolholders for Heavy Duty Groove-Turn and Parting Applications



Designation	CW	H	HF	B	WB	OAL	CDX(2)	WF	HBH
TGBHR/L 20C-6 (1)	6.00	20.0	20.0	20.0	5.20	135.00	12.00	17.40	5.0
TGBHR/L 25C-6 (1)	6.00	25.0	25.0	25.0	5.20	135.00	12.00	22.40	-
TGBHR/L 32C-6 (1)	6.00	32.0	32.0	32.0	5.20	150.00	12.00	29.40	-
TGBHR/L 25C-8	8.00	25.0	25.0	25.0	7.00	150.00	25.00	21.50	12.0
TGBHR/L 32C-8	8.00	32.0	32.0	32.0	7.00	170.00	30.00	28.50	5.0
TGBHR/L 25C-10	10.00	25.0	25.0	25.0	8.00	150.00	25.00	21.00	12.0
TGBHR/L 32C-10	10.00	32.0	32.0	32.0	8.00	170.00	30.00	28.00	5.0
TGBHR/L 25C-12	12.00	25.0	25.0	25.0	10.00	150.00	25.00	20.00	12.0
TGBHR/L 32C-12	12.00	32.0	32.0	32.0	10.00	170.00	30.00	27.00	5.0
TGBHR/L 25C-14T20	14.00	25.0	25.0	25.0	12.00	140.00	20.00	19.00	12.0
TGBHL 32C-14T40	14.00	32.0	32.0	32.0	12.00	170.00	40.00	26.00	5.0
TGBHR/L 40C-14T40	14.00	40.0	40.0	40.0	12.00	170.00	40.00	34.00	-

• The tools for the 14 mm inserts feature a 1/8" port thread for standard tube fittings • For user guide, see pages 419-428, 432-436

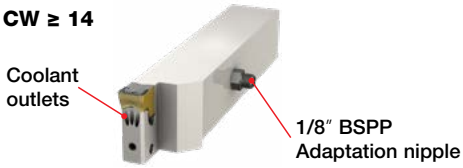
(1) For detailed depth capacity, see table below

(2) Cutting depth maximum

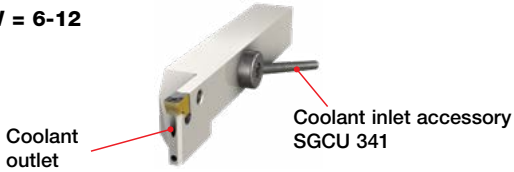
For inserts, see pages: TAG N-C/W/M (506) • TAG N-J/JS/JT (508) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509) • TAGB/TAGBA (333)

Depth Capacity for TGBHR/L...C-6									
CDX	28	26	24	22	20	18	16	14	12
Dmax	35	55	75	100	120	150	200	350	∞

CW ≥ 14



CW = 6-12



Spare Parts

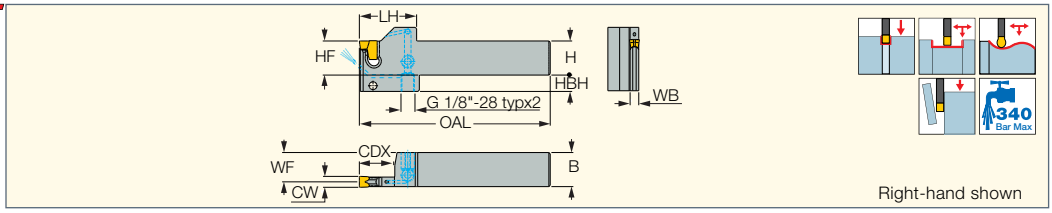
Designation				
TGBHR/L 20C-6	ETG 5-7*	SGCU 341*		
TGBHR/L 25C-6	ETG 5-7*	SGCU 341*		
TGBHR/L 32C-6	ETG 5-7*	SGCU 341*		
TGBHR/L 25C-8	ETG 8-12*	SGCU 341*		
TGBHR/L 32C-8	ETG 8-12*	SGCU 341*		
TGBHR/L 25C-10	ETG 8-12*	SGCU 341*		
TGBHR/L 32C-10	ETG 8-12*	SGCU 341*		
TGBHR/L 25C-12	ETG 8-12*	SGCU 341*		
TGBHR/L 32C-12	ETG 8-12*	SGCU 341*		
TGBHR/L 25C-14T20	ETG 8-12*		PLG G1/8 TL360	JHP NIPPLE G1/8"-7/16"UNF*
TGBHL 32C-14T40	ETG 8-12*		PLG G1/8 TL360	JHP NIPPLE G1/8"-7/16"UNF*
TGBHR/L 40C-14T40	ETG 8-12*		PLG G1/8 TL360	JHP NIPPLE G1/8"-7/16"UNF*

* Optional, should be ordered separately

SUMO-GRIP HEAVY DUTY LINE JETCUT

TGBHR/L-JHP

Grooving and Turning
SUMO-GRIP Tools with Channels
for High-Pressure Coolant



Designation	H	CW	HF	B	LH	WB	OAL	CDX[1]	WF	HBH
TGBHR/L 25-8-JHP	25.0	8.00	25.0	25.0	42.0	7.00	150.00	25.00	21.50	12.0
TGBHR/L 32-8-JHP	32.0	8.00	32.0	32.0	42.0	7.00	170.00	25.00	28.50	12.0

• For user guide see pages 419-436
(1) Cutting depth maximum
For inserts, see pages: TAG N-C/W/M (506) • TAGB/TAGBA (333)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TGBHR/L-JHP	13-16	19-21	22-24

ETG 8-12 Extractor for 8 to 12.7 mm Inserts



Spare Parts

Designation			
TGBHL 25-8-JHP	ETG 8-12		
TGBHR/L 25-8-JHP		PLG 1/8ISO1179	HW 5.0
TGBHR 25-8-JHP	ETG 8-12*		
TGBHL 32-8-JHP		PLG 1/8ISO1179	HW 5.0
TGBHR 32-8-JHP	ETG 8-12*	PLG 1/8ISO1179	HW 5.0

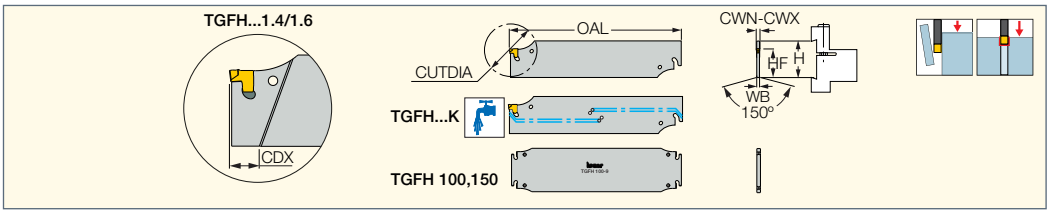
* Optional, should be ordered separately



TANG-GRIP PARTING LINE
SUMO-GRIP HEAVY DUTY LINE

TGFH/R/L

Blades with a Tangentially Oriented Pocket Carrying TANG-GRIP Single-Ended Inserts for Parting and Grooving



Designation	H	CWN[2]	CWX[3]	WB	OAL	CDX	HF	CUTDIA	CSP[4]	Insert		
TGFH 19-1.4	19.0	1.40	1.40	1.05 [5]	86.00	9.60	15.7	30.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 19-1.6	19.0	1.60	1.60	1.30 [6]	86.00	11.00	15.7	32.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 19-2	19.0	1.80	2.40	1.65	86.00	-	15.7	38.0	0	TAG 2	ETG 2*	
TGFH 26-1.4	26.0	1.40	1.40	1.05 [5]	110.00	8.30	21.4	29.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 26-1.6	26.0	1.60	1.60	1.30 [6]	110.00	10.00	21.4	35.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 26-2	26.0	1.80	2.40	1.65	110.00	-	21.4	50.0	0	TAG 2	ETG 2*	
TGFH 26-3	26.0	2.80	3.50	2.50	110.00	-	21.4	75.0	0	TAG 3	ETG 3-4*	
TGFH 26K-3 [1]	26.0	2.80	3.50	2.50	110.00	-	21.4	75.0	1	TAG 3	ETG 3-4-SH*	SGC 340
TGFH 26-4	26.0	3.70	4.50	3.40	110.00	-	21.4	80.0	0	TAG 4	ETG 3-4*	
TGFH 26-5	26.0	4.70	5.50	4.00	150.00	-	21.4	80.0	0	TAG 5	ETG 5-7*	
TGFH 32-1.4	32.0	1.40	1.40	1.05 [5]	150.00	7.10	24.8	29.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 32-1.6	32.0	1.60	1.60	1.30 [5]	150.00	10.00	24.8	38.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 32-2	32.0	1.80	2.40	1.65 [5]	150.00	-	24.8	50.0	0	TAG 2	ETG 2*	
TGFH 32-3	32.0	2.80	3.50	2.50	150.00	-	24.8	100.0	0	TAG 3	ETG 3-4*	
TGFH 32K-3 [1]	32.0	2.80	3.50	2.50	150.00	-	24.8	100.0	1	TAG 3	ETG 3-4-SH*	SGC 340
TGFH 32-4	32.0	3.70	4.50	3.40	150.00	-	24.8	100.0	0	TAG 4	ETG 3-4*	
TGFH 32K-4 [1]	32.0	3.70	4.50	3.40	150.00	-	24.8	100.0	1	TAG 4	ETG 3-4-SH*	SGC 340
TGFH 32-5	32.0	4.70	5.50	4.00	150.00	-	24.8	120.0	0	TAG 5	ETG 5-7*	
TGFH 32-6	32.0	5.70	6.50	5.20	150.00	-	24.8	120.0	0	TAG 6	ETG 5-7*	
TGFH 32-7	32.0	6.80	7.50	6.00	148.00	-	24.8	120.0	0	TAG 7	ETG 5-7*	
TGFH 45-3	45.0	2.80	3.50	2.50	225.00	-	38.1	160.0	0	TAG 3	ETG 3-4*	
TGFH 45-4	45.0	3.70	4.50	3.40	225.00	-	38.1	160.0	0	TAG 4	ETG 3-4*	
TGFH 45-5	45.0	4.70	5.50	4.00	225.00	-	38.1	160.0	0	TAG 5	ETG 5-7*	
TGFH 45-6	45.0	5.70	6.50	5.20	225.00	-	38.1	160.0	0	TAG 6	ETG 5-7*	
TGFH 45-7	45.0	6.80	7.50	6.00	225.00	-	38.1	160.0	0	TAG 7	ETG 5-7*	
TGFH 52-7	52.6	6.80	7.50	6.00	190.00	-	45.2	190.0	0	TAG 7	ETG 5-7*	
TGFH 53-7	52.6	6.80	7.50	6.00	260.00	-	45.2	220.0	0	TAG 7	ETG 5-7*	
TGFH 52K-8 [1]	52.6	7.70	8.50	7.20	190.00	-	45.2	190.0	1	TAG 8	ETG 8-12*	
TGFH 53K-8 [1]	52.6	7.70	8.50	7.20	260.00	-	45.2	215.0	1	TAG 8	ETG 8-12*	
TGFH 52K-9 [1]	52.6	8.70	10.00	8.20	190.00	-	45.2	190.0	1	TAG 9	ETG 8-12*	
TGFH 53K-9 [1]	52.6	8.70	10.00	8.20	260.00	-	45.2	215.0	1	TAG 9	ETG 8-12*	
TGFHR/L 53K-12 [1]	52.6	11.70	12.70	10.00	260.00	-	45.2	215.0	1	TAG 12	ETG 8-12*	
TGFH 100-9	100.0	8.70	10.00	8.20	460.00	-	92.5	450.0	0	TAG 9	ETG 8-12*	
TGFH 100-12	100.0	11.70	12.70	10.00	460.00	-	92.5	450.0	0	TAG 12	ETG 8-12*	
TGFH 150-12	150.0	11.70	12.70	10.00	610.00	-	142.5	600.0	0	TAG 12	ETG 8-12*	

- For user guide, see pages 419-428, 432-436

[1] With coolant holes, the recommended coolant pressure is 10 bar min.; cooling tube SGCU 341 should be ordered separately
[2] Minimum cutting width
[3] Maximum cutting width
[4] 0 - Without coolant supply, 1 - With coolant supply
[5] Thickness beyond the D.O.C. area is 2.50 mm
[6] Thickness beyond the D.O.C. area is 1.60 mm
* Optional, should be ordered separately

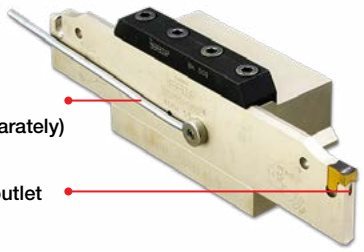
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509) • TAGB/TAGBA (333)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBK (617) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

K TYPE COOLANT

Coolant inlet SGCU-341
(should be ordered separately)

Coolant outlet

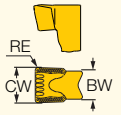


SUMO-GRIP HEAVY DUTY LINE

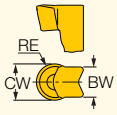
TAGB/TAGBA

Single-Ended Utility Inserts for Grooving, Turning and Parting

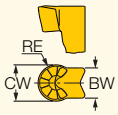




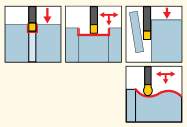
TAGB 608Y
TAGB 808Y
TAGB 1008Y
TAGB 1208Y
TAGB 1415Y



TAGB 1260H



TAGB 630Y
TAGBA 80-40YZ
TAGB 840Y
TAGB 1050Y
TAGB 1260Y



Designation	Dimensions CW	CWTOL[3]	RE	RETOL[4]	BW	Tough ↔ Hard IC8250	IC808	IC07	IC806	IC807	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
TAGB 608Y	6.00	0.05	0.80	0.050	5.20		●		●		1.00-3.60	0.20-0.60	0.18-0.30
TAGB 630Y	6.00	0.05	3.00	0.050	5.20		●		●		0.00-3.00	0.25-0.55	0.18-0.32
TAGB 808Y	8.00	0.05	0.80	0.050	6.20	●	●		●	●	1.00-5.60	0.25-0.55	0.18-0.32
TAGB 840Y [1]	8.00	0.05	4.00	0.050	6.20	●	●		●	●	0.00-4.00	0.24-0.67	0.18-0.32
TAGBA 80-40YZ [1]	8.00	0.05	4.00	0.050	6.00			●			0.00-4.00	0.40-0.70	0.25-0.40
TAGB 1008Y	10.00	0.05	0.80	0.050	8.00	●	●				1.00-7.00	0.30-0.70	0.22-0.40
TAGB 1050Y [2]	10.00	0.05	5.00	0.050	8.00	●	●				0.00-5.00	0.30-0.85	0.22-0.40
TAGB 1208Y	12.00	0.07	0.80	0.050	10.00	●	●				1.00-8.40	0.35-0.85	0.26-0.48
TAGB 1260Y [2]	12.00	0.07	6.00	0.050	10.00	●	●				0.00-6.00	0.35-0.90	0.26-0.48
TAGB 1260H [2]	12.00	0.07	6.00	0.050	10.00	●	●				0.00-6.00	0.45-1.00	0.35-0.55
TAGB 1415Y	14.00	0.07	1.50	0.050	12.00	●	●				1.80-8.40	0.35-0.85	0.26-0.50

- H-type chipformer with a negative T-land for machining heavy interrupted applications and cast iron parts
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

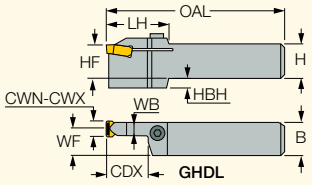
[1] Blade's pocket must be modified
[2] Tool's pocket must be modified
[3] Cutting width tolerance (+/-)
[4] Corner radius tolerance (+/-)

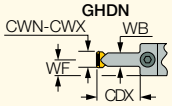
For tools, see pages: Anti-Vibration Blades (284) • TGBHR/L (330) • TGBHR/L-JHP (331) • TGFH-JHP (494) • TGFH/R/L (332) • TGSU (496) • TGTR/L-IQ (502)

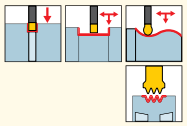
CUT-GRIP

GHDR/L/N 12/14

External Tools for Wide Grooving Inserts







Left-hand shown

Designation	CWN[1]	CWX[2]	CDX[3]	H	HF	B	OAL	WF	WB	LH	HBH	Insert		
GHDR/L 32-12	12.00	14.53	30.00	32.0	32.0	32.0	170.00	27.30	9.50	50.0	-	GIMY 1260,TIGER 1453	SR M8X20DIN912	HW 6.0
GHDR/L 2525-14T12	13.00	17.40	12.00	25.0	25.0	25.0	150.00	19.00	12.00	41.0	-	TIGER/GPV 14/16/17	SR M8X20DIN912	HW 6.0
GHDR 3232-14T12	13.00	17.40	12.00	32.0	32.0	32.0	170.00	26.00	12.00	41.0	-	TIGER/GPV 14/16/17	SR M8X20DIN912	HW 6.0
GHDR/L 3232-14T38	13.00	17.40	38.00	32.0	32.0	32.0	170.00	26.00	12.00	59.0	8.0	TIGER 14/16/17	SR M8X20DIN912	HW 6.0
GHDN 3232-14T38	13.00	17.40	38.00	32.0	32.0	32.0	170.00	16.00	12.00	57.5	8.0	TIGER 14/16/17	SR M8X20DIN912	HW 6.0
GHDR/L 4040-14T38	13.00	17.40	38.00	40.0	40.0	40.0	170.00	34.00	12.00	59.0	-	TIGER 14/16/17	SR M8X20DIN912	HW 6.0
GHDN 4040-14T45	14.50	17.40	45.00	40.0	40.0	40.0	170.00	20.00	12.00	55.5	-	TIGER 14/16/17	SR 76-1289	HW 5.0

- For user guide, see pages 419-428, 432-436

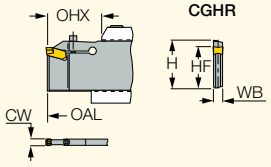
[1] Minimum cutting width
[2] Maximum cutting width
[3] Cutting depth maximum

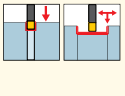
For inserts, see pages: GIMY 1260 (290) • GPV (304) • TIGER (334)

CUT-GRIP

CGHR/L-12-14D

Deep Machining Screw-Clamped Blades for Wide Grooving and Heavy Turning Applications





Designation	CWN[1]	CWX[2]	OHX[3]	CDX[4]	WB	OAL	HF	H		
CGHR/L 53-12D	12.00	14.50	100.0	93.00	9.50	260.00	45.0	52.6	SR 76-4002	HW 5.0
CGHR/L 53-14D	12.50	17.40	100.0	93.00	11.10	260.00	45.0	52.6	SR M6X25 DIN912	HW 5.0

- If the diameter of the workpiece is smaller than 200 mm, then CDX=98 mm • For user guide, see pages 419-428, 432-436

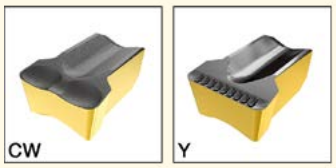
[1] Minimum cutting width
[2] Maximum cutting width
[3] Maximum overhang
[4] If workpiece diameter is smaller than 200 mm, then CDX=98, if workpiece diameter is larger than 200 mm, then CDX=93.

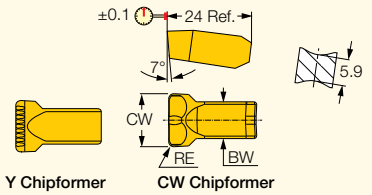
For inserts, see pages: GIMY 1260 (290) • TIGER (334)
For holders, see pages: SGTBK (617) • SGTBU/SGTBN (616)

CUTGRIP

TIGER

Utility Single-Ended Inserts for External Heavy Grooving and Deep Machining





Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	BW	INSL	Tough ↔ Hard IC830	IC808	IC20	Recommended Machining Data f groove (mm/rev)
TIGER 1453-152	14.53	0.08	1.52	0.050	10.00	24.00	●	●	●	0.22-0.44
TIGER 1453-152-CW	14.53	0.08	1.52	0.050	10.00	24.00		●		0.15-0.50
TIGER 16.63-1.52	16.63	0.02	1.52	0.050	12.70	24.00		●		0.25-0.50
TIGER 1740-200	17.40	0.08	2.00	0.100	12.70	24.00		●		0.26-0.52

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

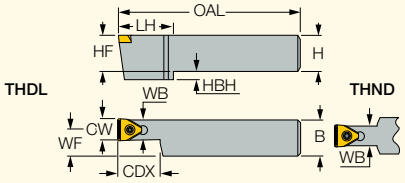
(2) Corner radius tolerance (+/-)

For tools, see pages: CGHR/L-12-14D (333) • GHDR/L/N 12/14 (333)

CUTGRIP

THDR/L/N

External Holders for Wide (20 mm) Grooving Inserts



Left-hand shown

Designation	CW	CDX(1)	H	HF	B	OAL	WB	WF	HBH	LH	Insert			
THDR 3232-17T38	17.00	38.00	32.0	32.0	32.0	170.00	16.00	24.00	8.0	50.0	TIGERV 1740	SR 14-519	BLD T20/M7	SW6-T
THDR/L 4040-17T45	17.00	45.00	40.0	40.0	40.0	170.00	15.00	32.50	-	-	TIGERV 1740	SR 14-519	BLD T20/M7	SW6-T
THDR/L 3232-20T38	20.06	38.00	32.0	32.0	32.0	170.00	17.50	23.30	8.0	50.0	TIGERV 2006	SR 14-519	BLD T20/M7	SW6-T
THDN 3232-20T38	20.06	38.00	32.0	32.0	32.0	170.00	17.50	16.00	8.0	50.0	TIGERV 2006	SR 14-519	BLD T20/M7	SW6-T
THDR/L 4040-20T45	20.06	45.00	40.0	40.0	40.0	170.00	17.50	31.30	-	-	TIGERV 2006	SR 14-519	BLD T20/M7	SW6-T
THDN 4040-20T45	20.06	45.00	40.0	40.0	40.0	170.00	17.50	20.00	-	-	TIGERV 2006	SR 14-519	BLD T20/M7	SW6-T

- For grooving only

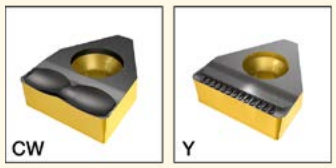
(1) Cutting depth maximum

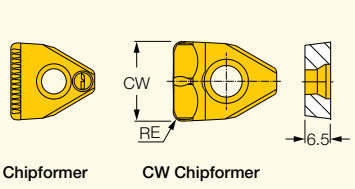
For inserts, see pages: TIGERV (334)

CUTGRIP

TIGERV

Utility Single-Ended Inserts for External Deep Grooving and Heavy Machining





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	IC20	Recommended Machining Data f groove (mm/rev)
TIGERV 1700-200-CW	17.00	2.00	0.08	0.050		●		0.20-0.60
TIGERV 2006-152	20.06	1.52	0.08	0.050	●	●	●	0.30-0.60

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

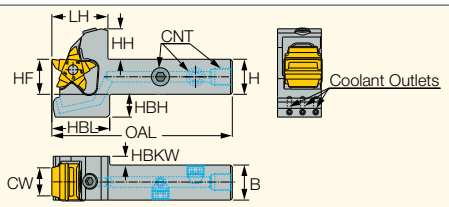
(2) Corner radius tolerance (+/-)

For tools, see pages: THDR/L/N (334)

PENTACUT PARTING & GROOVING LINE

PCHR/L-27-JHP-MC

Tools Carrying Pentagonal Wide Inserts for Specially Tailored Profiles



Designation	CW	H	HF	B	HBKW	OAL	LH	HBH	HBL	CNT	HH
PCHR/L 20-27-10-JHP-MC	10.00	20.0	20.0	20.0	5.00	102.00	32.0	13.0	33.0	G1/8x9	17.4
PCHR/L 25-27-10-JHP-MC	10.00	25.0	25.0	25.0	-	117.00	32.0	8.0	33.0	G1/8x9	17.4
PCHR/L 20-27-15-JHP-MC	15.00	20.0	20.0	20.0	5.00	102.00	32.0	13.0	33.0	G1/8x9	17.4
PCHR/L 25-27-15-JHP-MC	15.00	25.0	25.0	25.0	-	117.00	32.0	8.0	33.0	G1/8x9	17.4
PCHR/L 20-27-20-JHP-MC	20.00	20.0	20.0	20.0	5.00	102.00	32.0	13.0	33.0	G1/8x9	17.4
PCHR/L 25-27-20-JHP-MC	20.00	25.0	25.0	25.0	-	117.00	32.0	8.0	33.0	G1/8x9	17.4

For inserts, see pages: PENTAS 27 blanks (323)

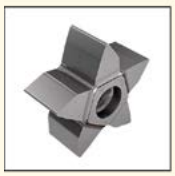
Spare Parts

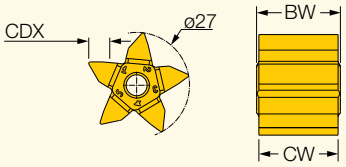
Designation									
PCHR/L 20-27-20-JHP-MC	SR M3X6 ISO7380 SS	HW 3.0	SR M6X6 DIN913	SR M6X6 DIN913 TL360	PUSH ROD - 40529	HW 4.0	PLG G1/8 TL360	HW 5.0
PCHL 25-27-20-JHP-MC	SR M3X6 ISO7380 SS	HW 3.0	SR M6X6 DIN913	SR M6X6 DIN913 TL360	PUSH ROD - 40529	HW 4.0	PLG G1/8 TL360	HW 5.0
PCHR 25-27-20-JHP-MC					PUSH ROD - 40529	HW 4.0		

PENTACUT PARTING & GROOVING LINE

PENTAS 27 blanks

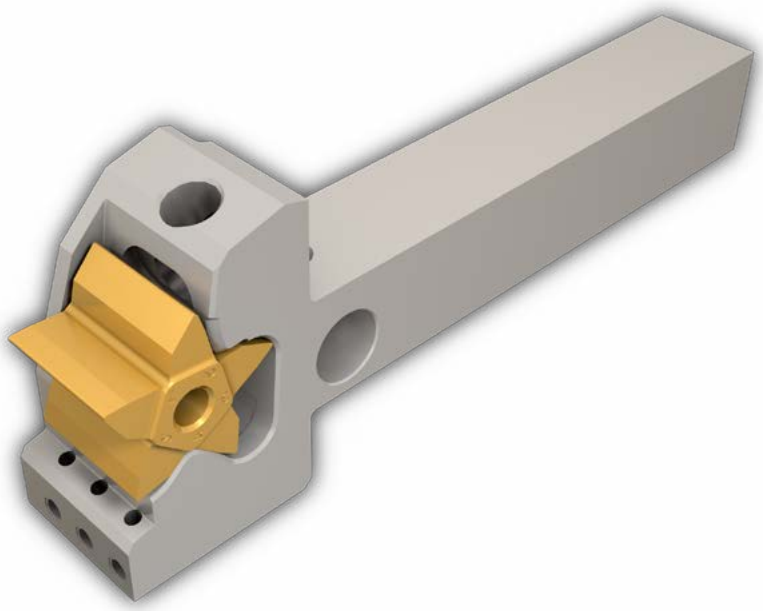
Blank Inserts with 5 Wide Cutting Edges for the Production of Special Profile Contours





Designation	Dimensions			IC08
	CW	CDX	BW	
PENTAS 27-10FT	10.00	4.00	11.80	●
PENTAS 27-15FT	15.00	4.00	16.80	●
PENTAS 27-20FT	20.00	4.00	21.80	●

For tools, see pages: PCHR/L-27-JHP-MC (314)



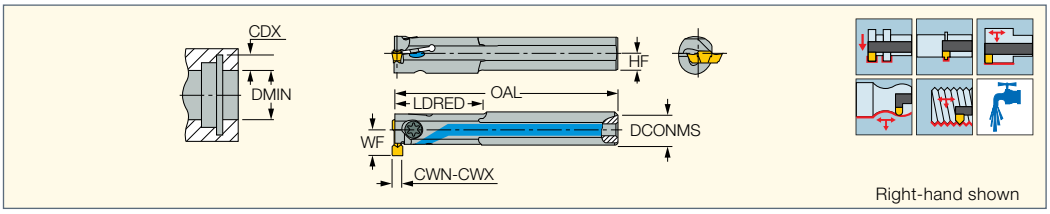
INTERNAL TOOLS AND INSERTS



CUTGRIP

GEHIMR/L

Internal Machining Boring Bars with Coolant Holes for Insert Widths Less than 1.9 mm



Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX(3)	OAL	LDRED	WF	HF	CND(4)			
GEHIMR/L 10-13	0.80	1.90	10.00	12.50	2.50	125.00	25.0	7.60	5.0	3.50	SR 16-236	T-15/5	
GEHIMR/L 12-14	0.80	1.90	12.00	14.00	2.50	150.00	35.0	9.00	6.0	6.00	SR 16-236	T-15/5	
GEHIMR/L 16-13	0.80	1.90	16.00	12.50	2.50	125.00	20.0	10.60	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIMR/L 16-14	0.80	1.90	16.00	14.00	2.50	125.00	25.0	10.90	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIMR/L 16-16	0.80	1.90	16.00	16.00	2.50	160.00	40.0	10.50	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For user guide, see pages 419-428, 432-436

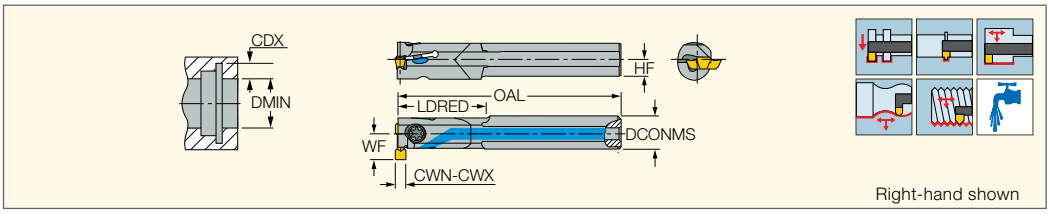
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(4) Coolant inlet diameter

For inserts, see pages: GEPI (342) • GEPI (W<M) (341) • GEPI-MT (648) • GEPI-RX/LX (343) • GEPI-WT (642)

CUTGRIP

GEHIMR/L-SC

Internal Machining Solid Carbide Bars with Coolant Holes for Insert Widths Less than 1.9 mm



Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX(3)	OAL	LDRED	WF	HF	CND(4)			
GEHIMR/L 10SC-13	0.80	1.90	10.00	12.50	2.50	125.00	30.0	7.60	5.0	3.50	SR 16-236	T-15/5	
GEHIMR/L 12SC-14	0.80	1.90	12.00	14.00	2.50	125.00	40.0	9.00	6.0	6.00	SR 16-236	T-15/5	
GEHIMR/L 16SC-13	0.80	1.90	16.00	12.50	2.50	125.00	35.0	10.60	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIMR/L 16SC-16	0.80	1.90	16.00	16.00	2.50	160.00	70.0	10.50	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(4) Coolant inlet diameter

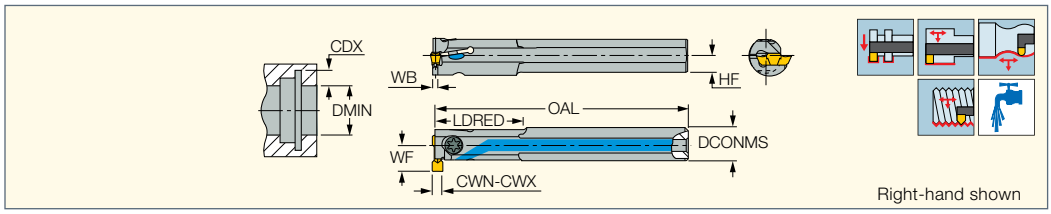
For inserts, see pages: GEPI (342) • GEPI (W<M) (341) • GEPI-MT (648) • GEPI-RX/LX (343) • GEPI-WT (642)



CUTGRIP

GEHIR/L

Internal Machining Bars
with Coolant Holes



Designation	CWN[1]	CWX[2]	DCONMS	DMIN	CDX[3]	OAL	LDRED	WF	WB	HF	CND[4]
GEHIR/L 10-11.5-2-T3	1.90	2.40	10.00	11.50	3.00	125.00	25.0	8.80	1.60	5.0	3.50
GEHIR/L 10-13-2-T2.4	1.90	2.40	10.00	12.50	2.40	125.00	25.0	7.50	1.60	5.0	3.50
GEHIR/L 12-11.5-2-T3*	1.90	2.40	12.00	11.50	3.00	125.00	20.0	11.60	1.60	6.0	6.00
GEHIR/L 12-14-2-T2.6	1.90	2.40	12.00	14.00	2.60	150.00	35.0	9.10	1.60	6.0	6.00
GEHIR/L 12-14-2-T4	1.90	2.40	12.00	14.00	4.00	150.00	35.0	10.30	1.60	6.0	6.00
GEHIR/L 12-15-2-T6	1.90	2.40	12.00	15.00	6.00	150.00	29.0	12.30	1.60	6.0	6.00
GEHIL 16-11.5-2-T3	1.90	2.40	16.00	11.50	3.00	125.00	20.0	11.60	1.60	7.5	8.00
GEHIR 16-11.5-2-T3	1.90	2.40	16.00	11.50	3.00	125.00	20.0	11.10	1.60	7.5	8.00
GEHIR/L 16-13-2-T2.4	1.90	2.40	16.00	12.50	2.40	125.00	20.0	10.50	1.60	7.5	8.00
GEHIR/L 16-14-2-T2.6	1.90	2.40	16.00	14.00	2.60	125.00	25.0	11.00	1.60	7.5	8.00
GEHIR/L 16-14-2-T4	1.90	2.40	16.00	14.00	4.00	125.00	25.0	12.40	1.60	7.5	8.00
GEHIR/L 16-16-2-T3	1.90	2.40	16.00	16.00	3.00	160.00	40.0	11.00	1.60	7.5	8.00
GEHIR/L 16-20-2-T8	1.90	2.40	16.00	20.00	8.00	160.00	40.0	16.10	1.60	7.5	8.00
GEHIR/L 12-14-3-T2.6	2.40	3.20	12.00	14.00	2.60	150.00	35.0	9.10	2.00	6.0	6.00
GEHIR/L 12-14-3-T4	2.40	3.20	12.00	14.00	4.00	150.00	35.0	10.30	2.00	6.0	6.00
GEHIR/L 12-15-3-T6	2.40	3.20	12.00	15.00	6.00	150.00	29.0	12.30	2.00	6.0	6.00
GEHIL 16-11.5-3-T3	2.40	3.20	16.00	11.50	3.00	125.00	20.0	11.60	2.00	7.5	8.00
GEHIR 16-11.5-3-T3	2.40	3.20	16.00	11.50	3.00	125.00	20.0	11.10	2.00	7.5	8.00
GEHIR/L 16-13-3-T2.4	2.40	3.20	16.00	12.50	2.40	125.00	20.0	10.50	2.00	7.5	8.00
GEHIR/L 16-14-3-T2.6	2.40	3.20	16.00	14.00	2.60	125.00	25.0	11.00	2.00	7.5	8.00
GEHIR/L 16-14-3-T4	2.40	3.20	16.00	14.00	4.00	125.00	25.0	12.40	2.00	7.5	8.00
GEHIR/L 16-16-3-T3	2.40	3.20	16.00	16.00	3.00	160.00	40.0	11.00	2.00	7.5	8.00
GEHIR/L 16-20-3-T8	2.40	3.20	16.00	20.00	8.00	160.00	40.0	16.10	2.00	7.5	8.00

- For user guide, see pages 419-428, 432-436

[1] Minimum cutting width
[2] Maximum cutting width
[3] Cutting depth maximum
[4] Coolant inlet diameter

For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI-MT (648) • GEPI-WT (642)

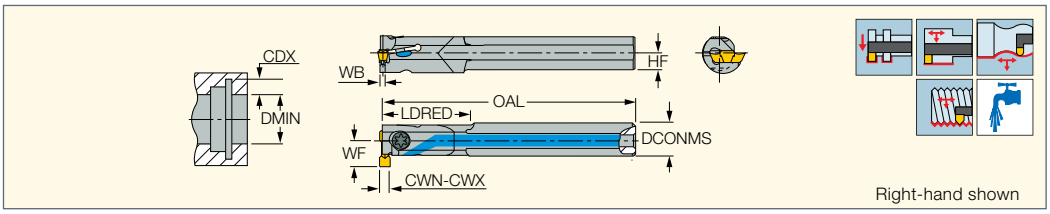
Spare Parts

Designation			
GEHIR/L 10-11.5-2-T3	SR 14-513	T-8/5	
GEHIR/L 10-13-2-T2.4	SR 16-236	T-15/5	
GEHIL 12-11.5-2-T3	SR 14-513	T-8/5	
GEHIR 12-11.5-2-T3*	SR 14-513		
GEHIR/L 12-14-2-T2.6	SR 16-236	T-15/5	
GEHIR/L 12-14-2-T4	SR 14-562	T-10/5	
GEHIR/L 12-15-2-T6	SR 14-513	T-8/5	
GEHIR/L 16-11.5-2-T3	SR 14-513	T-8/5	PL 16
GEHIR/L 16-13-2-T2.4	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-2-T2.6	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-2-T4	SR 14-562	T-10/5	PL 16
GEHIR/L 16-16-2-T3	SR M5-04451	T-20/5	PL 16
GEHIR/L 16-20-2-T8	SR M5-04451	T-20/5	PL 16
GEHIR/L 12-14-3-T2.6	SR 16-236	T-15/5	
GEHIR/L 12-14-3-T4	SR 14-562	T-10/5	
GEHIR/L 12-15-3-T6	SR 14-513	T-8/5	
GEHIR/L 16-11.5-3-T3	SR 14-513	T-8/5	PL 16
GEHIR/L 16-13-3-T2.4	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-3-T2.6	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-3-T4	SR 14-562	T-10/5	PL 16
GEHIR/L 16-16-3-T3	SR M5-04451	T-20/5	PL 16
GEHIR/L 16-20-3-T8	SR M5-04451	T-20/5	PL 16

CUTGRIP

GEHIR/L-SC

Internal Machining Solid Carbide Bars with Coolant Holes



Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX(3)	OAL	LDRED	WF	WB	HF	CND(4)			
GEHIR/L 10SC-13-2	1.90	2.40	10.00	12.50	2.40	125.00	30.0	7.50	1.60	5.0	3.50	SR 16-236	T-15/5	
GEHIR 12SC-14-2	1.90	2.40	12.00	14.00	2.60	125.00	40.0	9.10	1.60	6.0	6.00	SR 16-236	T-15/5	
GEHIR/L 16SC-16-2	1.90	2.40	16.00	16.00	3.00	160.00	70.0	11.00	1.60	7.5	8.00	SR M5-04451	T-20/5	PL 16
GEHIR 12SC-14-3	2.40	3.20	12.00	14.00	2.60	125.00	40.0	9.10	2.00	6.0	6.00	SR 16-236	T-15/5	
GEHIR 16SC-13-3	2.40	3.20	16.00	12.50	2.40	125.00	35.0	10.50	2.00	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIR/L 16SC-14-3	2.40	3.20	16.00	14.00	2.60	140.00	40.0	11.00	2.00	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIR/L 16SC-16-3	2.40	3.20	16.00	16.00	3.00	160.00	70.0	11.00	2.00	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For user guide, see pages 419-428, 432-436

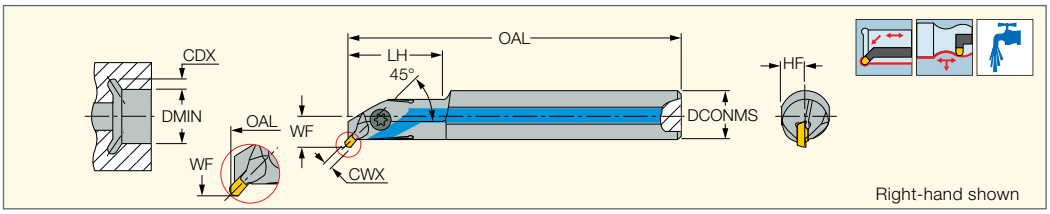
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(4) Coolant inlet diameter

For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI-MT (648) • GEPI-WT (642)

CUTGRIP

GEHIUR/L

Boring Bars with Coolant Holes for Undercutting and Turning



Designation	CWX(1)	DCONMS	DMIN	CDX(2)	OAL	LH	WF	HF	CND(3)			
GEHIUR/L 12U	3.20	12.00	14.00	2.00	125.00	20.0	8.70	6.0	6.00	SR 16-236 P	T-15/5	
GEHIUR/L 16U	3.20	16.00	16.00	2.00	125.00	32.0	9.70	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For profiling use GEPI (full radius) inserts only, for undercutting use GEPI - UN/UR/UL

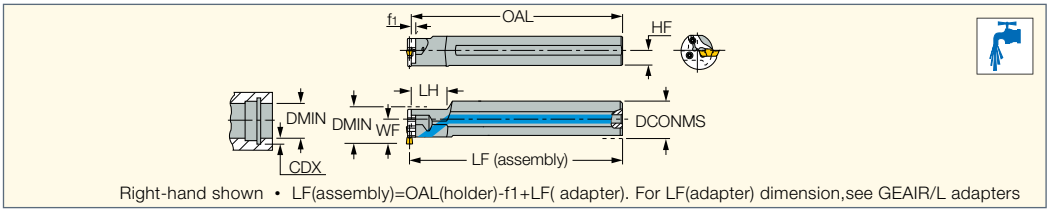
(1) Maximum cutting width
(2) Cutting depth maximum
(3) Coolant inlet diameter

For inserts, see pages: GEPI (full radius) (342) • GEPI-UN/UR/UL (343)

CUTGRIP

GHAIR/L-GE

Bars with Coolant Holes for Internal Grooving and Turning Adapters



Designation	DCONMS	LH	OAL	WF	HF	f1	Adapter			
GHAIR/L 16-20	16.00	-	150.00	11.50	7.5	2.4	GEAIR/L 20..	SR 76-2057	T-8/5	PL 16
GHAIR/L 20-20	20.00	20.0	150.00	13.50	9.0	2.4	GEAIR/L 20..	SR 76-2057	T-8/5	PL 20
GHAIR/L 25-20	25.00	25.0	200.00	16.00	11.5	2.4	GEAIR/L 20..	SR 76-2057	T-8/5	PL 25
GHAIR/L 32-20	32.00	32.0	200.00	19.50	14.5	2.4	GEAIR/L 20..	SR 76-2057	T-8/5	PL 32
GHAIR/L 20-25	20.00	-	150.00	14.50	9.0	2.4	GEAIR/L 25..	SR 16-236 P	T-15/5	PL 20
GHAIR/L 25-25	25.00	25.0	200.00	17.00	11.5	2.4	GEAIR/L 25..	SR 16-236 P	T-15/5	PL 25
GHAIR/L 32-25	32.00	32.0	200.00	20.50	14.5	2.4	GEAIR/L 25..	SR 16-236 P	T-15/5	PL 32

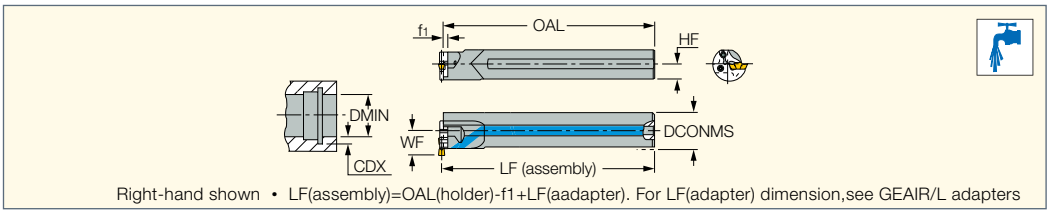
- For DMIN & CDX refer to GEAIR/L adapters

For tools, see pages: GEAIR/L (340)

CUTGRIP

GHAIR/L-SC-GE

Solid Carbide Bars with Coolant Holes for Internal Grooving and Turning Adapters



Right-hand shown • LF(assembly)=OAL(holder)-f1+LF(aadapter). For LF(adapter) dimension,see GEAIR/L adapters

Designation	DCONMS	OAL	WF	HF	f1	Adapter			
GHAIR/L 25SC-25	25.00	200.00	17.00	11.5	2.4	GEAIR/L 25-...	SR 16-236 P	T-15/5	PL 25

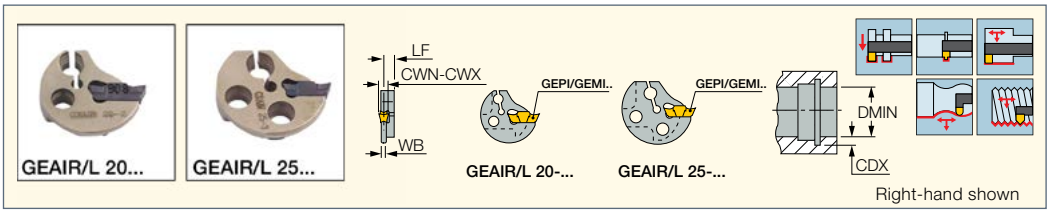
• For DMIN & CDX refer to GEAIR/L adapters.

For tools, see pages: GEAIR/L (340)

CUTGRIP

GEAIR/L

Internal Grooving and Turning Adapters



Right-hand shown

Designation	DMIN	CWN(1)	CWX(2)	CDX(3)	LF	WB	MIID(4)
GEAIR/L 20-2	20.00	1.90	2.40	3.00	3.40	1.60	GEPI 2.00-0.10
GEAIR/L 20-3	20.00	2.40	3.00	3.00	3.60	2.00	GEPI 3.00-0.20
GEAIR/L 20-4	20.00	3.00	4.00	3.00	3.90	2.50	GEPI 3.18-0.20
GEAIR/L 25-2	25.00	1.90	2.40	4.00	3.40	1.60	GEPI 2.00-0.10
GEAIR/L 25-3	25.00	2.40	3.00	4.00	3.60	2.00	GEPI 3.00-0.20
GEAIR/L 25-4	25.00	3.00	4.00	4.00	3.90	2.50	GEPI 3.18-0.20

• When using TIPI inserts, toolholder seat needs to be modified according to insert profile to ensure clearance • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

(4) Master insert identification

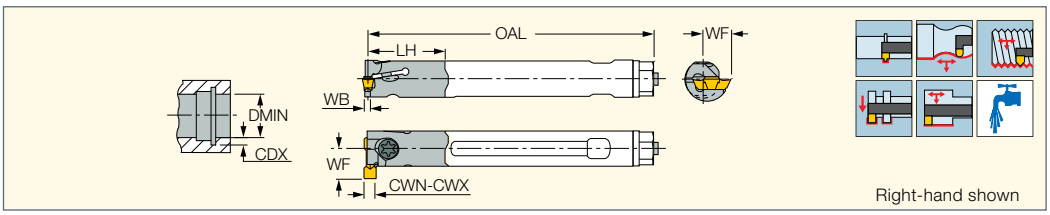
For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI-MT (648) • GEPI-WT (642)

For holders, see pages: C#-GHAIR/L (629) • GHAIR/L-GE (339) • GHAIR/L-SC-GE (340)

CUTGRIP

E-GEHIR / E-GHIR

Interchangeable Heads for Internal Grooving and Turning



Right-hand shown

Designation	CWN(1)	CWX(2)	DMIN	CDX(3)	OAL	LH	WF	WB	Insert		
E12 GEHIR 16-1	1.50	1.90	16.00	2.20	174.00	21.0	9.00	1.20	GEPI, GEMI	SR M5-04451-L10.5	T-20/5
E12 GEHIR 16-2	1.90	2.40	16.00	2.20	174.00	21.0	9.00	1.60	GEPI, GEMI	SR M5-04451-L10.5	T-20/5
E12 GEHIR 16-3	2.40	3.00	16.00	2.20	174.00	21.0	9.00	2.00	GEPI, GEMI	SR M5-04451-L10.5	T-20/5
E16 GHIR 25-3	2.40	3.00	25.00	4.00	209.00	28.7	12.80	2.00	GIPI,GIMIY,GIFI,TIPI	SR M5-04451	T-20/5

• Left-hand heads on request • The shank assembly is the same for right- and left-hand heads • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

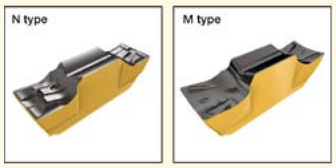
(3) Cutting depth maximum

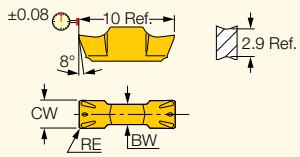
For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI (W<M) (341) • GEPI-MT (648) • GEPI-WT (642) • GIMIY (349) • GINI-E (350) • GIPI (351) • GIPI-E (349)

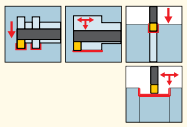
CUTGRIP

GEMI

Utility Double-Ended Inserts for Internal and External Grooving and Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC808	IC908	IC807	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEMI 2002N	2.00	0.20	0.02	0.050	1.60	●			0.25-0.80	0.05-0.10	0.04-0.08
GEMI 3002M	3.00	0.20	0.02	0.050	2.20	●	●		0.25-1.30	0.10-0.14	0.05-0.09
GEMI 3002N	3.00	0.20	0.02	0.050	2.20	●		●	0.25-1.00	0.07-0.12	0.04-0.08

- GEMI N inserts for ductile materials and low feed • DMIN for internal application=11.5 mm
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

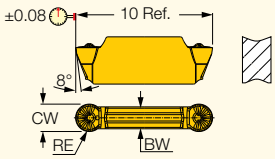
For tools, see pages: AVC-GEAIR/L (346) • E-GEHIR / E-GHIR (340) • GEAIR/L (340) • GEHIR/L (338) • GEHIR/L-SC (339) • GEHSR (373) • GEHSR/L-SL (372)

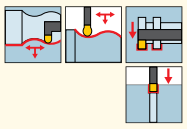
CUTGRIP

GEMI (full radius)

Utility Double-Ended Full Radius Inserts for Internal and External Grooving and Profiling







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEMI 2010Y	2.00	1.00	0.02	0.050	1.60	●	0.10-1.00	0.06-0.12	0.03-0.08
GEMI 3015Y	3.00	1.50	0.04	0.050	2.20	●	0.10-1.50	0.10-0.18	0.05-0.10

- DMIN for internal application=11.5 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

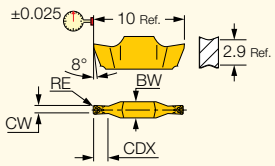
For tools, see pages: AVC-GEAIR/L (346) • E-GEHIR / E-GHIR (340) • GEAIR/L (340) • GEHIR/L (338) • GEHIR/L-SC (339) • GEHSR (373) • GEHSR/L-SL (372)

CUTGRIP

GEPI (W<M)

Precision Ground Double-Ended Inserts for Internal Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data f groove (mm/rev)
GEPI 1.00-0.10	1.00	0.10	0.00	0.030	1.60	1.80	●	●	●	0.01-0.03
GEPI 1.00-0.50	1.00	0.50	0.00	0.030	1.60	1.80			●	0.01-0.04
GEPI 1.04-0.00	1.04	0.00	0.00	0.030	1.60	1.80	●	●	●	0.01-0.03
GEPI 1.20-0.00	1.20	0.00	0.00	0.030	1.80	1.80	●	●	●	0.01-0.03
GEPI 1.25-0.10	1.25	0.10	0.00	0.030	2.00	1.80	●	●	●	0.02-0.04
GEPI 1.40-0.00	1.40	0.00	0.00	0.030	2.00	1.80	●	●	●	0.02-0.04
GEPI 1.47-0.00	1.47	0.00	0.00	0.030	2.00	1.80	●	●	●	0.02-0.04
GEPI 1.50-0.10	1.50	0.10	0.00	0.030	2.00	1.80	●	●	●	0.02-0.04
GEPI 1.57-0.15	1.57	0.15	0.00	0.030	2.00	1.80	●	●	●	0.02-0.05
GEPI 1.70-0.05	1.70	0.05	0.02	0.030	2.50	1.80	●	●	●	0.02-0.05
GEPI 1.78-0.15	1.78	0.15	0.02	0.030	2.50	1.80	●	●	●	0.02-0.05

- Toolholder seat needs to be modified according to insert profile to ensure clearance • DMIN for internal application=11.5mm
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

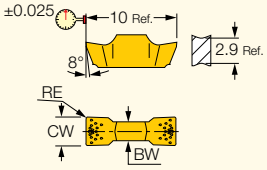
For tools, see pages: E-GEHIR / E-GHIR (340) • GEHIMR/L (337) • GEHIMR/L-SC (337) • GEHSR (373) • GEHSR/L-SL (372)

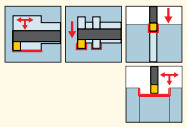
CUTGRIP

GEPI

Precision Ground
Double-Ended Inserts for
Internal and External Grooving







Designation	Dimensions CW	RE	CWTOL[2]	RETOL[3]	CDX[4]	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEPI 1.85-0.10 [1]	1.85	0.10	0.02	0.030	2.50	1.80	●	●	●	0.15-0.50	0.05-0.07	0.03-0.05
GEPI 1.96-0.10	1.96	0.10	0.02	0.030	2.50	1.80	●	●	●	0.15-0.50	0.05-0.07	0.03-0.05
GEPI 1.96-0.15	1.96	0.15	0.02	0.030	2.50	1.80	●		●	0.20-0.50	0.05-0.07	0.03-0.05
GEPI 2.00-0.10	2.00	0.10	0.02	0.030	9.00	1.80	●	●	●	0.15-0.60	0.05-0.07	0.03-0.05
GEPI 2.22-0.10	2.22	0.10	0.02	0.030	9.00	1.80	●	●	●	0.15-0.60	0.06-0.08	0.04-0.06
GEPI 2.22-0.15	2.22	0.15	0.02	0.030	9.00	1.80	●			0.20-0.60	0.06-0.08	0.04-0.06
GEPI 2.39-0.10	2.39	0.10	0.02	0.030	9.00	2.20	●			0.15-1.00	0.07-0.09	0.04-0.06
GEPI 2.39-0.15	2.39	0.15	0.02	0.030	9.00	2.20	●	●	●	0.20-1.00	0.07-0.09	0.04-0.06
GEPI 2.47-0.20	2.47	0.20	0.02	0.030	9.00	2.20	●	●	●	0.25-1.10	0.08-0.11	0.04-0.07
GEPI 2.50-0.10	2.50	0.10	0.02	0.030	9.00	2.20	●			0.15-1.10	0.07-0.09	0.04-0.07
GEPI 2.50-0.20	2.50	0.20	0.02	0.030	9.00	2.20	●	●	●	0.25-1.10	0.08-0.11	0.05-0.08
GEPI 2.70-0.20	2.70	0.20	0.02	0.030	9.00	2.20	●	●	●	0.25-1.20	0.09-0.12	0.05-0.08
GEPI 3.00-0.20	3.00	0.20	0.02	0.030	9.00	2.20	●	●	●	0.25-1.30	0.10-0.14	0.05-0.09
GEPI 3.18-0.20	3.18	0.20	0.02	0.030	9.00	2.20	●		●	0.25-1.40	0.11-0.14	0.06-0.10

• DMIN for internal application=11.5mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Tool pocket should be modified

[2] Cutting width tolerance (+/-)

[3] Corner radius tolerance (+/-)

[4] Cutting depth maximum

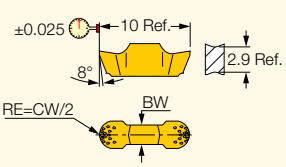
For tools, see pages: AVC-GEAIR/L (346) • E-GEHIR / E-GHIR (340) • GEAIR/L (340) • GEHIMR/L (337) • GEHIMR/L-SC (337) • GEHIR/L (338) • GEHIR/L-SC (339) • GEHSR (373) • GEHSR/L-SL (372)

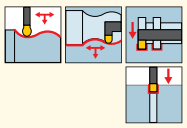
CUTGRIP

GEPI (full radius)

Precision Double-Ended Full
Radius Inserts for Internal and
External Profiling and Grooving







Designation	Dimensions CW	RE	CWTOL[1]	RETOL[2]	CDX[3]	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEPI 2.00-1.00	2.00	1.00	0.02	0.050	5.00	1.80	●	●	●	0.00-0.60	0.08-0.12	0.04-0.07
GEPI 3.00-1.50	3.00	1.50	0.02	0.050	5.00	2.20	●	●	●	0.00-1.50	0.13-0.20	0.05-0.11
GEPI 3.18-1.59	3.18	1.59	0.02	0.050	5.00	2.20		●	●	0.00-1.59	0.13-0.21	0.06-0.11

• DMIN for internal application=11.5mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

[1] Cutting width tolerance (+/-)

[2] Corner radius tolerance (+/-)

[3] Cutting depth maximum

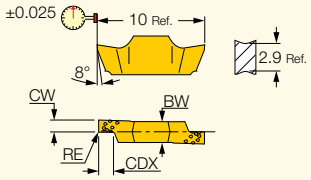
For tools, see pages: AVC-GEAIR/L (346) • E-GEHIR / E-GHIR (340) • GEAIR/L (340) • GEHIR/L (338) • GEHIR/L-SC (339) • GEHIUR/L (339) • GEHSR (373) • GEHSR/L-SL (372)

CUTGRIP

GEPI-RX/LX

Precision Double-Ended Inserts for Internal Grooving Next to Shoulder





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	Tough ↔ Hard IC528	IC908	Recommended Machining Data f groove (mm/rev)
GEPI 0.80-0.00RX	0.80	0.00	0.02	0.030	1.50	1.80		●	0.01-0.02
GEPI 1.00-0.10 R/LX	1.00	0.10	0.02	0.030	1.50	1.80	●		0.01-0.03
GEPI 1.57-0.15RX	1.57	0.15	0.02	0.030	2.00	1.80		●	0.02-0.05

- Toolholder seat needs to be modified according to insert profile to ensure clearance
- DMIN for internal application=11.5mm
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

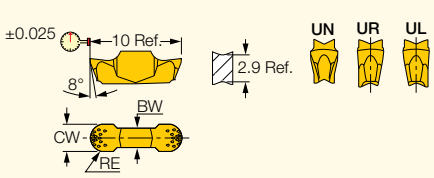
For tools, see pages: GEHIMR/L (337) • GEHIMR/L-SC (337)

CUTGRIP

GEPI-UN/UR/UL

Precision Double-Ended Inserts for Internal Undercutting





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	Tough ↔ Hard IC528	IC08	Recommended Machining Data f groove (mm/rev)
GEPI 3.00-1.50UN	3.00	1.50	0.02	0.050	2.00	2.20	●		0.03-0.12
GEPI 2.00-1.00UR/L	2.00	1.00	0.02	0.050	2.00	1.80	●	●	0.03-0.12

- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

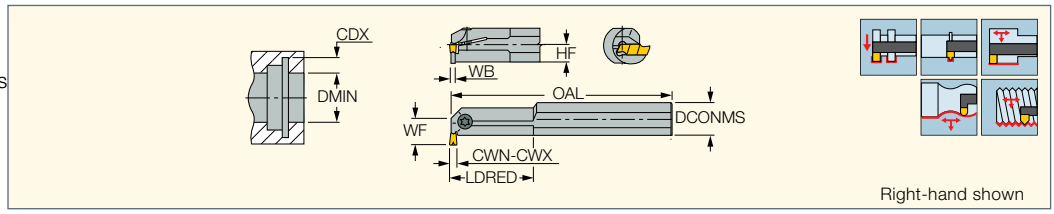
For tools, see pages: GEHIUR/L (339)



CUTGRIP

GHIR/L (W=1.9-6.4)

Internal Grooving and Turning Bars



Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX(3)	OAL	LDRED	WF	HF	WB
GHIR/L 20-3	1.90	3.50	20.00	20.00	4.50	160.00	16.0	14.50	9.0	1.55
GHIR/L 20-20-3	2.00	3.50	20.00	20.00	4.50	200.00	40.0	14.50	9.0	1.60
GHIR/L 20-4	3.00	4.80	20.00	20.00	4.50	160.00	25.0	14.50	9.0	2.60
GHIR/L 20-20-4	3.00	4.80	20.00	20.00	4.50	200.00	40.0	14.50	9.0	2.60
GHIR/L 25-25-4	2.50	4.00	25.00	25.00	5.00	200.00	50.0	17.50	11.5	2.10
GHIR/L 32-4	2.50	4.00	32.00	38.00	5.00	250.00	-	21.30	14.5	2.10
GHIR/L 25-5	3.20	5.30	25.00	26.00	6.00	160.00	25.0	18.50	11.5	2.80
GHIR/L 25-25-6	4.00	6.40	25.00	25.00	5.00	200.00	50.0	17.50	11.5	3.60
GHIR/L 32-6	4.00	6.40	32.00	39.00	6.50	250.00	-	22.80	14.5	3.60
GHIR/L 40-6	4.00	6.40	40.00	49.00	8.00	300.00	-	28.30	18.0	3.60

• When using TIPI inserts, toolholder seat needs to be modified according to insert profile to ensure clearance. • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

For inserts, see pages: GIFI (352) • GIFI-E (349) • GIFI-E (full radius) (350) • GIMIY (349) • GINI-E (350) • GIPI (351) • GIPI (full radius W<M) (351) • GIPI (full radius) (352) • GIPI (W<M) (350) • GIPI-E (349) • GIPI-RX/LX (352) • TIPI-MT (648) • TIPI-WT (642)

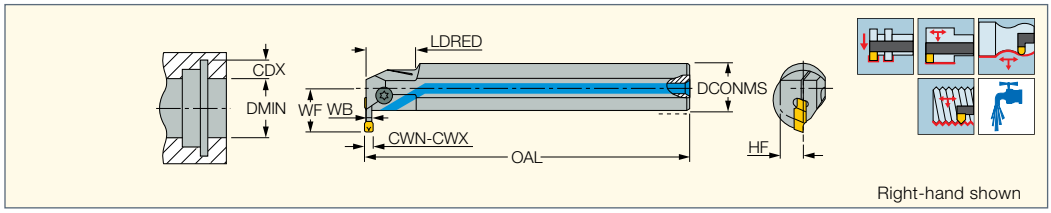
Spare Parts

Designation		
GHIR/L 20-3	SR 76-1021	T-20/5
GHIR/L 20-20-3	SR 76-1021	T-20/5
GHIR/L 20-4	SR 76-1021	T-20/5
GHIR/L 20-20-4	SR 76-1021	T-20/5
GHIR/L 25-25-4	SR 76-1022	T-20/5
GHIL 32-4	SR 76-1021	T-20/5
GHIR 32-4	SR 76-1022	T-20/5
GHIR/L 25-5	SR 76-1022	T-20/5
GHIR/L 25-25-6	SR 76-1022	T-20/5
GHIR/L 32-6	SR 76-1022	T-20/5
GHIL 40-6	SR 76-1022	T-20/5
GHIR 40-6	SR 76-1021	T-20/5

CUTGRIP

GHIR/L-C (W=4-6.4)

Grooving and Turning Bars with Internal Coolant Holes



Designation	DCONMS	CWN(1)	CWX(2)	DMIN	CDX(3)	HF	OAL	LDRED	WF	WB	Inlet			
GHIR/L 25C-510	25.00	4.00	5.30	32.00	10.00	11.5	160.00	25.0	22.50	3.50	R1/8	SR 76-1022	T-20/5	PL 25
GHIR/L 32C-610	32.00	4.80	6.40	43.00	10.00	14.5	200.00	-	26.20	4.40	R1/8	SR 76-1022	T-20/5	PL 32
GHIR/L 40C-612	40.00	4.80	6.40	53.00	12.00	18.0	250.00	-	32.20	4.40	R1/8	SR 76-1022	T-20/5	PL 40

• When using TIPI inserts, toolholder seat needs to be modified according to insert profile to ensure clearance. • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

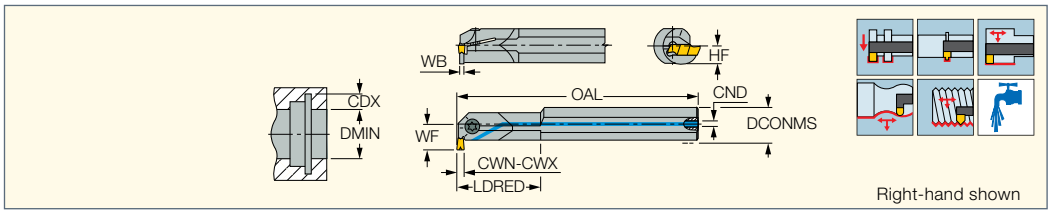
(3) Cutting depth maximum

For inserts, see pages: GIFI (352) • GIFI-E (349) • GIFI-E (full radius) (350) • GIMIY (349) • GINI-E (350) • GIPI (351) • GIPI (full radius) (352) • GIPI-E (349) • TIPI-MT (648)

CUTGRIP

GHIR/L-SC (W=2-4.8)

Grooving and Turning
Solid Carbide Bars with
Internal Coolant Holes



Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX(3)	OAL	LDRED	WF	HF	CND	WB			
GHIR/L 20SC-3	2.00	3.50	20.00	20.00	4.50	200.00	60.0	14.50	9.0	8.5	1.60	SR 76-1021	T-20/5	PL 20
GHIR/L 20SC-4	3.00	4.80	20.00	20.00	4.50	200.00	60.0	14.50	9.0	8.5	2.60	SR 76-1021	T-20/5	PL 20

- Tool head is made of steel. • When using TIPI inserts, toolholder seat needs to be modified according to insert profile to ensure clearance.
- For user guide, see pages 419-428, 432-436

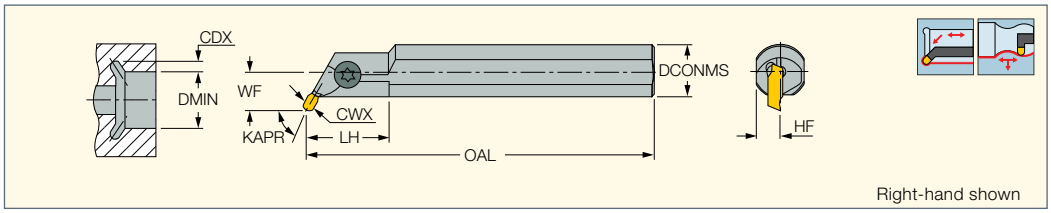
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

For inserts, see pages: GIFI (352) • GIFI-E (349) • GIFI-E (full radius) (350) • GIMIY (349) • GINI-E (350) • GIPI (351) • GIPI (full radius W<M) (351) • GIPI (full radius) (352) • GIPI-E (349) • GIPI-RX/LX (352) • TIPI-MT (648) • TIPI-WT (642)

CUTGRIP

GHIUR/L

Undercutting and
Turning Boring Bars



Designation	CWX(1)	DCONMS	DMIN	CDX(2)	OAL	LH	WF	HF	KAPR(3)		
GHIUR/L 20U	4.80	20.00	20.00	2.50	160.00	40.0	12.50	9.0	45.0	SR 76-1021	T-20/5
GHIUR/L 20-20-5	4.80	20.00	20.00	3.00	200.00	51.0	13.00	9.0	60.0	SR 76-1021	T-20/5
GHIUR/L 25U	6.40	25.00	25.00	3.00	160.00	50.0	15.50	11.5	45.0	SR 76-1022	T-20/5
GHIUR/L 25-25-6	6.40	25.00	25.00	3.50	200.00	60.0	16.00	11.5	60.0	SR 76-1022	T-20/5

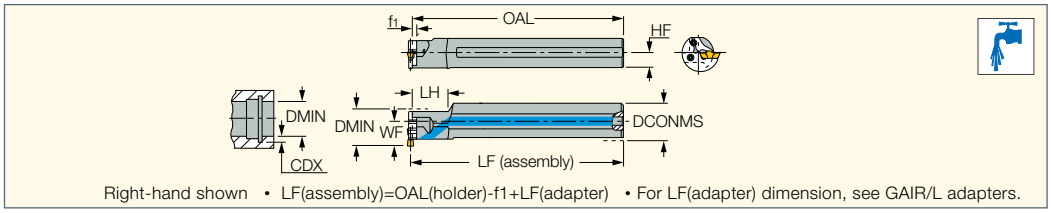
(1) Maximum cutting width
(2) Cutting depth maximum
(3) Tool cutting edge angle

For inserts, see pages: GIPI-UR/UL (353)

CUTGRIP

GHAIR/L-GI

Bars with Coolant Holes
for Internal Grooving and
Turning Adapters



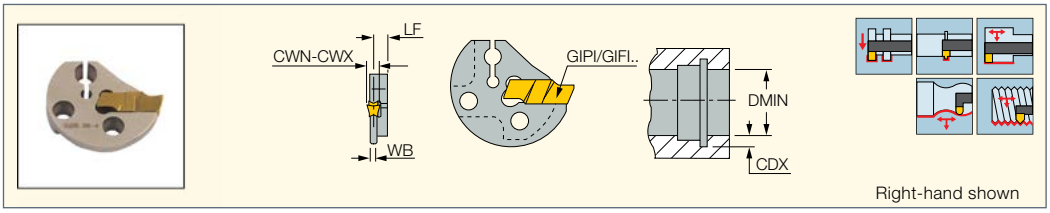
Designation	DCONMS	LH	OAL	WF	HF	f1	Adapter				
GHAIR/L 25-32	25.00	25.0	200.00	19.70	11.5	3.0	GAIR/L 32..	SR 16-236 P	T-15/5	PL 25	
GHAIR/L 32-32	32.00	32.0	200.00	23.20	14.5	3.0	GAIR/L 32..	SR 16-236 P	T-15/5	PL 32	
GHAIR/L 32-40	32.00	40.0	200.00	24.00	14.5	3.0	GAIR/L 40..	SR 16-212	T-20/5	PL 32	SR 14-519

- For DMIN & CDX refer to GAIR/L adapters

For tools, see pages: GAIR/L (346)

CUTGRIP

GAIR/L
Internal Grooving and Turning Adapters



Designation	DMIN	CWN(1)	CWX(2)	CDX(3)	LF	WB
GAIR/L 32-2	32.00	1.50	2.10	3.00	3.80	1.20
GAIR/L 32-3	32.00	2.10	3.00	3.00	4.10	1.80
GAIR/L 32-4	32.00	3.00	4.50	5.00	4.50	2.50
GAIR/L 32-5	32.00	4.50	6.40	5.00	5.20	4.00
GAIR/L 40-2	40.00	1.50	2.10	3.00	3.80	1.20
GAIR/L 40-3	40.00	2.10	3.00	4.00	4.10	1.80
GAIR/L 40-4	40.00	3.00	4.50	7.00	4.50	2.50
GAIR/L 40-5	40.00	4.50	6.40	7.00	5.20	4.00

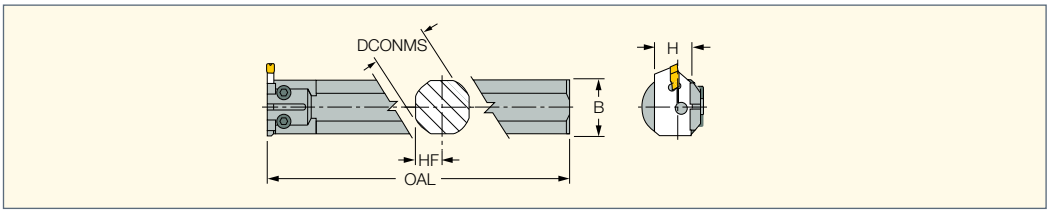
- When using TIPI inserts, toolholder seat needs to be modified according to insert profile to ensure clearance
- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

For inserts, see pages: GIMIY (332) • GIPI-E (333) • GIFI-E (333) • GIFI-E (full radius) (333) • GINI-E (334) • GIPI (W<M) (334) • GIPI (335) • GIPI (full radius W<M) (335) • GIPI (full radius) (336) • GIFI (336) • GIPI-RX/LX (336) • TIPI-MT (337) • TIPI-WT (337)
For holders, see pages: C#-GHAIR/L (629) • GHAIR/L-GI (331)

CUTGRIP

GHIC-50
Boring Bars for Internal Grooving and Turning Blades, DMIN=50 mm



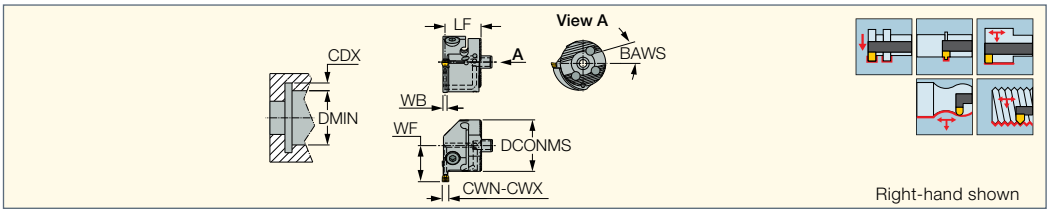
Designation	H	DCONMS	OAL	HF	B		
GHIC 32-50	26.0	32.00	220.00	14.5	29.0	SR M5X16 DIN912	HW 4.0
GHIC 40-50	26.0	40.00	260.00	18.0	36.0	SR M5X16 DIN912	HW 4.0

- For both right and left hand applications

For tools, see pages: CGIN 26 (348)

CUTGRIP

AVC-GEAIR/L
Internal Grooving, Turning and Threading Adapters



Designation	DMIN	CWN(1)	CWX(2)	DCONMS	CDX(3)	WF	LF	WB	BAWS	MIID(4)
AVC-D16-GEAIR/L-2	21.00	1.90	2.40	16.00	3.00	12.00	14.50	1.60	45	GEPI 2.00-0.10
AVC-D16-GEAIR/L-3	21.00	2.40	2.70	16.00	3.00	12.00	14.50	2.00	45	GEPI 3.00-0.20
AVC-D20-GEAIR/L-2	26.00	1.90	2.40	20.00	3.00	14.70	13.50	1.60	15	GEPI 2.00-0.10
AVC-D20-GEAIR/L-3	26.00	2.40	3.18	20.00	3.00	14.70	13.50	2.00	15	GEPI 3.00-0.20
AVC-D25-GEAIR/L-2	31.00	1.90	2.40	25.00	4.00	17.50	17.50	1.60	15	GEPI 2.00-0.10
AVC-D25-GEAIR/L-3	31.00	2.40	3.18	25.00	4.00	17.50	17.50	2.00	15	GEPI 3.00-0.20

- Using the adapters with CAMFIX holders is only possible in case the machine has an option for rotating the CAMFIX Axis.
- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(4) Master insert identification

For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI-MT (648) • GEPI-WT (642)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

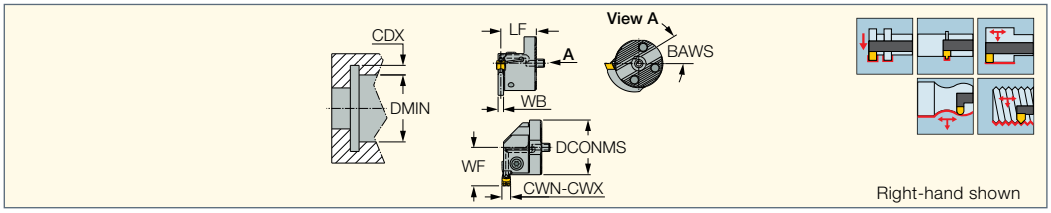
Spare Parts

Designation					
AVC-D16-GEAIR/L-2	SR 14-551				T-9/5
AVC-D16-GEAIR/L-3	SR 14-551				T-9/5
AVC-D20-GEAIR/L-2	SR 34-510		SW6-SD	BLD T15/M7	
AVC-D20-GEAIR/L-3	SR 34-510		SW6-SD	BLD T15/M7	
AVC-D25-GEAIR/L-2	SR M4X14 DIN912	HW 3.0			
AVC-D25-GEAIR/L-3	SR M4X14 DIN912	HW 3.0			

CUTGRIP

AVC-GAIR/L

Internal Grooving, Turning and Threading Adapters



Designation	DMIN	CWN[2]	CWX[3]	DCONMS	CDX[4]	WF	LF	WB	BAWS
AVC-D32-GAIR/L-2	37.00	1.50	2.10	32.00	3.00	20.00	23.00	1.20	30
AVC-D32-GAIR/L-3	37.00	2.10	3.00	32.00	3.00	20.00	23.00	1.80	30
AVC-D32-GAIR/L-4	39.00	3.00	4.50	32.00	5.00	22.00	23.00	2.50	30
AVC-D32-GAIR/L-5	39.00	4.50	6.40	32.00	5.00	22.00	26.00	4.00	30
AVC-D40-GAIR/L-2 [1]	45.00	1.50	2.10	40.00	3.00	24.00	23.00	1.20	30
AVC-D40-GAIR/L-3 [1]	46.00	2.10	3.00	40.00	4.00	25.00	23.00	1.80	30
AVC-D40-GAIR/L-4	49.00	3.00	4.50	40.00	7.00	28.00	23.00	2.50	30
AVC-D40-GAIR/L-5	49.00	4.50	6.40	40.00	7.00	28.00	26.00	4.00	30

• When using TIPI inserts, toolholder seat needs to be modified according to insert profile to ensure clearance • Using the adapters with CAMFIX holders is only possible in case the machine has an option for rotating the CAMFIX Axis.

• For user guide, see pages 419-428, 432-436

[1] DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm

[2] Minimum cutting width

[3] Maximum cutting width

[4] Cutting depth maximum

For inserts, see pages: GIFI (352) • GIFI-E (349) • GIFI-E (full radius) (350) • GINI-E (350) • GIPI (351) • GIPI (full radius W<M) (351) • GIPI (full radius) (352) • GIPI (W<M) (350) • GIPI-E (349) • GIPI-RX/LX (352) • TIPI-MT (648) • TIPI-WT (642)

For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

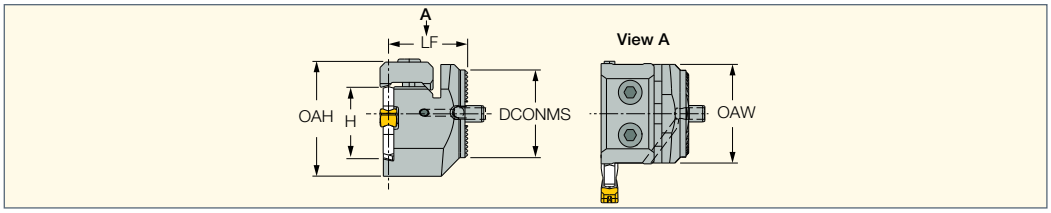
Spare Parts

Designation			
AVC-GAIR/L	SR 76-1021	T-20/5	SR M3X3DIN913

CUTGRIP

AVC-GAIC

Adapters for Internal Grooving, Turning and Threading Blades



Designation	DCONMS	LF	H	OAH	OAW
AVC-D32-GAIC-50	32.00	29.50	26.0	41.70	36.00
AVC-D40-GAIC-50 [1]	40.00	29.50	26.0	41.70	36.00

• For CGIN 26 blades

[1] When using 50mm shank, DMIN=DMIN of CGIN blade + 10mm • When using 60mm shank, DMIN=DMIN of CGIN blade + 20mm

For tools, see pages: CGIN 26 (348)

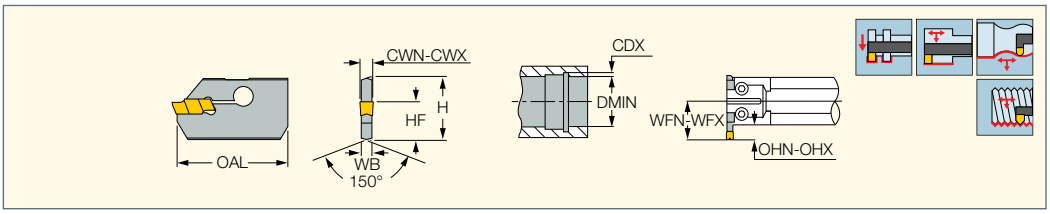
Spare Parts

Designation						
AVC-GAIC	SR M3X8 DIN913	SR M5X20DIN912	HW 2.0	SR M4X8 DIN913	HW 4.0	HW 1.5

CUTGRIP

CGIN 26

Internal Grooving and Turning Blades for GHIC...-50 Bars



Designation	CWN(1)	CWX(2)	WB	WFN(3)	WFX(4)	OHN(5)	OHX(6)	HF	OAL	H	DMIN
CGIN 26K-3	2.80	4.00	2.40	28.0	33.0	10.0	15.0	15.8	45.00	26.0	50.00
CGIN 26K-4	3.60	4.50	3.20	28.0	33.0	10.0	15.0	15.8	45.00	26.0	50.00
CGIN 26K-5	4.40	6.40	4.00	28.0	33.0	10.0	15.0	15.8	45.00	26.0	54.00
CGIN 26A-3	2.80	4.00	2.40	32.5	37.5	14.5	19.5	15.8	49.50	26.0	54.00
CGIN 26A-4	3.60	4.50	3.20	32.5	37.5	14.5	19.5	15.8	49.50	26.0	54.00
CGIN 26A-5	4.40	6.40	4.00	32.5	37.5	14.5	19.5	15.8	49.50	26.0	54.00

• WFN-WFX and OHN-OHX are the blade's extension range • Grooving depth (CDX) varies in conformance with blade's overhang (OHN-OHX) and depends on the bore diameter(D).For grooving capacity, see chart below

• When using TIPI inserts toolholder seat needs to be modified according to insert profile to ensure clearance • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Adjustable extension

(4) Adjustable extension

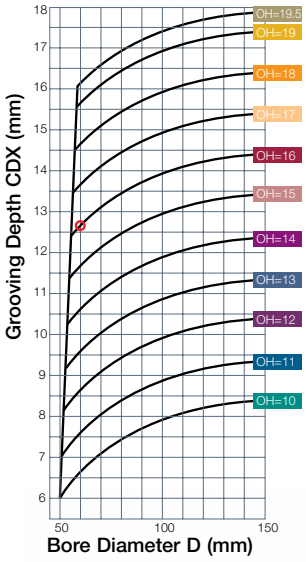
(5) Minimum overhang for adjustable extension

(6) Maximum overhang for adjustable extension

For inserts, see pages: GIFI (352) • GIFI-E (349) • GIFI-E (full radius) (350) • GIMIY (349) • GINI-E (350) • GIPI (351) • GIPI (full radius) (352) • GIPI-E (349) • TIPI-MT (648)

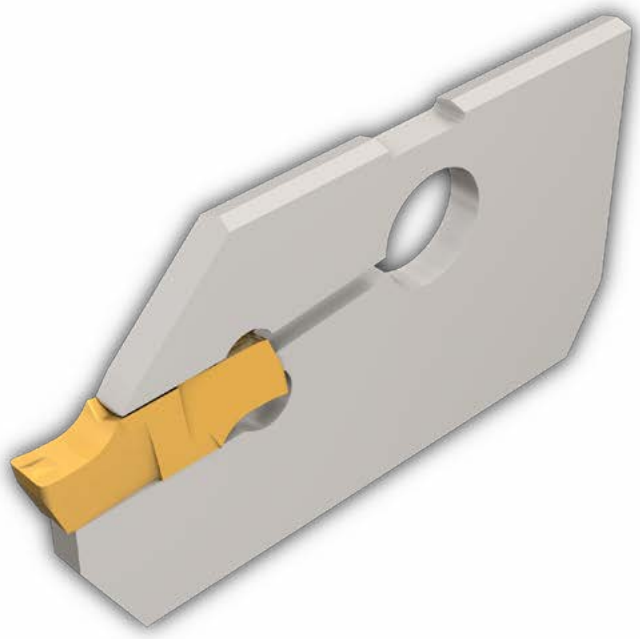
For holders, see pages: AVC-GAIC (347) • GHIC-50 (346)

Internal Grooving Capacity for CGIN Blades



Example:

For grooving depth CDX=12.7 mm and grooving width=4 mm in bore øD=60, use blade CGIN 26A-4 and adjust overhang to OH=16 mm.

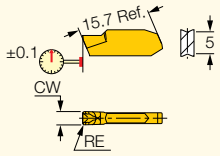


CUTGRIP

GIMIY

Utility Single-Ended Inserts for Internal Grooving and Turning





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMIY 304	3.00	0.40	0.02	0.050	•	•	0.50-1.50	0.10-0.14	0.05-0.08
GIMIY 404	4.00	0.40	0.02	0.050	•	•	0.50-2.00	0.13-0.19	0.06-0.11

• DMIN for internal applications=20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

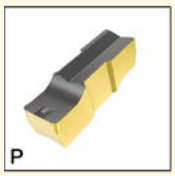
(2) Corner radius tolerance (+/-)

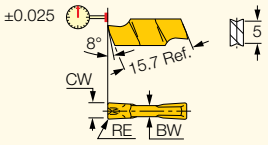
For tools, see pages: CGIN 26 (348) • E-GEHIR / E-GHIR (340) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

CUTGRIP

GIPI-E

Precision Double-Ended Inserts for Internal Grooving and Turning





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIPI 3.00E-0.40	3.00	0.40	0.02	0.030	2.40	15.50	•	•	•	•	•	•	0.50-1.50	0.14-0.18	0.06-0.12
GIPI 4.00E-0.40	4.00	0.40	0.02	0.030	3.20	15.50	•	•	•	•	•		0.50-2.00	0.15-0.21	0.08-0.15
GIPI 5.00E-0.50	5.00	0.50	0.02	0.050	4.00	15.50	•	•	•		•		0.70-3.10	0.19-0.33	0.11-0.20
GIPI 6.35E-0.55	6.35	0.55	0.02	0.050	4.80	15.50		•			•		0.70-3.10	0.23-0.30	0.13-0.21

• DMIN for internal applications = 20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

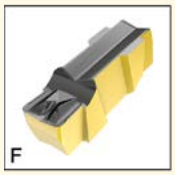
(3) Cutting depth maximum

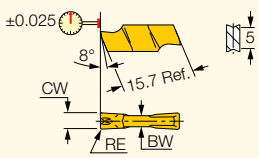
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • E-GEHIR / E-GHIR (340) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

CUTGRIP

GIFI-E

Precision Double-Ended Inserts for Internal Grooving and Turning





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIFI 4.00E-0.40	4.00	0.40	0.02	0.050	3.20	15.50	•	•	•	•	•	0.50-2.00	0.13-0.19	0.06-0.11
GIFI 5.00E-0.50	5.00	0.50	0.02	0.050	4.00	15.50	•	•			•	0.60-2.50	0.16-0.24	0.08-0.14
GIFI 6.00E-0.80	6.00	0.80	0.02	0.050	4.80	15.50		•				1.00-3.00	0.19-0.34	0.09-0.18

• DMIN for internal applications = 20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

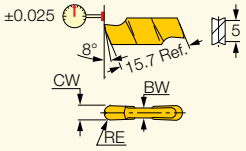
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

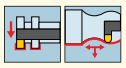
CUTGRIP

GIFI-E (full radius)

Precision Double-Ended Full Radius Inserts for Internal Profiling and Grooving







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIFI 4.00E-2.00	4.00	2.00	0.02	0.050	3.20	14.00	●	●	●	●	●	0.00-2.00	0.14-0.27	0.06-0.12
GIFI 5.00E-2.50	5.00	2.50	0.02	0.050	4.00	13.50	●	●	●		●	0.00-2.50	0.18-0.34	0.08-0.15

• DMIN for internal applications = 20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

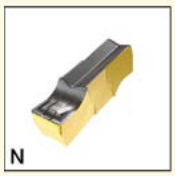
(3) Cutting depth maximum

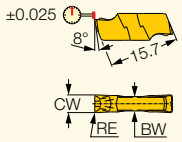
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

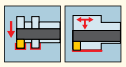
CUTGRIP

GINI-E

Precision Double-Ended Inserts for Internal Grooving and Turning of Ductile Materials







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GINI 3.00E-0.40	3.00	0.40	0.02	0.050	2.40	15.50	●	0.50-1.20	0.08-0.13	0.03-0.09
GINI 4.00E-0.40	4.00	0.40	0.02	0.050	3.20	15.50	●	0.50-1.60	0.10-0.17	0.04-0.12
GINI 5.00E-0.50	5.00	0.50	0.02	0.050	4.00	15.50	●	0.50-2.00	0.12-0.20	0.05-0.14

• DMIN for internal applications=20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

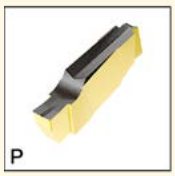
(3) Cutting depth maximum

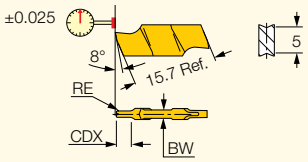
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • E-GEHIR / E-GHIR (340) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

CUTGRIP

GIPI (W<M)

Precision Double-Ended Inserts for Internal Grooving and Recessing







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	Tough ↔ Hard IC830	IC808	IC908	IC20	IC806	Recommended Machining Data f groove (mm/rev)
GIPI 1.57-0.15	1.57	0.15	0.02	0.030	2.50	2.20	●	●		●	●	0.03-0.05
GIPI 1.70-0.00	1.70	0.00	0.02	0.030	2.50	2.20	●	●		●		0.03-0.06
GIPI 1.78-0.10	1.78	0.10	0.02	0.030	2.50	2.20	●	●	●	●		0.03-0.06
GIPI 1.96-0.10	1.96	0.10	0.02	0.030	2.50	2.20		●	●	●		0.04-0.06
GIPI 1.96-0.15	1.96	0.15	0.02	0.030	2.50	2.20	●	●	●			0.04-0.06

• The tool pocket should be modified • DMIN for internal application=20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

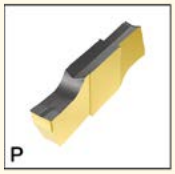
(3) Cutting depth maximum

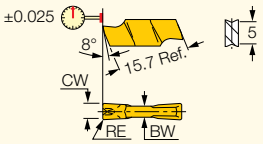
For tools, see pages: AVC-GAIR/L (347) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344)

CUTGRIP

GIPI

Precision Double-Ended Inserts for Internal Grooving and Recessing





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	Recommended Machining Data f groove (mm/rev)
GIPI 2.22-0.10	2.22	0.10	0.02	0.030	2.50	2.20	●		●	●	●		0.04-0.07
GIPI 2.22-0.15	2.22	0.15	0.02	0.030	2.50	2.20			●	●			0.04-0.07
GIPI 2.30-0.20	2.30	0.20	0.02	0.030	3.00	2.20	●				●		0.05-0.08
GIPI 2.39-0.15	2.39	0.15	0.02	0.030	6.40	2.40	●		●	●	●		0.04-0.07
GIPI 2.50-0.20	2.50	0.20	0.02	0.030	6.00	2.40	●				●		0.05-0.09
GIPI 2.70-0.10	2.70	0.10	0.02	0.030	-	2.40	●		●	●	●	●	0.05-0.08
GIPI 2.70-0.15	2.70	0.15	0.02	0.030	-	2.40			●	●			0.05-0.08
GIPI 3.00-0.40	3.00	0.40	0.02	0.030	-	2.40					●		0.06-0.11
GIPI 3.18-0.20	3.18	0.20	0.02	0.030	-	2.40	●	●	●	●	●	●	0.06-0.11
GIPI 3.30-0.10	3.30	0.10	0.02	0.030	-	2.40	●	●	●		●		0.06-0.10
GIPI 3.96-0.20	3.96	0.20	0.02	0.030	-	3.20		●			●		0.08-0.13
GIPI 4.23-0.10	4.23	0.10	0.02	0.030	-	3.20		●			●		0.08-0.13
GIPI 4.78-0.55	4.78	0.55	0.02	0.050	-	4.00	●	●	●		●		0.08-0.15

• DMIN for internal application = 20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

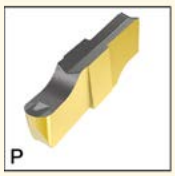
(3) Cutting depth maximum

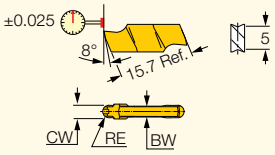
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • E-GEHIR / E-GHIR (340) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

CUTGRIP

GIPI (full radius W<M)

Precision Double-Ended Full Radius Inserts for Internal Grooving and Recessing





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	BW	Tough ↔ Hard IC830	IC808	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIPI 2.39-1.20	2.39	1.20	0.02	0.050	6.40	2.40	●	●	●	●	0.05-0.10

• The tool pocket should be modified • DMIN for internal applications= 20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

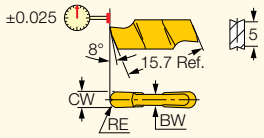
For tools, see pages: AVC-GAIR/L (347) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

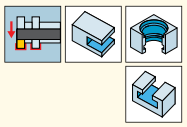
CUTGRIP

GIPI (full radius)

Precision Double-Ended Full Radius Inserts for Internal Grooving and Recessing







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC8250	IC20	Recommended Machining Data f groove (mm/rev)
GIPI 3.18-1.59	3.18	1.59	0.02	0.050	2.40	●	●	0.06-0.13
GIPI 3.96-1.98	3.96	1.98	0.02	0.050	3.20	●		0.08-0.16
GIPI 4.78-2.39	4.78	2.39	0.02	0.050	4.00	●	●	0.08-0.16
GIPI 6.35-3.18	6.35	3.18	0.02	0.050	4.80	●		0.11-0.21

• Dmin for internal application= 20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

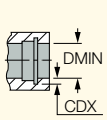
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • E-GEHIR / E-GHIR (340) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

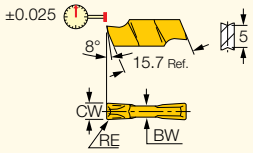
CUTGRIP

GIFI

Precision Double-Ended Inserts for Internal Grooving and Recessing









Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC20	Recommended Machining Data f groove (mm/rev)
GIFI 4.78-0.55	4.78	0.55	0.02	0.050	4.00	15.50	●	●	●	0.07-0.13
GIFI 5.28-0.20	5.28	0.20	0.02	0.030	4.00	15.50		●	●	0.08-0.13

• DMIN for internal applications = 20 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

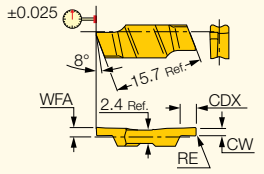
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

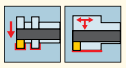
CUTGRIP

GIPI-RX/LX

Precision Double-Ended Inserts for Internal Grooving Next to a Shoulder







RX shown

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	WFA	CDX(3)	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
GIPI 0.78-0.1LX	0.78	0.10	0.02	0.030	1.60	1.30		●	0.02-0.04
GIPI 1.00-0.00R/LX	1.00	0.00	0.02	0.030	1.60	2.00	●		0.02-0.04
GIPI 1.19-0.1LX	1.19	0.10	0.02	0.030	1.60	2.00		●	0.03-0.05
GIPI 1.57-0.15LX	1.57	0.15	0.02	0.030	1.70	2.80		●	0.03-0.05
GIPI 1.57-0.79LX	1.57	0.79	0.02	0.050	1.70	2.80		●	0.03-0.06
GIPI 2.00-0.10R/LX	2.00	0.10	0.02	0.030	1.70	2.70	●		0.04-0.06
GIPI 2.39-0.2LX	2.39	0.20	0.02	0.030	1.70	3.90		●	0.05-0.08
GIPI 2.39-1.19LX	2.39	1.19	0.02	0.050	1.70	3.90		●	0.05-0.10

• Tool's pocket should be modified • For grooving and recessing only • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

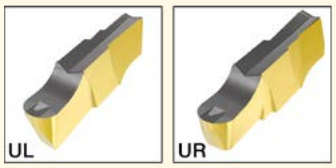
(3) Cutting depth maximum

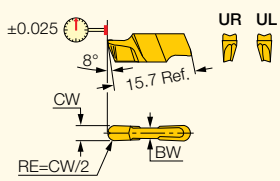
For tools, see pages: AVC-GAIR/L (347) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

CUTGRIP

GIPI-UR/UL

Precision Double-Ended Inserts for Internal Undercutting





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC8250	IC20	Recommended Machining Data f groove (mm/rev)
GIPI 3.00-1.5UR/L	3.00	1.50	0.02	0.050	2.40	•	•	0.05-0.15
GIPI 4.00-2.0UR/L	4.00	2.00	0.02	0.050	3.20	•	•	0.05-0.15

• Tool's pocket should be modified • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

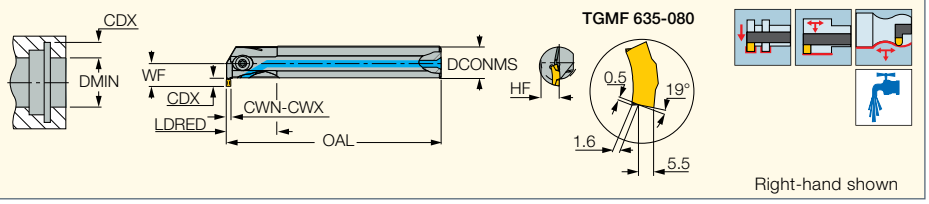
(2) Corner radius tolerance (+/-)

For tools, see pages: GHIUR/L (345)

TOPGRIP

TGIR/L-C

Grooving and Turning Bars with Coolant Holes Carrying TOP-GRIP Utility Inserts



Designation	DCONMS	CWN(1)	CWX(2)	DMIN	CDX(3)	HF	OAL	LDRED	WF	Inlet	Insert
TGIR/L 16C-3	16.00	3.00	3.00	20.50	5.50	7.5	150.00	25.0	12.00	M6	TGMF 3
TGIR/L 20C-3	20.00	3.00	3.00	25.00	5.50	9.0	180.00	32.0	14.20	M6	TGMF 3
TGIR/L 25C-3	25.00	3.00	3.00	32.00	8.00	11.5	200.00	40.0	18.80	R1/8	TGMF 3
TGIR/L 25C-4	25.00	4.00	5.00	32.50	8.50	11.5	200.00	40.0	19.50	R1/8	TGMF 4, TGMF/P 5
TGIR/L 32C-4	32.00	4.00	5.00	42.00	11.00	14.5	220.00	50.0	25.50	R1/8	TGMF 4, TGMF/P 5
TGIR/L 32C-6	32.00	6.00	6.35	57.00 (4)	17.50	14.5	220.00	50.0	29.00	R1/8	TGMF 6
TGIR/L 40C-6	40.00	6.00	6.35	57.00	17.50	18.0	300.00	60.0	35.20	R1/8	TGMF 6

• For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

(4) For Dmin 47 mm, modify insert according to sketch

For inserts, see pages: TGMA (272) • TGMF (full radius) (272) • TGMF/P (272)

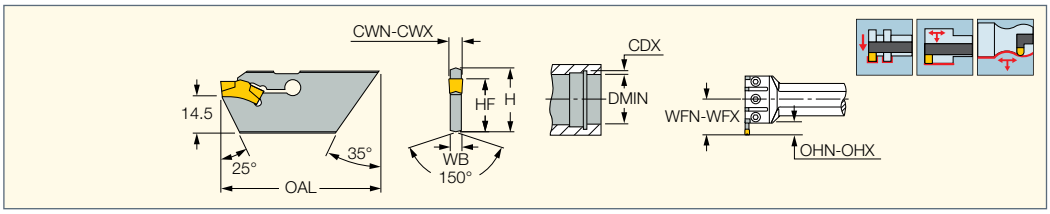
Spare Parts

Designation				
TGIR/L 16C-3	SR 76-1400	T-20/5		PL 16
TGIR/L 20C-3	SR 76-1400	T-20/5		PL 20
TGIR/L 25C-3	SR M5X16 DIN912		HW 4.0	PL 25
TGIR/L 25C-4	SR M5X16 DIN912		HW 4.0	PL 25
TGIR/L 32C-4	SR M6X20 DIN912		HW 5.0	PL 32
TGIR/L 32C-6	SR M6X20 DIN912		HW 5.0	PL 32
TGIR/L 40C-6	SR M6X25 DIN912		HW 5.0	PL 40

TOP-GRIP

TGHN 26-M

Internal Grooving and Turning Blades for GHIC...-70 Bars



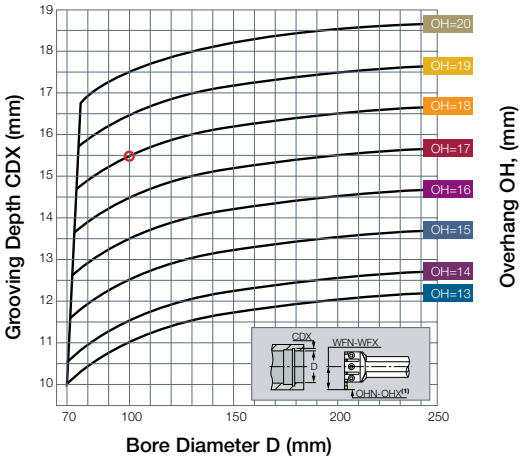
Designation	CWN(1)	CWX(2)	WB	WFN(3)	WFX(4)	OHN(5)	OHX(6)	DMIN	HF	OAL	H
TGHN 26-3M	3.00	3.00	2.40	40.0	41.5	13.5	15.0	70.00	21.4	63.00	26.0
TGHN 26-4M	4.00	5.00	3.20	40.0	41.5	13.5	15.0	70.00	21.4	63.00	26.0
TGHN 26-5M	5.00	5.00	4.00	40.0	46.5	13.5	20.0	70.00	21.4	63.00	26.0

- Grooving depth (CDX) varies in conformance with blade's overhang (WFN-WFX and OHN-OHX) and depends on the bore diameter (D)
- TGHN 26...-M can be modified from external double-sided TGHN blades • For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Adjustable extension
(4) Adjustable extension
(5) Minimum overhang for adjustable extension
(6) Maximum overhang for adjustable extension

For inserts, see pages: TGMA (272) • TGMF (full radius) (272) • TGMF/P (272)
For holders, see pages: C#-GHIC (629) • GHIC-70 (355)

Internal Grooving Capacity for TGHN Blades



Example:

For grooving depth CDX=15.5 mm
and grooving width=5 mm
in bore øD=100, use blade
TGHN 26-5M and adjust overhang to OH=18 mm.



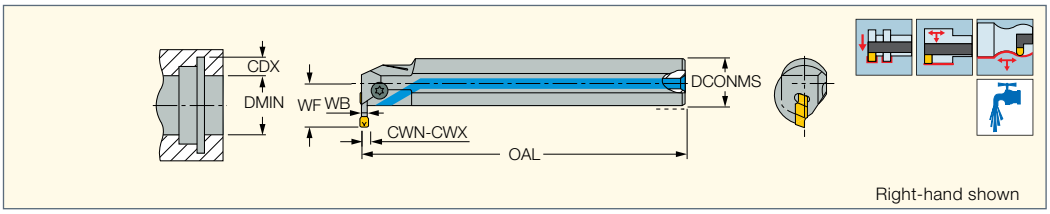
TGHN 26-...M



HELI-GRIP

HELIIR/L

Grooving and Turning Bars with Coolant Holes for HELI-GRIP Utility Inserts



Designation	DCONMS	CWN(1)	CWX(2)	DMIN	CDX(3)	OAL	WF	Inlet	Insert(4)			
HELIIR/L 20C-305	20.00	3.00	3.18	26.00	5.00	160.00	15.20	M6	GRIP 3	SR 76-1400	PL 20	T-20/5
HELIIR/L 25C-305	25.00	3.00	3.18	31.00	5.00	160.00	17.70	R1/8	GRIP 3	SR M5X16 DIN912	PL 25	HW 4.0
HELIIR/L 25C-410	25.00	4.00	4.76	43.00	10.00	160.00	22.70	R1/8	GRIP 4	SR M5X16 DIN912	PL 25	HW 4.0
HELIIR/L 25C-510	25.00	5.00	5.00	43.00	10.00	160.00	22.70	R1/8	GRIP 5	SR M5X16 DIN912	PL 25	HW 4.0
HELIIR/L 25C-610	25.00	6.00	6.35	43.00	10.00	160.00	22.70	R1/8	GRIP 6	SR M5X16 DIN912	PL 25	HW 4.0
HELIIR/L 32C-410	32.00	4.00	4.76	43.00	10.00	200.00	26.20	R1/8	GRIP 4	SR M5X16 DIN912	PL 32	HW 4.0
HELIIR/L 32C-510	32.00	5.00	5.00	43.00	10.00	200.00	26.20	R1/8	GRIP 5	SR M5X16 DIN912	PL 32	HW 4.0
HELIIR/L 32C-610	32.00	6.00	6.35	43.00	10.00	200.00	26.20	R1/8	GRIP 6	SR M5X16 DIN912	PL 32	HW 4.0
HELIIR/L 40C-412	40.00	4.00	4.76	53.00	12.00	250.00	32.20	R1/8	GRIP 4	SR M5X16 DIN912	PL 40	HW 4.0
HELIIR/L 40C-512	40.00	5.00	5.00	53.00	12.00	250.00	32.20	R1/8	GRIP 5	SR M5X16 DIN912	PL 40	HW 4.0
HELIIR/L 40C-612	40.00	6.00	6.35	53.00	12.00	250.00	32.20	R1/8	GRIP 6	SR M5X16 DIN912	PL 40	HW 4.0

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

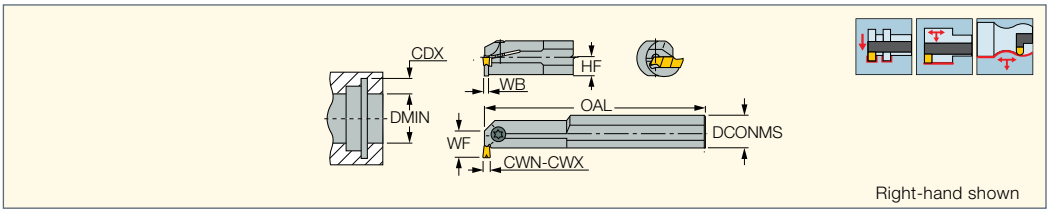
(4) DO-GRIP DGN inserts may be used only for grooving: DGN 4.. (DMIN=51 mm), DGN 5.. (DMIN=57 mm) and DGN 6.. (DMIN=62 mm)

For inserts, see pages: GRIP (269) • GRIP (full radius) (270)

CUT-GRIP

GHIR/L (W=7.0-8.3)

Internal Grooving and Turning Boring Bars



Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX(3)	OAL	WF	HF	WB		
GHIR/L 40-815	7.00	8.30	40.00	64.00	15.00	300.00	36.00	18.0	6.00	SR M8X20DIN912	HW 6.0
GHIR/L 40-820	7.00	8.30	40.00	65.00	20.00	300.00	41.00	18.0	6.00	SR M8X20DIN912	HW 6.0

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width

(2) Maximum cutting width

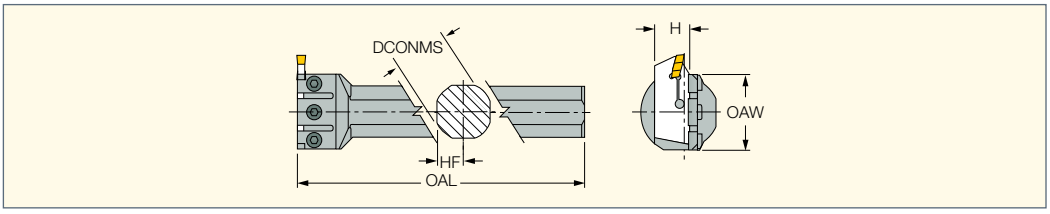
(3) Cutting depth maximum

For inserts, see pages: GDMA (300) • GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GIA-K (long pocket) (299) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIPA/GIDA 8 (full radius) (302)

CUT-GRIP

GHIC-70

Boring Bars for Internal Grooving and Turning Blades, DMIN=70 mm



Designation	H	DCONMS	OAL	HF	OAW		
GHIC 40-70	26.0	40.00	260.00	18.0	53.0	SR M6X16 DIN912	HW 5.0
GHIC 50-70	26.0	50.00	300.00	23.0	53.0	SR M6X16 DIN912	HW 5.0

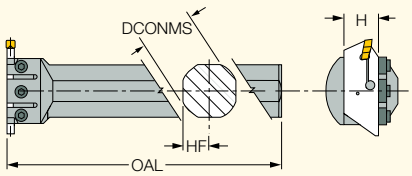
- For both right and left hand applications

For tools, see pages: CGHN 26-M (356) • TGHN 26-M (354)

CUTGRIP

GHIC-85

Boring Bars for Internal Grooving and Turning Blades, DMIN=85 mm



Designation	H	DCONMS	OAL	HF		
GHIC 40-85	32.0	40.00	260.00	18.0	SR M6X16 DIN912	HW 5.0
GHIC 50-85	32.0	50.00	300.00	23.0	SR M6X16 DIN912	HW 5.0

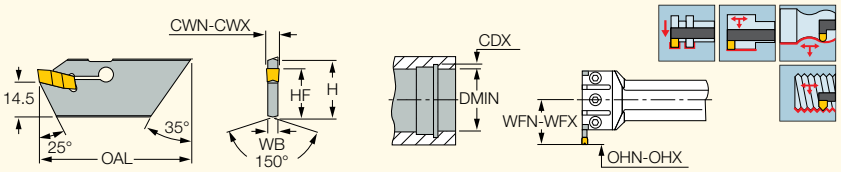
- For both right and left hand applications

For tools, see pages: CGHN 32-DGM (358) • CGHN 32-M (357)

CUTGRIP

CGHN 26-M

Internal Grooving and Turning Blades for GHIC...-70 Bars



Designation	CWN(1)	CWX(2)	WB	DMIN	WFN(3)	OHN(4)	WFX(5)	OHX(6)	HF	OAL	H
CGHN 26-3M	2.80	4.00	2.40	70.00	40.0	13.5	46.5	20.0	21.4	63.00	26.0
CGHN 26-4M	3.60	4.50	3.20	70.00	40.0	13.5	46.5	20.0	21.4	63.00	26.0
CGHN 26-5M	4.40	6.40	4.00	70.00	40.0	13.5	46.5	20.0	21.4	63.00	26.0

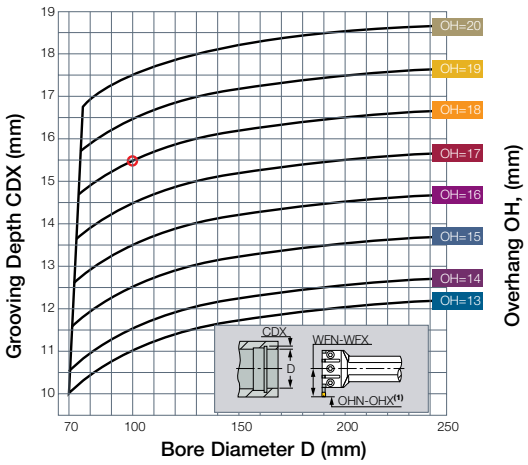
- Grooving depth (CDX) varies in conformance with blade's overhang (WFN-WFX and OHN-OHX) and depends on the bore diameter (D)
- CGHN 26...-M can be modified from external double-sided CGHN blades • When TIP inserts are used the seat needs to be modified to ensure clearance
- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Adjustable extension
(4) Minimum overhang for adjustable extension
(5) Adjustable extension
(6) Maximum overhang for adjustable extension

For inserts, see pages: GIMF (288) • GIMY (288) • GIMN (289) • GIMY (full radius) (290) • GIMY-F (291) • GIF-E (W=4-6) (292)
• GIF-E (W=4-6 full radius) (294) • GIP-E (293) • GIP-E (full radius) (294) • GIP (297) • GIP (full radius) (296) • GIF (297)
• GIF (full radius) (298) • GIA-K (W=3-6) (298) • GITM (299) • GITM (full radius) (299) • GIPY (300) • GIPA (full radius W=3-6) (301)
• GIPA (W=3-6) (300) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523)
• GIMT (287) • GIPM-A46 / GIP-1250 (375) • TIP-MT (647) • TIP-WT (641)

For holders, see pages: C#-GHIC (629) • GHIC-70 (355)

Internal Grooving Capacity for CGHN 26 Blades



Example:

For grooving depth CDX=15.5 mm
and grooving width=5 mm
in bore øD=100, use blade
CGHN 26-5M and adjust overhang to OH=18 mm.

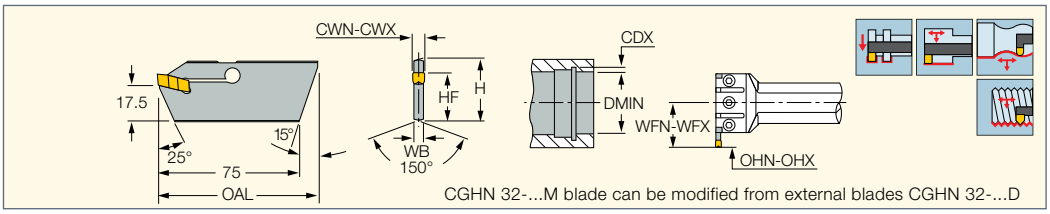


CGHN 26-...M

CUTGRIP

CGHN 32-M

Internal Grooving and Turning Blades



CGHN 32-...M blade can be modified from external blades CGHN 32-...D

Designation	CWN[1]	CWX[2]	WB	WFN[3]	WFX[4]	OHN[5]	OHX[6]	HF	OAL	H	DMIN
CGHN 32-3M	2.80	4.00	2.40	44.0	48.0	15.0	19.0	24.8	82.00	32.0	85.00
CGHN 32-4M	3.60	5.00	3.20	44.0	50.0	15.0	21.0	24.8	82.00	32.0	85.00
CGHN 32-5M	4.40	6.40	4.00	44.0	55.0	15.0	26.0	24.8	82.00	32.0	85.00
CGHN 32-6M	5.60	6.40	5.20	44.0	55.0	15.0	26.0	24.8	82.00	32.0	85.00

• WFN-WFX and OHN-OHX are the blade's extension range • Grooving depth (CDX) varies in conformance with blade's overhang (OHN-OHX) and depends on the bore diameter(D). For grooving capacity, see graph

• When using TIP inserts, the toolholder seat needs to be modified • For user guide, see pages 419-428, 432-436

[1] Minimum cutting width

[2] Maximum cutting width

[3] Adjustable extension

[4] Adjustable extension

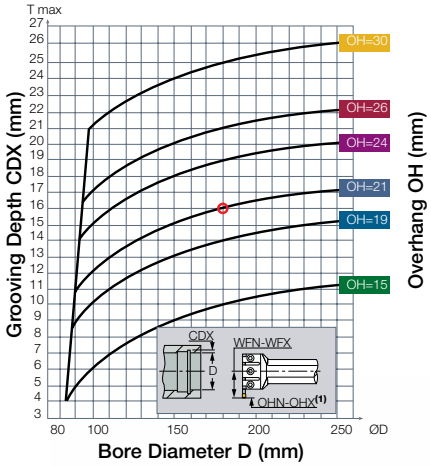
[5] Minimum overhang for adjustable extension

[6] Maximum overhang for adjustable extension

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-WT (641)

For holders, see pages: GHIC-85 (356)

Internal Machining Grooving Capacity for CGHN 32 Blades

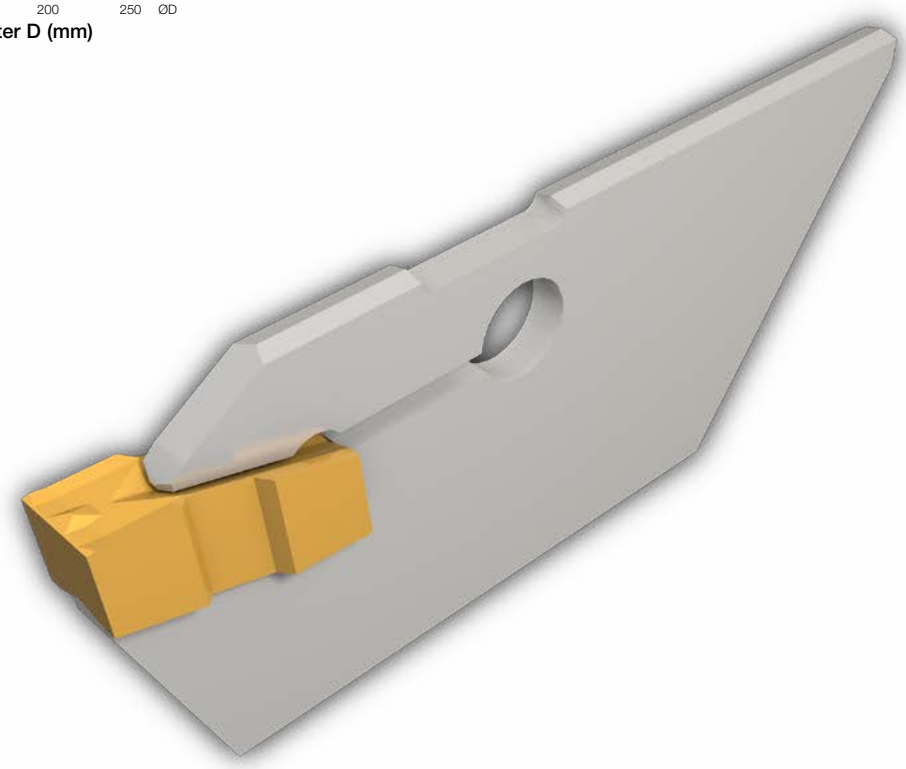


Example:

For grooving depth CDX=16 and grooving width= 4 in bore øD=180, use blade CGHN-32-4M and adjust overhang to OH=21 mm.



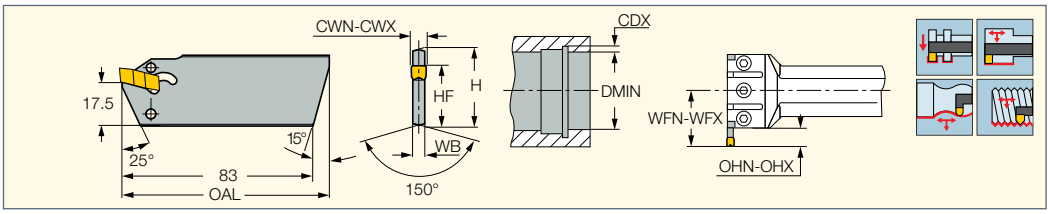
CGHN 32-...M/DGM



CUTGRIP

CGHN 32-DGM

Internal Grooving and Turning Blades for GHIC...-85 Bars (self-clamping)



Designation	CWN(1)	CWX(2)	WB	WFN(3)	WFX(4)	OHN(5)	OHX(6)	HF	OAL	H	DMIN	
CGHN 32-3DGM	2.80	4.00	2.40	53.0	59.0	24.0	30.0	24.8	90.00	32.0	93.00	EDG 44A*
CGHN 32-4DGM	3.50	5.00	3.20	53.0	59.0	24.0	30.0	24.8	90.00	32.0	93.00	EDG 44A*
CGHN 32-5DGM	4.40	6.40	4.00	53.0	59.0	24.0	30.0	24.8	90.00	32.0	93.00	EDG 44A*
CGHN 32-6DGM	5.60	6.40	5.20	53.0	59.0	24.0	30.0	24.8	90.00	32.0	93.00	EDG 44A*

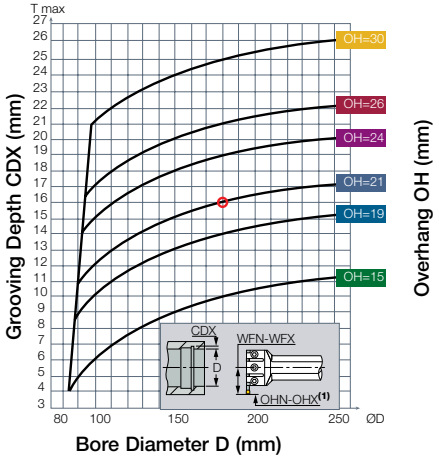
- Grooving depth (CDX) varies in conformance with blade's overhang (WFN-WFX and OHN-OHX) and it depends on the bore diameter (D)
- CGHN 32...DGM can be modified from external double-sided CGHN -DG blades • When TIP inserts are used,the seat needs to be modified to ensure clearance
- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Adjustable extension
(4) Adjustable extension
(5) Minimum overhang for adjustable extension
(6) Maximum overhang for adjustable extension
* Optional, should be ordered separately

For inserts, see pages: GIA-K (W=3-6) (298) • GIF (297) • GIF (full radius) (298) • GIF-E (W=4-6 full radius) (294) • GIF-E (W=4-6) (292) • GIM-C (521) • GIM-J (522) • GIM-J-RA/LA (522) • GIM-UT (524) • GIM-UT-RA/LA (524) • GIM-W (523) • GIM-W-RA/LA (523) • GIMF (288) • GIMN (289) • GIMT (287) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-WT (641)

For holders, see pages: GHIC-85 (356)

Internal Machining Grooving Capacity for CGHN 32 Blades



Example:

For grooving depth CDX=16 and grooving width= 4 in bore øD=180, use blade CGHN-32-4DGM and adjust overhang to OH=21 mm.



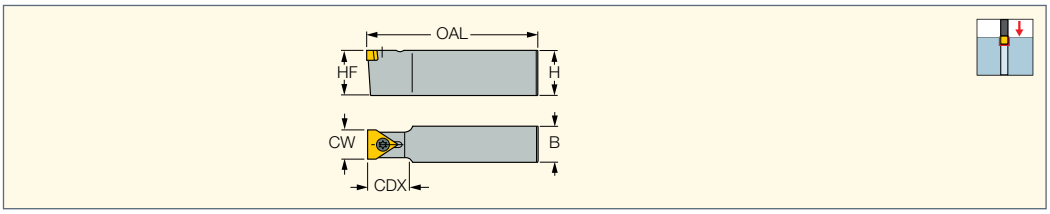
CGHN 32-...M/DGM



V-LOCK

SXCNN

External Toolholders for Specially Tailored Wide Profile Grooving Inserts



Designation	CW	CDX(1)	HF	H	B	OAL	Insert		
SXCNN 1212 K10-06	10.40	17.00	12.0	12.0	12.0	125.00	XNUW 10	SR 76-2067	T-15/5
SXCNN 1616 K10-06	10.40	17.00	16.0	16.0	16.0	125.00	XNUW 10	SR 76-2067	T-15/5
SXCNN 2020 P10-06	10.40	17.00	20.0	20.0	20.0	170.00	XNUW 10	SR 76-2067	T-15/5
SXCNN 2525 P10-06	10.40	17.00	25.0	25.0	25.0	170.00	XNUW 10	SR 76-2067	T-15/5
SXCNN 1212 K13-05	13.00	20.00	12.0	12.0	12.0	125.00	XNUW 13	SR 76-2068	T-20/5
SXCNN 1414 K13-05	13.00	23.00	14.0	14.0	14.0	125.00	XNUW 13	SR 76-2068	T-20/5
SXCNN 1616 K13-05	13.00	23.00	16.0	16.0	16.0	125.00	XNUW 13	SR 14-591	T-20/5
SXCNN 2020 P13-05	13.00	23.00	20.0	20.0	20.0	170.00	XNUW 13	SR 14-591	T-20/5
SXCNN 2525 P13-05	13.00	23.00	25.0	25.0	25.0	170.00	XNUW 13	SR 14-591	T-20/5
SXCNN 1212 K14-03	14.50	-	12.0	12.0	12.0	125.00	XNUW 14	SR 76-2067	T-15/5
SXCNN 1616 K14-03	14.50	17.00	16.0	16.0	16.0	125.00	XNUW 14	SR 76-2067	T-15/5
SXCNN 2020 P14-03	14.50	17.00	20.0	20.0	20.0	170.00	XNUW 14	SR 76-2067	T-15/5
SXCNN 2525 P14-03	14.50	17.00	25.0	25.0	25.0	170.00	XNUW 14	SR 76-2067	T-15/5
SXCNN 1616 K20-05	20.50	-	16.0	16.0	16.0	125.00	XNUW 20	SR 14-591	T-20/5
SXCNN 2020 P20-05	20.50	24.00	20.0	20.0	20.0	170.00	XNUW 20	SR 14-591	T-20/5
SXCNN 2525 P20-05	20.50	24.00	25.0	25.0	25.0	170.00	XNUW 20	SR 14-591	T-20/5
SXCNN 3232 P20-05	20.50	24.00	32.0	32.0	32.0	170.00	XNUW 20	SR 14-591	T-20/5
SXCNN 2525 P24-05	24.50	28.00	25.0	25.0	25.0	170.00	XNUW 24	SR 14-591	T-20/5
SXCNN 3232 P36-10	36.50	-	32.0	32.0	32.0	170.00	XNUW 36	SR 14-519	T-20/5

- Toolholder seat needs to be modified according to insert profile to ensure clearance

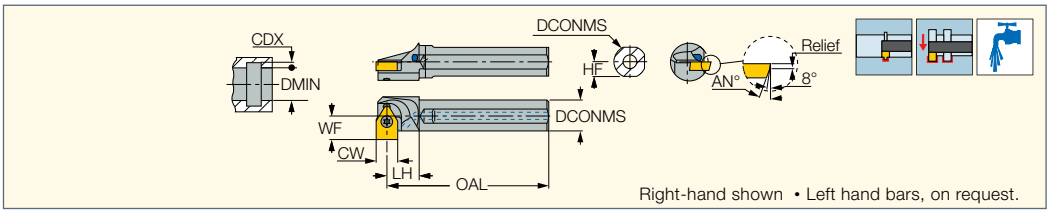
(1) Cutting depth maximum

For inserts, see pages: XNUW (360)

V-LOCK

SXCIR

Internal Toolholders for Specially Tailored Profile Inserts



Designation	CW	DCONMS	OAL	LH	WF	DMIN	CDX(2)	HF	AN(3)	Relief(4)			
SXCIR 16-10 (1)	10.40	16.00	125.00	20.0	11.50	25.00	3.00	7.5	15.0	1.5	SR 76-2067	T-15/5	PL 16
SXCIR 20-10 (1)	10.40	20.00	150.00	25.0	13.00	25.00	3.00	9.0	15.0	1.5	SR 76-2067	T-15/5	PL 20
SXCIR 16-13	13.00	16.00	125.00	20.0	13.00	30.00	4.00	7.5	20.0	2.0	SR 76-2068	T-20/5	PL 16
SXCIR 20-13	13.00	20.00	150.00	25.0	14.50	30.00	4.00	9.0	20.0	2.0	SR 76-2068	T-20/5	PL 20
SXCIR 25-13	13.00	25.00	170.00	30.0	17.00	30.50	4.00	11.5	20.0	2.0	SR 76-2068	T-20/5	PL 25
SXCIR 32-13	13.00	32.00	200.00	35.0	20.00	37.00	4.00	14.5	20.0	2.0	SR 76-2068	T-20/5	PL 32
SXCIR 25-14 (1)	14.50	25.00	170.00	30.0	15.50	30.00	3.00	11.5	15.0	2.0	SR 76-2067	T-15/5	PL 25
SXCIR 20-20	20.50	20.00	150.00	25.0	15.00	40.00	4.00	9.0	15.0	2.5	SR 14-591	T-20/5	PL 20
SXCIR 32-20	20.50	32.00	200.00	35.0	20.50	40.00	4.00	14.5	15.0	2.5	SR 14-591	T-20/5	PL 32
SXCIR 25-24	24.50	25.00	170.00	30.0	17.50	40.00	4.00	11.5	15.0	2.5	SR 14-591	T-20/5	PL 25
SXCIR 32-24	24.50	32.00	200.00	35.0	20.50	40.00	4.00	14.5	15.0	2.5	SR 14-591	T-20/5	PL 32

(1) On request.

(2) Cutting depth maximum

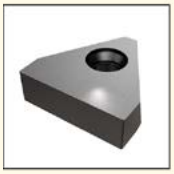
(3) Blank insert reference dimensions

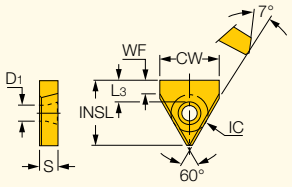
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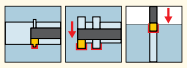
For inserts, see pages: XNUW (360)

V-LOCK

XNUW
Blank Inserts for Wide Profile Grooving





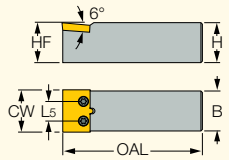


Designation	Dimensions							Tough ↔ Hard			
	CW	WF	L3	IC	S	D1	INSL	IC28	IC08	IC20	IC07
XNUW 1003-06	10.40	6.00	10.50	6.35	3.18	4.53	17.00	●	●		
XNUW 1305-05	13.00	5.00	11.40	12.70	5.35	5.50	20.60	●	●	●	
XNUW 14T3-03	14.50	3.00	3.70	9.52	3.97	4.40	14.00	●	●	●	
XNUW 2006-05	20.50	4.80	5.00	12.70	6.35	5.50	20.30	●	●	●	●
XNUW 2406-05	24.50	5.00	6.00	15.87	6.35	5.50	25.00	●	●	●	●
XNUW 3606-10	36.50	5.40	10.00	19.05	6.35	6.50	34.60	●	●	●	

For tools, see pages: SXCIR (359) • SXCNN (359)

FORMTOOL

FTHN
Square Shank Toolholders for FTB Profile Turning Inserts





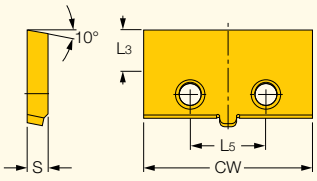
Designation	CW	H	HF	B	OAL	L5		
FTHN 2525M-3010	30.40	25.0	25.0	25.0	150.00	14.00	SR 14-591	T-20/5
FTHN 2525M-3510	35.40	25.0	25.0	25.0	150.00	14.00	SR 14-591	T-20/5
FTHN 3232P-4510	45.40	32.0	32.0	32.0	170.00	18.00	SR 14-591	T-20/5
FTHN 3232P-5107	51.40	32.0	32.0	32.0	170.00	21.90	SR 14-591	T-20/5

For inserts, see pages: FTB (360)

FORMTOOL

FTB
Blank Inserts for Wide Profile Grooving







Designation	Dimensions				IC08
	CW	L3	S	L5	
FTB 3010	30.40	10.00	5.00	14.00	●
FTB 3510	35.40	10.00	5.00	14.00	●
FTB 4010	40.40	10.00	5.00	18.00	●
FTB 4510	45.40	10.00	5.00	18.00	●
FTB 5107	51.40	7.00	5.00	21.90	●

For tools, see pages: FTHN (360)

TOOLS FOR MINIATURE PARTS



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PASSJET 388
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PASSCUT 399

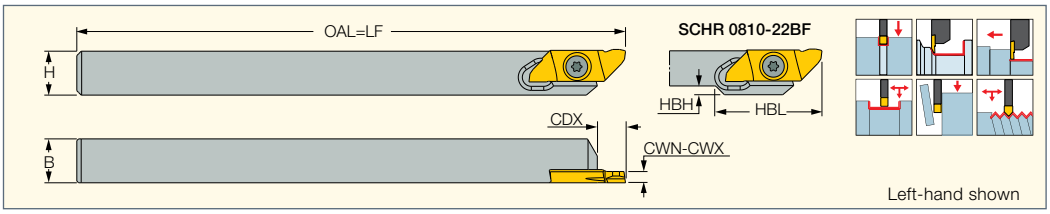
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SWISSCUT INNOVAL LINE

SCHR/L-22BF

Grooving and Turning Tools with Back and Front Clamping for Swiss-Type and Automatic Machines



Designation	H	B	OAL	HBH	HBL	CDX(1)	CWN(2)	CWX(3)		
SCHR/L 0810-22BF	8.0	10.0	125.00	2.0	24.0	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5
SCHR/L 10-22BF	10.0	10.0	125.00	-	-	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5
SCHR/L 12-22BF	12.0	12.0	125.00	-	-	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5
SCHR/L 16-22BF	16.0	16.0	125.00	-	-	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5

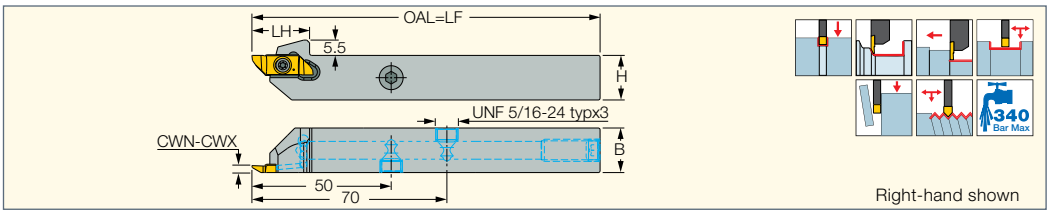
(1) See insert dimensions
(2) Minimum cutting width
(3) Maximum cutting width

For inserts, see pages: SCIR-22-MTR-ISO (658) • SCIR/L-22-AD (367) • SCIR/L-22-AR/AL (367) • SCIR/L-22-BR/BL/BRA/BLA (365) • SCIR/L-22-ER/EL/ERA/ELA (366) • SCIR/L-22-MTR/MTL (646) • SCIR/L-22-N/R/L (368) • SCIR/L-22-NP (369) • SCIR/L-22-NX (369)

SWISSCUT INNOVAL LINE JETCUT

SCHR/L-22BF-JHP

Grooving and Turning Tools with High-Pressure Coolant Channels for Swiss-Type and Automatic Machines



Designation	H	B	OAL	LH	CWN(1)	CWX(2)	CDX(3)				
SCHR/L 10-22BF-JHP	10.0	10.0	125.00	20.7	0.50	2.50	8.00	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 12-22BF-JHP	12.0	12.0	125.00	20.7	0.50	2.50	8.00	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 16-22BF-JHP	16.0	16.0	125.00	20.7	0.50	2.50	8.00	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"

• Note: Coolant ports of the left-hand tools are in the same position as those of the right-hand tools
(1) Minimum cutting width
(2) Maximum cutting width
(3) See insert dimensions

For inserts, see pages: SCIR-22-MTR-ISO (658) • SCIR/L-22-AD (367) • SCIR/L-22-AR/AL (367) • SCIR/L-22-BR/BL/BRA/BLA (365) • SCIR/L-22-ER/EL/ERA/ELA (366) • SCIR/L-22-MTR/MTL (646) • SCIR/L-22-N/R/L (368) • SCIR/L-22-NP (369) • SCIR/L-22-NX (369)

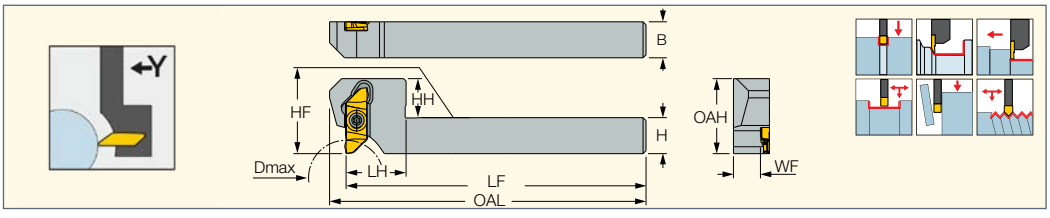
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
SCHR/L 10-22BF-JHP	1-3	2-4	3-5
SCHR/L 12-22BF-JHP	3-5	4-6	5-7
SCHR/L 16-22BF-JHP	6-8	7-9	8-10

NEOYSWISS AXIS
SWISSCUT

Y-SCHR-22BF

Y Axis Tools for Swiss Type Machines - Back or Front Clamped Inserts for Grooving and Turning Operations



Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max		
Y-SCHR 12-22BF	12.0	12.0	13.0	20.0	12.0	9.00	25.00	100.00	105.50	25.0 (1)	SR M4X0.7-19425	T-8/5
Y-SCHR 16-22BF	16.0	16.0	9.0	20.0	16.0	13.00	25.00	125.00	130.50	38.0 (1)	SR M4X0.7-19425	T-8/5

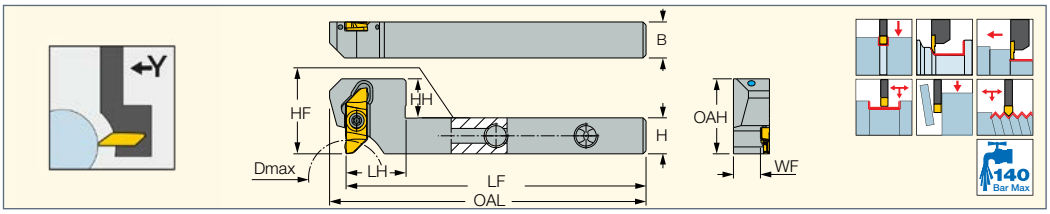
(1) for grooving

For inserts, see pages: SCIR-22-MTR-ISO (658) • SCIR/L-22-AD (367) • SCIR/L-22-AR/AL (367) • SCIR/L-22-BR/BL/BRA/BLA (365) • SCIR/L-22-ER/EL/ERA/ELA (366) • SCIR/L-22-MTR/MTL (646) • SCIR/L-22-N/R/L (368) • SCIR/L-22-NP (369) • SCIR/L-22-NX (369)

NEOSWISS Y AXIS
SWISSCUT

Y-SCHR-22BF-JHP

Y Axis JETCUT Tools for Swiss Type Machines - Back or Front Clamped Inserts for Grooving and Turning Operations



Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max
Y-SCHR 12-22BF-JHP	12.0	12.0	13.0	20.0	12.0	9.00	25.00	100.00	105.50	25.0 (1)
Y-SCHR 16-22BF-JHP	16.0	16.0	9.0	20.0	16.0	13.00	25.00	125.00	130.50	38.0 (1)

(1) for grooving

For inserts, see pages: SCIR-22-MTR-ISO (658) • SCIR/L-22-AD (367) • SCIR/L-22-AR/AL (367) • SCIR/L-22-BR/BL/BRA/BLA (365) • SCIR/L-22-ER/EL/ERA/ELA (366) • SCIR/L-22-MTR/MTL (646) • SCIR/L-22-N/R/L (368) • SCIR/L-22-NP (369) • SCIR/L-22-NX (369)

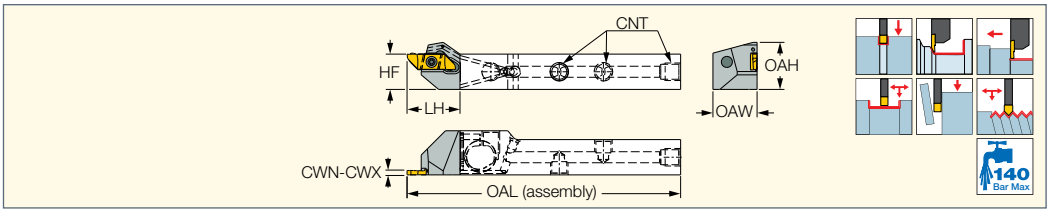
Spare Parts

Designation		
Y-SCHR-22BF-JHP	SR M4X0.7-19425	HW 5/32"

NEOSWISS INDEXABLE HEADS
SWISSCUT

NQCH-SCHR/L-BF-JHP

Screw Lock JETCUT Modular Heads for Swiss Type Machines - Grooving and Turning, Back or Front Clamped Inserts



Designation	HF	OAW	LH	OAH	OAL	CWN(1)	CWX(2)	Insert		
NQCH12-SCHR/L-22BF-JHP	12.0	20.00	24.0	17.30	124.00	0.50	2.50	SCIR/L-22	SR M4X0.7-19425	T-8/5
NQCH16-SCHR/L-22BF-JHP	16.0	20.00	24.0	21.10	124.00	0.50	2.50	SCIR/L-22	SR M4X0.7-19425	T-8/5

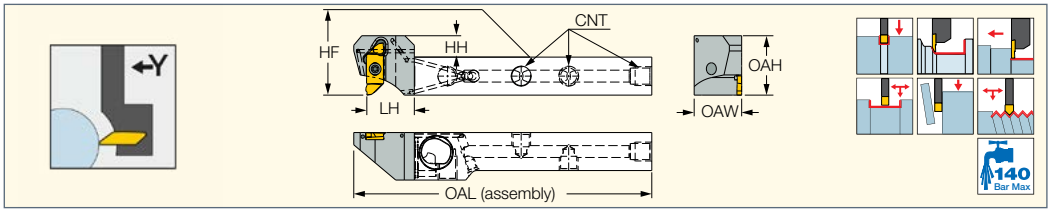
(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: SCIR-22-MTR-ISO (658) • SCIR/L-22-AD (367) • SCIR/L-22-AR/AL (367) • SCIR/L-22-BR/BL/BRA/BLA (365) • SCIR/L-22-ER/EL/ERA/ELA (366) • SCIR/L-22-MTR/MTL (646) • SCIR/L-22-N/R/L (368) • SCIR/L-22-NP (369) • SCIR/L-22-NX (369)
For holders, see pages: NQCH-JHP (61)

NEOSWISS INDEXABLE HEADS
SWISSCUT

NQCH-Y-SCHR-BF-JHP

Y-Axis Screw Lock JETCUT Modular Heads for Swiss Type Machines - Grooving and Turning, Back or Front Clamped Inserts



Designation	HF	OAH	LH	OAW	HH	OAL	CWN(1)	CWX(2)	Insert		
NQCH12-Y-SCHR-22BF-JHP	12.0	25.00	20.0	20.00	13.0	125.50	0.50	2.50	SCIR/L-22-N/R/L	SR M4X0.7-19425	T-8/5
NQCH16-Y-SCHR-22BF-JHP	16.0	25.00	20.0	20.00	9.0	125.50	0.50	2.50	SCIR/L-22-N/R/L	SR M4X0.7-19425	T-8/5

(1) Minimum cutting width
(2) Maximum cutting width

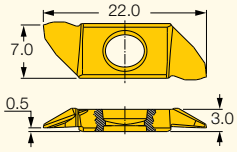
For inserts, see pages: SCIR-22-MTR-ISO (658) • SCIR/L-22-AD (367) • SCIR/L-22-AR/AL (367) • SCIR/L-22-BR/BL/BRA/BLA (365) • SCIR/L-22-ER/EL/ERA/ELA (366) • SCIR/L-22-MTR/MTL (646) • SCIR/L-22-N/R/L (368) • SCIR/L-22-NP (369) • SCIR/L-22-NX (369)
For holders, see pages: NQCH-JHP (61)

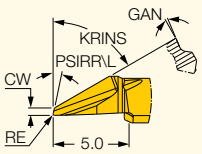
SWISSCUT INNOVAL LINE

SCIR/L-22-BR/BL/BRA/BLA

Back Turning Inserts







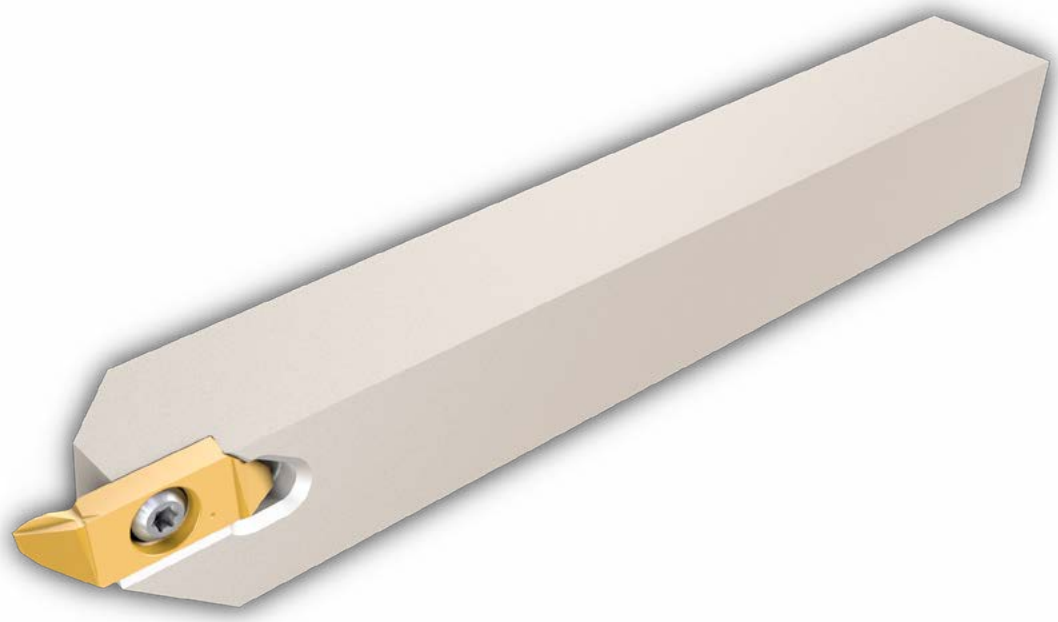


Left-hand shown

Designation	Dimensions CW	GAN	RE	PSIRL	PSIRR	KRINS(1)	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 22-BL00-05K7	0.50	7.0	0.00	12.0	-	60.0	●			0.05-3.00	0.01-0.15
SCIL 22-BL10-05K7	0.50	7.0	0.10	12.0	-	60.0	●			0.12-3.00	0.01-0.15
SCIR 22-BR00-05K7	0.50	7.0	0.00	-	12.0	60.0	●			0.05-3.00	0.01-0.15
SCIR 22-BR10-05K7	0.50	7.0	0.10	-	12.0	60.0	●			0.12-3.00	0.01-0.15
SCIL 22-BLA00-05K8	0.50	8.0	0.00	20.0	-	60.0		●	●	0.05-3.00	0.01-0.15
SCIL 22-BLA08-05K8	0.50	8.0	0.08	20.0	-	60.0		●	●	0.10-3.00	0.01-0.15
SCIR 22-BRA00-05K8	0.50	8.0	0.00	-	20.0	60.0		●	●	0.05-3.00	0.01-0.15
SCIR 22-BRA08-05K8	0.50	8.0	0.08	-	20.0	60.0		●	●	0.10-3.00	0.01-0.15
SCIR 22-BR10-05K15	0.50	15.0	0.10	-	12.0	60.0	●			0.12-3.00	0.01-0.15
SCIL 22-BL08-10K7	1.00	7.0	0.08	12.0	-	60.0	●			0.10-3.00	0.01-0.15
SCIR 22-BR08-10K7	1.00	7.0	0.08	-	12.0	60.0	●			0.10-3.00	0.01-0.15
SCIR 22-BR08-10K15	1.00	15.0	0.08	-	12.0	60.0	●			0.10-3.00	0.01-0.15

(1) Edge angle related to the wiper

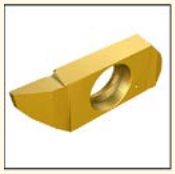
For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

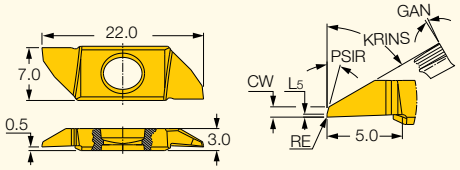


SWISSCUT INNOVAL LINE

SCIR/L-22-ER/EL/ERA/ELA

Back Turning Inserts for
Short Chipping Materials





Left-hand shown

Designation	Dimensions RE	CW	L5	GAN	KRINS(1)	PSIRL	PSIRR	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 22-EL00-03K0	0.00	0.30	0.20	0.0	60.0	6.0	-	●			0.05-2.50	0.01-0.15
SCIR 22-ER00-03K0	0.00	0.30	0.20	0.0	60.0	6.0	-	●			0.05-2.50	0.01-0.15
SCIL 22-EL00-07K0	0.00	0.70	0.20	0.0	60.0	-	15.0	●			0.05-2.50	0.01-0.15
SCIR 22-EL00-07K0	0.00	0.70	0.20	0.0	60.0	-	15.0	●			0.05-2.50	0.01-0.15
SCIR 22-ER00-07K0	0.00	0.70	0.20	0.0	60.0	15.0	-	●			0.05-2.50	0.01-0.15
SCIL 22-EL00-07K10	0.00	0.70	0.20	10.0	60.0	-	3.0	●			0.05-2.50	0.01-0.15
SCIR 22-ER00-07K10	0.00	0.70	0.20	10.0	60.0	3.0	-	●			0.05-2.50	0.01-0.15
SCIL 22-ELA00-08K0	0.00	0.80	0.30	0.0	70.0	-	3.0		●	●	0.05-2.50	0.01-0.15
SCIR 22-ERA00-08K0	0.00	0.80	0.30	0.0	70.0	3.0	-		●	●	0.05-2.50	0.01-0.15

(1) Edge angle related to the wiper

For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

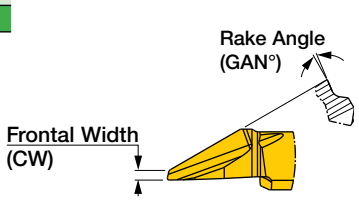
Rake Angle (GAN°) Selection Guide

	Brass	Ledloy	Steel	St. Steel	Titanium	Aluminum
0°						
8°						
15°						

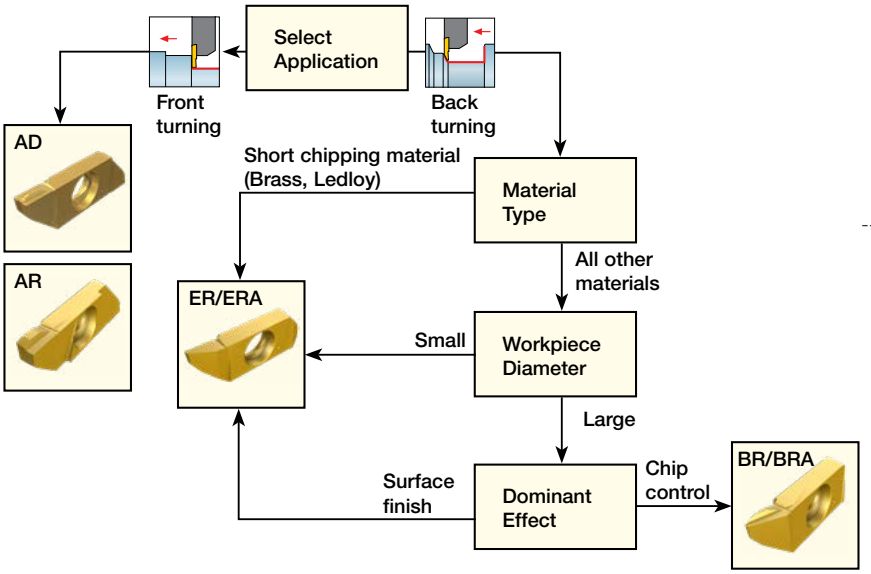
For brittle workpieces and small diameters always prefer GAN=0°

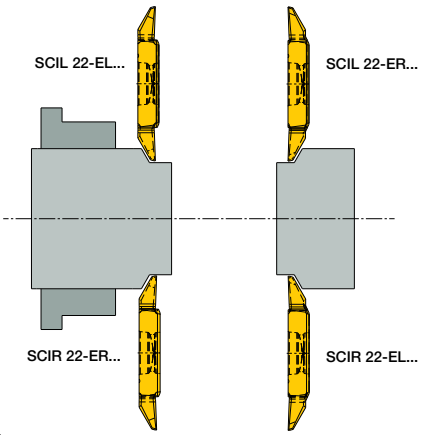
Frontal Width Selection Guide

- Small diameters and brittle workpiece: small CW (less radial force)
- Large diameters: larger CW (stronger cutting edge)



Turning Insert Selection Process

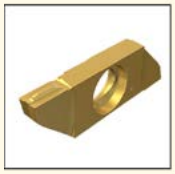


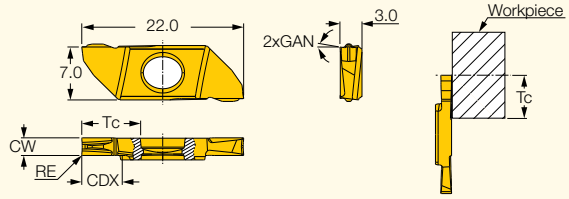


SWISSCUT INNOVAL LINE

SCIR/L-22-AD

Turning Inserts with a Frontal Relief Angle





Designation	Dimensions CW	RE	Tc	GAN	CDX(1)	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 22-AD08-24K8	2.40	0.08	8.0	8.0	5.50	●	●	●	0.12-3.80	0.01-0.15	0.01-0.06

(1) Cutting depth maximum

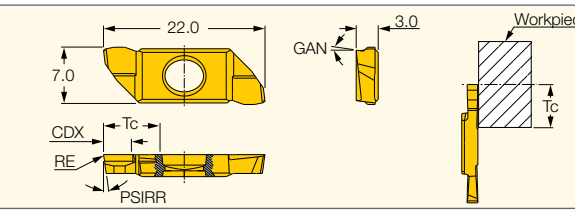
For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

SWISSCUT INNOVAL LINE

SCIR/L-22-AR/AL

Turning Inserts with a Frontal Relief Angle





Designation	Dimensions RE	Tc	PSIRL	PSIRR	GAN	CDX(1)	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 22-AL00-25K16	0.00	8.0	8.0	-	16.0	3.80	●	●	●	0.05-3.80	0.01-0.15
SCIR 22-AR00-25K16	0.00	8.0	-	8.0	16.0	3.80	●	●	●	0.05-3.80	0.01-0.15
SCIL 22-AL10-25K8	0.10	8.0	12.0	-	8.0	3.80	●	●	●	0.12-3.80	0.01-0.15
SCIR 22-AR10-25K8	0.10	8.0	-	12.0	8.0	3.80	●	●	●	0.12-3.80	0.01-0.15

(1) Cutting depth maximum

For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

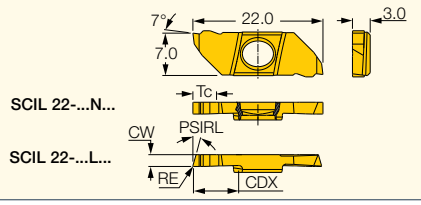


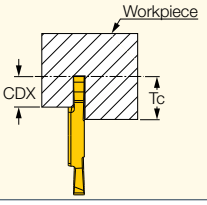
SWISSCUT INNOVAL LINE

SCIR/L-22-N/R/L

Grooving and Parting Inserts



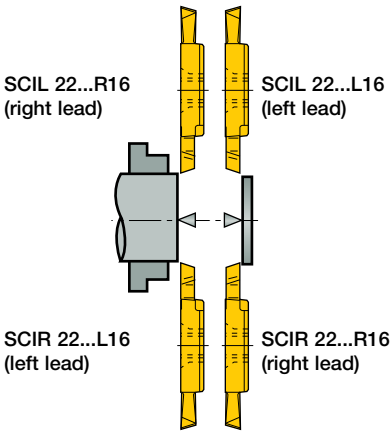


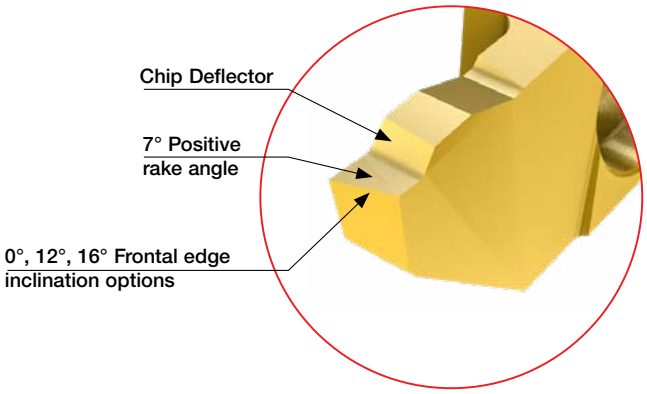


Designation	Dimensions								Tough ↔ Hard			Recommended Machining Data
	CW	CWTOL(1)	PSIRL	PSIRR	RE	RETOL(2)	CDX(3)	Tc	IC1008	IC07	IC1007	f groove (mm/rev)
SCIL 22-050N-00	0.50	0.02	0.0	0.0	0.00	0.030	1.80	5.5	●	●	●	0.02-0.04
SCIR 22-050N-00	0.50	0.02	0.0	0.0	0.00	0.030	1.80	5.5	●	●	●	0.02-0.04
SCIL 22-100N-00	1.00	0.02	0.0	0.0	0.00	0.030	4.00	5.5	●	●	●	0.03-0.05
SCIR 22-100N-00	1.00	0.02	0.0	0.0	0.00	0.030	4.00	5.5	●	●	●	0.03-0.05
SCIL 22-150N-00	1.50	0.02	0.0	0.0	0.00	0.030	5.50	8.0	●		●	0.03-0.07
SCIR 22-150N-00	1.50	0.02	0.0	0.0	0.00	0.030	5.50	8.0	●	●	●	0.03-0.07
SCIL 22-200N-10	2.00	0.02	0.0	0.0	0.10	0.030	7.00	8.0	●	●	●	0.03-0.09
SCIR 22-200N-10	2.00	0.02	0.0	0.0	0.10	0.030	7.00	8.0	●	●	●	0.03-0.09
SCIL 22-050L12-00	0.50	0.02	12.0	-	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIL 22-050R12-00	0.50	0.02	-	12.0	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIR 22-050L12-00	0.50	0.02	12.0	-	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIR 22-050R12-00	0.50	0.02	-	12.0	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIL 22-100L16-00	1.00	0.02	16.0	-	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIL 22-100R16-00	1.00	0.02	-	16.0	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIR 22-100L16-00	1.00	0.02	16.0	-	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIR 22-100R16-00	1.00	0.02	-	16.0	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIL 22-150L16-00	1.50	0.02	16.0	-	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIL 22-150R16-00	1.50	0.02	-	16.0	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIR 22-150L16-00	1.50	0.02	16.0	-	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIR 22-150R16-00	1.50	0.02	-	16.0	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIL 22-200L16-00	2.00	0.02	16.0	-	0.00	0.030	7.00	8.0	●			0.03-0.07
SCIL 22-200R16-00	2.00	0.02	-	16.0	0.00	0.030	7.00	8.0	●			0.03-0.07
SCIR 22-200L16-00	2.00	0.02	16.0	-	0.00	0.030	7.00	8.0	●			0.03-0.07
SCIR 22-200R16-00	2.00	0.02	-	16.0	0.00	0.030	7.00	8.0	●			0.03-0.07

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

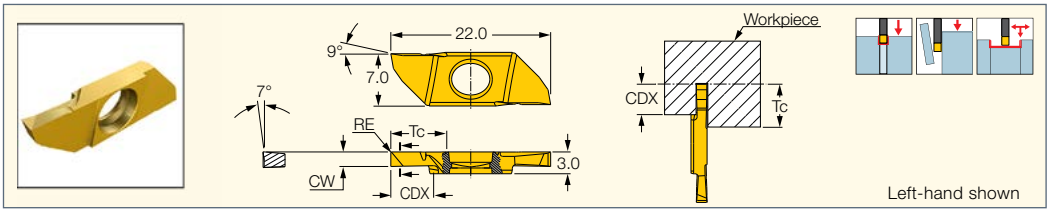




SWISSCUT INNOVAL LINE

SCIR/L-22-NP

Grooving, Turning and Parting Inserts



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	Tc	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 22-080NP00	0.80	0.00	0.02	0.020	2.50	8.0	●	●	●	0.05-0.70	0.02-0.06	0.02-0.05
SCIR/L 22-100NP08	1.00	0.08	0.02	0.020	3.00	8.0	●	●	●	0.05-0.80	0.02-0.08	0.02-0.06
SCIR/L 22-150NP05	1.50	0.05	0.02	0.020	6.00	8.0	●	●	●	0.05-1.80	0.02-0.11	0.02-0.07
SCIR/L 22-200NP05	2.00	0.05	0.02	0.020	6.00	8.0	●	●	●	0.05-2.50	0.03-0.15	0.03-0.09
SCIR/L 22-250NP05	2.50	0.05	0.02	0.020	6.00	8.0	●	●	●	0.05-3.10	0.03-0.19	0.03-0.11

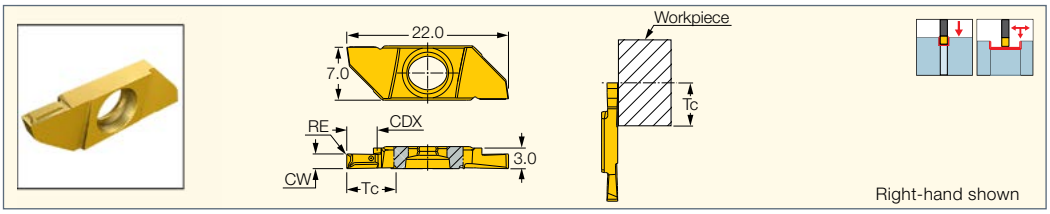
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

SWISSCUT INNOVAL LINE

SCIR/L-22-NX

Grooving and Turning Inserts with a Chipformer



Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX(3)	Tc(4)	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 22-150NX080	1.50	0.02	0.08	0.020	4.30	6.8	●	0.05-1.80	0.02-0.11	0.02-0.07
SCIR/L 22-200NX080	2.00	0.02	0.08	0.020	4.30	6.8	●	0.05-2.50	0.03-0.15	0.03-0.09
SCIR/L 22-250NX080	2.50	0.02	0.08	0.020	4.30	6.8	●	0.05-3.10	0.03-0.19	0.03-0.11

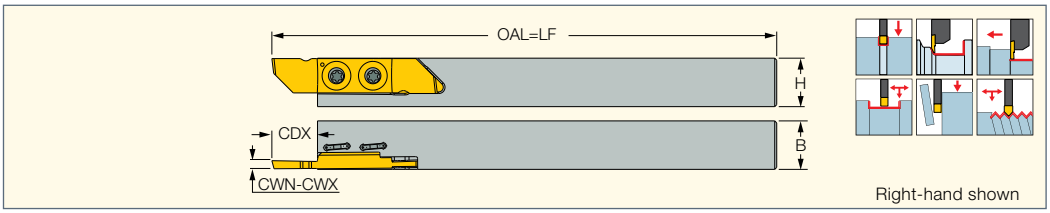
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum
(4) Maximum 32 mm diameter for face turning

For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

SWISSCUT EXTRA LONG

SCHR/L-41BF

Grooving and Turning Tools with Back and Front Clamping for Swiss-Type and Automatic Machines



Designation	CWX(1)	CDX(2)	B	OAL					
SCHR/L 12-41BF	3.00	11.00	12.0	125.00	SR M4.5X0.75-L7.9	BLD T15/S7	SR M2X0.4-L3.5	BLD T10/S7	SW6-SD
SCHR/L 16-41BF	3.00	11.00	16.0	125.00	SR M4.5X0.75-L7.9	BLD T15/S7	SR M2X0.4-L3.5	BLD T10/S7	SW6-SD

(1) Maximum cutting width
(2) See insert data

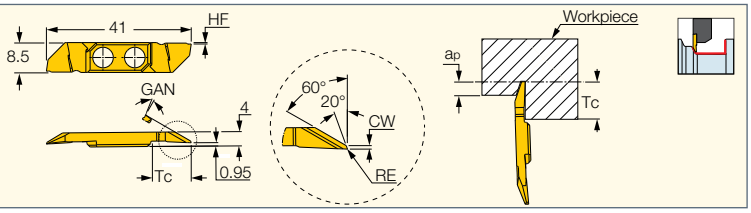
For inserts, see pages: SCIR/L-41-AD (370) • SCIR/L-41-AR/AL (371) • SCIR/L-41-BRA/BLA (370) • SCIR/L-41-ERA/ELA (370) • SCIR/L-41-MTR/MTL (647) • SCIR/L-41-N/R/L (371) • SCIR/L-41-NP (372)

SWISSCUT EXTRA LONG

SCIR/L-41-BRA/BLA

Back Turning Inserts





Designation	Dimensions CW	RE	HF(1)	Tc	GAN	IC1008	Recommended Machining Data ap (mm)	f turn (mm/rev)
SCIL 41-BLA08-05K8	0.50	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15
SCIR 41-BRA08-05K8	0.50	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15
SCIL 41-BLA08-10K8	1.00	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15
SCIR 41-BRA08-10K8	1.00	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15

(1) Cutting edge below center

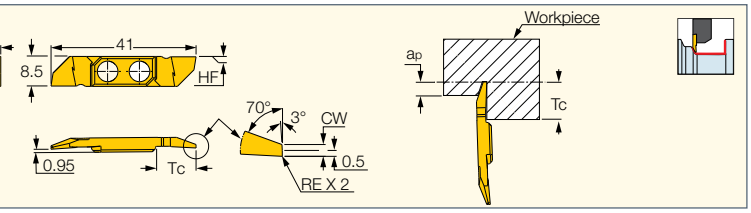
For tools, see pages: SCHR/L-41BF (369)

SWISSCUT EXTRA LONG

SCIR/L-41-ERA/ELA

Back Turning Inserts for Short Chipping Materials





Designation	Dimensions CW	RE	HF(1)	Tc	IC1008	Recommended Machining Data ap (mm)	f turn (mm/rev)
SCIL 41-ELA00-10K0	1.00	0.00	0.2	11.0	●	0.05-5.00	0.02-0.15
SCIR 41-ERA00-10K0	1.00	0.00	0.2	11.0	●	0.05-5.00	0.02-0.15
SCIL 41-ELA08-10K0	1.00	0.08	0.2	11.0	●	0.10-5.00	0.02-0.15
SCIR 41-ERA08-10K0	1.00	0.08	0.2	11.0	●	0.10-5.00	0.02-0.15

(1) Cutting edge below center

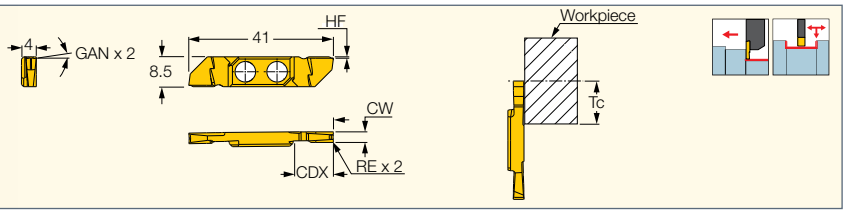
For tools, see pages: SCHR/L-41BF (369)

SWISSCUT EXTRA LONG

SCIR/L-41-AD

Turning Inserts





Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	HF(3)	CDX	Tc	GAN	IC1008	Recommended Machining Data ap (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 41-AD08-30K8	3.00	0.020	0.08	0.020	0.5	11.00	11.0	8.0	●	0.12-4.00	0.02-0.15	0.01-0.06

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting edge below center

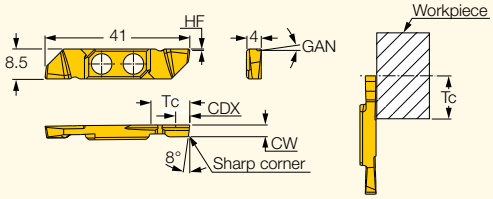
For tools, see pages: SCHR/L-41BF (369)

SWISSCUT EXTRA LONG

SCIR/L-41-AR/AL

Turning Inserts with a Frontal Relief Angle





Designation	Dimensions CW	HF[1]	CDX	Tc	GAN	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 41-AL00-33K16	3.30	0.5	4.00	11.0	16.0	●	0.05-4.00	0.02-0.15
SCIR 41-AR00-33K16	3.30	0.5	4.00	11.0	16.0	●	0.05-4.00	0.02-0.15

[1] Cutting edge below center

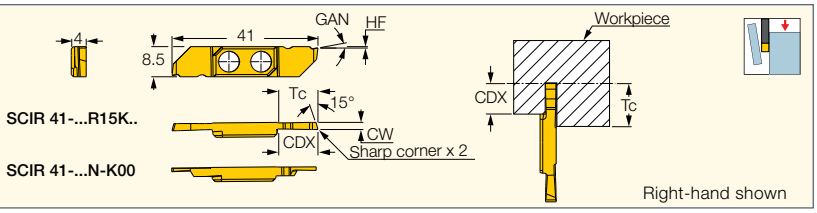
For tools, see pages: SCHR/L-41BF (369)

SWISSCUT EXTRA LONG

SCIR/L-41-N/R/L

Grooving and Parting Inserts





Designation	Dimensions CW	CWTOL[1]	GAN	HF[2]	CDX	Tc	IC1008	Recommended Machining Data f groove (mm/rev)
SCIL 41-100L15K00	1.00	0.020	0.0	0.2	6.00	11.0	●	0.02-0.04
SCIR/L 41-100N-K00	1.00	0.020	0.0	0.1	6.15	11.0	●	0.03-0.05
SCIR 41-100R15K00	1.00	0.020	0.0	0.2	6.00	11.0	●	0.02-0.04
SCIL 41-150L15K00	1.50	0.020	0.0	0.2	8.00	11.0	●	0.03-0.06
SCIR/L 41-150N-K00	1.50	0.020	0.0	0.1	8.15	11.0	●	0.03-0.07
SCIR 41-150R15K00	1.50	0.020	0.0	0.2	8.00	11.0	●	0.03-0.06
SCIL 41-150L15K7	1.50	0.020	7.0	0.5	8.00	11.0	●	0.03-0.06
SCIR 41-150R15K7	1.50	0.020	7.0	0.5	8.00	11.0	●	0.03-0.06
SCIL 41-200L15K00	2.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIR/L 41-200N-K00	2.00	0.020	0.0	0.1	11.00	11.0	●	0.03-0.09
SCIR 41-200R15K00	2.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIL 41-200L15K7	2.00	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIR 41-200R15K7	2.00	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIL 41-250L15K00	2.50	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIR/L 41-250N-K00	2.50	0.020	0.0	0.1	11.00	11.0	●	0.03-0.09
SCIR 41-250R15K00	2.50	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIL 41-250L15K7	2.50	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIR 41-250R15K7	2.50	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIL 41-300L15K00	3.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.08
SCIR/L 41-300N-K00	3.00	0.020	0.0	0.1	11.00	11.0	●	0.03-0.10
SCIR 41-300R15K00	3.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.08

[1] Cutting width tolerance (+/-)

[2] Cutting edge below center

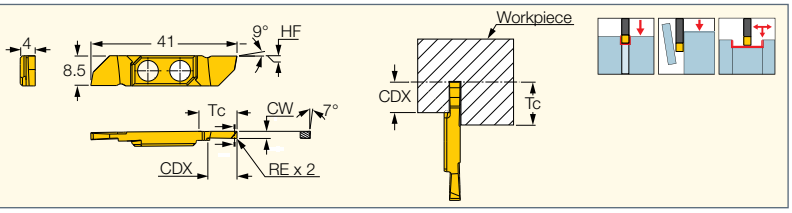
For tools, see pages: SCHR/L-41BF (369)

SWISSCUT EXTRA LONG

SCIR/L-41-NP

Grooving, Turning and Parting Inserts





Designation	Dimensions							IC1008	Recommended Machining Data		
	CW	CWTOL(1)	RE	RETOL(2)	HF(3)	CDX	Tc		a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 41-150NP08	1.50	0.020	0.08	0.020	0.2	8.00	11.0	●	0.10-1.80	0.02-0.10	0.02-0.07
SCIR/L 41-200NP08	2.00	0.020	0.08	0.020	0.2	8.00	11.0	●	0.10-2.50	0.02-0.15	0.02-0.09
SCIR/L 41-250NP08	2.50	0.020	0.08	0.020	0.2	10.00	11.0	●	0.10-3.00	0.02-0.17	0.02-0.11
SCIR/L 41-300NP08	3.00	0.020	0.08	0.020	0.2	10.00	11.0	●	0.10-4.00	0.02-0.20	0.02-0.12

- When turning to the opposite side of chipformer, maximum D.O.C. is 0.5 mm

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

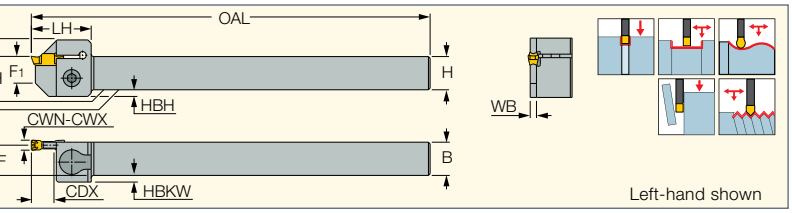
(3) Cutting edge below center

For tools, see pages: SCHR/L-41BF (369)

CUTGRIP

GEHSR/L-SL

External Machining Tools with Side Clamping Mechanism for Swiss-Type and Automatic Machines



Designation	H	CWN(1)	CWX(2)	CDX(3)	B	OAL	WF	HBH	HBKW	WB	LH	F1	OAH
GEHSR/L 10-2-SL	10.0	2.20	3.20	6.80	10.0	120.00	9.10	2.0	2.00	1.80	18.0	8.0	15.0
GEHSR/L 12-2-SL	12.0	2.20	3.20	6.80	12.0	120.00	11.10	-	-	1.80	18.0	8.0	17.0
GEHSR/L 16-2-SL	16.0	2.20	3.20	6.80	16.0	120.00	15.10	-	-	1.80	18.0	8.0	21.0

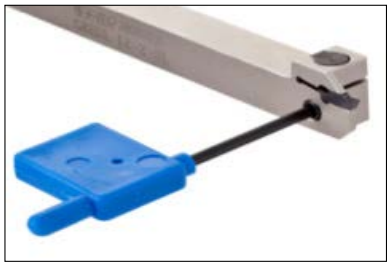
- For user guide, see pages 419-428, 432-436

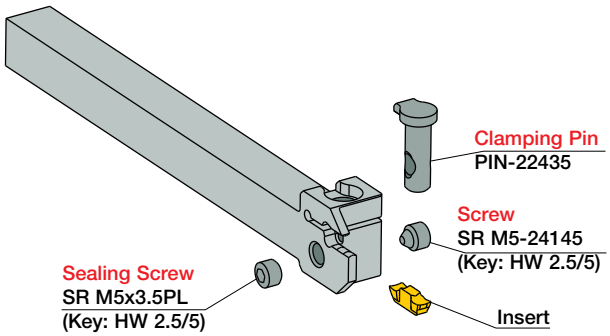
(1) Minimum cutting width

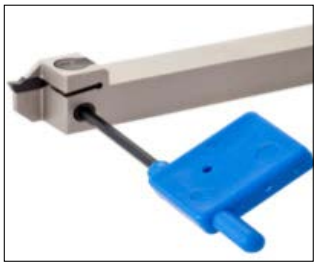
(2) Maximum cutting width

(3) Cutting depth maximum

For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI-MT (648) • GEPI-WT (642)





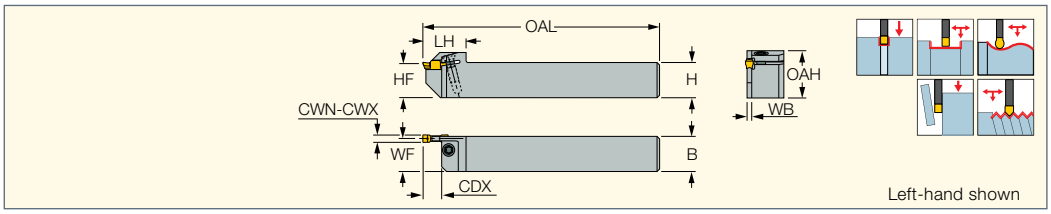


Spare Parts

Designation				
GEHSR/L-SL	PIN-22435 INJ	SR M5-24145	HW 2.5/5	SR M5X3.5PL

CUTGRIP

GEHSR
External Machining Holders for Swiss-Type and Automatic Machines



Designation	H	CWN(1)	CWX(2)	CDX(3)	HF	B	OAL	WF	WB	LH	OAH		
GEHSR 20-2	20.0	2.20	3.20	6.80	20.0	20.0	120.00	19.10	1.80	20.0	24.0	SR 16-236 P	T-15/3

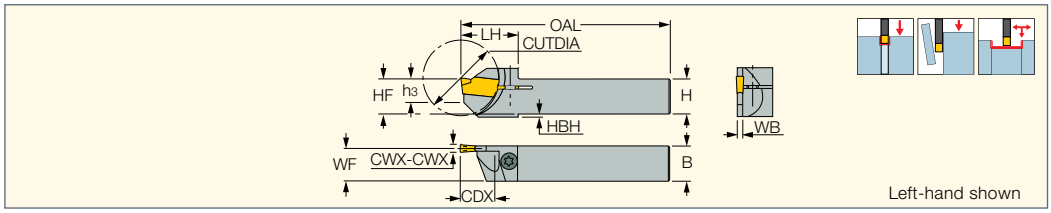
- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI-MT (648) • GEPI-WT (642)

CUTGRIP

PHSR/L
External Machining Holders for Swiss-Type and Automatic Machines



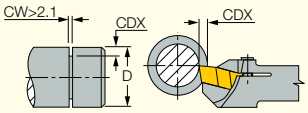
Designation	CWN(1)	CWX(2)	CUTDIA(3)	H	HF	B	OAL	WF	h3	LH	HBH	WB		
PHSR/L 10-2.4	2.40	3.18	20.0	10.0	10.0	10.0	150.00	9.00	8.0	18.0	2.0	1.90	SR 16-236 P	T-15/3
PHSR/L 12-2.4	2.40	3.18	25.0	12.0	12.0	12.0	150.00	11.10	7.0	20.0	-	1.90	SR 16-236 P	T-15/3
PHSR/L 16-2.4	2.40	3.18	32.0	16.0	16.0	16.0	150.00	15.10	8.0	24.1	-	1.90	SR 16-236 P	T-15/3

- CDX=Max depth capacity, see chart below
- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) Limited by part diameter

For inserts, see pages: GDMW 2.4 (306)

Grooving Depth
Grooving Depth CDX per Diameter for Width > 2.1 mm

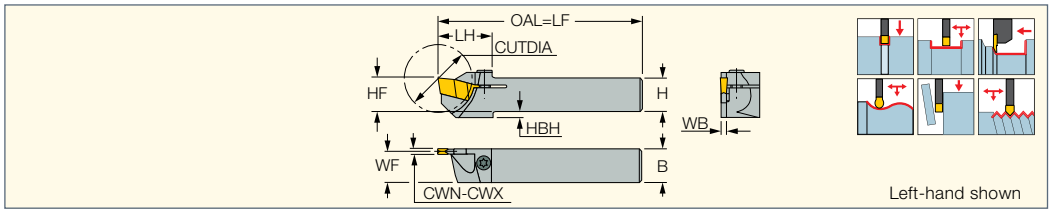


Tmax	5.0	4.5	4.0	3.5	3.0	2.5	2.3	2.0	1.7
D	10.5	10.8	11.5	12.6	14.5	17	20	25	34

Tmax is also limited by insert

CUTGRIP

GHSR/L
External Grooving and Turning Holders for Swiss-Type and Automatic Machines



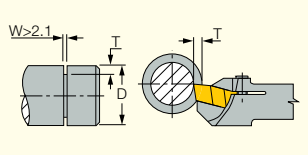
Designation	CWN(1)	CWX(2)	CUTDIA(3)	H	HF	B	OAL	WF	LH	HBH	WB		
GHSR/L 10-2	2.20	3.15	20.0	10.0	10.0	10.0	120.00	9.10	18.0	2.0	1.80	SR 16-236 P	T-15/3
GHSR/L 12-2	2.20	3.15	25.0	12.0	12.0	12.0	120.00	11.10	20.0	2.0	1.80	SR 16-236 P	T-15/3
GHSR/L 14-2	2.20	3.15	26.0	14.0	14.0	14.0	120.00	13.10	20.0	-	1.80	SR 16-236 P	T-15/3
GHSR/L 16-2	2.20	3.15	32.0	16.0	16.0	16.0	120.00	15.10	26.0	-	1.80	SR 16-212	T-20/3

- For user guide, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width
(3) For CW>2.1 mm: grooving depth depends on part diameter

For inserts, see pages: GIG (296) • GIM-J (522) • GIM-J-RA/LA (522) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius W<M) (295) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

Grooving Depth
Grooving Depth Tmax per Diameter for Width > 2.1 mm



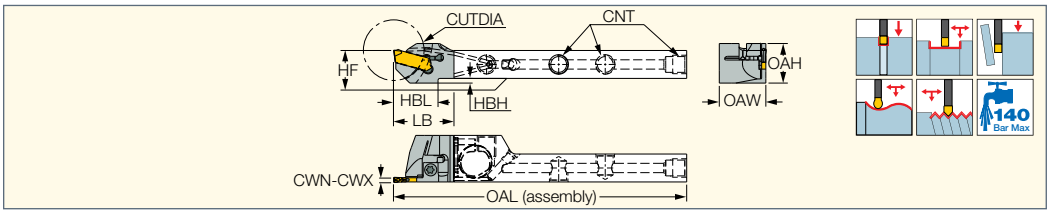
Tmax	5.0	4.5	4.0	3.5	3.0	2.5	2.3	2.0	1.7
D	10.5	10.8	11.5	12.6	14.5	17	20	25	34

Tmax is also limited by insert

NEOSWISS INDEXABLE HEADS
CUTGRIP

NQCH-GHSR/L-JHP

Screw Lock JETCUT Modular Heads for Swiss Type Machines - Grooving and Turning Inserts



Designation	HF	OAW	LB	OAH	HBH	OAL	HBL	CWN(1)	CWX(2)	CUTDIA	Insert
NQCH12-GHSR/L-2-JHP	12.0	20.00	26.00	17.00	2.0	126.00	2.0	2.20	3.00	25.0	GIP 2
NQCH16-GHSR/L-2-JHP	16.0	20.00	26.00	19.00	-	126.00	-	2.20	3.00	25.0	GIP 2

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: GIG (296) • GIM-J (522) • GIM-J-RA/LA (522) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (flat top W<M) (295) • GIP (full radius W<M) (295) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

For holders, see pages: NQCH-JHP (61)

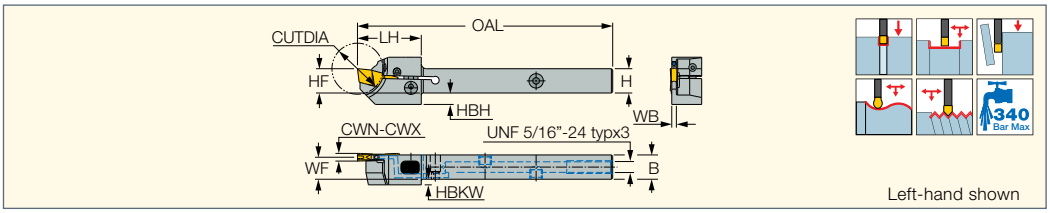
Spare Parts

Designation		
NQCH-GHSR/L-JHP	SR 16-236 P	T-15/3

CUTGRIP JETCUT

GHSR/L-JHP-SL

Grooving and Turning Side Lock Tools with Channels for High-Pressure Coolant on Swiss-Type and Automatic Machines



Designation	CWN(1)	CWX(2)	H	B	CUTDIA	OAL	LH	WF	HBKW	WB	HF
GHSR/L 10-2-JHP-SL	2.20	3.00	10.0	10.0	20.0	100.00	25.0	9.10	2.2	1.80	10.0
GHSL 12-2-JHP-SL	2.20	3.00	12.0	12.0	25.0	100.00	25.0	11.10	-	1.80	12.0
GHSR 12-2-JHP-SL	2.20	3.00	12.0	12.0	25.0	100.00	25.0	11.10	-	0.00	12.0
GHSR/L 16-2-JHP-SL	2.20	3.00	16.0	16.0	25.0	120.00	27.0	15.10	-	1.80	16.0
GHSR/L 12-3-JHP-SL	2.80	4.00	12.0	12.0	25.0	100.00	25.0	10.80	-	2.40	12.0
GHSR/L 16-3-JHP-SL	2.80	4.00	16.0	16.0	25.0	120.00	27.0	14.80	-	2.40	16.0

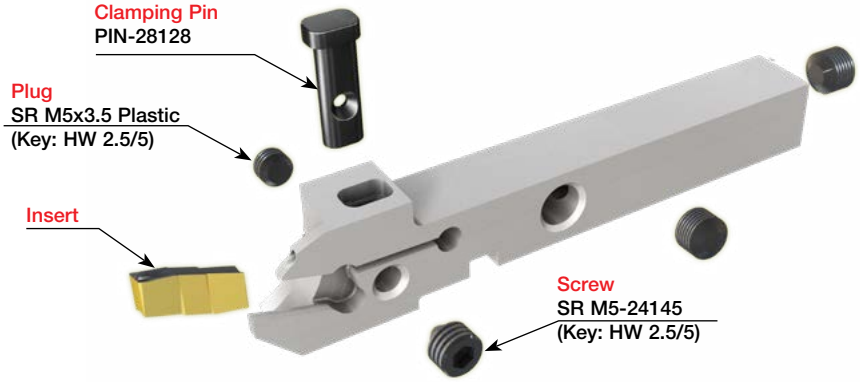
• For user guide and accessories, see pages 419-428, 432-436

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: GIG (296) • GIM-J (522) • GIM-J-RA/LA (522) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIP (297) • GIP (full radius W<M) (295) • GIP (full radius) (296) • GIP-E (293) • GIP-E (full radius) (294) • GIPA (full radius W=3-6) (301) • GIPA (W=3-6) (300) • GIPM-A46 / GIP-1250 (375) • GIPY (300) • GITM (299) • GITM (full radius) (299) • TIP-MT (647) • TIP-P-BSPT (674) • TIP-P-BSW (668) • TIP-P-ISO (658) • TIP-P-NPT (671) • TIP-P-UN (664) • TIP-WT (641)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
GHSR/L...-JHP-SL	4-6	7-9	9-11



Spare Parts

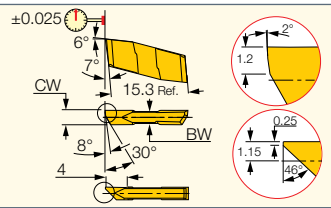
Designation						
GHSR/L-JHP-SL	PIN-28128 INJ	SR M5-24145	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"

CUTGRIP

GIPM-A46 / GIP-1250

Precision Ground Back Turning Inserts for External Machining on Swiss-Type and Automatic Machines





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC328	IC908	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)
GIPM 2.35-A46R/L	2.35	0.05	0.05	0.030	2.20	●	●		0.10-1.00	0.02-0.15
GIP 3.00-1250R/L	3.00	0.00	0.05	0.030	2.40	●		●	0.10-1.00	0.02-0.15

- Toolholder seat needs to be modified according to insert profile to ensure clearance
- For grooving, reduce cutting speed by 30% and feed by 50%
- For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

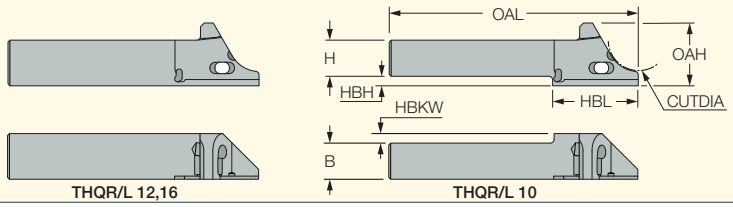
(2) Corner radius tolerance (+/-)

For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

SWISSGRIP NARROW WIDTHS

THQR/L

Parting and Grooving Holder for a SELF-GRIP Mini Blades (SGAQ), Suitable for Swiss-Type Machines

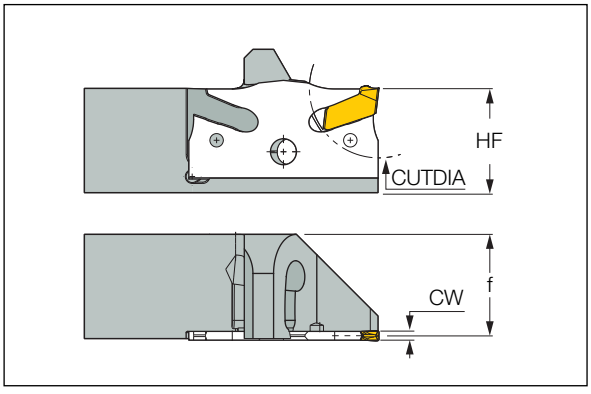


Designation	H	OAL	HF	OAH	HBL	HBH	CUTDIA	HBKW	B
THQR/L 10-D16	10.0	100.00	10.0	16.50	22.6	2.0	16.0	12.00	10.0
THQR/L 12-D16	12.0	100.00	12.0	16.50	-	-	16.0	-	12.0
THQR/L 16-D16	16.0	100.00	16.0	20.50	-	-	16.0	-	16.0

For tools, see pages: SGAQ (376)

Designation	CW	CUTDIA	f
THQL/R 10-D16 + SGAQ 0.6	0.6	10	9.68
THQL/R 10-D16 + SGAQ 0.8	0.8	10	9.68
THQL/R 12-D16 + SGAQ 0.6	0.6	10	11.68
THQL/R 12-D16 + SGAQ 0.8	0.8	10	11.68
THQL/R 16-D16 + SGAQ 0.6	0.6	10	15.68
THQL/R 16-D16 + SGAQ 0.8	0.8	10	15.68

Designation	CW	CUTDIA	f
THQL/R 10-D16 + SGAQ 1.0	1	16	9.60
THQL/R 10-D16 + SGAQ 1.2	1.2	16	9.68
THQL/R 12-D16 + SGAQ 1.0	1	16	11.60
THQL/R 12-D16 + SGAQ 1.2	1.2	16	11.68
THQL/R 16-D16 + SGAQ 1.0	1	16	15.60
THQL/R 16-D16 + SGAQ 1.2	1.2	16	15.68



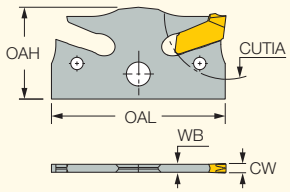
Spare Parts

Designation	
THQR/L	ESG-SWISS 0.6-1.2

SWISSGRIP NARROW WIDTHS

SGAQ

SELF-GRIP Mini Blades for Parting and Grooving, Suitable for Swiss-Type Machines



Designation	OAH	OAL	CUTDIA	WB	CW	MIID(1)	
SGAQ D10-0.6	11.50	21.80	10.0	0.50	0.60	GFT 0.6J-0.1	ESG-SLM*
SGAQ D10-0.8	11.50	21.80	10.0	0.68	0.80	GFT 0.8J-0.1	ESG-SLM*
SGAQ D16-1.0	11.50	21.80	16.0	0.85	1.00	GFT 1.0J-0.1	ESG-SLM*
SGAQ D16-1.2	11.50	21.80	16.0	1.00	1.20	GFT 1.2J-0.14	ESG-SLM*

- For user guide, see pages 419-428, 432-436

(1) Master insert identification

* Optional, should be ordered separately

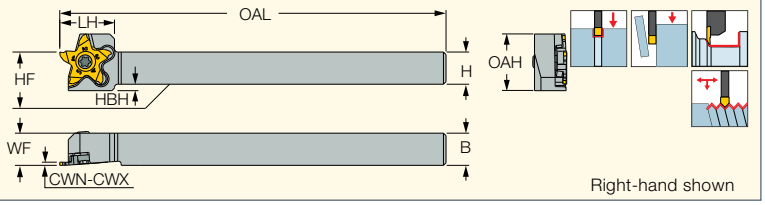
For inserts, see pages: GFT-J (520)

For holders, see pages: THQR/L (375)

PENTACUT PARTING & GROOVING LINE

PCHRS/LS-17

Tools Carrying Inserts with 5 Cutting Edges for Grooving, Parting and Recessing Next to High Shoulders



Designation	H	B	CWN(1)	CWX(2)	WF	OAL	LH	HBH	OAH	HF
PCHR/LS 0810-17	8.0	10.0	0.25	3.18	10.00	120.00	17.0	4.0	13.60	8.0
PCHR/LS 10-17	10.0	10.0	0.25	3.18	10.00	120.00	17.0	2.0	15.60	10.0
PCHR/LS 12-17	12.0	12.0	0.25	3.18	12.00	120.00	17.0	-	17.60	12.0
PCHR/LS 16-17	16.0	16.0	0.25	3.18	16.00	120.00	17.0	-	21.60	16.0
PCHR/LS 20-17	20.0	20.0	0.25	3.18	20.00	120.00	17.0	-	25.60	20.0
PCHR/LS 25-17	25.0	25.0	0.25	3.18	25.00	120.00	17.0	-	30.60	25.0

- Use right-hand inserts on right-hand tools and vice versa

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309)

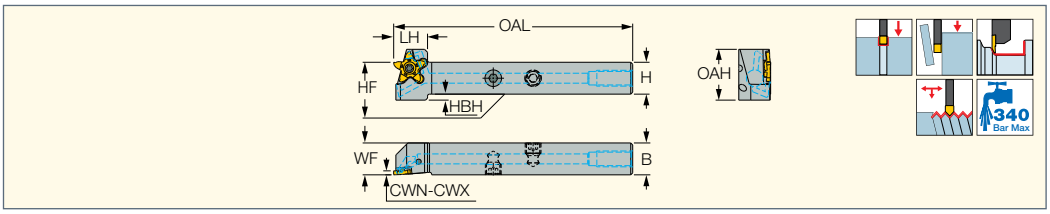
Spare Parts

Designation		
PCHLS 0810-17	SR M4-39432	T-1508/5
PCHRS 0810-17	SR M4-39432L	T-1508/5
PCHLS 10-17	SR M4-39432	T-1508/5
PCHRS 10-17	SR M4-39432L	T-1508/5
PCHLS 12-17	SR M4-39432	T-1508/5
PCHRS 12-17	SR M4-39432L	T-1508/5
PCHLS 16-17	SR M4-39432	T-1508/5
PCHRS 16-17	SR M4-39432L	T-1508/5
PCHLS 20-17	SR M4-39432	T-1508/5
PCHRS 20-17	SR M4-39432L	T-1508/5
PCHLS 25-17	SR M4-39432	T-1508/5
PCHRS 25-17	SR M4-39432L	T-1508/5

PENTACUT
PARTING & GROOVING LINE

PCHRS/LS-17-JHP

Tools Carrying Inserts with 5 Cutting Edges for Shallow Profiling Next to High Shoulders



Designation	H	B	WF	OAL	LH	HBH	HF	OAH
PCHR/LS 10-17-JHP	10.0	10.0	10.00	100.00	17.0	8.0	10.0	24.50
PCHR/LS 12-17-JHP	12.0	12.0	12.00	100.00	17.0	6.0	12.0	24.50
PCHR/LS 16-17-JHP	16.0	16.0	16.00	120.00	17.0	3.0	16.0	25.50
PCHR/LS 20-17-JHP	20.0	20.0	20.00	120.00	17.0	-	20.0	26.50
PCHR/LS 25-17-JHP	25.0	25.0	25.00	120.00	17.0	-	25.0	31.50

- Use right-hand inserts on right-hand tools and vice versa

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309) • PENTA 17R/L-SP-RS (310)

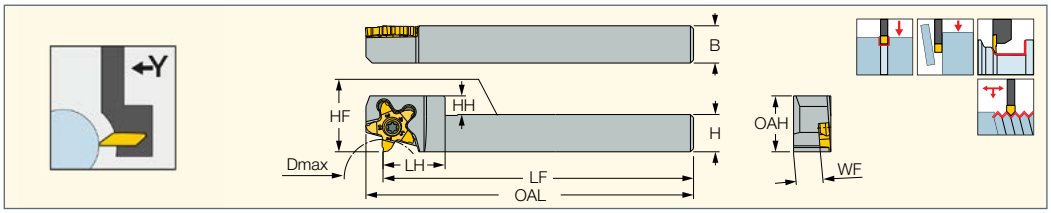
Spare Parts

Designation				
PCHLS 10-17-JHP	SR M4-39432	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 10-17-JHP	SR M4-39432L	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 12-17-JHP	SR M4-39432	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 12-17-JHP	SR M4-39432L	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 16-17-JHP	SR M4-39432	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 16-17-JHP	SR M4-39432L	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 20-17-JHP	SR M4-39432	T-1508/5	HW 5.0	PLG G1/8 TL360
PCHRS 20-17-JHP	SR M4-39432L	T-1508/5	HW 5.0	PLG G1/8 TL360
PCHLS 25-17-JHP	SR M4-39432	T-1508/5		
PCHRS 25-17-JHP	SR M4-39432L	T-1508/5		

NEOYSWISS
Y AXIS

Y-PCHRS-17

Y Axis Swiss Type Machine Tools - 5 Cutting Edged Inserts - Grooving, Parting and Recessing Next to High Shoulders



Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max
Y-PCHRS 12-17	12.0	12.0	6.0	20.0	12.0	8.60	18.00	100.00	105.50	25.0 (1)
Y-PCHRS 16-17	16.0	16.0	2.0	20.0	16.0	12.30	18.00	125.00	130.50	38.0 (1)

- Use right-hand inserts on right-hand tools and vice versa

(1) for grooving

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309)

Spare Parts

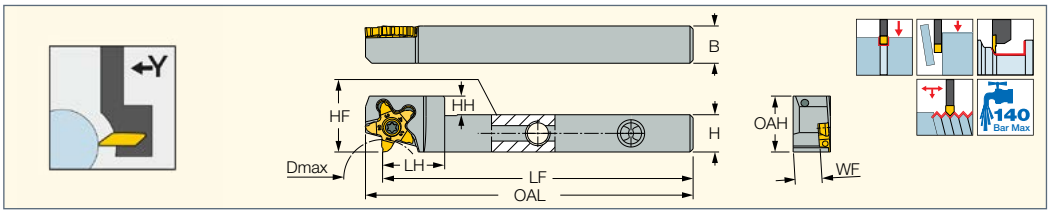
Designation		
Y-PCHRS-17	T-1508/5	SR M4-39432L



NEOSWISS AXIS

Y-PCHRS-17-JHP

Y Axis Swiss Type JETCUT Tools - 5 Cutting Edged Inserts for Grooving, Parting and Recessing Next to Shoulders



Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max
Y-PCHRS 12-17-JHP	12.0	12.0	6.0	20.0	12.0	8.60	18.00	100.00	105.50	25.0 (1)
Y-PCHRS 16-17-JHP	16.0	16.0	2.0	20.0	16.0	12.30	18.00	125.00	130.50	38.0 (1)

- Use right-hand inserts on right-hand tools and vice versa

(1) for grooving

For inserts, see pages: PENTA 17-ER/EL (310) • PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309)

Spare Parts

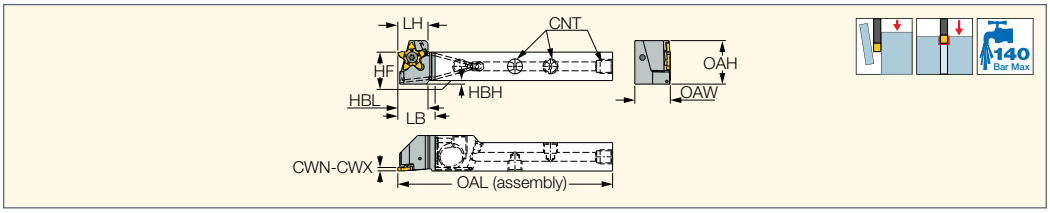
Designation		
Y-PCHRS-17-JHP	HW 5/32"	T-1508/5

NEOSWISS INDEXABLE HEADS

PENTACUT PARTING & GROOVING LINE

NQCH-PCHR/L-S-JHP

Screw Lock JETCUT Modular Heads for Swiss Type Machines - Grooving, Parting, Recessing 5 Cutting Edged Inserts



Designation	HF	OAW	LB	OAH	HBH	LH	OAL	HBL	CWN(1)	CWX(2)	Insert
NQCH12-PCHR/LS-17-JHP	12.0	20.00	21.00	24.40	6.0	17.0	121.00	17.0	0.25	3.18	PENTA 17
NQCH16-PCHR/LS-17-JHP	16.0	20.00	21.00	24.50	2.0	17.0	121.00	17.0	0.25	3.18	PENTA 17

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: PENTA 17-MT-RS/LS (383) • PENTA 17-NP-RS/LS (310) • PENTA 17-P-RS/LS (309) • PENTA 17-P-RS/LS (full radius) (311) • PENTA 17-WT-RS/LS (383) • PENTA 17R/L-P-RS (309)

For holders, see pages: NQCH-JHP (61)

Spare Parts

Designation		
NQCH12-PCHLS-17-JHP	SR M4-39432	T-1508/5
NQCH12-PCHRS-17-JHP	SR M4-39432L	T-1508/5
NQCH16-PCHLS-17-JHP	SR M4-39432	T-1508/5
NQCH16-PCHRS-17-JHP	SR M4-39432L	T-1508/5

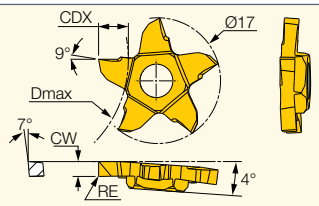


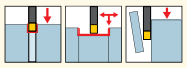
PENTACUT PARTING & GROOVING LINE

PENTA 17-NP-RS/LS

Pentagonal Inserts for Precision Grooving and Turning Next to High Shoulder Applications







Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	D max	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
PENTA 17-100NP08R/LS	1.00	0.020	0.08	0.020	3.00	32.0 (3)	●	0.05-0.70	0.02-0.06	0.03-0.06
PENTA 17-200NP08R/LS	2.00	0.020	0.08	0.020	4.00	32.0 (3)	●	0.05-2.50	0.05-0.15	0.05-0.09
PENTA 17-300NP08R/LS	3.00	0.020	0.08	0.020	4.00	32.0 (3)	●	0.05-3.10	0.05-0.19	0.05-0.11

• When turning to the opposite side of chipformer, maximum CDX is 0.5 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) for grooving

For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

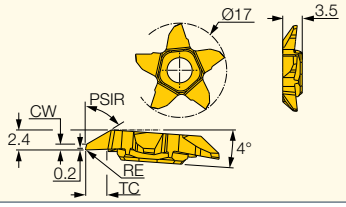
Designation	Dimensions CW	RE	CDX	Dmax as a function of depth of cut (CDX) CDX≤2.5	CDX≤3.0	CDX≤3.5	CDX≤3.8	CDX≤4.0
PENTA 17-100NP08-R/LS	1.00	0.08	3.00	N.L.	100	-	-	-
PENTA 17-200NP08-R/LS	2.00	0.08	4.00	N.L.	100	75	45	32
PENTA 17-300NP08-R/LS	3.00	0.08	4.00	N.L.	100	75	45	32

PENTACUT PARTING & GROOVING LINE

PENTA 17-ER/EL

Back Turning Pentagonal Inserts for Short Chipping Materials







Designation	Dimensions CW	RE	PSIR	Tc	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)
PENTA 17EL00-07K0LS	0.70	0.00	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17ER00-07K0RS	0.70	0.00	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17EL08-07K0LS	0.70	0.08	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17ER08-07K0RS	0.70	0.08	60.0	4.0	●	0.05-2.50	0.01-0.15

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

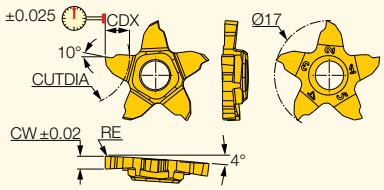
For tools, see pages: PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

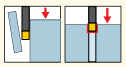
PENTACUT
PARTING & GROOVING LINE

PENTA 17-P-RS/LS

Pentagonal Inserts for Grooving and Parting Soft Materials, Thin and Miniature Parts







Designation	Dimensions CW	RE	CDX	CUTDIA	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17N025P000R/LS	0.25	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N030P000R/LS	0.30	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N033P000R/LS	0.33	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N043P000R/LS	0.43	0.00	1.00	2.0	●	0.02-0.04
PENTA 17N050P000R/LS	0.50	0.00	2.00	4.0	●	0.02-0.04
PENTA 17N075P000R/LS	0.75	0.00	2.50	5.0	●	0.02-0.04
PENTA 17N080P000R/LS	0.80	0.00	2.50	5.0	●	0.02-0.04
PENTA 17N095P000R/LS	0.95	0.00	3.00	6.0	●	0.02-0.05
PENTA 17N100P010R/LS	1.00	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N120P010R/LS	1.20	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N140P010R/LS	1.40	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N150P010R/LS	1.50	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N157P010R/LS	1.57	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N170P010R/LS	1.70	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N178P010R/LS	1.78	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N196P010R/LS	1.96	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N200P010R/LS	2.00	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N222P010R/LS	2.22	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N230P010R/LS	2.30	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N239P010R/LS	2.39	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N247P010R/LS	2.47	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N250P010R/LS	2.50	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N270P010R/LS	2.70	0.10	4.00	8.0	●	0.02-0.09
PENTA 17N287P010R/LS	2.87	0.10	4.00	8.0	●	0.02-0.10
PENTA 17N300P010R/LS	3.00	0.10	4.00	8.0	●	0.02-0.10
PENTA 17N318P010R/LS	3.18	0.10	4.00	8.0	●	0.02-0.10

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

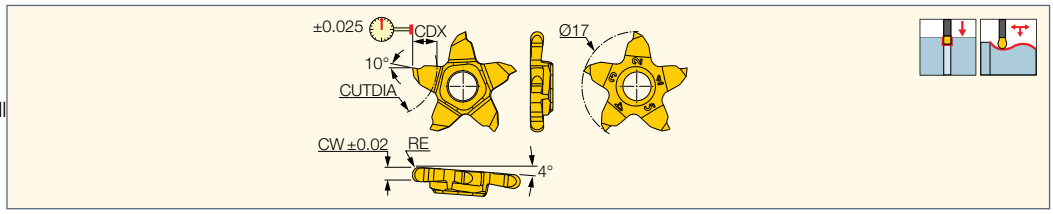
For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)



PENTACUT
PARTING & GROOVING LINE

PENTA 17-P-RS/LS (full radius)

Precision Grooving Pentagonal Full Radius Inserts for Soft Materials



Designation	Dimensions CW	RE	CDX	CUTDIA	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17N080P040R/LS	0.80	0.40	2.50	5.0	●	0.02-0.04
PENTA 17N100P050R/LS	1.00	0.50	3.00	6.0	●	0.02-0.05
PENTA 17N157P079R/LS	1.57	0.79	4.00	8.0	●	0.02-0.07
PENTA 17N200P100R/LS	2.00	1.00	4.00	8.0	●	0.02-0.08
PENTA 17N239P120R/LS	2.39	1.20	4.00	8.0	●	0.02-0.08

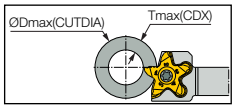
• For cutting speed recommendations and user guide, see pages 419-428, 432-436

For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

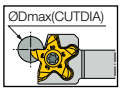
Designation	Dmax as a function of depth of cut (T) W ±0.02	R	Tmax	T<2.3	T<2.5	T<3.0	T<3.5	T<3.8	T<4.0	Parting to center Dmax.
PENTA 17N025P000RS/LS	0.25	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N030P000RS/LS	0.30	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N033P000RS/LS	0.33	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N043P000RS/LS	0.43	0.00	1.0*	---	---	---	---	---	---	2
PENTA 17N050P000RS/LS	0.50	0.00	2.0*	---	---	---	---	---	---	4
PENTA 17N075P000RS/LS	0.75	0.00	2.5	N.L.		---	---	---	---	5
PENTA 17N080P000RS/LS	0.80	0.00	2.5	N.L.		---	---	---	---	
PENTA 17N095P000RS/LS	0.95	0.00		N.L.			---	---	---	
PENTA 17N100P010RS/LS	1.00	0.10		N.L.	400		---	---	---	
PENTA 17N100P050RS/LS	1.00	0.50	3.0	N.L.		100	---	---	---	6
PENTA 17N120P010RS/LS	1.20	0.10		N.L.			---	---	---	
PENTA 17N140P010RS/LS	1.40	0.10		N.L.			---	---	---	
PENTA 17N150P010RS/LS	1.50	0.10		N.L.						
PENTA 17N157P010RS/LS	1.57	0.10		N.L.						
PENTA 17N157P079RS/LS	1.57	0.79		N.L.						
PENTA 17N170P010RS/LS	1.70	0.10		N.L.						
PENTA 17N178P010RS/LS	1.78	0.10		N.L.						
PENTA 17N196P010RS/LS	1.96	0.10		N.L.						
PENTA 17N200P010RS/LS	2.00	0.10		N.L.						
PENTA 17N200P100RS/LS	2.00	1.00		N.L.						
PENTA 17N222P010RS/LS	2.22	0.10	4.0	N.L.	400	100	55	32	20	8
PENTA 17N230P010RS/LS	2.30	0.10		N.L.						
PENTA 17N239P010RS/LS	2.39	0.10		N.L.						
PENTA 17N239P120RS/LS	2.39	1.20		N.L.						
PENTA 17N247P010RS/LS	2.47	0.10		N.L.						
PENTA 17N250P010RS/LS	2.50	0.10		N.L.						
PENTA 17N270P010RS/LS	2.70	0.10		N.L.						
PENTA 17N287P010RS/LS	2.87	0.10		N.L.						
PENTA 17N300P010RS/LS	3.00	0.10		N.L.						
PENTA 17N318P010RS/LS	3.18	0.10		N.L.	400	100	55	32	25	

1. N.L. = NO LIMIT
2. *For precision grooving Dmax = N.L.
3. PENTA 17...RS to be clamped on PCHRS ...-17 holders, PENTA 17...LS to be clamped on PCHLS ...-17 holders.

Parting Hollow Bars



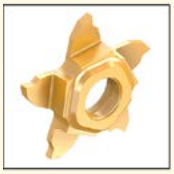
Parting to Center

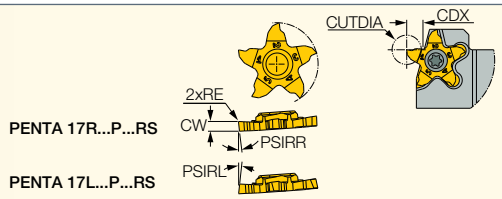


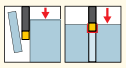
PENTACUT
PARTING & GROOVING LINE

PENTA 17R/L-P-RS

Lead Angle Edge Pentagonal Inserts (5 edges) for Parting Miniature Parts







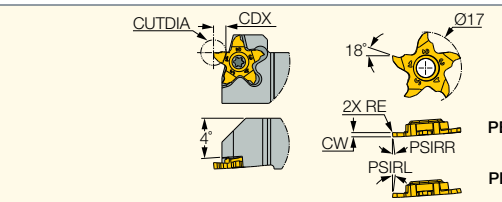
Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17L100P-15D-RS	1.00	0.05	3.00	6.0	15.0	-	●	0.02-0.03
PENTA 17L100P-6D-RS	1.00	0.05	3.00	6.0	6.0	-	●	0.02-0.04
PENTA 17R100P-15D-RS	1.00	0.05	3.00	6.0	-	15.0	●	0.02-0.03
PENTA 17R100P-6D-RS	1.00	0.05	3.00	6.0	-	6.0	●	0.02-0.04
PENTA 17L150P-15D-RS	1.50	0.05	4.00	8.0	15.0	-	●	0.02-0.03
PENTA 17L150P-6D-RS	1.50	0.05	4.00	8.0	6.0	-	●	0.02-0.04
PENTA 17R150P-15D-RS	1.50	0.05	4.00	8.0	-	15.0	●	0.02-0.03
PENTA 17R150P-6D-RS	1.50	0.05	4.00	8.0	-	6.0	●	0.02-0.04
PENTA 17L200P-15D-RS	2.00	0.05	4.00	8.0	15.0	-	●	0.02-0.03
PENTA 17L200P-6D-RS	2.00	0.05	4.00	8.0	6.0	-	●	0.02-0.04
PENTA 17R200P-15D-RS	2.00	0.05	4.00	8.0	-	15.0	●	0.02-0.03
PENTA 17R200P-6D-RS	2.00	0.05	4.00	8.0	-	6.0	●	0.02-0.04

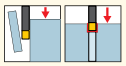
For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

PENTACUT
PARTING & GROOVING LINE

PENTA 17R/L-SP-RS

Pentagonal Inserts (5 edges) with a High Positive Rake for Parting Soft Materials





Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1007	Recommended Machining Data f groove (mm/rev)
PENTA 17L03SP6D-RS	0.30	0.00	0.60	1.2	6.0	-	●	0.02-0.03
PENTA 17R03SP6D-RS	0.30	0.00	0.60	1.2	-	6.0	●	0.02-0.03
PENTA 17L05SP6D-RS	0.50	0.00	2.00	4.0	6.0	-	●	0.02-0.04
PENTA 17R05SP6D-RS	0.50	0.00	2.00	4.0	-	6.0	●	0.02-0.04
PENTA 17L08SP6D-RS	0.80	0.00	2.50	5.0	6.0	-	●	0.02-0.04
PENTA 17R08SP6D-RS	0.80	0.00	2.50	5.0	-	6.0	●	0.02-0.04
PENTA 17L10SP6D-RS	1.00	0.00	3.00	6.0	6.0	-	●	0.02-0.05
PENTA 17R10SP6D-RS	1.00	0.00	3.00	6.0	-	6.0	●	0.02-0.05

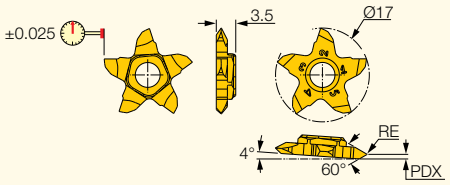
For tools, see pages: PCADRS/LS-JHP (317) • PCHRS/LS-17-JHP (307)

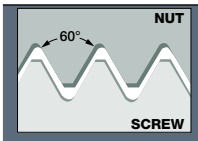
PENTACUT THREADING LINE

PENTA 17-MT-RS/LS

Precision Ground Pentagonal External Threading Inserts with a 60° Partial Profile for General Industry







Designation	Dimensions TPIN(1)	TPIX(2)	TPN(3)	TPX(4)	RE	PDX	IC1008
PENTA 17-MTL008LS	8.00	36.00	0.700	3.000	0.08	1.40	●
PENTA 17-MTR008RS	8.00	36.00	0.700	3.000	0.08	1.40	●
PENTA 17-MTL003LS	17.00	80.00	0.300	1.500	0.03	0.80	●
PENTA 17-MTR003RS	17.00	80.00	0.300	1.500	0.03	0.80	●

(1) Threads per inch minimum
(2) Threads per inch maximum
(3) Thread pitch minimum (mm)
(4) Thread pitch maximum (mm)

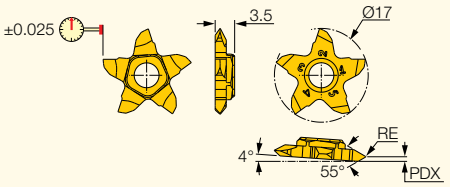
For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

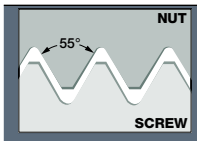
PENTACUT THREADING LINE

PENTA 17-WT-RS/LS

Precision Ground Pentagonal External Threading Inserts with a 55° Partial Profile for General Industry







Designation	Dimensions TPIX(1)	TPIN(2)	RE	PDX	IC1008
PENTA 17-WTL003LS	72.00	16.00	0.03	0.80	●
PENTA 17-WTR003RS	72.00	16.00	0.03	0.80	●
PENTA 17-WTL008LS	31.00	8.00	0.08	1.40	●
PENTA 17-WTR008RS	31.00	8.00	0.08	1.40	●

(1) Threads per inch maximum
(2) Threads per inch minimum

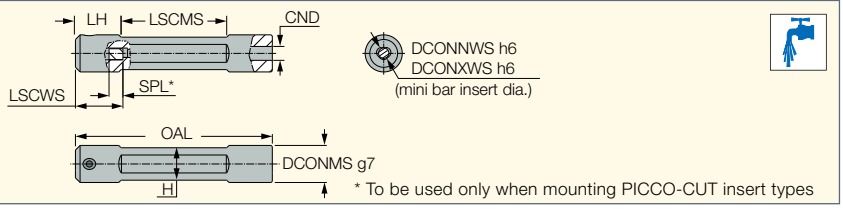
For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)



NEOPASS
PICCO LINES HOLDER

PICMU

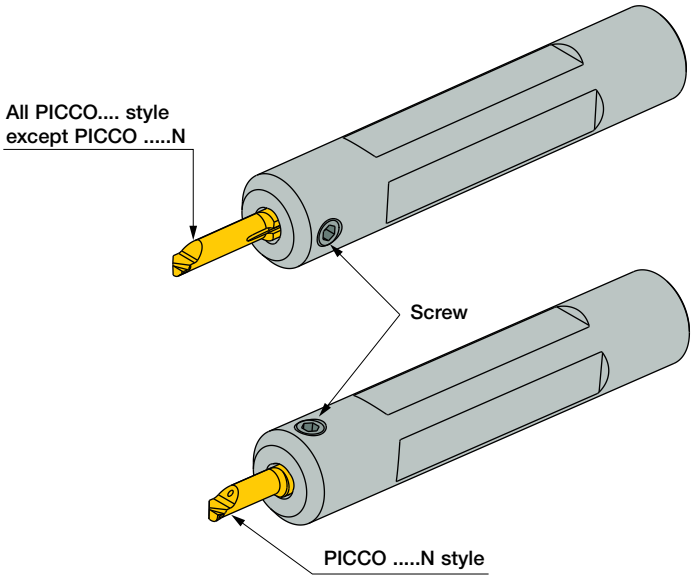
Holders with Improved Cooling Supply Suitable for Mounting PICCO-CUT, PICCO-JET Inserts and PICCO-INDEX Tools.



Designation	DCONMS	DCONNWS(1)	DCONXWS(2)	OAL	LH	LSCMS	H	LSCWS	CND	SPL(3)
PICMU 12-4	12.00	4.00	4.05	85.00	19.7	45.60	11.0	19.00	5.00	6.00
PICMU 12-5	12.00	5.00	5.05	85.00	19.7	45.60	11.0	20.50	6.00	6.00
PICMU 16-4	16.00	4.00	4.05	85.00	19.7	45.60	14.0	19.00	5.00	6.00
PICMU 16-5	16.00	5.00	5.05	85.00	19.7	45.60	14.0	20.50	6.00	6.00
PICMU 16-6	16.00	6.00	6.05	85.00	19.7	45.60	14.0	20.50	6.00	6.00
PICMU 16-7	16.00	7.00	7.05	85.00	19.7	45.60	14.0	20.80	8.00	7.00
PICMU 20-4	20.00	4.00	4.05	85.00	19.7	45.60	18.0	19.00	5.00	6.00
PICMU 20-5	20.00	5.00	5.05	85.00	19.7	45.60	18.0	20.50	6.00	6.00
PICMU 20-6	20.00	6.00	6.05	85.00	19.7	45.60	18.0	20.50	6.00	6.00
PICMU 20-7	20.00	7.00	7.05	85.00	19.7	45.60	18.0	20.80	8.00	7.00
PICMU 20-8	20.00	8.00	8.00	85.00	19.7	45.60	18.0	20.00	8.00	-
PICMU 22-4	22.00	4.00	4.05	85.00	19.7	45.60	20.0	19.00	5.00	6.00
PICMU 22-5	22.00	5.00	5.05	85.00	19.7	45.60	20.0	20.50	6.00	6.00
PICMU 22-6	22.00	6.00	6.05	85.00	19.7	45.60	20.0	20.50	6.00	6.00
PICMU 22-7	22.00	7.00	7.05	85.00	19.7	45.60	20.0	20.80	8.00	7.00

- Holders are suitable for right- and left-hand inserts, and boring bars

(1) Minimum diameter
(2) Maximum diameter
(3) Spacer length



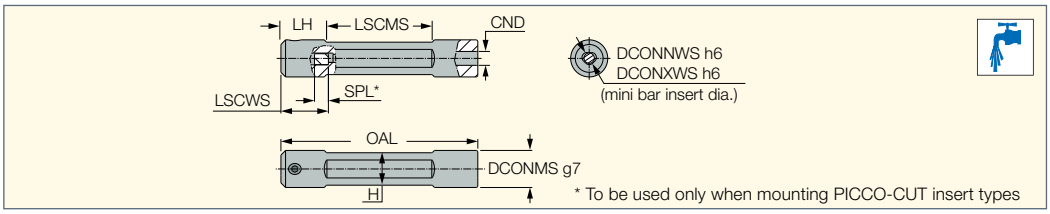
Spare Parts

Designation				
PICMU 12-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 12-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 16-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	
PICMU 16-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 16-6	SPACER D5.7X6	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 16-7	SPACER D6.7X7	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 20-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 20-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 20-6	SPACER D5.7X6	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 20-7	SPACER D6.7X7	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 20-8		SR M8X0.5X6.5-PF	HW 4.0	PL 16 M6-D5
PICMU 22-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 22-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 22-6	SPACER D5.7X6	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 22-7	SPACER D6.7X7	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5

NEOPASS
PICCO LINES HOLDER

PICMU

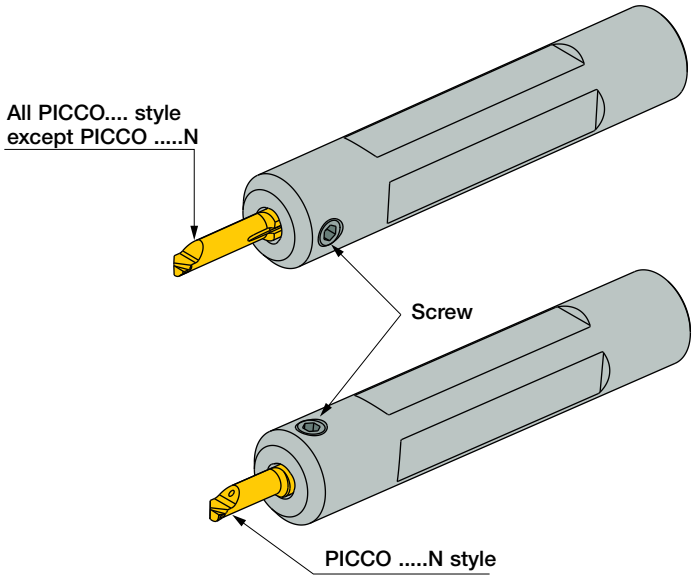
Holders with Improved Cooling Supply Suitable for Mounting PICCO-CUT, PICCO-JET Inserts and PICCO-INDEX Heads



	INCH									
Designation	DCONMS	DCONNWS(1)	DCONXWS(2)	OAL	LH	LSCMS	H	LSCWS	CND	SPL(3)
PICMU 12.7-4	.500	.158	.160	3.346	.776	1.795	.433	.7480	.197	.2363
PICMU 12.7-5	.500	.197	.199	3.346	.776	1.795	.433	.8070	.236	.2363
PICMU 15.9-4	.625	.158	.160	3.346	.776	1.795	.551	.7480	.197	.2363
PICMU 15.9-5	.625	.197	.199	3.346	.776	1.795	.551	.8070	.236	.2363
PICMU 15.9-6	.625	.236	.238	3.346	.776	1.795	.551	.8070	.236	.2363
PICMU 15.9-7	.625	.276	.278	3.346	.776	1.795	.551	.8190	.315	.2756
PICMU 19-4	.750	.158	.160	3.346	.776	1.795	.709	.7480	.197	.2363
PICMU 19-5	.750	.197	.199	3.346	.776	1.795	.709	.8070	.236	.2363
PICMU 19-6	.750	.236	.238	3.346	.776	1.795	.709	.8070	.236	.2363
PICMU 19-7	.750	.276	.278	3.346	.776	1.795	.709	.8190	.315	.2756
PICMU 25.4-4	1.000	.158	.160	3.346	.776	1.795	.787	.7480	.197	.2363
PICMU 25.4-5	1.000	.197	.199	3.346	.776	1.795	.787	.8070	.236	.2363
PICMU 25.4-6	1.000	.236	.238	3.346	.776	1.795	.787	.8070	.236	.2363
PICMU 25.4-7	1.000	.276	.278	3.346	.776	1.795	.787	.8190	.315	.2756

- Holders are suitable for left- and right-hand inserts, and boring bars

(1) Minimum diameter
(2) Maximum diameter
(3) Spacer length



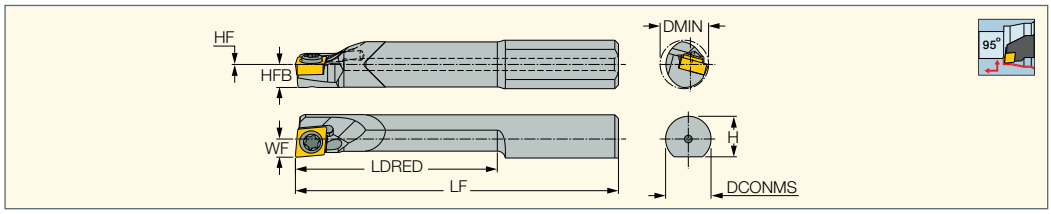
Spare Parts

Designation				
PICMU 12.7-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 12.7-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 15.9-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 15.9-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 15.9-6	SPACER D5.7X6	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 15.9-7	SPACER D6.7X7	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 19-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 19-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 19-6	SPACER D5.7X6	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 19-7	SPACER D6.7X7	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5
PICMU 25.4-4	SPACER D3.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 25.4-5	SPACER D4.7X6	SR M5X0.5X6-PF	HW 2.5	PL 16 M6-D5
PICMU 25.4-6	SPACER D5.7X6	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5*
PICMU 25.4-7	SPACER D6.7X7	SR M6X0.5X6 PF	HW 3.0	PL 16 M6-D5

PICCOINDEX INDEXABLE INSERTS

PICIN-SCLCR/L

Solid Carbide PICCO Tools
Carrying 80° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	CSP(1)	MIID(2)
PICIN E05-T20-SCLCR/L-03	5.00	35.00	20.0	4.5	2.1	1.85	4.50	0.0	1	CCGT 03X101-F1P
PICIN E06-T25-SCLCR/L-03	6.00	40.00	25.0	5.4	2.9	2.25	6.00	0.0	1	CCGT 03X101-F1P

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification
For inserts, see pages: CCGT-F1P (184) • CCGW/CCMT (CBN) (227)
For holders, see pages: GHPCOR (409) • PICCO ACE (398) • PICCO/MG PCO (Holder) (399)

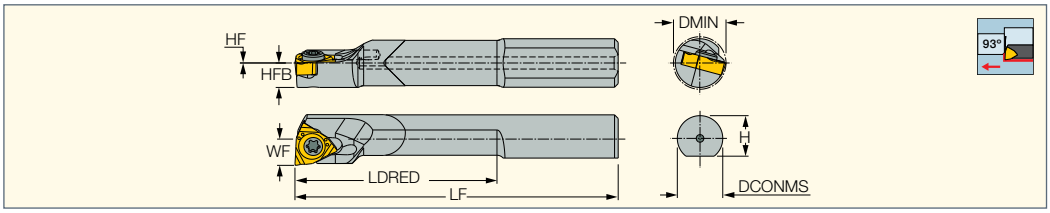
Spare Parts

Designation		
PICIN-SCLCR/L	CSTA-1.6	T-6/5

PICCOINDEX INDEXABLE INSERTS

PICIN-SWUBR/L

Solid Carbide PICCO Tools
Carrying Small WBMT/
WBGT Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	CSP(1)	MIID(2)
PICIN E06-T25-SWUBL-06	6.00	40.00	25.0	5.4	3.0	3.25	6.50	0.0	1	WBMT 060101R
PICIN E06-T25-SWUBR-06	6.00	40.00	25.0	5.4	3.0	3.25	6.50	0.0	1	WBMT 060101L

• Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools.
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification
For inserts, see pages: WBGT (207) • WBMT (207)
For holders, see pages: GHPCOR (409) • PICCO ACE (398) • PICCO/MG PCO (Holder) (399)

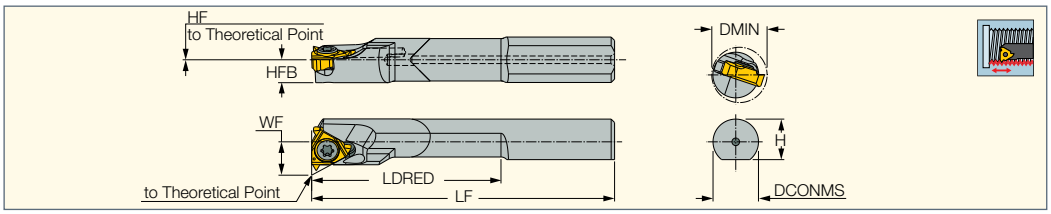
Spare Parts

Designation		
PICIN-SWUBR/L	SR 14-552	T-6/5

PICCOINDEX INDEXABLE INSERTS

PICIN-MGSIR/L

Solid Carbide PICCO Tools
Carrying Internal Laydown
Threading Inserts



Designation	DCONMS	LF	LDRED	H	WF	DMIN	HF	HFB	CSP(1)	MIID(2)
PICIN E06-T25-MGSIL-06	6.00	40.00	25.0	5.4	4.41	7.30	0.0	3.0	1	06IL A 55
PICIN E06-T25-MGSIR-06	6.00	40.00	25.0	5.4	4.41	7.30	0.0	3.0	1	06IR A 55

• B-steel shank with coolant hole, CB-carbide shank with coolant hole • All toolholders provide 1.5 helix angle, either via the pocket or the anvil supplied
• For GTGA inserts, use anvil AL 16-0
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification
For inserts, see pages: IR/L-55° (640) • IR/L-60° (645) • IR/L-BSPT (673) • IR/L-ISO (655) • IR/L-NPT (670) • IR/L-NPTF (672) • IR/L-UN (662) • IR/L-W (667)
For holders, see pages: GHPCOR (409) • PICCO ACE (398) • PICCO/MG PCO (Holder) (399)

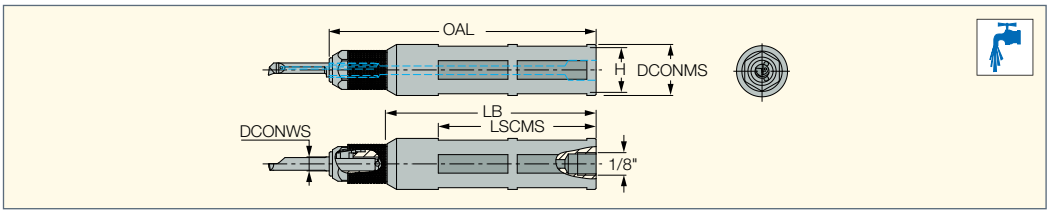
Spare Parts

Designation		
PICIN-MGSIR/L	SR 14-552	T-6/5

ACEJET JETPICCO HOLDER

PICCO ACE-N

Holders for PICCO-JET Inserts
with Internal Coolant Channels



Designation	DCONMS	DCONWS	OAL	LSCMS	LB	H
PICCO ACE 16-4N	16.00	4.05	115.00	68.00	90.00	14.0
PICCO ACE 16-5N	16.00	5.05	115.00	68.00	90.00	14.0
PICCO ACE 16-6N	16.00	6.05	115.00	68.00	90.00	14.0
PICCO ACE 16-7N	16.00	7.05	115.00	68.00	90.00	14.0
PICCO ACE 20-4N	20.00	4.05	115.00	68.00	90.00	18.0
PICCO ACE 20-5N	20.00	5.05	115.00	68.00	90.00	18.0
PICCO ACE 20-6N	20.00	6.05	115.00	68.00	90.00	18.0
PICCO ACE 20-7N	20.00	7.05	115.00	68.00	90.00	18.0
PICCO ACE 22-4N	22.00	4.05	115.00	68.00	90.00	20.0
PICCO ACE 22-6N	22.00	6.05	115.00	68.00	90.00	20.0
PICCO ACE 25-4N	25.00	4.05	115.00	68.00	90.00	23.0
PICCO ACE 25-5N	25.00	5.05	115.00	68.00	90.00	23.0
PICCO ACE 25-6N	25.00	6.05	115.00	68.00	90.00	23.0
PICCO ACE 25-7N	25.00	7.05	115.00	68.00	90.00	23.0

- Holders are suitable for right and left-hand PICCO...-N type solid tools only

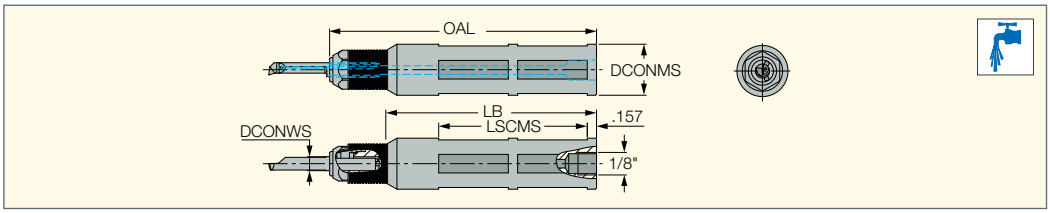
Spare Parts

Designation			
PICCO ACE 16-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 16-5N	UM600H.K	UM600H.M5	PIN 2X10 DIN6325
PICCO ACE 16-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 16-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6
PICCO ACE 20-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 20-5N	UM600H.K	UM600H.M5	PIN 2X10 DIN6325
PICCO ACE 20-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 20-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6
PICCO ACE 22-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 22-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 25-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 25-5N	UM600H.K	UM600H.M5	PIN 2X10 DIN6325
PICCO ACE 25-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 25-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6

ACEJET JETPICCO HOLDER

PICCO ACE-N

Holders for PICCO-JET Inserts
with Internal Coolant Channels



	INCH				
Designation	DCONMS	DCONWS	OAL	LSCMS	LB
PICCO ACE 15.9-7N	.625	.278	4.528	2.520	3.543
PICCO ACE 19-4N	.750	.159	4.528	2.520	3.543
PICCO ACE 19-5N	.750	.199	4.528	2.520	3.543
PICCO ACE 19-6N	.750	.238	4.528	2.520	3.543
PICCO ACE 19-7N	.750	.278	4.528	2.520	3.543
PICCO ACE 25.4-6N	1.000	.238	4.528	2.520	3.543
PICCO ACE 25.4-7N	1.000	.278	4.528	2.520	3.543

- Holders are suitable for right and left-hand PICCO...-N type solid tools only

Spare Parts

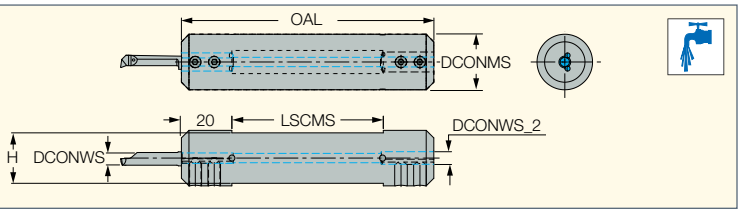
Designation			
PICCO ACE 15.9-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6
PICCO ACE 19-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 19-5N	UM600H.K	UM600H.M5	PIN 2X10 DIN6325
PICCO ACE 19-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 19-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6
PICCO ACE 25.4-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 25.4-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6

PASSJET
JETPICCO HOLDER

PICCO-N (Holder)

Holders for PICCO-JET Inserts
with Internal Coolant Channels





Designation	DCONMS	DCONWS	DCONWS_2	OAL	LSCMS	H	
PICCO 16-4-5N	16.00	4.05	5.05	85.00	45.00	14.0	SR M5X0.5X6 T10
PICCO 20-4-5N	20.00	4.05	5.05	100.00	60.00	18.0	SR M5X0.5X8 T10
PICCO 22-4-5N	22.00	4.05	5.05	100.00	60.00	20.0	SR M5X0.5X8 T10
PICCO 16-6-7N	16.00	6.05	7.05	85.00	45.00	14.0	SR M5X0.5X6 T10
PICCO 16-6-8N	16.00	6.05	8.00	85.00	45.00	14.0	SR M5X0.5X6 T10
PICCO 20-6-7N	20.00	6.05	7.05	100.00	60.00	18.0	SR M5X0.5X8 T10
PICCO 20-6-8N	20.00	6.05	8.00	100.00	60.00	18.0	SR M5X0.5X8 T10
PICCO 22-6-7N	22.00	6.05	7.05	100.00	60.00	20.0	SR M5X0.5X8 T10

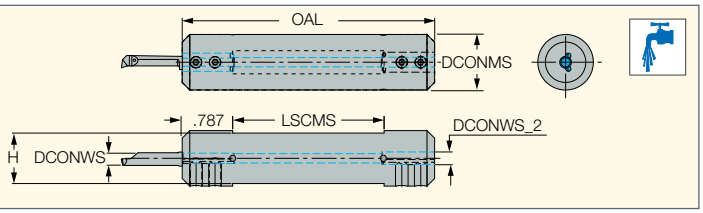
- Holders are suitable for right- and left-hand inserts, and boring bars

PASSJET
JETPICCO HOLDER

PICCO-N (Holder)

Holders for PICCO-JET Inserts
with Internal Coolant Channels

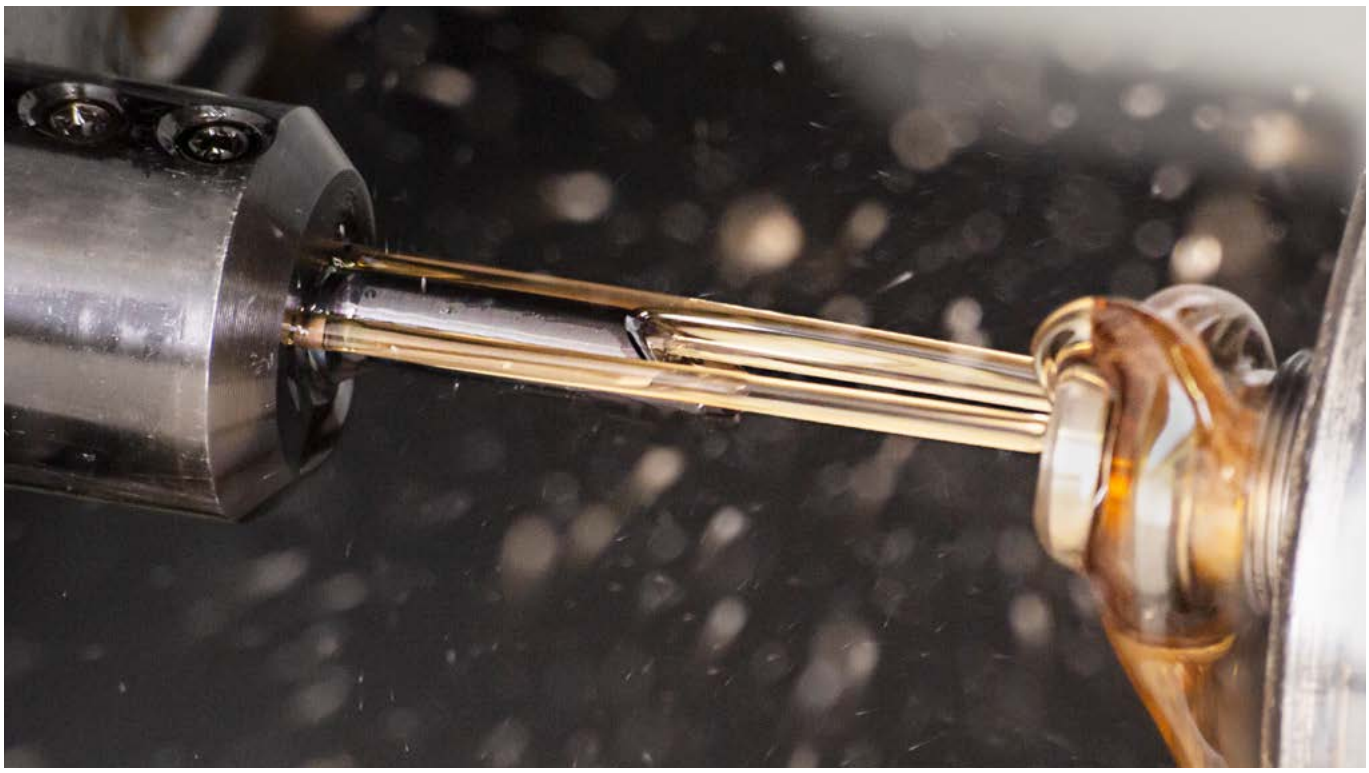




I N C H

Designation	DCONMS	DCONWS	DCONWS_2	OAL	LSCMS	H	
PICCO 19-4-5N	.750	.159	.199	3.937	2.362	.677	SR M5X0.5X6 T10
PICCO 25.4-4-5N	1.000	.159	.199	4.134	2.559	.921	SR M5X0.5X10 T10
PICCO 16-6-8N	.630	.238	.315	3.346	1.772	.551	SR M5X0.5X6 T10
PICCO 19-6-7N	.750	.238	.278	3.937	2.362	.677	SR M5X0.5X6 T10
PICCO 20-6-8N	.787	.238	.315	3.937	2.362	.709	SR M5X0.5X8 T10
PICCO 25.4-6-7N	1.000	.238	.278	4.134	2.559	.921	SR M5X0.5X10 T10

- Holders are suitable for left- and right-hand inserts, and boring bars

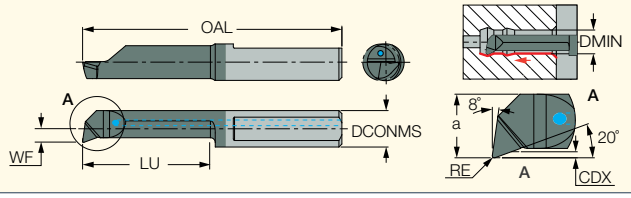


PICCOJET
COOLANT THROUGH

PICCO R/L 050, 053, 055-N (Turning)

Inserts with Internal Coolant Channel for Internal Turning and Chamfering





Designation	Dimensions								IC908
	DCONMS	WF	a	OAL	LU	RE	CDX(1)	DMIN	
PICCO R 050.08-4N	4.05	-	0.70	26.00	4.0	0.04	0.08	0.80	•
PICCO R 050.1-5N	4.05	-	0.90	26.00	4.5	0.05	0.10	1.00	•
PICCO R 050.1-7N	4.05	-	0.90	31.00	6.5	0.05	0.10	1.00	•
PICCO R 050.15-5N	4.05	-	1.30	26.00	4.5	0.05	0.10	1.50	•
PICCO R 050.15-10N	4.05	-	1.30	31.00	9.0	0.05	0.10	1.50	•
PICCO R 050.2-5N	4.05	-	1.70	26.00	4.0	0.05	0.10	2.00	•
PICCO R/L 050.2-10N	4.05	-	1.70	31.00	9.0	0.05	0.10	2.00	•
PICCO R/L 050.2-15N	4.05	-	1.70	36.00	14.0	0.05	0.10	2.00	•
PICCO R 050.25-5N	4.05	0.20	2.20	26.00	4.5	0.05	0.15	2.50	•
PICCO R 050.25-10N	4.05	0.20	2.20	31.00	9.0	0.05	0.15	2.50	•
PICCO R 050.25-16N	4.05	0.20	2.20	36.00	15.0	0.05	0.15	2.50	•
PICCO R 053.3-10N	4.05	0.60	2.60	31.00	9.0	0.03	0.20	2.80	•
PICCO R/L 050.3-10N	4.05	0.60	2.60	31.00	9.0	0.10	0.20	2.80	•
PICCO R 053.3-16N	4.05	0.60	2.60	36.00	15.0	0.03	0.20	2.80	•
PICCO R/L 050.3-16N	4.05	0.60	2.60	36.00	15.0	0.10	0.20	2.80	•
PICCO R 050.3-20N	4.05	0.60	2.60	41.00	19.0	0.10	0.20	2.80	•
PICCO R 050.35-10N	4.05	1.10	3.10	31.00	9.0	0.10	0.25	3.50	•
PICCO R 050.35-16N	4.05	1.10	3.10	36.00	15.0	0.10	0.25	3.50	•
PICCO R 050.35-20N	4.05	1.10	3.10	41.00	19.0	0.10	0.25	3.50	•
PICCO R 050.35-24N	4.05	1.10	3.10	46.00	23.0	0.10	0.25	3.50	•
PICCO R 053.4-10N	4.05	1.50	3.50	31.00	9.0	0.03	0.30	4.00	•
PICCO R/L 050.4-10N	4.05	1.50	3.50	31.00	9.0	0.10	0.30	4.00	•
PICCO R 053.4-16N	4.05	1.50	3.50	36.00	15.0	0.03	0.30	4.00	•
PICCO R 050.4-16N	4.05	1.50	3.50	36.00	15.0	0.10	0.30	4.00	•
PICCO R 053.4-20N	4.05	1.50	3.50	41.00	19.0	0.03	0.30	4.00	•
PICCO R/L 050.4-20N	4.05	1.50	3.50	41.00	19.0	0.10	0.30	4.00	•
PICCO R 050.4-24N	4.05	1.50	3.50	46.00	23.0	0.10	0.30	4.00	•
PICCO R/L 050.4-28N	4.05	1.50	3.50	51.00	27.0	0.10	0.30	4.00	•
PICCO R 055.5-10N	5.05	1.90	4.40	31.00	9.0	0.05	0.50	5.00	•
PICCO R 050.5-10N	5.05	1.90	4.40	31.00	9.0	0.15	0.50	5.00	•
PICCO R 055.5-15N	5.05	1.90	4.40	36.00	14.0	0.05	0.50	5.00	•
PICCO R 050.5-15N	5.05	1.90	4.40	36.00	14.0	0.15	0.50	5.00	•
PICCO R 055.5-20N	5.05	1.90	4.40	41.00	19.0	0.05	0.50	5.00	•
PICCO R/L 050.5-20N	5.05	1.90	4.40	41.00	19.0	0.15	0.50	5.00	•
PICCO R 055.5-25N	5.05	1.90	4.40	46.00	24.0	0.05	0.50	5.00	•
PICCO R/L 050.5-25N	5.05	1.90	4.40	46.00	24.0	0.15	0.50	5.00	•
PICCO R 050.5-30N	5.05	1.90	4.40	51.00	29.0	0.15	0.50	5.00	•
PICCO R 050.5-35N	5.05	1.90	4.40	56.00	34.0	0.15	0.50	5.00	•
PICCO R 055.6-15N	6.05	2.30	5.30	36.00	14.0	0.05	0.50	6.00	•
PICCO R/L 050.6-15N	6.05	2.30	5.30	36.00	14.0	0.15	0.50	6.00	•
PICCO R 055.6-22N	6.05	2.30	5.30	43.00	21.0	0.05	0.50	6.00	•
PICCO R/L 050.6-22N	6.05	2.30	5.30	43.00	21.0	0.15	0.50	6.00	•
PICCO R 055.6-25N	6.05	2.30	5.30	46.00	24.0	0.05	0.50	6.00	•
PICCO R/L 050.6-25N	6.05	2.30	5.30	46.00	24.0	0.15	0.50	6.00	•
PICCO R 055.6-30N	6.05	2.30	5.30	51.00	29.0	0.05	0.50	6.00	•
PICCO R/L 050.6-30N	6.05	2.30	5.30	51.00	29.0	0.15	0.50	6.00	•
PICCO R 050.6-35N	6.05	2.30	5.30	56.00	34.0	0.15	0.50	6.00	•
PICCO R/L 050.6-42N	6.05	2.30	5.30	63.00	41.0	0.15	0.50	6.00	•
PICCO R/L 050.7-20N	7.05	2.80	6.30	41.00	19.0	0.15	0.60	6.80	•
PICCO R 050.7-25N	7.05	2.80	6.30	46.00	24.0	0.15	0.60	6.80	•
PICCO R/L 050.7-30N	7.05	2.80	6.30	51.00	29.0	0.15	0.60	6.80	•
PICCO R 050.7-35N	7.05	2.80	6.30	56.00	34.0	0.15	0.60	6.80	•
PICCO R 050.7-40N	7.05	2.80	6.30	61.00	39.0	0.15	0.60	6.80	•
PICCO R 050.7-45N	7.05	2.80	6.30	66.00	44.0	0.15	0.60	6.80	•
PICCO R 050.7-50N	7.05	2.80	6.30	71.00	49.0	0.15	0.60	6.80	•

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Cutting depth maximum

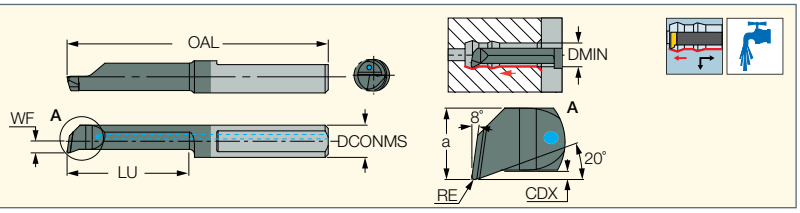


PICCOJET COOLANT THROUGH

PICCO R/L 050-NC (Turning, with Chipbreaker)

Inserts with Chipformers and Internal Coolant Channel for Internal Boring and Profiling





Designation	Dimensions								IC908
	DCONMS	WF	a	OAL	LU	RE	CDX(1)	DMIN	
PICCO R 050.4-10NC	4.05	1.50	3.50	31.00	9.0	0.10	0.30	4.00	●
PICCO R 050.4-20NC	4.05	1.50	3.50	41.00	19.0	0.10	0.30	4.00	●
PICCO R 050.4-28NC	4.05	1.50	3.50	51.00	27.0	0.10	0.30	4.00	●
PICCO R 050.5-20NC	5.05	1.90	4.40	41.00	19.0	0.15	0.50	5.00	●
PICCO R 050.6-15NC	6.05	2.30	5.30	36.00	14.0	0.15	0.50	6.00	●
PICCO R 050.6-22NC	6.05	2.30	5.30	43.00	21.0	0.15	0.50	6.00	●
PICCO R 050.7-20NC	7.05	2.80	6.30	41.00	19.0	0.15	0.60	6.80	●

• All left-hand inserts on request • Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Cutting depth maximum

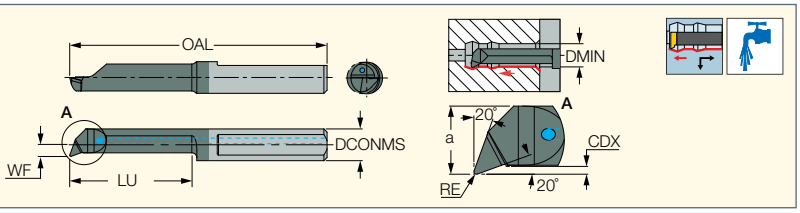


PICCOJET COOLANT THROUGH

PICCO R 050.20-N (Turning)

Inserts with Internal Coolant Channel for Internal Turning and Chamfering Next to the Bottom of Blind Holes





Designation	Dimensions								IC908
	DCONMS	WF	a	OAL	LU	RE	CDX(1)	DMIN	
PICCO R 050.20.2-10N	4.05	-	1.70	31.00	9.0	0.05	0.10	2.00	●
PICCO R 050.20.3-10N	4.05	0.60	2.60	31.00	9.0	0.10	0.20	2.80	●
PICCO R 050.20.4-16N	4.05	1.50	3.50	36.00	15.0	0.10	0.30	4.00	●
PICCO R 050.20.5-20N	5.05	1.90	4.40	41.00	19.0	0.15	0.50	5.00	●

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

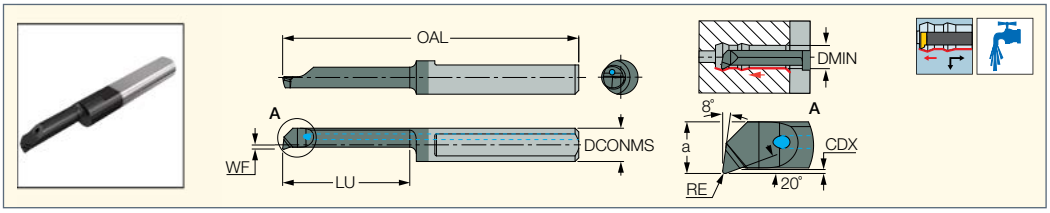
(1) Cutting depth maximum



PICCOJET COOLANT THROUGH

PICCO R/LHD 050-N (Turning for Hard Steel)

Inserts with Internal Coolant Channel for Internal Turning and Chamfering of Hard Steel - Up to 65 HRC



Designation	Dimensions								IC902
	DCONMS	WF	a	OAL	LU	RE	CDX(1)	DMIN	
PICCO RHD 050.3-16N	4.05	0.60	2.60	36.00	15.0	0.10	0.20	2.80	●
PICCO RHD 050.4-20N	4.05	1.50	3.50	41.00	19.0	0.10	0.30	4.00	●
PICCO RHD 050.7-20N	7.05	2.80	6.30	41.00	19.0	0.15	0.60	6.80	●

- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

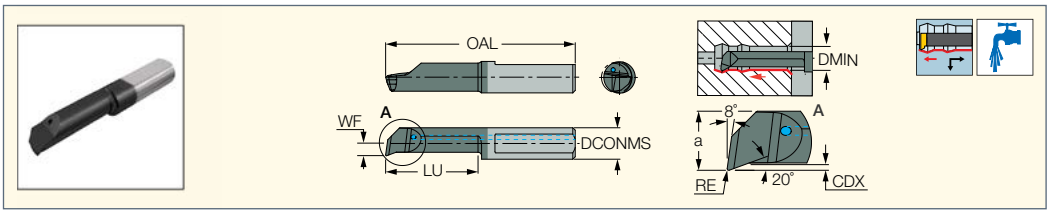
(1) Cutting depth maximum



PICCOJET COOLANT THROUGH

PICCO R 050-N (Turning with CBN)

CBN Tipped Inserts with Internal Coolant Channel for Internal Turning, Profiling and Chamfering of Hard Steel



Designation	Dimensions								IB55
	DCONMS	WF	a	OAL	RE	LU	CDX(1)	DMIN	
PICCO R 050.7-20NB	7.05	2.80	6.30	42.50	0.15	20.5	0.60	6.80	●

- It is not recommended to use coolant when machining with CBN tipped tools
- Available on request only
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Cutting depth maximum

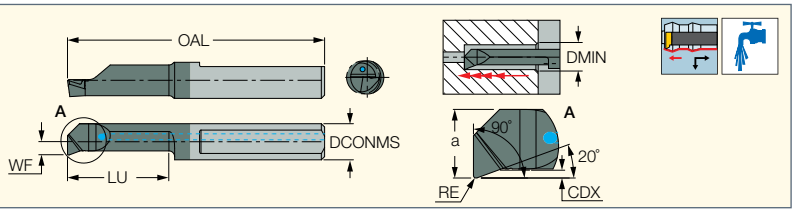


PICCOJET COOLANT THROUGH

PICCO R/L 090-N (Turning 90°)

Inserts with Internal Coolant Channel for Internal Turning and Profiling

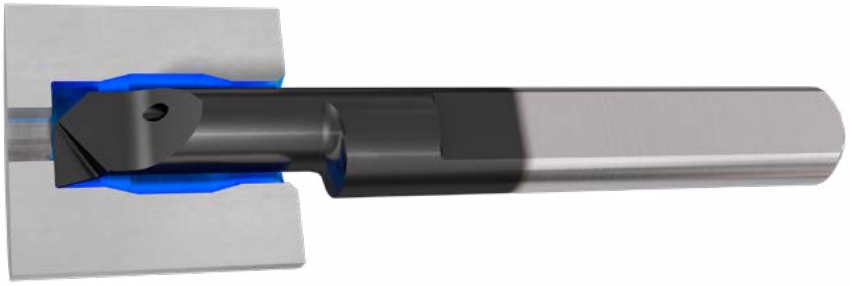




Designation	Dimensions DCONMS	WF	a	OAL	LU	RE	CDX(1)	DMIN	IC908
PICCO R 090.3-10N	4.05	0.60	2.60	31.00	9.0	0.10	0.20	2.80	●
PICCO R 090.3-16N	4.05	0.60	2.60	36.00	15.0	0.10	0.20	2.80	●
PICCO R 090.4-10N	4.05	1.50	3.50	31.00	9.0	0.10	0.30	4.00	●
PICCO R 090.4-16N	4.05	1.50	3.50	36.00	15.0	0.10	0.30	4.00	●
PICCO R 090.5-10N	5.05	1.90	4.40	31.00	9.0	0.15	0.50	5.00	●
PICCO R 090.5-15N	5.05	1.90	4.40	36.00	14.0	0.15	0.50	5.00	●
PICCO R 090.5-20N	5.05	1.90	4.40	41.00	19.0	0.15	0.50	5.00	●

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Cutting depth maximum

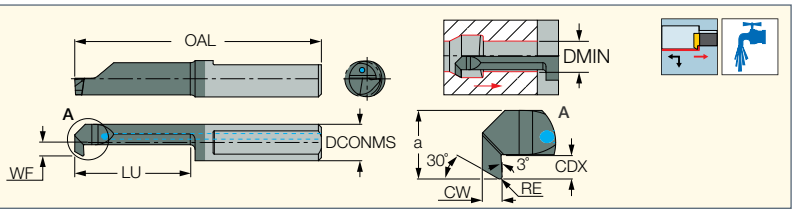


PICCOJET COOLANT THROUGH

PICCO R/L 080-N (Back Turning)

Inserts with Internal Coolant Channel for Internal Back Turning





Designation	Dimensions DCONMS	WF	a	CW	OAL	LU	RE	CDX(1)	DMIN	IC908
PICCO R 080.0003-15N	4.05	0.60	2.60	1.50	36.00	14.0	0.10	0.50	3.00	●
PICCO R 080.0004-15N	4.05	1.50	3.50	1.50	36.00	14.0	0.15	0.80	4.00	●
PICCO R 080.0005-20N	5.05	1.90	4.40	1.50	41.00	19.0	0.20	1.00	5.00	●
PICCO R 080.0006-20N	6.05	2.30	5.30	1.50	41.00	19.0	0.20	1.80	6.00	●
PICCO R 080.0006-30N	6.05	2.30	5.30	1.50	51.00	29.0	0.20	1.80	6.00	●
PICCO R 080.0007-20N	7.05	2.80	6.30	1.50	41.00	19.0	0.20	2.50	7.00	●
PICCO R 080.0007-30N	7.05	2.80	6.30	1.50	51.00	29.0	0.20	2.50	7.00	●

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Cutting depth maximum

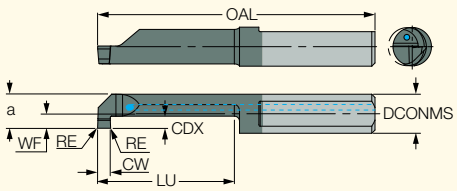


PICCOJET COOLANT THROUGH

PICCO R/L 002-007-N (Grooving and Turning)

Inserts with Internal Coolant Channel for Internal Grooving and Turning





Designation	Dimensions									IC908
	DCONMS	CW	WF	a	RE	OAL	LU	CDX(1)	DMIN	
PICCO R 002.0050-5N	4.05	0.50	0.20	1.80	0.00	26.00	5.0	0.40	2.00	•
PICCO R 002.0050-10N	4.05	0.50	0.20	1.80	0.00	31.00	10.0	0.40	2.00	•
PICCO R 003.0070-5N	4.05	0.70	0.70	2.70	0.00	26.00	5.0	0.60	3.00	•
PICCO R 003.0070-10N	4.05	0.70	0.70	2.70	0.00	31.00	10.0	0.60	3.00	•
PICCO R 003.0070-16N	4.05	0.70	0.70	2.70	0.00	36.00	15.0	0.60	3.00	•
PICCO R 004.0100-10N	4.05	1.00	1.50	3.50	0.00	31.00	9.0	0.80	4.00	•
PICCO R 004.0100-16N	4.05	1.00	1.50	3.50	0.00	36.00	15.0	0.80	4.00	•
PICCO R 004.0100-20N	4.05	1.00	1.50	3.50	0.00	41.00	19.0	0.80	4.00	•
PICCO R 005.0100-10N	5.05	1.00	1.90	4.40	0.00	31.00	9.0	1.00	5.00	•
PICCO R 005.0100-15N	5.05	1.00	1.90	4.40	0.00	36.00	14.0	1.00	5.00	•
PICCO R 005.0100-20N	5.05	1.00	1.90	4.40	0.00	41.00	19.0	1.00	5.00	•
PICCO R 005.0100-25N	5.05	1.00	1.90	4.40	0.00	46.00	24.0	1.00	5.00	•
PICCO R 005.0100-30N	5.05	1.00	1.90	4.40	0.00	51.00	29.0	1.00	5.00	•
PICCO R 005.0150-10N	5.05	1.50	1.90	4.40	0.00	31.00	9.0	1.00	5.00	•
PICCO R 005.0150-15N	5.05	1.50	1.90	4.40	0.00	36.00	14.0	1.00	5.00	•
PICCO R 005.0150-20N	5.05	1.50	1.90	4.40	0.00	41.00	19.0	1.00	5.00	•
PICCO R 005.0150-25N	5.05	1.50	1.90	4.40	0.00	46.00	24.0	1.00	5.00	•
PICCO R 005.0200-10N	5.05	2.00	1.90	4.40	0.00	31.00	9.0	1.00	5.00	•
PICCO R 005.0200-15N	5.05	2.00	1.90	4.40	0.00	36.00	14.0	1.00	5.00	•
PICCO R 005.0200-20N	5.05	2.00	1.90	4.40	0.00	41.00	19.0	1.00	5.00	•
PICCO R 005.0200-30N	5.05	2.00	1.90	4.40	0.00	51.00	29.0	1.00	5.00	•
PICCO R/L 006.0100-10N	6.05	1.00	2.30	5.30	0.00	32.00	9.0	1.80	6.00	•
PICCO R 006.0100-15N	6.05	1.00	2.30	5.30	0.00	36.00	14.0	1.80	6.00	•
PICCO R 006.0100-22N	6.05	1.00	2.30	5.30	0.00	43.00	21.0	1.80	6.00	•
PICCO R 006.0100-25N	6.05	1.00	2.30	5.30	0.00	46.00	24.0	1.80	6.00	•
PICCO R 006.0100-30N	6.05	1.00	2.30	5.30	0.00	51.00	29.0	1.80	6.00	•
PICCO R/L 006.0150-10N	6.05	1.50	2.30	5.30	0.00	32.00	9.0	1.80	6.00	•
PICCO R 006.0150-15N	6.05	1.50	2.30	5.30	0.00	36.00	14.0	1.80	6.00	•
PICCO R 006.0150-22N	6.05	1.50	2.30	5.30	0.00	43.00	21.0	1.80	6.00	•
PICCO R 006.0150-25N	6.05	1.50	2.30	5.30	0.00	46.00	24.0	1.80	6.00	•
PICCO R 006.0150-30N	6.05	1.50	2.30	5.30	0.00	51.00	29.0	1.80	6.00	•
PICCO R 006.0200-10N	6.05	2.00	2.30	5.30	0.00	32.00	9.0	1.80	6.00	•
PICCO R 006.0200-15N	6.05	2.00	2.30	5.30	0.00	36.00	14.0	1.80	6.00	•
PICCO R/L 006.0200-22N	6.05	2.00	2.30	5.30	0.00	43.00	21.0	1.80	6.00	•
PICCO R 006.0200-25N	6.05	2.00	2.30	5.30	0.00	46.00	24.0	1.80	6.00	•
PICCO R 006.0200-30N	6.05	2.00	2.30	5.30	0.00	51.00	29.0	1.80	6.00	•
PICCO R 007.0100-10N	7.05	1.00	2.80	6.30	0.00	32.00	9.0	2.50	6.80	•
PICCO R 007.0100-15N	7.05	1.00	2.80	6.30	0.00	36.00	14.0	2.50	6.80	•
PICCO R 007.0100-22N	7.05	1.00	2.80	6.30	0.00	43.00	21.0	2.50	6.80	•
PICCO R 007.0100-25N	7.05	1.00	2.80	6.30	0.00	46.00	24.0	2.50	6.80	•
PICCO R 007.0100-30N	7.05	1.00	2.80	6.30	0.00	51.00	29.0	2.50	6.80	•
PICCO R 007.0150-10N	7.05	1.50	2.80	6.30	0.00	32.00	9.0	2.50	6.80	•
PICCO R 007.0150-15N	7.05	1.50	2.80	6.30	0.00	36.00	14.0	2.50	6.80	•
PICCO R 007.0150-22N	7.05	1.50	2.80	6.30	0.00	43.00	21.0	2.50	6.80	•
PICCO R 007.0150-25N	7.05	1.50	2.80	6.30	0.00	46.00	24.0	2.50	6.80	•
PICCO R 007.0150-30N	7.05	1.50	2.80	6.30	0.00	51.00	29.0	2.50	6.80	•
PICCO R 007.0200-10N	7.05	2.00	2.80	6.30	0.00	32.00	9.0	2.50	6.80	•
PICCO R/L 007.0200-15N	7.05	2.00	2.80	6.30	0.00	36.00	14.0	2.50	6.80	•
PICCO R 007.0200-22N	7.05	2.00	2.80	6.30	0.00	43.00	21.0	2.50	6.80	•
PICCO R/L 007.0200-25N	7.05	2.00	2.80	6.30	0.00	46.00	24.0	2.50	6.80	•
PICCO R 007.0200-30N	7.05	2.00	2.80	6.30	0.00	51.00	29.0	2.50	6.80	•

• All carbide bars with sharp corners • Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

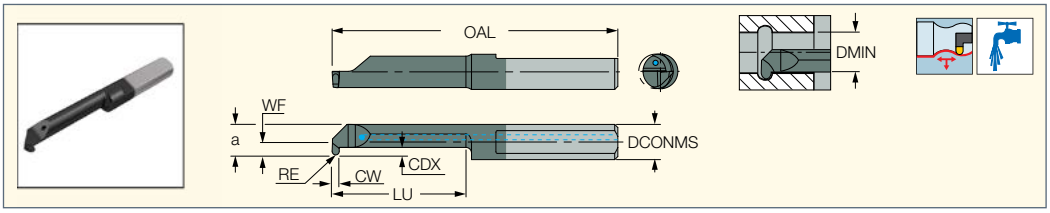
(1) Cutting depth maximum



PICCOJET COOLANT THROUGH

PICCO R/L 004-007-N (Full radius)

Full Radius Inserts with Internal Coolant Channel for Internal Profiling



Designation	Dimensions									IC908
	DCONMS	CW	WF	a	RE	OAL	LU	CDX(1)	DMIN	
PICCO R 004.0.50-16N	4.05	1.00	1.50	3.50	0.50	36.00	15.0	0.80	4.00	●
PICCO R 005.0.50-20N	5.05	1.00	1.90	4.40	0.50	41.00	19.0	1.00	5.00	●
PICCO R 006.0.50-25N	6.05	1.00	2.30	5.30	0.50	46.00	24.0	1.80	6.00	●
PICCO R 006.0.75-25N	6.05	1.50	2.30	5.30	0.75	46.00	24.0	1.80	6.00	●
PICCO R 006.1.00-25N	6.05	2.00	2.30	5.30	1.00	46.00	24.0	1.80	6.00	●
PICCO R 007.0.50-30N	7.05	1.00	2.80	6.30	0.50	51.00	29.0	2.50	6.80	●
PICCO R 007.1.00-30N	7.05	2.00	2.80	6.30	1.00	51.00	29.0	2.50	6.80	●

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

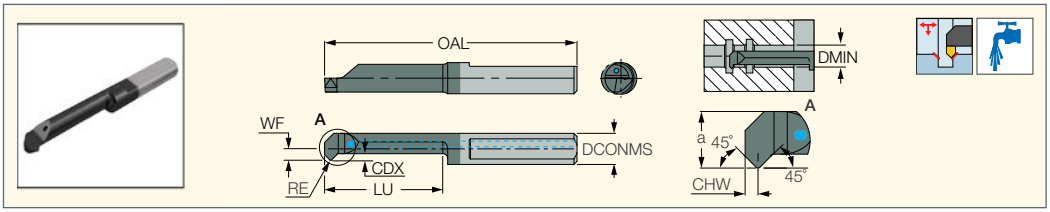
(1) Cutting depth maximum



PICCOJET COOLANT THROUGH

PICCO R/L 060-N

Inserts with Internal Coolant Channel for Internal Turning and 45° Chamfering



Designation	Dimensions									IC908
	DCONMS	RE	CHW	WF	a	LU	OAL	CDX(1)	DMIN	
PICCO R 060.5-15N	5.05	0.20	1.0	1.90	4.40	14.0	36.00	0.70	5.00	●
PICCO R 060.5-20N	5.05	0.20	1.0	1.90	4.40	19.0	41.00	0.70	5.00	●
PICCO R 060.7-20N	7.05	0.20	1.0	2.80	6.30	19.0	41.00	0.70	6.80	●

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Cutting depth maximum

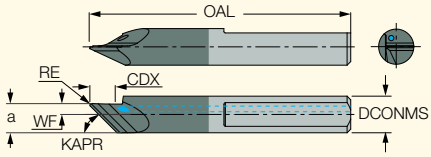


PICCOJET COOLANT THROUGH

PICCO R/L 520-N (Chamfering)

Inserts with Internal Coolant Channel for Internal Chamfering





Designation	Dimensions							IC908
	DCONMS	WF	KAPR(1)	OAL	RE	CDX	DMIN	
PICCO R 520.0045-15N	5.05	1.50	45.0	36.00	0.20	3.50	1.00	●

• Left hand inserts on request • Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Tool cutting edge angle

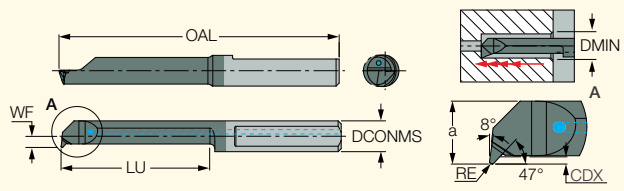


PICCOJET COOLANT THROUGH

PICCO R/L 047-N

Inserts with Internal Coolant Channel for Internal Deep Profiling





Designation	Dimensions								IC908
	DCONMS	WF	a	OAL	LU	CDX(1)	DMIN	RE	
PICCO R 047.4-20N	4.05	1.50	3.50	41.00	19.0	0.30	4.00	0.15	●
PICCO R 047.5-25N	5.05	1.90	4.40	46.00	24.0	0.50	5.00	0.15	●
PICCO R 047.T6-22N	6.05	2.30	5.30	43.00	21.0	1.80	6.00	0.15	●
PICCO R 047.6-30N	6.05	2.30	5.30	51.00	29.0	0.50	6.00	0.15	●

• Left hand inserts on request • Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

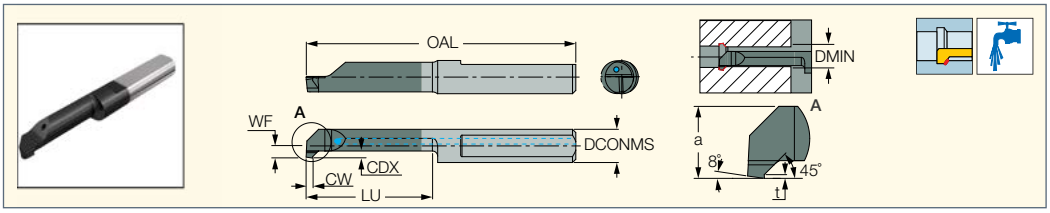
(1) Cutting depth maximum



PICCOJET COOLANT THROUGH

PICCO R/L 070-N (Back Chamfering)

Back Chamfering Inserts with Internal Coolant Channel for Pre-Parting Operations



Designation	Dimensions									IC908
	DCONMS	CW	WF	a	LU	OAL	t	CDX(1)	DMIN	
PICCO R 070.5-15N	5.05	1.00	1.90	4.40	14.0	36.00	0.20	1.00	5.00	●
PICCO R 070.5-20N	5.05	1.00	1.90	4.40	19.0	41.00	0.20	1.00	5.00	●

• All carbide bars with sharp corners • Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Cutting depth maximum

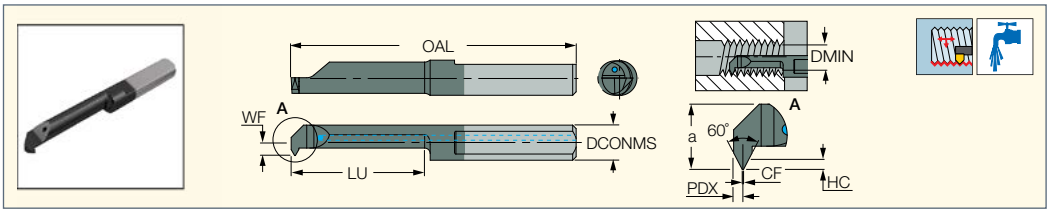


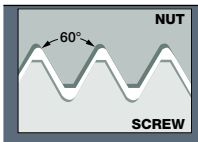
ISCARTHREAD

PICCOJET COOLANT THROUGH

PICCO R/L60°-N (60° Threading)

Inserts with a 60° Internal Thread Profile and Internal Coolant Channel for 2.4 mm Min. Bore Diameter





Designation	Dimensions													IC908
	DCONMS	HC	CF	PDX	WF	a	LU	OAL	DMIN	TPN(1)	TPX(2)	TPIN(3)	TPIX(4)	
PICCO R 003.0105-8N	4.05	0.27	0.04	0.3	0.30	2.30	7.0	31.00	2.40	0.500	0.700	36.00	48.00	●
PICCO R 004.0105-10N	4.05	0.27	0.09	0.4	1.00	3.00	9.0	31.00	3.20	0.500	0.750	36.00	48.00	●
PICCO R 004.0205-15N	4.05	0.27	0.06	0.4	1.50	3.50	14.0	36.00	4.00	0.500	0.750	36.00	48.00	●
PICCO R 005.0205-15N	5.05	0.27	0.06	0.4	1.90	4.40	14.0	36.00	5.00	0.500	0.750	36.00	48.00	●
PICCO R 005.0407-15N	5.05	0.40	0.09	0.5	1.90	4.40	14.0	36.00	5.00	0.750	1.000	24.00	36.00	●
PICCO R/L 005.0510-15N	5.05	0.55	0.12	0.6	1.90	4.40	14.0	36.00	4.80	1.000	1.250	20.00	24.00	●
PICCO R 005.0510-20N	5.05	0.55	0.12	0.6	1.90	4.40	19.0	41.00	4.80	1.000	1.250	20.00	24.00	●
PICCO R 006.0510-15N	6.05	0.55	0.12	0.6	2.30	5.30	14.0	36.00	6.00	1.000	1.250	20.00	24.00	●
PICCO R 006.0510-22N	6.05	0.55	0.12	0.6	2.30	5.30	21.0	43.00	6.00	1.000	1.250	20.00	24.00	●
PICCO R 006.0612-15N	6.05	0.68	0.15	0.7	2.30	5.30	14.0	36.00	6.00	1.250	1.500	16.00	20.00	●
PICCO R 006.0815-15N	6.05	0.81	0.18	0.8	2.30	5.30	14.0	36.00	6.00	1.500	1.750	14.00	16.00	●
PICCO R/L 007.0815-15N	7.05	0.81	0.18	0.8	2.70	6.30	14.0	36.00	7.00	1.500	1.750	14.00	16.00	●

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Thread pitch minimum (mm)

(2) Thread pitch maximum (mm)

(3) Threads per inch minimum

(4) Threads per inch maximum



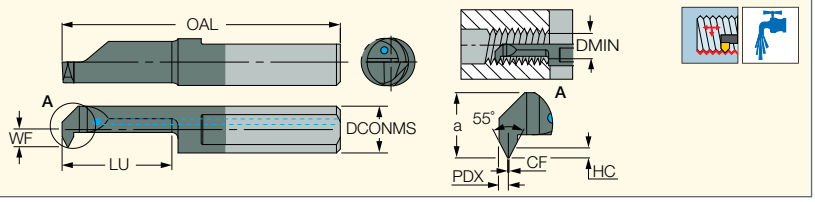
ISCARTHREAD

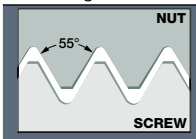
PICCOJET
COOLANT THROUGH

PICCO-55°-N
(55° Threading)

Inserts with Internal Coolant Channel for 55° Internal Threading Profile







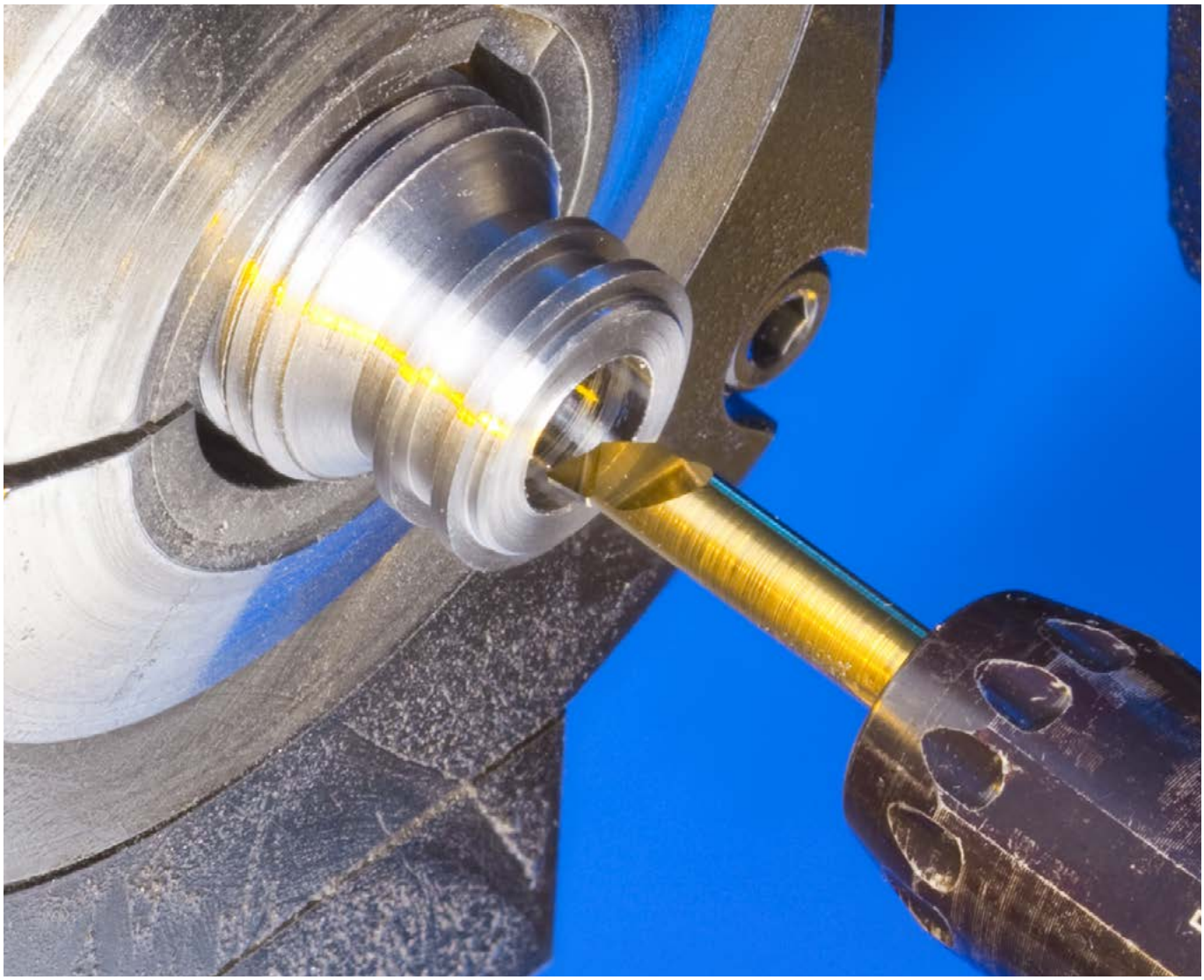
Designation	Dimensions											IC908
	DCONMS	TPIX(1)	TPIN(2)	HC	CF	PDX	WF	a	LU	OAL	DMIN	
PICCO R 006.5524-15N	6.05	24.00	16.00	0.81	0.12	0.8	2.30	5.30	14.0	36.00	6.00	●
PICCO R 007.5524-15N	7.05	24.00	16.00	0.81	0.12	0.8	2.80	6.30	14.0	36.00	7.00	●

• All mini-bars have sharp corners • Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only

(1) Threads per inch maximum

(2) Threads per inch minimum

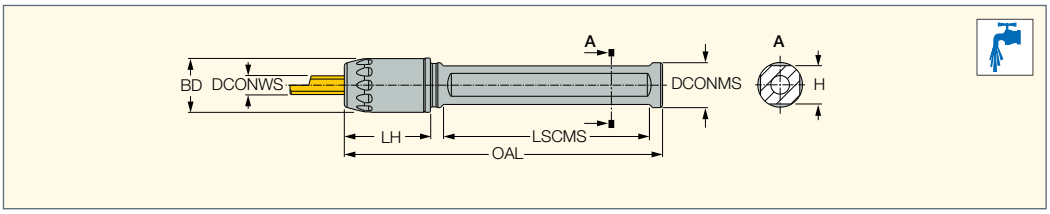




ACECUT PICCOCUT HOLDER

PICCO ACE

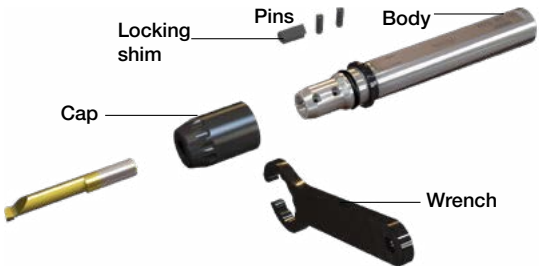
Holders for PICCO-CUT Inserts

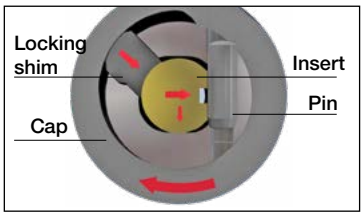


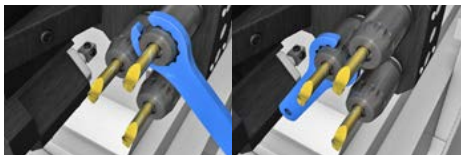
Designation	DCONMS	DCONWS	BD	OAL	LH	LSCMS	H		
PICCO ACE 12-4	12.00	4.00	14.50	85.00	23.00	53.00	10.3	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 12-5	12.00	5.00	14.50	85.00	23.00	53.00	10.3	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-4	16.00	4.00	14.50	85.00	21.50	53.50	14.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-5	16.00	5.00	14.50	85.00	21.50	53.00	14.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-6	16.00	6.00	19.90	85.00	23.00	53.50	14.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 16-7	16.00	7.00	19.90	85.00	23.00	53.50	14.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 20-4	20.00	4.00	14.50	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 20-5	20.00	5.00	14.50	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 20-6	20.00	6.00	19.90	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 20-7	20.00	7.00	19.90	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 22-4	22.00	4.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 22-5	22.00	5.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 22-6	22.00	6.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 22-7	22.00	7.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25-4	25.00	4.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25-5	25.00	5.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25-6	25.00	6.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25-7	25.00	7.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7

- Holders are suitable for right- and left-hand PICCO inserts

For tools, see pages: PICIN-MGSIR/L (386) • PICIN-SCLCR/L (386) • PICIN-SWUBR/L (386)



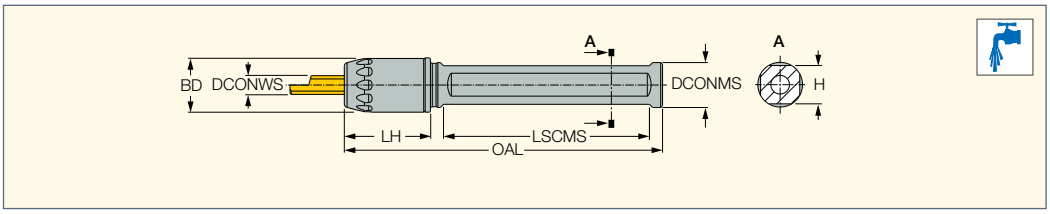




ACECUT PICCOCUT HOLDER

PICCO ACE

Holders for PICCO-CUT Inserts



I N C H

Designation	DCONMS	DCONWS	BD	OAL	LH	LSCMS	H		
PICCO ACE 12.7-4	.500	.157	.571	3.346	.906	2.087	.457	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 12.7-5	.500	.197	.571	3.346	.906	2.087	.457	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 15.9-4	.625	.157	.571	3.346	.846	2.087	.551	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 15.9-5	.625	.197	.571	3.346	.846	2.087	.551	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 15.9-6	.625	.236	.783	3.346	.906	2.087	.551	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 15.9-7	.625	.276	.783	3.346	.906	2.087	.551	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 19-4	.750	.157	.571	5.906	.846	4.646	.677	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 19-5	.750	.197	.571	5.906	.846	4.646	.677	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 19-6	.750	.236	.783	5.906	.906	4.646	.677	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 19-7	.750	.276	.783	5.906	.906	4.646	.677	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25.4-4	1.000	.157	.571	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25.4-5	1.000	.197	.571	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25.4-6	1.000	.236	.783	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25.4-7	1.000	.276	.783	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 6-7

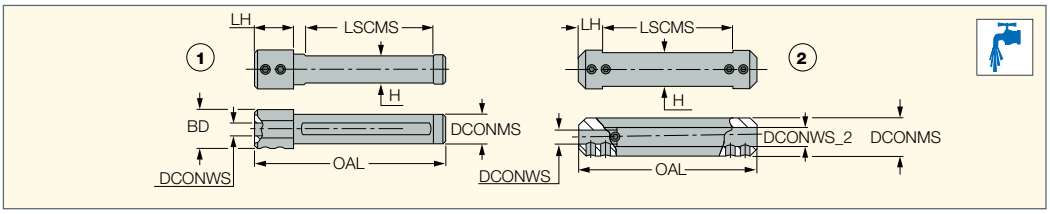
- Holders are suitable for right- and left-hand PICCO inserts

For tools, see pages: PICIN-MGSIR/L (386) • PICIN-SCLCR/L (386) • PICIN-SWUBR/L (386)

PASSCUT PICCOCUT HOLDER

PICCO/MG PCO (Holder)

Holders for PICCO-CUT Inserts and Small Diameter Boring Bars

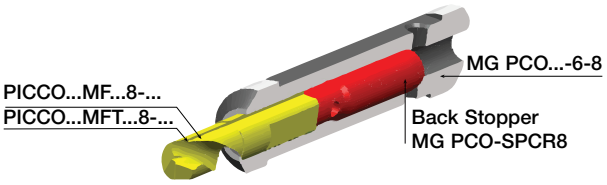


Designation	DCONMS	DCONWS	DCONWS_2	OAL	LH	LSCMS	H	BD	Fig.				
PICCO 12-4-5	12.00	4.00	5.00	75.00	10.00	55.00	10.3	-	2	SR M5X4-PF	HW 2.5		
PICCO 16-4-5	16.00	4.00	5.00	75.00	10.00	55.00	14.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 20-4-5	20.00	4.00	5.00	90.00	10.00	70.00	18.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 22-4-5 (1)	22.00	4.00	5.00	90.00	10.00	70.00	20.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 16-6-7	16.00	6.00	7.00	75.00	10.00	55.00	14.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 20-6-7	20.00	6.00	7.00	90.00	10.00	70.00	18.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 22-6-7 (1)	22.00	6.00	7.00	90.00	10.00	70.00	20.0	-	2	SR M5X6-PF	HW 2.5		
MG PCO-12-6	12.00	6.00	-	75.00	15.00	50.80	11.0	18.00	1	SR M5X6-PF	HW 2.5		
MG PCO-16-6-8	16.00	6.00	8.00	75.00	10.00	55.00	14.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-20-6-8	20.00	6.00	8.00	90.00	10.00	70.00	18.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-22-6-8 (1)	22.00	6.00	8.00	90.00	10.00	70.00	20.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-25-6-8	25.00	6.00	8.00	90.00	10.00	70.00	23.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-16-9	16.00	9.00	-	75.00	15.00	53.00	15.0	20.00	1	SR M5X6-PF	HW 2.5	PL 16	

- Holders are suitable for right- and left-hand inserts, and boring bars

(1) Tools for Swiss-type CNC

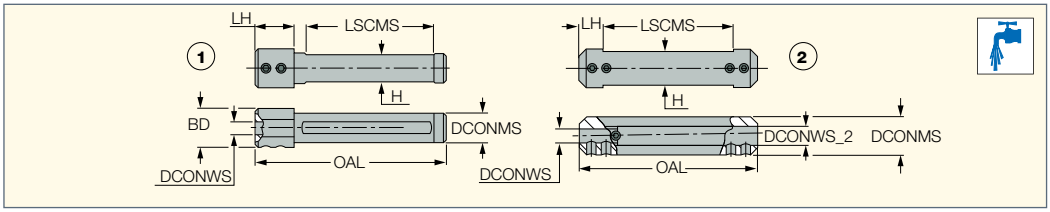
For tools, see pages: PICIN-MGSIR/L (386) • PICIN-SCLCR/L (386) • PICIN-SWUBR/L (386)



PASSCUT PICCOCUT HOLDER

PICCO/MG PCO (Holder)

Holders for PICCO-CUT Inserts and Small Diameter Boring Bars



INCH

Designation	DCONMS	DCONWS	DCONWS_2	OAL	LH	LSCMS	H	BD	Fig.				
PICCO 12.7-4-5	.500	.157	.197	2.950	.394	2.170	.410	-	2	SR M5X4-PF	HW 2.5		
PICCO 15.9-4-5	.625	.157	.197	2.950	.394	2.170	.550	-	2	SR M5X6-PF	HW 2.5		
PICCO 19-4-5	.750	.157	.197	3.540	.394	2.760	.710	-	2	SR M5X6-PF	HW 2.5		
PICCO 25.4-4-5 (1)	1.000	.157	.197	3.543	.394	2.756	.921	-	2	SR M5X6-PF	HW 2.5		
PICCO 15.9-6-7	.625	.236	.276	2.950	.394	2.170	.550	-	2	SR M5X6-PF	HW 2.5		
PICCO 19-6-7	.750	.236	.276	3.540	.394	2.760	.710	-	2	SR M5X6-PF	HW 2.5		
PICCO 25.4-6-7 (1)	1.000	.236	.276	3.543	.394	2.756	.921	-	2	SR M5X6-PF	HW 2.5		
MG PCO-12.7-6	.500	.236	-	3.000	.590	2.090	.460	.709	1	SR M5X6-PF	HW 2.5		
MG PCO-15.9-6-8	.625	.236	.315	3.000	.390	2.170	.551	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-19-6-8	.750	.236	.315	3.500	.390	2.760	.709	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-25.4-6-8 (1)	1.000	.236	.315	3.543	.394	2.756	.921	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-16-9	.630	.354	-	2.953	.591	2.087	.591	.787	1	SR M5X6-PF	HW 2.5	PL 16	

- Holders are suitable for left- and right-hand inserts, and boring bars

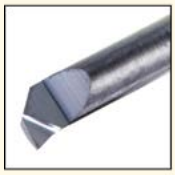
(1) Tools for Swiss-type CNC

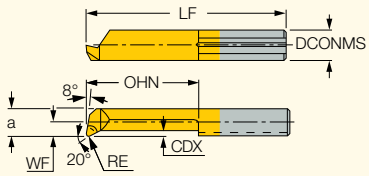
For tools, see pages: PICIN-MGSIR/L (386) • PICIN-SCLCR/L (386) • PICIN-SWUBR/L (386)

PICCOCUT

PICCO R/L 050, 053, 055

Inserts for Internal Turning and Chamfering







Right-hand shown

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	WF	a	LF	OHN(2)	RE	CDX(3)	DMIN	IC228	IC908
PICCO R 050.06-2 (1)	4.00	-	0.50	20.00	2.0	0.04	0.08	0.60	•	•
PICCO R 050.06-3 (1)	4.00	-	0.50	20.00	3.0	0.04	0.08	0.60	•	•
PICCO R 050.08-4	4.00	-	0.70	20.00	4.0	0.04	0.08	0.80		•
PICCO R/L 050.1-5	4.00	-	0.90	20.00	4.5	0.05	0.10	1.00	•	•
PICCO R/L 050.1-7	4.00	-	0.90	22.00	6.5	0.05	0.10	1.00	•	•
PICCO R 050.15-5	4.00	-	1.30	19.00	5.0	0.05	0.10	1.50		•
PICCO R 050.15-10	4.00	-	1.30	24.00	10.0	0.06	0.10	1.50		•
PICCO R/L 050.2-5	4.00	-	1.70	19.00	4.0	0.05	0.10	2.00	•	•
PICCO R 055.2-5	4.00	-	1.70	19.00	5.0	0.05	0.10	2.00		•
PICCO R/L 050.2-10	4.00	-	1.70	24.00	9.0	0.05	0.10	2.00	•	•
PICCO R 055.2-10	4.00	-	1.70	24.00	10.0	0.05	0.10	2.00		•
PICCO L 050.2-15	4.00	-	1.70	29.00	15.0	0.05	0.10	2.00	•	•
PICCO R 050.2-15	4.00	-	1.70	29.00	14.0	0.05	0.10	2.00	•	•
PICCO R 055.2-15	4.00	-	1.70	29.00	15.0	0.05	0.10	2.00		•
PICCO R 050.25-5	4.00	0.20	2.20	19.00	5.0	0.05	0.15	2.50		•
PICCO R 050.25-10	4.00	0.20	2.20	24.00	10.0	0.07	0.15	2.50		•
PICCO R 050.25-16	4.00	0.20	2.20	30.00	16.0	0.07	0.15	2.50		•
PICCO R 053.3-10	4.00	0.60	2.60	24.00	9.0	0.03	0.20	2.80		•
PICCO R 055.3-10	4.00	0.60	2.60	24.00	10.0	0.05	0.20	2.80		•
PICCO R/L 050.3-10	4.00	0.60	2.60	24.00	9.0	0.10	0.20	2.80	•	•
PICCO R 053.3-16	4.00	0.60	2.60	30.00	15.0	0.03	0.20	2.80		•
PICCO R 055.3-16	4.00	0.60	2.60	30.00	16.0	0.05	0.20	2.80		•
PICCO R/L 050.3-16	4.00	0.60	2.60	30.00	15.0	0.10	0.20	2.80	•	•
PICCO R 053.3-20	4.00	0.60	2.60	34.00	19.0	0.03	0.20	2.80		•
PICCO R/L 050.3-20	4.00	0.60	2.60	34.00	19.0	0.10	0.20	2.80	•	•
PICCO R 050.35-10	4.00	1.10	3.10	24.00	10.0	0.10	0.25	3.50		•
PICCO R 050.35-16	4.00	1.10	3.10	30.00	16.0	0.10	0.25	3.50		•
PICCO R 050.35-20	4.00	1.10	3.10	34.00	20.0	0.10	0.25	3.50		•
PICCO R 050.35-24	4.00	1.10	3.10	38.00	24.0	0.10	0.25	3.50		•
PICCO R 053.4-10	4.00	1.50	3.50	24.00	9.0	0.03	0.30	4.00		•
PICCO R 055.4-10	4.00	1.50	3.50	24.00	10.0	0.05	0.30	4.00		•
PICCO R/L 050.4-10	4.00	1.50	3.50	24.00	9.0	0.10	0.30	4.00	•	•
PICCO R 053.4-16	4.00	1.50	3.50	30.00	15.0	0.03	0.30	4.00		•
PICCO R 055.4-16	4.00	1.50	3.50	30.00	16.0	0.05	0.30	4.00		•
PICCO R/L 050.4-16	4.00	1.50	3.50	30.00	15.0	0.10	0.30	4.00	•	•
PICCO R 053.4-20	4.00	1.50	3.50	34.00	19.0	0.03	0.30	4.00		•
PICCO R 055.4-20	4.00	1.50	3.50	34.00	20.0	0.05	0.30	4.00		•
PICCO R/L 050.4-20	4.00	1.50	3.50	34.00	19.0	0.10	0.30	4.00	•	•
PICCO R/L 050.4-24	4.00	1.50	3.50	38.00	23.0	0.10	0.30	4.00	•	•
PICCO R/L 050.4-28	4.00	1.50	3.50	42.00	27.0	0.10	0.30	4.00	•	•
PICCO R 055.4-28	4.00	1.50	3.50	42.00	28.0	0.05	0.50	4.00		•
PICCO R 055.5-10	5.00	1.90	4.40	25.00	9.0	0.05	0.50	5.00		•
PICCO R/L 050.5-10	5.00	1.90	4.40	25.00	9.0	0.15	0.50	5.00	•	•
PICCO R 055.5-15	5.00	1.90	4.40	30.00	14.0	0.05	0.50	5.00		•
PICCO R/L 050.5-15	5.00	1.90	4.40	30.00	14.0	0.15	0.50	5.00	•	•
PICCO R 055.5-20	5.00	1.90	4.40	35.00	19.0	0.05	0.50	5.00		•
PICCO R/L 050.5-20	5.00	1.90	4.40	35.00	19.0	0.15	0.50	5.00	•	•
PICCO R 055.5-25	5.00	1.90	4.40	40.00	24.0	0.05	0.50	5.00		•
PICCO R/L 050.5-25	5.00	1.90	4.40	40.00	24.0	0.15	0.50	5.00	•	•
PICCO R 055.5-30	5.00	1.90	4.40	45.00	29.0	0.05	0.50	5.00		•
PICCO R/L 050.5-30	5.00	1.90	4.40	45.00	29.0	0.15	0.50	5.00	•	•
PICCO R/L 050.5-35	5.00	1.90	4.40	50.00	34.0	0.15	0.50	5.00	•	•
PICCO R 055.6-15	6.00	2.30	5.30	30.00	14.0	0.05	0.50	6.00		•

• Specify right- or left-hand bars

(1) Maximum D.O.C.=0.01-0.03 mm, maximum feed=0.01 mm/rev.

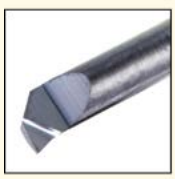
(2) Minimum overhang

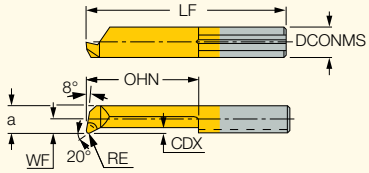
(3) Cutting depth maximum

PICCOCUT

PICCO R/L 050, 053, 055 (Continued)

Inserts for Internal Turning and Chamfering





Right-hand shown

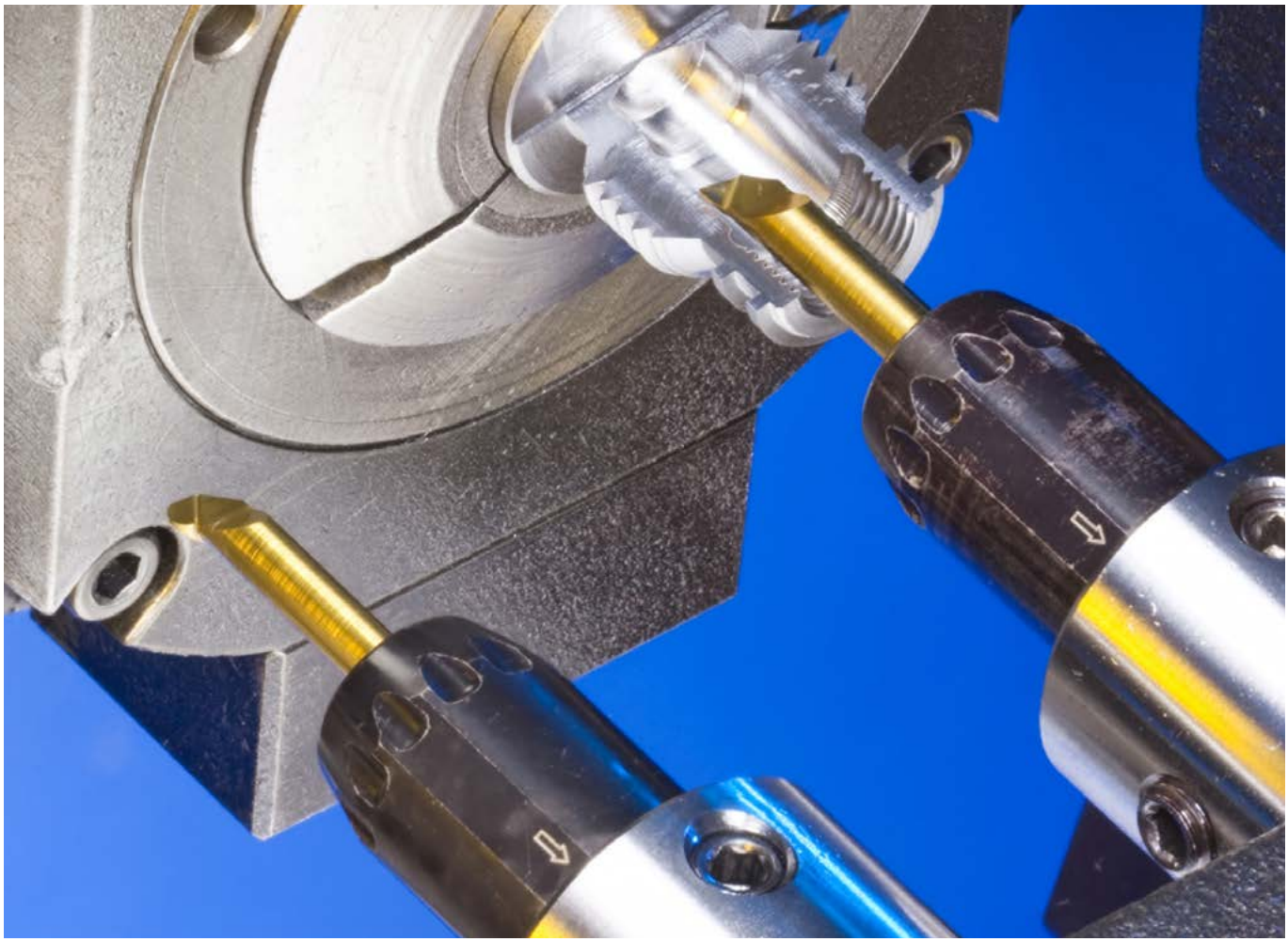
Designation	Dimensions								Tough ↔ Hard	
	DCONMS	WF	a	LF	OHN[2]	RE	CDX[3]	DMIN	IC228	IC908
PICCO R/L 050.6-15	6.00	2.30	5.30	30.00	14.0	0.15	0.50	6.00	•	•
PICCO R 055.6-22	6.00	2.30	5.30	37.00	21.0	0.05	0.50	6.00		•
PICCO R/L 050.6-22	6.00	2.30	5.30	37.00	21.0	0.15	0.50	6.00	•	•
PICCO R 055.6-25	6.00	2.30	5.30	40.00	24.0	0.05	0.50	6.00		•
PICCO R/L 050.6-25	6.00	2.30	5.30	40.00	24.0	0.15	0.50	6.00	•	•
PICCO R 055.6-30	6.00	2.30	5.30	45.00	29.0	0.05	0.50	6.00		•
PICCO R/L 050.6-30	6.00	2.30	5.30	45.00	29.0	0.15	0.50	6.00	•	•
PICCO R/L 050.6-35	6.00	2.30	5.30	50.00	34.0	0.15	0.50	6.00	•	•
PICCO R/L 050.6-42	6.00	2.30	5.30	57.00	41.0	0.15	0.50	6.00	•	•
PICCO R/L 050.7-20	7.00	2.80	6.30	35.00	19.0	0.15	0.60	6.80	•	•
PICCO R/L 050.7-25	7.00	2.80	6.30	40.00	24.0	0.15	0.60	6.80	•	•
PICCO R/L 050.7-30	7.00	2.80	6.30	45.00	29.0	0.15	0.60	6.80	•	•
PICCO R/L 050.7-35	7.00	2.80	6.30	50.00	34.0	0.15	0.60	6.80	•	•
PICCO R/L 050.7-40	7.00	2.80	6.30	55.00	39.0	0.15	0.60	6.80	•	•
PICCO R/L 050.7-45	7.00	2.80	6.30	60.00	44.0	0.15	0.60	6.80	•	•
PICCO R/L 050.7-50	7.00	2.80	6.30	65.00	49.0	0.15	0.60	6.80	•	•

• Specify right- or left-hand bars

(1) Maximum D.O.C.=0.01-0.03 mm, maximum feed=0.01 mm/rev.

(2) Minimum overhang

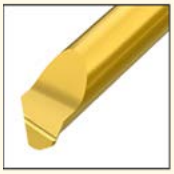
(3) Cutting depth maximum

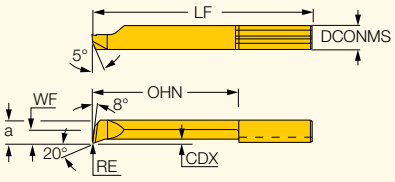


PICCOCUT

PICCO R/L 050-C

Inserts with Chipformers for Internal Boring and Profiling







Right-hand shown

Designation	Dimensions								IC908
	DCONMS	WF	a	LF	OHN(1)	CDX(2)	DMIN	RE	
PICCO R/L 050.4-10C	4.00	1.50	3.50	24.00	10.0	0.30	4.00	0.10	•
PICCO R/L 050.4-20C	4.00	1.50	3.50	34.00	20.0	0.30	4.00	0.10	•
PICCO R/L 050.4-24C	4.00	1.50	3.50	38.00	24.0	0.30	4.00	0.10	•
PICCO R/L 050.4-28C	4.00	1.50	3.50	42.00	28.0	0.30	4.00	0.10	•
PICCO R 050.4-16C	4.00	1.50	3.50	30.00	16.0	0.30	4.00	0.10	•
PICCO R/L 050.5-10C	5.00	1.90	4.40	25.00	10.0	0.50	5.00	0.15	•
PICCO R/L 050.5-15C	5.00	1.90	4.40	30.00	15.0	0.50	5.00	0.15	•
PICCO R/L 050.5-20C	5.00	1.90	4.40	35.00	20.0	0.50	5.00	0.15	•
PICCO R/L 050.5-25C	5.00	1.90	4.40	40.00	25.0	0.50	5.00	0.15	•
PICCO R/L 050.5-30C	5.00	1.90	4.40	45.00	30.0	0.50	5.00	0.15	•
PICCO R/L 050.5-35C	5.00	1.90	4.40	50.00	35.0	0.50	5.00	0.15	•
PICCO R/L 050.6-15C	6.00	2.30	5.30	30.00	15.0	0.50	6.00	0.15	•
PICCO R/L 050.6-22C	6.00	2.30	5.30	37.00	22.0	0.50	6.00	0.15	•
PICCO R/L 050.6-25C	6.00	2.30	5.30	40.00	25.0	0.50	6.00	0.15	•
PICCO R/L 050.6-30C	6.00	2.30	5.30	45.00	30.0	0.50	6.00	0.15	•
PICCO R/L 050.6-35C	6.00	2.30	5.30	50.00	35.0	0.50	6.00	0.15	•
PICCO R/L 050.6-42C	6.00	2.30	5.30	57.00	42.0	0.50	6.00	0.15	•
PICCO R/L 050.7-20C	7.00	2.80	6.30	35.00	20.0	0.60	6.80	0.15	•
PICCO R/L 050.7-25C	7.00	2.80	6.30	40.00	25.0	0.60	6.80	0.15	•
PICCO R/L 050.7-30C	7.00	2.80	6.30	45.00	30.0	0.60	6.80	0.15	•
PICCO R/L 050.7-35C	7.00	2.80	6.30	50.00	35.0	0.60	6.80	0.15	•
PICCO R/L 050.7-40C	7.00	2.80	6.30	55.00	40.0	0.60	6.80	0.15	•
PICCO L 050.7-50C	7.00	2.80	6.30	65.00	50.0	0.60	6.80	0.15	•

• All left-hand inserts on request

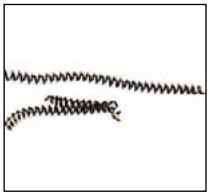
(1) Minimum overhang

(2) Cutting depth maximum

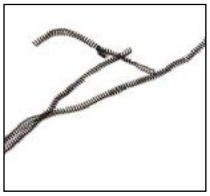
Stainless Steel 316L

PICCO R 050.6-35C with Chipbreaker

f= 0.03 mm/rev



f= 0.05 mm/rev



PICCO R 050.6-35 Standard

f= 0.03 mm/rev



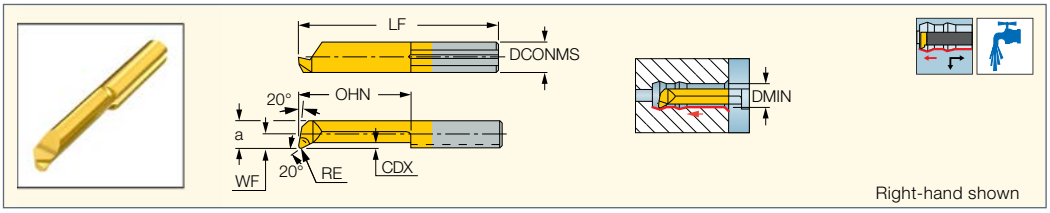
f= 0.05 mm/rev



PICCOCUT

PICCO R 050.20

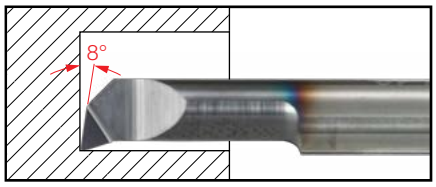
Inserts for Internal Turning and Chamfering Next to the Bottom of Blind Holes



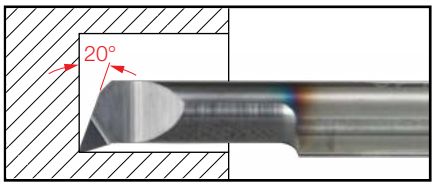
Designation	Dimensions								IC908
	DCONMS	WF	a	LF	OHN(1)	RE	CDX(2)	DMIN	
PICCO R 050.20.2-10	4.00	-	1.70	24.00	10.0	0.05	0.10	2.00	●
PICCO R 050.20.3-10	4.00	0.60	2.60	24.00	10.0	0.10	0.20	2.80	●
PICCO R 050.20.4-16	4.00	1.50	3.50	30.00	16.0	0.10	0.30	4.00	●
PICCO R 050.20.5-20	5.00	1.90	4.40	35.00	19.0	0.15	0.50	5.00	●

• Specify right- or left-hand bars
(1) Minimum overhang
(2) Cutting depth maximum

PICCO 050...



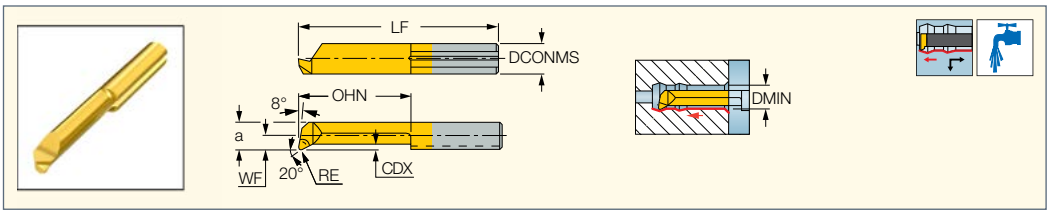
PICCO 050.20...



PICCOCUT

PICCO R/LHD 050

Inserts for Internal Turning and Chamfering of Hard Steel - Up to 65 HRC



Designation	Dimensions								IC902
	DCONMS	WF	a	LF	OHN(1)	RE	CDX(2)	DMIN	
PICCO R/LHD 050.2-5	4.00	-	1.70	19.00	4.0	0.05	0.10	2.00	●
PICCO R/LHD 050.3-10	4.00	0.60	2.60	24.00	9.0	0.10	0.20	2.80	●
PICCO R/LHD 050.3-16	4.00	0.60	2.60	30.00	15.0	0.10	0.20	2.80	●
PICCO R/LHD 050.4-10	4.00	1.50	3.50	24.00	9.0	0.10	0.30	4.00	●
PICCO R/LHD 050.4-20	4.00	1.50	3.50	34.00	19.0	0.10	0.30	4.00	●
PICCO R/LHD 050.5-10	5.00	1.90	4.40	25.00	9.0	0.15	0.50	5.00	●
PICCO R/LHD 050.5-15	5.00	1.90	4.40	30.00	14.0	0.15	0.50	5.00	●
PICCO R/LHD 050.6-15	6.00	2.30	5.30	30.00	14.0	0.15	0.50	6.00	●
PICCO R/LHD 050.7-20	7.00	2.80	6.30	35.00	19.0	0.15	0.60	6.80	●
PICCO R/LHD 050.7-25	7.00	2.80	6.30	40.00	24.0	0.15	0.60	6.80	●
PICCO R/LHD 050.7-35	7.00	2.80	6.30	50.00	34.0	0.15	0.60	6.80	●

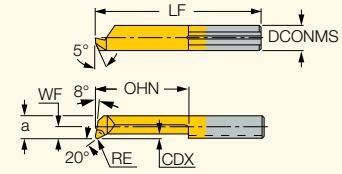
• Specify right- or left-hand bars
(1) Minimum overhang
(2) Cutting depth maximum

PICCOCUT

PICCO R 050 (CBN)

CBN Tipped Inserts for Internal Turning, Profiling and Chamfering of Hard Steel







Right-hand shown • HARD MATERIALS

Designation	Dimensions DCONMS	WF	a	LF	OHN(1)	CDX(2)	DMIN	RE	IB55
PICCO R 050.3-10B	4.00	0.60	2.60	25.50	10.0	0.20	2.80	0.10	•
PICCO R 050.4-10B	4.00	1.50	3.50	25.50	10.0	0.30	4.00	0.10	•
PICCO R 050.5-15B	5.00	1.90	4.40	31.50	15.0	0.50	5.00	0.15	•
PICCO R 050.6-15B	6.00	2.30	5.30	31.50	15.0	0.50	6.00	0.15	•
PICCO R 050.7-20B	7.00	2.80	6.30	36.50	20.0	0.60	6.80	0.15	•

• It is not recommended to use coolant when machining with CBN tipped tools • Available on request only

(1) Minimum overhang

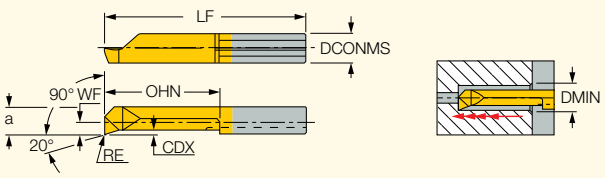
(2) Cutting depth maximum

PICCOCUT

PICCO R/L 090

Inserts for Internal Turning and Profiling







Right-hand shown

Designation	Dimensions DCONMS	WF	a	LF	OHN(1)	RE	CDX(2)	DMIN	IC228
PICCO R/L 090.3-10	4.00	0.60	2.60	24.00	9.0	0.10	0.20	2.80	•
PICCO R/L 090.3-16	4.00	0.60	2.60	30.00	15.0	0.10	0.20	2.80	•
PICCO R/L 090.4-10	4.00	1.50	3.50	24.00	9.0	0.10	0.30	4.00	•
PICCO R/L 090.4-16	4.00	1.50	3.50	30.00	15.0	0.10	0.30	4.00	•
PICCO R/L 090.5-10	5.00	1.90	4.40	25.00	9.0	0.15	0.50	5.00	•
PICCO R/L 090.5-15	5.00	1.90	4.40	30.00	14.0	0.15	0.50	5.00	•
PICCO R/L 090.5-20	5.00	1.90	4.40	35.00	19.0	0.15	0.50	5.00	•

• Specify right- or left-hand bars

(1) Minimum overhang

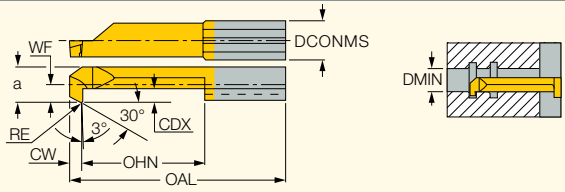
(2) Cutting depth maximum

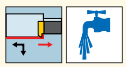
PICCOCUT

PICCO R/L 080

Inserts for Internal Back Turning







Right-hand shown

Designation	Dimensions DCONMS	WF	a	CW	OAL	OHN(1)	RE	CDX(2)	DMIN	IC228
PICCO R/L 080.0003-15	4.00	0.60	2.60	1.50	30.00	14.0	0.10	0.50	3.00	•
PICCO R/L 080.0003-20	4.00	0.60	2.60	1.50	34.00	19.0	0.10	0.50	3.00	•
PICCO R/L 080.0004-15	4.00	1.50	3.50	1.50	30.00	14.0	0.15	0.80	4.00	•
PICCO R/L 080.0004-25	4.00	1.50	3.50	1.50	39.00	24.0	0.15	0.80	4.00	•
PICCO R/L 080.0005-20	5.00	1.90	4.40	1.50	35.00	19.0	0.20	1.00	5.00	•
PICCO R/L 080.0005-30	5.00	1.90	4.40	1.50	45.00	29.0	0.20	1.00	5.00	•
PICCO R/L 080.0006-20	6.00	2.30	5.30	1.50	35.00	19.0	0.20	1.80	6.00	•
PICCO R/L 080.0006-30	6.00	2.30	5.30	1.50	45.00	29.0	0.20	1.80	6.00	•
PICCO R/L 080.0007-20	7.00	2.80	6.30	1.50	35.00	19.0	0.20	2.50	7.00	•
PICCO R/L 080.0007-30	7.00	2.80	6.30	1.50	45.00	29.0	0.20	2.50	7.00	•

• Specify right- or left-hand bars

(1) Minimum overhang

(2) Cutting depth maximum

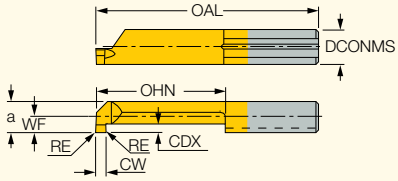
For holders, see pages: GHPCOR (409) • PICCO ACE (398) • PICCO/MG PCO (Holder) (399)

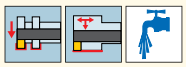
PICCOCUT

PICCO R/L 002-007

Inserts for Internal Grooving and Turning







Right-hand shown

Designation	Dimensions									Tough ↔ Hard	
	DCONMS	CW	WF	a	RE	OAL	OHN(1)	CDX(2)	DMIN	IC228	IC908
PICCO R 002.0050-5	4.00	0.50	0.20	1.80	0.00	19.00	5.0	0.40	2.00		•
PICCO R 002.0050-10	4.00	0.50	0.20	1.80	0.00	24.00	10.0	0.40	2.00		•
PICCO R/L 002.0050-15	4.00	0.50	0.20	1.80	0.00	29.00	15.0	0.40	2.00		•
PICCO R 003.0070-5	4.00	0.70	0.70	2.70	0.00	19.00	5.0	0.60	3.00		•
PICCO R 003.0070-10	4.00	0.70	0.70	2.70	0.00	24.00	10.0	0.60	3.00		•
PICCO R 003.0070-16	4.00	0.70	0.70	2.70	0.00	29.00	15.0	0.60	3.00		•
PICCO R/L 004.0100-10	4.00	1.00	1.50	3.50	0.00	24.00	9.0	0.80	4.00	•	
PICCO R/L 004.0100-16	4.00	1.00	1.50	3.50	0.00	30.00	15.0	0.80	4.00	•	
PICCO R/L 004.0100-20	4.00	1.00	1.50	3.50	0.00	34.00	19.0	0.80	4.00	•	
PICCO R/L 005.0100-10	5.00	1.00	1.90	4.40	0.00	25.00	9.0	1.00	5.00	•	
PICCO R/L 005.0100-15	5.00	1.00	1.90	4.40	0.00	30.00	14.0	1.00	5.00	•	
PICCO R/L 005.0100-20	5.00	1.00	1.90	4.40	0.00	35.00	19.0	1.00	5.00	•	
PICCO R/L 005.0100-25	5.00	1.00	1.90	4.40	0.00	40.00	24.0	1.00	5.00	•	
PICCO R/L 005.0100-30	5.00	1.00	1.90	4.40	0.00	45.00	29.0	1.00	5.00	•	
PICCO R/L 005.0150-10	5.00	1.50	1.90	4.40	0.00	25.00	9.0	1.00	5.00	•	
PICCO R/L 005.0150-15	5.00	1.50	1.90	4.40	0.00	30.00	14.0	1.00	5.00	•	
PICCO R 005M0150-15	5.00	1.50	1.90	4.00	0.10	30.00	14.0	1.00	5.00		•
PICCO R/L 005.0150-20	5.00	1.50	1.90	4.40	0.00	35.00	19.0	1.00	5.00	•	
PICCO R/L 005.0150-25	5.00	1.50	1.90	4.40	0.00	40.00	24.0	1.00	5.00	•	
PICCO R/L 005.0150-30	5.00	1.50	1.90	4.40	0.00	45.00	29.0	1.00	5.00	•	
PICCO R/L 005.0200-10	5.00	2.00	1.90	4.40	0.00	25.00	9.0	1.00	5.00	•	
PICCO R/L 005.0200-15	5.00	2.00	1.90	4.40	0.00	30.00	14.0	1.00	5.00	•	
PICCO R/L 005.0200-20	5.00	2.00	1.90	4.40	0.00	35.00	19.0	1.00	5.00	•	
PICCO R/L 005.0200-25	5.00	2.00	1.90	4.40	0.00	40.00	24.0	1.00	5.00	•	
PICCO R/L 005.0200-30	5.00	2.00	1.90	4.40	0.00	45.00	29.0	1.00	5.00	•	
PICCO R/L 006.0100-10	6.00	1.00	2.30	5.30	0.00	25.00	9.0	1.80	6.00	•	
PICCO R/L 006.0100-15	6.00	1.00	2.30	5.30	0.00	30.00	14.0	1.80	6.00	•	
PICCO R/L 006.0100-22	6.00	1.00	2.30	5.30	0.00	37.00	21.0	1.80	6.00	•	
PICCO R/L 006.0100-25	6.00	1.00	2.30	5.30	0.00	40.00	24.0	1.80	6.00	•	
PICCO R/L 006.0100-30	6.00	1.00	2.30	5.30	0.00	45.00	29.0	1.80	6.00	•	
PICCO R/L 006.0150-10	6.00	1.50	2.30	5.30	0.00	25.00	9.0	1.80	6.00	•	
PICCO R/L 006.0150-15	6.00	1.50	2.30	5.30	0.00	30.00	14.0	1.80	6.00	•	
PICCO R/L 006.0150-22	6.00	1.50	2.30	5.30	0.00	37.00	21.0	1.80	6.00	•	
PICCO R/L 006.0150-25	6.00	1.50	2.30	5.30	0.00	40.00	24.0	1.80	6.00	•	
PICCO R/L 006.0150-30	6.00	1.50	2.30	5.30	0.00	45.00	29.0	1.80	6.00	•	
PICCO R/L 006.0200-10	6.00	2.00	2.30	5.30	0.00	25.00	9.0	1.80	6.00	•	
PICCO R/L 006.0200-15	6.00	2.00	2.30	5.30	0.00	30.00	14.0	1.80	6.00	•	
PICCO R 006M0200-15	6.00	2.00	2.30	5.30	0.10	30.00	14.0	1.80	6.00		•
PICCO R/L 006.0200-22	6.00	2.00	2.30	5.30	0.00	37.00	21.0	1.80	6.00	•	
PICCO R/L 006.0200-25	6.00	2.00	2.30	5.30	0.00	40.00	24.0	1.80	6.00	•	
PICCO R/L 006.0200-30	6.00	2.00	2.30	5.30	0.00	45.00	29.0	1.80	6.00	•	
PICCO R/L 007.0100-10	7.00	1.00	2.80	6.30	0.00	25.00	9.0	2.50	6.80	•	
PICCO R/L 007.0100-15	7.00	1.00	2.80	6.30	0.00	30.00	14.0	2.50	6.80	•	
PICCO R/L 007.0100-22	7.00	1.00	2.80	6.30	0.00	37.00	21.0	2.50	6.80	•	
PICCO R/L 007.0100-25	7.00	1.00	2.80	6.30	0.00	40.00	24.0	2.50	6.80	•	
PICCO R/L 007.0100-30	7.00	1.00	2.80	6.30	0.00	45.00	29.0	2.50	6.80	•	
PICCO R/L 007.0150-10	7.00	1.50	2.80	6.30	0.00	25.00	9.0	2.50	6.80	•	
PICCO R/L 007.0150-15	7.00	1.50	2.80	6.30	0.00	30.00	14.0	2.50	6.80	•	
PICCO R/L 007.0150-22	7.00	1.50	2.80	6.30	0.00	37.00	21.0	2.50	6.80	•	
PICCO R/L 007.0150-25	7.00	1.50	2.80	6.30	0.00	40.00	24.0	2.50	6.80	•	
PICCO R/L 007.0150-30	7.00	1.50	2.80	6.30	0.00	45.00	29.0	2.50	6.80	•	
PICCO R/L 007.0200-10	7.00	2.00	2.80	6.30	0.00	25.00	9.0	2.50	6.80	•	
PICCO R/L 007.0200-15	7.00	2.00	2.80	6.30	0.00	30.00	14.0	2.50	6.80	•	
PICCO R 007M0200-15	7.00	2.00	2.80	6.30	0.10	30.00	14.0	2.50	6.80		•
PICCO R/L 007.0200-22	7.00	2.00	2.80	6.30	0.00	37.00	21.0	2.50	6.80	•	
PICCO R/L 007.0200-25	7.00	2.00	2.80	6.30	0.00	40.00	24.0	2.50	6.80	•	
PICCO R/L 007.0200-30	7.00	2.00	2.80	6.30	0.00	45.00	29.0	2.50	6.80	•	

• All carbide bars with sharp corners • Specify right- or left-hand bars

(1) Minimum overhang

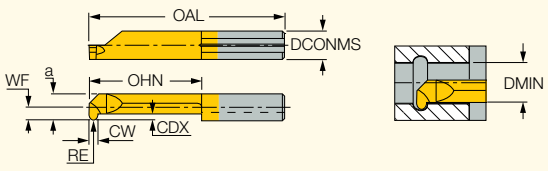
(2) Cutting depth maximum

PICCOCUT

PICCO R/L 004-007 (radius)

Full Radius Inserts for Internal Profiling





Right-hand shown

Designation	Dimensions									IC228
	DCONMS	CW	WF	a	RE	OAL	OHN(1)	CDX(2)	DMIN	
PICCO R/L 004.0.50-16	4.00	1.00	1.50	3.50	0.50	30.00	15.0	0.80	4.00	●
PICCO R/L 005.0.50-20	5.00	1.00	1.90	4.40	0.50	35.00	19.0	1.00	5.00	●
PICCO R/L 005.0.75-20	5.00	1.50	1.90	4.40	0.75	35.00	19.0	1.00	5.00	●
PICCO R/L 005.1.00-20	5.00	2.00	1.90	4.40	1.00	35.00	19.0	1.00	5.00	●
PICCO R/L 006.0.50-25	6.00	1.00	2.30	5.30	0.50	40.00	24.0	1.80	6.00	●
PICCO R/L 006.0.75-25	6.00	1.50	2.30	5.30	0.75	40.00	24.0	1.80	6.00	●
PICCO R/L 006.1.00-25	6.00	2.00	2.30	5.30	1.00	40.00	24.0	1.80	6.00	●
PICCO R/L 007.0.50-30	7.00	1.00	2.80	6.30	0.50	45.00	29.0	2.50	6.80	●
PICCO R/L 007.0.75-30	7.00	1.50	2.80	6.30	0.75	45.00	29.0	2.50	6.80	●
PICCO R/L 007.1.00-30	7.00	2.00	2.80	6.30	1.00	45.00	29.0	2.50	6.80	●

- Specify right- or left-hand bars

(1) Minimum overhang

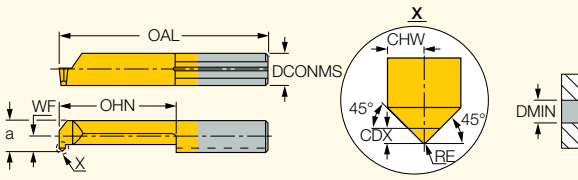
(2) Cutting depth maximum

PICCOCUT

PICCO R/L 060

Inserts for Internal Turning and 45° Chamfering





Right-hand shown

Designation	Dimensions									Tough ↔ Hard	
	DCONMS	RE	CHW	WF	a	OHN(1)	OAL	CDX(2)	DMIN	IC228	IC908
PICCO R/L 060.5-15	5.00	0.20	1.0	1.90	4.40	14.0	30.00	0.70	5.00	●	
PICCO R/L 060.5-20	5.00	0.20	1.0	1.90	4.40	19.0	35.00	0.70	5.00	●	
PICCO R 060.6-20	6.00	0.20	1.0	2.30	5.30	20.0	35.00	0.70	6.00		●
PICCO R 060.6-25	6.00	0.20	1.0	2.30	5.30	25.0	40.00	0.70	6.00		●
PICCO R/L 060.7-20	7.00	0.20	1.0	2.80	6.30	19.0	35.00	0.70	6.80	●	
PICCO R 060.7-40	7.00	0.20	1.0	2.80	6.30	40.0	55.00	0.70	6.80		●

- Specify right- or left-hand bars

(1) Minimum overhang

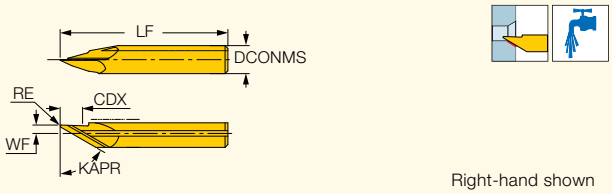
(2) Cutting depth maximum

PICCOCUT

PICCO R/L 520

Inserts for Internal Chamfering





Right-hand shown

Designation	Dimensions							IC908
	DCONMS	WF	KAPR(1)	LF	RE	CDX	DMIN	
PICCO R/L 520.0045-15	5.00	1.50	45.0	30.00	0.20	3.50	1.00	●
PICCO R/L 520.0060-15	5.00	1.50	60.0	30.00	0.20	4.00	1.00	●

- Left hand inserts on request

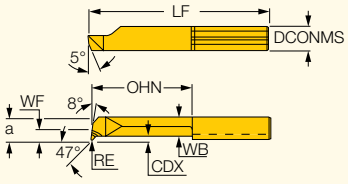
(1) Tool cutting edge angle

PICCOCUT

PICCO R/L 047

Inserts for Internal Deep Profiling







Right-hand shown

Designation	Dimensions DCONMS	WF	a	LF	OHN(1)	WB	CDX(2)	DMIN	RE	IC908
PICCO R/L 047.4-20	4.00	1.50	3.50	34.00	20.0	3.00	0.30	4.00	0.15	•
PICCO R/L 047.5-25	5.00	1.90	4.40	40.00	25.0	3.80	0.50	5.00	0.15	•
PICCO R/L 047.6-30	6.00	2.30	5.30	45.00	30.0	4.50	0.50	6.00	0.15	•
PICCO R 047.T6-22	6.00	2.30	5.30	37.00	22.0	3.40	1.80	6.00	0.15	•
PICCO R 047.T6-30	6.00	2.30	5.30	45.00	30.0	3.40	1.80	6.00	0.15	•

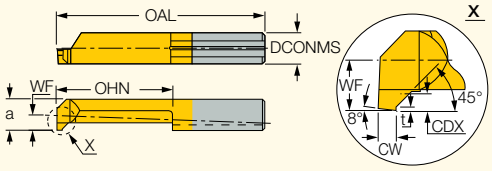
• Left hand inserts on request
(1) Minimum overhang
(2) Cutting depth maximum

PICCOCUT

PICCO R/L 070

Back Chamfering Inserts for Pre-Parting Operations







Right-hand shown

Designation	Dimensions DCONMS	CW	WF	a	OHN(1)	OAL	t	CDX(2)	DMIN	IC228
PICCO R/L 070.5-15	5.00	1.00	1.90	4.40	15.0	30.00	0.20	1.00	5.00	•
PICCO R/L 070.5-20	5.00	1.00	1.90	4.40	20.0	35.00	0.20	1.00	5.00	•

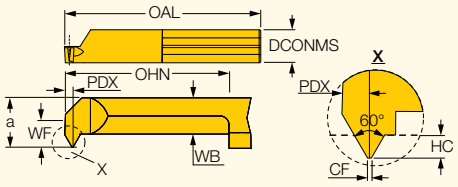
• All carbide bars with sharp corners • Specify right- or left-hand bars
(1) Minimum overhang
(2) Cutting depth maximum

PICCOCUT

PICCO ISO Full Profile

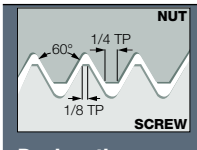
ISO Standard Inserts for Full Profile Threads







Right-hand shown



Designation	Dimensions TP(1)	DCONMS	WF	a	OAL	OHN(2)	WB	PDX	HC	CF	DMIN	IC908
PICCO R/L 105.0510-15	1.000	5.00	1.90	4.40	30.00	15.0	3.30	0.6	0.54	0.12	4.80	•
PICCO R/L 106.0612-15	1.250	6.00	2.30	5.30	30.00	15.0	3.40	0.7	0.67	0.15	6.00	•
PICCO R/L 106.0815-15	1.500	6.00	2.30	5.30	30.00	15.0	3.40	0.8	0.81	0.18	6.00	•
PICCO R/L 107.0815-15	1.500	7.00	2.80	6.30	30.00	15.0	3.80	0.8	0.81	0.18	7.00	•

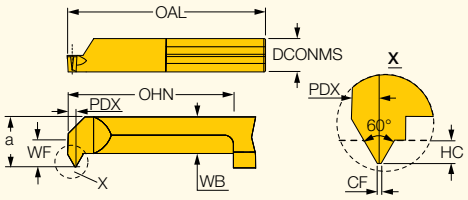
(1) Thread pitch
(2) Minimum overhang

PICCOCUT

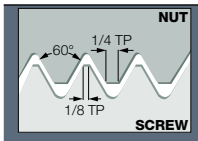
PICCO ISO Full Profile Fine

ISO Fine Pitch Inserts for Full Profile Threads





Right-hand shown



Designation	Dimensions TP[1]	DCONMS	WF	a	OAL	OHN[2]	WB	PDX	HC	CF	DMIN	IC908
PICCO R/L 104.0205-15	0.500	5.00	1.50	3.50	30.00	15.0	2.40	0.4	0.27	0.06	4.00	●
PICCO R/L 105.0205-15	0.500	5.00	1.90	4.40	30.00	15.0	3.30	0.4	0.27	0.06	5.00	●
PICCO R/L 105.0407-15	0.750	5.00	1.90	4.40	30.00	15.0	3.30	0.5	0.40	0.09	5.00	●
PICCO R/L 106.0510-15	1.000	6.00	2.30	5.30	30.00	15.0	3.40	0.6	0.54	0.12	6.00	●

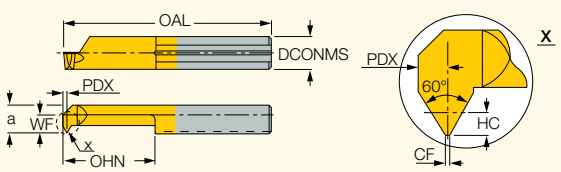
(1) Thread pitch
(2) Minimum overhang

ISCARTHREAD
PICCOCUT

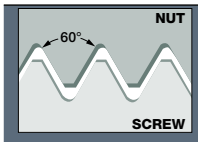
PICCO R/L-60°-Thread

Inserts with a 60° Internal Thread Profile for 2.4 mm Min. Bore Diameter





Right-hand shown



Designation	Dimensions DCONMS	HC	CF	PDX	WF	a	OHN[1]	OAL	DMIN	TPN[2]	TPX[3]	TPIN[4]	TPIX[5]	Tough ↔ Hard IC228	IC908
PICCO R 003.0105-8	4.00	0.27	0.04	0.3	0.30	2.30	8.0	22.00	2.40	0.500	0.700	36.00	48.00		●
PICCO R 004.0105-10	4.00	0.27	0.09	0.4	1.00	3.00	10.0	24.00	3.20	0.500	0.750	36.00	48.00		●
PICCO R/L 004.0205-15	4.00	0.27	0.06	0.4	1.50	3.50	15.0	30.00	4.00	0.500	0.750	36.00	48.00	●	
PICCO R/L 005.0205-15	5.00	0.27	0.06	0.4	1.90	4.40	15.0	30.00	5.00	0.500	0.750	36.00	48.00	●	
PICCO L 005.0407-15	5.00	0.40	0.09	0.5	1.90	4.40	15.0	30.00	5.00	0.750	1.000	24.00	36.00	●	
PICCO R 005.0407-15	5.00	0.40	0.09	0.5	1.90	4.40	15.0	30.00	5.00	0.750	1.000	24.00	36.00	●	●
PICCO R 005.0407-20	5.00	0.40	0.09	0.5	1.90	4.40	20.0	35.00	5.00	0.750	1.000	24.00	36.00		●
PICCO R/L 005.0510-15	5.00	0.55	0.12	0.6	1.90	4.40	15.0	30.00	4.80	1.000	1.250	20.00	24.00	●	
PICCO R 005.0510-20	5.00	0.55	0.12	0.6	1.90	4.40	20.0	35.00	4.80	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0510-15	6.00	0.55	0.12	0.6	2.30	5.30	15.0	30.00	6.00	1.000	1.250	20.00	24.00	●	
PICCO R 006.0510-22	6.00	0.55	0.12	0.6	2.30	5.30	22.0	37.00	6.00	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0612-15	6.00	0.68	0.15	0.7	2.30	5.30	15.0	30.00	6.00	1.250	1.500	16.00	20.00	●	
PICCO R 006.0612-22	6.00	0.68	0.15	0.7	2.30	5.30	22.0	37.00	6.00	1.250	1.500	16.00	20.00		●
PICCO R/L 006.0815-15	6.00	0.81	0.18	0.8	2.30	5.30	15.0	30.00	6.00	1.500	1.750	14.00	16.00	●	
PICCO R 006.0815-22	6.00	0.81	0.18	0.8	2.30	5.30	22.0	37.00	6.00	1.500	1.750	14.00	16.00		●
PICCO R/L 007.0815-15	7.00	0.81	0.18	0.8	2.70	6.30	15.0	30.00	7.00	1.500	1.750	14.00	16.00	●	

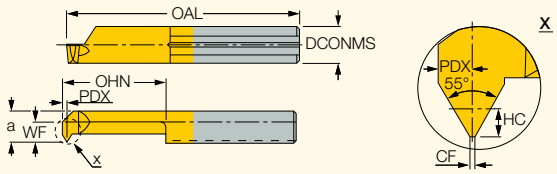
(1) Minimum overhang
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

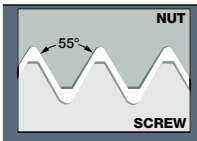
ISCARTHREAD
PICCOCUT

PICCO-55°-Thread

Inserts for 55° Internal Thread Profile







Designation	Dimensions											IC228
	DCONMS	TPIX(1)	TPIN(2)	HC	CF	PDX	WF	a	OHN(3)	OAL	DMIN	
PICCO R 005.5548-15	5.00	48.00	24.00	0.40	0.06	0.5	1.90	4.40	15.0	30.00	4.80	●
PICCO R 006.5548-15	6.00	48.00	24.00	0.40	0.06	0.5	2.30	5.30	15.0	30.00	6.00	●
PICCO R 006.5524-15	6.00	24.00	16.00	0.81	0.12	0.8	2.30	5.30	15.0	30.00	6.00	●
PICCO R 007.5524-15	7.00	24.00	16.00	0.81	0.12	0.8	2.80	6.30	15.0	30.00	7.00	●

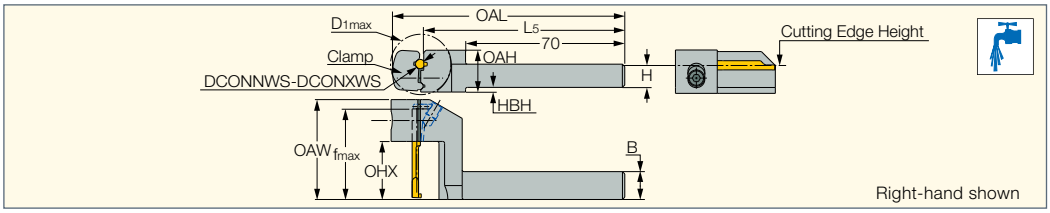
- All mini-bars have sharp corners

(1) Threads per inch maximum
(2) Threads per inch minimum
(3) Minimum overhang

PICCOCUT

GHPCOR

Perpendicular Square-Shank Tools for Use on Cross Slide Units of Swiss-Type and Automatic Machines



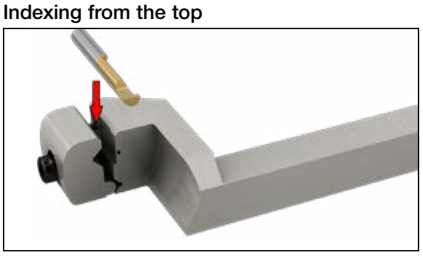
Designation	H	B	OAL	L5	HBH	OAH	OAW	D1 max	OHX(1)	fmax	DCONNWS(2)	DCONXWS(3)
GHPCOR 08-16-4-5	8.0	8.0	102.00	88.00	4.0	15.0	34.00	26.0	16.00	30.0	4.00	5.00
GHPCOR 10-16-4-5	10.0	10.0	102.00	88.00	2.0	18.0	34.00	26.0	16.00	30.0	4.00	5.00
GHPCOR 12-16-4-6	12.0	12.0	102.00	88.00	-	18.0	34.00	26.0	16.00	30.0	4.00	6.00
GHPCOR 12-25-4-6	12.0	12.0	102.00	88.00	-	18.0	43.00	26.0	25.00	39.0	4.00	6.00
GHPCOR 16-16-4-6	16.0	16.0	112.00	98.00	-	22.0	35.00	36.0	16.00	31.0	4.00	6.00
GHPCOR 16-25-4-6	16.0	16.0	112.00	98.00	-	22.0	44.00	36.0	25.00	40.0	4.00	6.00
GHPCOR 16-30-7-8	16.0	16.0	116.00	98.00	-	22.0	49.00	36.0	30.00	45.0	7.00	8.00

- PICCOCUT insert should not exceed OAW
- Left-hand holders are available upon request
- Coolant tube adapter: KQ2L06-M5 (for 6 mm coolant tube)

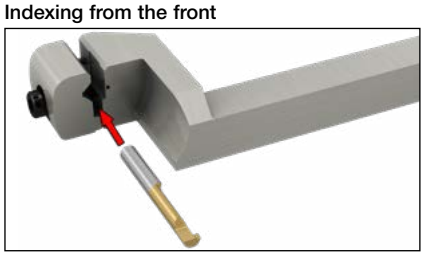
(1) Maximum overhang
(2) Minimum diameter
(3) Maximum diameter

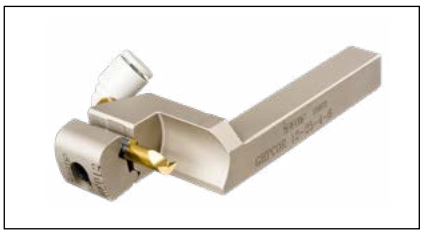
For tools, see pages: PICIN-MGSIR/L (386) • PICIN-SCLCR/L (386) • PICIN-SWUBR/L (386)

Indexing from the top



Indexing from the front





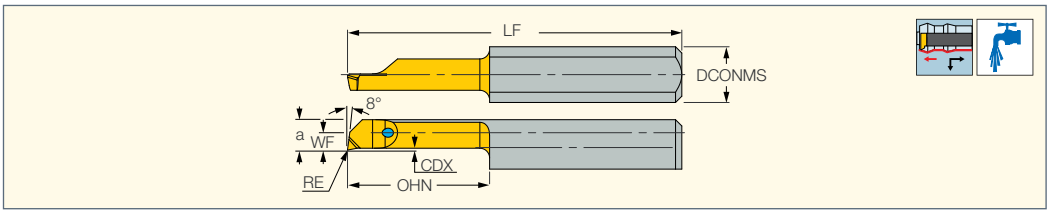
Spare Parts

Designation				
GHPCOR 08-16-4-5	HED 08	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 10-16-4-5	HED 10	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 12-16-4-6	HED 12	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 12-25-4-6	HED 12	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 16-16-4-6	HED 16-4-6	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 16-25-4-6	HED 16-4-6	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 16-30-7-8	HED 16-7-8	SR M4X14 DIN912	HW 3.0	

PICCOCUT

PICCO R/LM

Profiling Inserts with Coolant Channel Optimized for Machining Medical Parts



Designation	Dimensions								IC909
	DMIN	OHN(1)	DCONMS	WF	a	CDX(2)	RE	LF	
PICCO R/LM050.05-2	0.50	2.0	4.00	0.20	0.40	0.02	0.02	20.00	•
PICCO LM050.08-4	0.80	4.0	4.00	0.20	0.70	0.03	0.02	20.00	•
PICCO RM050.08-4	0.80	4.0	4.00	0.40	0.70	0.03	0.02	20.00	•
PICCO R/LM050.1-5	1.00	5.0	4.00	0.40	0.90	0.05	0.02	20.00	•
PICCO R/LM050.1-7	1.00	7.0	4.00	0.40	0.90	0.05	0.02	22.00	•
PICCO R/LM050.15-5	1.50	5.0	4.00	0.60	1.15	0.08	0.02	19.00	•
PICCO R/LM050.15-10	1.50	10.0	4.00	0.60	1.15	0.08	0.02	24.00	•
PICCO R/LM050.2-5	2.00	5.0	4.00	0.80	1.70	0.08	0.02	19.00	•
PICCO R/LM050.2-10	2.00	10.0	4.00	0.80	1.70	0.08	0.02	24.00	•
PICCO R/LM050.25-5	2.50	5.0	4.00	0.20	2.20	0.10	0.02	19.00	•
PICCO R/LM050.25-10	2.50	10.0	4.00	0.20	2.20	0.10	0.02	24.00	•
PICCO R/LM050.3-10	3.00	10.0	4.00	0.60	2.60	0.15	0.02	24.00	•
PICCO R/LM050.3-16	3.00	16.0	4.00	0.60	2.60	0.15	0.02	30.00	•
PICCO LM050.35-10	3.50	10.0	4.00	1.10	3.40	0.17	0.02	24.00	•
PICCO RM050.35-10	3.50	10.0	4.00	1.10	3.10	0.17	0.02	24.00	•
PICCO R/LM050.35-16	3.50	16.0	4.00	1.10	3.10	0.17	0.02	30.00	•
PICCO R/LM050.35-20	3.50	20.0	4.00	1.10	3.10	0.17	0.02	34.00	•
PICCO R/LM050.4-10	4.00	10.0	4.00	1.50	3.50	0.20	0.02	24.00	•
PICCO R/LM050.4-16	4.00	16.0	4.00	1.50	3.50	0.20	0.02	30.00	•
PICCO R/LM050.4-20	4.00	20.0	4.00	1.50	3.50	0.20	0.02	34.00	•
PICCO R/LM050.4-24	4.00	24.0	4.00	1.50	3.50	0.20	0.02	38.00	•

• An optimized insert geometry and carbide grade for machining medical parts made from titanium, medical standard stainless steel and other difficult to machine materials.

(1) Minimum overhang

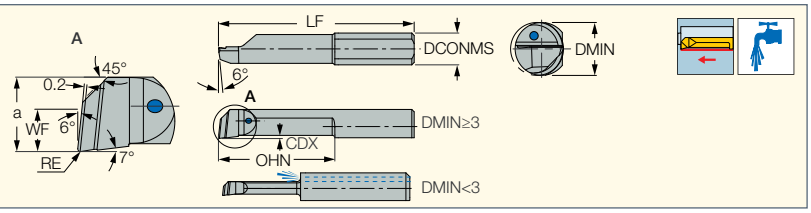
(2) Cutting depth maximum

PICCOCUT

PICCO R/LX050

Reinforced Boring Inserts with Internal Coolant Holes





Designation	Dimensions								IC908
	DCONMS	WF	a	RE	LF	OHN(1)	CDX(2)	DMIN	
PICCO R/LX050.2-5R15	4.00	-	1.80	0.15	19.00	5.0	0.10	2.00	•
PICCO R/LX050.2-10R05	4.00	-	1.80	0.05	24.00	10.0	0.10	2.00	•
PICCO R/LX050.2-10R15	4.00	-	1.80	0.15	24.00	10.0	0.10	2.00	•
PICCO R/LX050.3-16R10	4.00	0.70	2.70	0.10	30.00	16.0	0.15	3.00	•
PICCO R/LX050.3-16R20	4.00	0.70	2.70	0.20	30.00	16.0	0.15	3.00	•
PICCO R/LX050.4-10R10	4.00	1.60	3.60	0.10	24.00	10.0	0.20	4.00	•
PICCO R/LX050.4-10R20	4.00	1.60	3.60	0.20	24.00	10.0	0.20	4.00	•
PICCO R/LX050.4-16R10	4.00	1.60	3.60	0.10	30.00	16.0	0.20	4.00	•
PICCO R/LX050.4-16R20	4.00	1.60	3.60	0.20	30.00	16.0	0.20	4.00	•
PICCO R/LX050.5-15R10	5.00	2.10	4.60	0.10	30.00	15.0	0.30	5.00	•
PICCO R/LX050.5-15R20	5.00	2.10	4.60	0.20	30.00	15.0	0.30	5.00	•
PICCO R/LX050.5-25R10	5.00	2.10	4.60	0.10	40.00	25.0	0.30	5.00	•
PICCO R/LX050.5-25R20	5.00	2.10	4.60	0.20	40.00	25.0	0.30	5.00	•
PICCO R/LX050.6-15R10	6.00	2.50	5.50	0.10	30.00	15.0	0.40	6.00	•
PICCO R/LX050.6-15R20	6.00	2.50	5.50	0.20	30.00	15.0	0.40	6.00	•
PICCO R/LX050.6-22R20	6.00	2.50	5.50	0.20	37.00	22.0	0.40	6.00	•
PICCO R/LX050.6-35R20	6.00	2.50	5.50	0.20	50.00	35.0	0.40	6.00	•

• Left-hand inserts on request

(1) Minimum overhang

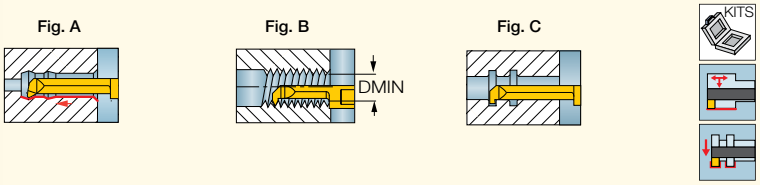
(2) Cutting depth maximum

PICCOCUT

KIT PICCO SET

Contains 2 Toolholders and a Set of Solid Carbide Miniature Turning and Grooving Boring Bars





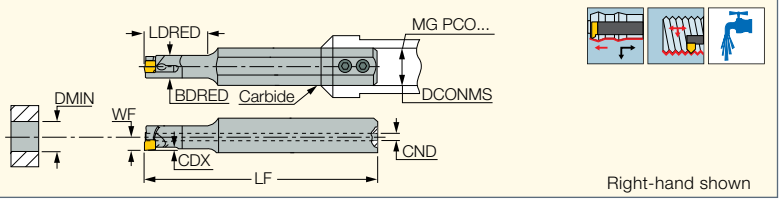
Designation	DMIN	Qty
KIT PICCO SET-1R	3.00	12

Designation	DMIN	OHN	CDX	CW	OAL	Pcs.	Fig.	Description
PICCO ACE 16-4	—	—	—	—	85	1	—	Holder
PICCO ACE 16-6	—	—	—	—	85	1	—	Holder
PICCO R 080.0004-25	4.0	24.0	0.80	1.5	39	1	A	Mini carbide bar
PICCO R 003.0070-16	3.0	15.0	0.60	0.7	29	1	C	Mini carbide bar
PICCO RM050.2-10	2.0	10.0	0.08	—	24	1	A	Mini carbide bar
PICCO R 050.1-5	1.0	4.5	0.10	—	20	1	A	Mini carbide bar
PICCO R 003.0070-5	3.0	5.0	0.60	0.7	19	1	C	Mini carbide bar
PICCO R 006.1.00-25	6.0	24.0	1.80	2.0	40	1	A	Mini carbide bar
PICCO R 006.0100-22	6.0	21.0	1.80	1.0	37	1	C	Mini carbide bar
PICCO R 050.6-15	6.0	14.0	0.50	—	30	1	A	Mini carbide bar
PICCO RX050.6-15R10	6.0	15.0	0.40	—	30	1	A	Mini carbide bar
PICCO R 006.0510-15	6.0	15.0	—	—	30	1	B	Mini carbide bar

MINICHAM

MGUHR

Solid Carbide Bars for Internal Turning and Threading at 4 mm Minimum Bore Diameter



Designation	DMIN	CDX(2)	WF(3)	DCONMS	LF	LDRED	BDRED	CND
MGUHR 06-04L10 (1)	4.00	0.50	2.17	6.00	62.00	10.0	3.45	1.3
MGUHR 06-04L20	4.00	0.50	2.17	6.00	62.00	20.0	3.45	1.3

(1) DMIN for turning 4.0 mm & CDX 0.43 mm; DMIN for threading 5.0 mm & CDX 1.00 mm

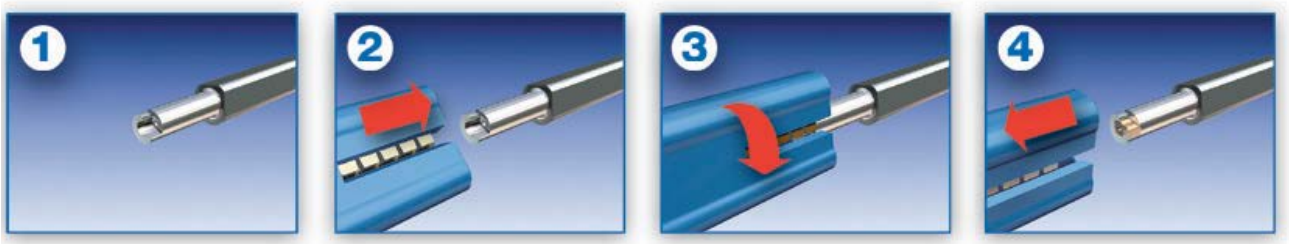
(2) Cutting depth maximum

(3) WF=2.17 for turning, WF=2.7 for threading

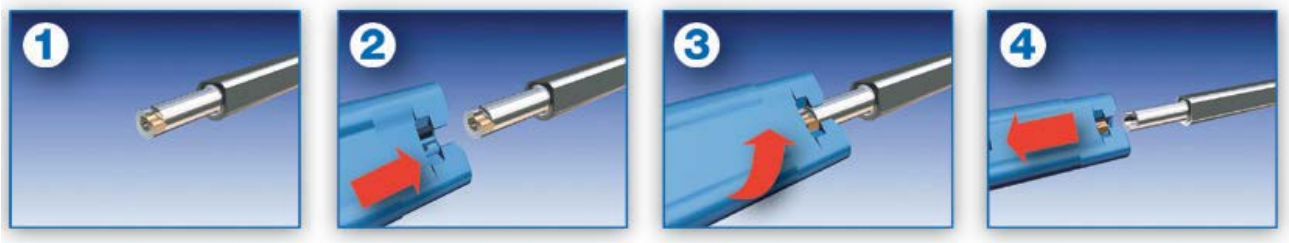
For inserts, see pages: UMGR (412) • UMGR-A55 (412) • UMGR-A60 (412)

For holders, see pages: PICCO/MG PCO (Holder) (399)

Mounting Operation



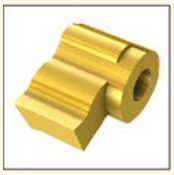
Dismounting Operation

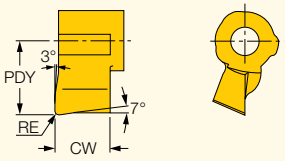


MINICHAM

UMGR

Miniature Indexable Inserts for Internal Turning





Right-hand shown

Designation	Dimensions				IC508
	CW	RE	PDY	DMIN	
UMGR 4.0-0.0	1.63	0.00	2.20	4.00	●
UMGR 4.0-0.1	1.63	0.10	1.60	4.00	●

For tools, see pages: MGUHR (411)

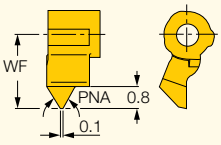
ISCARTHREAD

MINICHAM

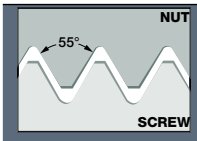
UMGR-A55

Mini Indexable Inserts with Whitworth Partial Profile for Threading in 5.2 mm and Larger Holes





Right-hand shown



Designation	Dimensions							IC508
	WF	PNA	TPIX(1)	TPIN(2)	TPN(3)	TPX(4)	DMIN	
UMGR 4.0-A55	2.70	55.0	40.00	24.00	0.500	1.400	5.20	●

(1) Threads per inch maximum
(2) Threads per inch minimum
(3) Thread pitch minimum (mm)
(4) Thread pitch maximum (mm)

For tools, see pages: MGUHR (411)

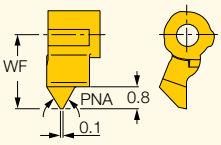
ISCARTHREAD

MINICHAM

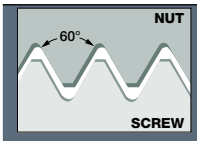
UMGR-A60

Mini Indexable Inserts with a 60° Partial Profile for Threading in 5.2 mm and Larger Holes





Right-hand shown



Designation	Dimensions							IC508
	PNA	WF	DMIN	TPN(1)	TPX(2)	TPIN(3)	TPIX(4)	
UMGR 4.0-A60	60.0	2.70	5.20	0.600	1.250	20.00	40.00	●

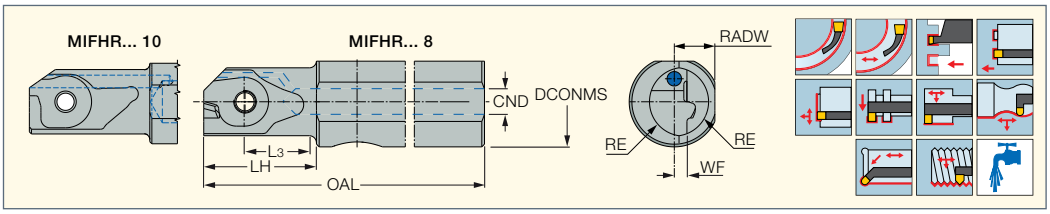
(1) Thread pitch minimum (mm)
(2) Thread pitch maximum (mm)
(3) Threads per inch minimum
(4) Threads per inch maximum

For tools, see pages: MGUHR (411)

MIN CUT MINI FACE LINE

MIFHR

Bars for Face and Internal Grooving, Undercutting and Threading Inserts



Designation	DCONMS	CND	WF	RADW	OAL	L3	LH	RE	Insert			
MIFHR 8SC-8-SRK (1)	8.00	1.2	1.4	3.70	75.00	7.40	11.7	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 10C-8	10.00	5.0	1.4	4.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-8	12.00	5.0	1.4	5.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-10 (2)	12.00	6.0	2.4	5.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-10 (2)	16.00	6.0	2.4	7.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-15	16.00	8.0	2.7	7.50	100.00	12.50	19.0	10.30	MI.R 15	SR 34-506/L	T-9/5	PL 16
MIFHR 20C-15	20.00	8.5	4.7	9.00	100.00	12.50	19.0	11.30	MI.R 15	SR 34-506/L	T-9/5	PL 20

(1) Solid carbide shank

(2) Only face grooving inserts are available for this tool

For inserts, see pages: MEFL (600) • MIFR (600) • MIGR 8 (413) • MITR 8-MT (650) • MIUR 8 (413)

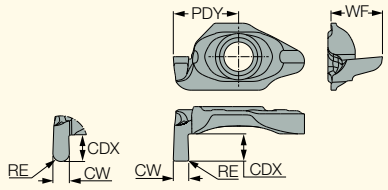
For holders, see pages: PICCO/MG PCO (Holder) (399)

MIN CUT MINI FACE LINE

MIGR 8

Internal Shallow Grooving Inserts





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DMIN	CDX(3)	PDY	WF	IC908	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
MIGR 8-0.50-0.00	0.50	-	0.02	0.020	8.50	1.40	6.30	4.00	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.00-0.05	1.00	0.05	0.02	0.020	8.50	1.40	6.80	4.00	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.20-0.05	1.20	0.05	0.02	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.20-0.60	1.20	0.60	0.02	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.50-0.05	1.50	0.05	0.02	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.60-0.80	1.60	0.80	0.02	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-2.00-0.10	2.00	0.10	0.02	0.020	8.90	1.80	6.80	4.40	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-2.00-1.00	2.00	1.00	0.02	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

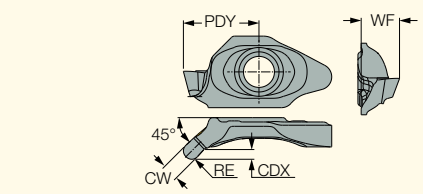
For tools, see pages: MIFHR (413)

MIN CUT MINI FACE LINE

MIUR 8

45° Full Radius Internal Undercutting Inserts





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DMIN	CDX(3)	PDY	WF	IC908	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
MIUR 8-1.00-0.50	1.00	0.50	0.02	0.020	8.00	1.10	6.70	3.60	●	0.03-0.50	0.03-0.10	0.01-0.03
MIUR 8-1.5-0.75	1.50	0.75	0.02	0.020	8.10	1.20	6.70	3.60	●	0.03-0.50	0.03-0.10	0.01-0.03
MIUR 8-2.00-1.00	2.00	1.00	0.02	0.020	8.30	1.36	6.70	3.60	●	0.03-0.50	0.03-0.10	0.01-0.03

(1) Cutting width tolerance (+/-)

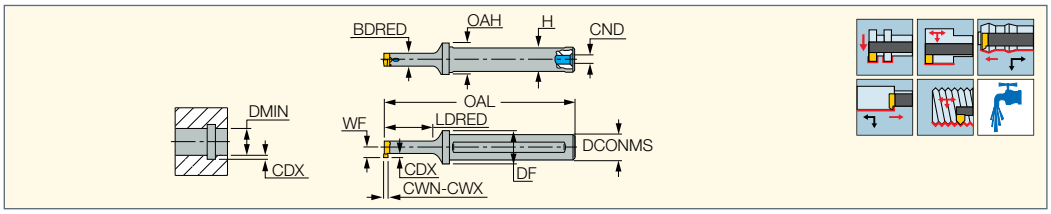
(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

For tools, see pages: MIFHR (413)

CHAMGROOVE

MG
Internal Grooving, Turning and Threading Bars



Designation	DCONMS	DMIN(1)	CDX(2)	BDRED	OAL	LDRED	WF(3)	H	CWN(4)	CWX(5)	OAH	DF	CND	Insert		
MG 12-08C16	12.00	8.00	1.50	6.00	92.00	16.0	4.80	11.0	0.50	3.00	16.3	18.00	6.0	GIQR/L 8	SR 76-1499	T-8/5
MG 12-08C23	12.00	8.00	1.50	6.00	92.00	23.0	4.80	11.0	0.50	3.00	16.3	18.00	6.0	GIQR/L 8	SR 76-1499	T-8/5
MG 12-11C25	12.00	11.00	2.30	8.00	92.50	25.0	6.70	11.0	0.50	3.00	16.3	18.00	6.0	GIQR/L 11	SR M3.5-08134	T-9/5

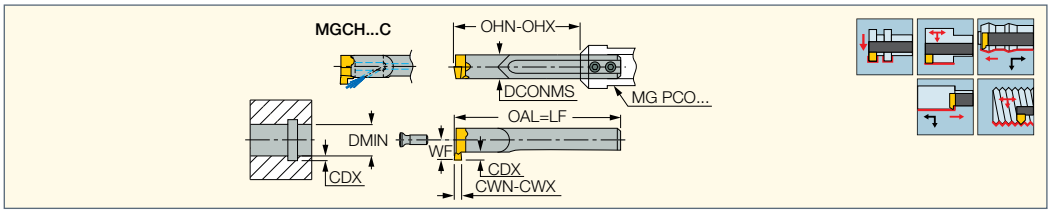
- The same tool applies on right and left machining

(1) Check according to specific insert data
(2) Check according to specific insert data
(3) Cutting edge radius on rotating tool
(4) Minimum cutting width
(5) Maximum cutting width

For inserts, see pages: GIQR/L 8 (415) • GIQR/L 8-R (415) • GIQR/L 11 (416) • GIQR/L 11-R (416) • GIQR/L 11-15 (417) • GIQR/L 11-15-R (417) • GIQR/L-A18 (417) • GIQR/L-B18 (418) • GIQR/L-MT (418) • GIQR/L-WT (418)

CHAMGROOVE

MGCH
Solid Carbide Bars for Internal Grooving, Turning and Threading, DMIN 8 mm



Designation	DMIN(1)	CDX(2)	DCONMS	OAL	OHN(3)	OHX(4)	WF	CWN(5)	CWX(6)	CSP(7)	Insert		
MGCH 06	8.00	1.50	6.00	62.00	16.0	42.0	4.80	0.50	4.00	0	GIQR/L 8	SR 76-1499	T-8/5
MGCH 06C	8.00	1.50	6.00	62.00	16.0	42.0	4.80	0.50	4.00	1	GIQR/L 8	SR 76-1499	T-8/5
MGCH 06-L100	8.00	1.50	6.00	100.00	16.0	80.0	4.80	0.50	4.00	0	GIQR/L 8	SR 76-1499	T-8/5
MGCH 08	- (8)	- (9)	8.00	76.00	20.0	56.0	- (10)	0.50	5.00	0	GIQR/L 11/11-15	SR M3.5-08134	T-9/5
MGCH 08C	- (8)	- (9)	8.00	76.00	20.0	56.0	- (10)	0.50	5.00	1	GIQR/L 11/11-15	SR M3.5-08134	T-9/5
MGCH 08-L125	- (8)	- (9)	8.00	125.00	70.0	105.0	- (10)	0.50	5.00	0	GIQR/L 11/11-15	SR M3.5-08134	T-9/5

- The same tool applies on right and left machining .

(1) Check according to specific insert data
(2) Check according to specific insert data
(3) Minimum overhang
(4) Maximum overhang
(5) Minimum cutting width
(6) Maximum cutting width
(7) 0 - Without coolant supply, 1 - With coolant supply
(8) DMIN=11 mm for GIQR 11, DMIN=15 mm for GIQR 11-15
(9) CDX=2.30 for GIQR 11, CDX=6.3 for GIQR 11-15
(10) WF=6.70 mm for GIQR 11, WF=10.6 mm for GIQR 11-15

For inserts, see pages: GIQR/L 8 (415) • GIQR/L 8-R (415) • GIQR/L 11 (416) • GIQR/L 11-R (416) • GIQR/L 11-15 (417) • GIQR/L 11-15-R (417) • GIQR/L-A18 (417) • GIQR/L-B18 (418) • GIQR/L-MT (418) • GIQR/L-WT (418)

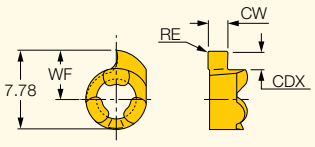
For holders, see pages: PICCO/MG PCO (Holder) (399) • SBB (120)

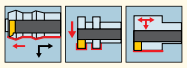
CHAMGROOVE

GIQR/L 8

Precision Ground
Single-Ended Inserts for
Internal Grooving and Turning







Left-hand shown

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	CDX(4)	DMIN	WF	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 8-0.50-0.00 (1)	0.50	0.00	0.02	0.030	0.70	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-0.75-0.00 (1)	0.75	0.00	0.02	0.030	1.20	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-0.85-0.00 (1)	0.85	0.00	0.02	0.030	1.20	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-0.95-0.00 (1)	0.95	0.00	0.02	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.00-0.00 (1)	1.00	0.00	0.02	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.04-0.05 (1)	1.04	0.05	0.02	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.20-0.05 (1)	1.20	0.05	0.02	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.40-0.05 (1)	1.40	0.05	0.02	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.47-0.05 (1)	1.47	0.05	0.02	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.50-0.05 (1)	1.50	0.05	0.02	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.70-0.10	1.70	0.10	0.02	0.030	1.50	8.00	4.80	●	0.12-0.68	0.02-0.05	0.01-0.03
GIQR/L 8-1.96-0.10	1.96	0.10	0.02	0.030	1.50	8.00	4.80	●	0.12-0.78	0.02-0.05	0.01-0.03
GIQR/L 8-2.00-0.10	2.00	0.10	0.02	0.030	1.50	8.00	4.80	●	0.12-0.80	0.02-0.05	0.01-0.03
GIQR/L 8-2.22-0.10	2.22	0.10	0.02	0.030	1.50	8.00	4.80	●	0.12-0.88	0.02-0.05	0.01-0.03
GIQR/L 8-2.50-0.20	2.50	0.20	0.02	0.030	1.50	8.00	4.80	●	0.24-1.00	0.02-0.05	0.01-0.03
GIQR/L 8-3.00-0.20	3.00	0.20	0.02	0.030	1.50	8.00	4.80	●	0.24-1.20	0.02-0.05	0.01-0.03
GIQR 8-3.50-0.20	3.50	0.20	0.02	0.030	1.50	8.00	4.80	●	0.24-1.40	0.02-0.05	0.01-0.03
GIQR 8-4.00-0.20	4.00	0.20	0.02	0.030	1.50	8.00	4.80	●	0.24-1.60	0.02-0.05	0.01-0.03

• According to retaining rings standard DIN 471/472. • Can be used for groove milling by circular interpolation

(1) For grooving only

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

(4) Cutting depth maximum

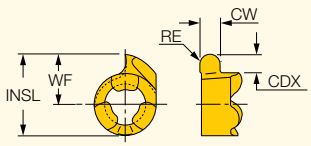
For tools, see pages: MG (414) • MGCH (414)

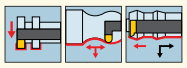
CHAMGROOVE

GIQR/L 8-R

Precision Ground Single-Ended
Full Radius Inserts for Internal
Grooving and Profiling







Left-hand shown

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 8-1.20-R060	1.20	0.60	0.02	0.030	1.50	8.00	4.80	7.78	●	0.30-0.60	0.02-0.05	0.01-0.03
GIQR/L 8-2.00-R100	2.00	1.00	0.02	0.030	1.50	8.00	4.80	7.78	●	0.50-1.00	0.02-0.05	0.01-0.03
GIQR 8-3.00-R150	3.00	1.50	0.02	0.030	1.50	8.00	4.80	7.78	●	0.70-1.50	0.02-0.05	0.01-0.03

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

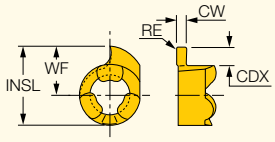
For tools, see pages: MG (414) • MGCH (414)

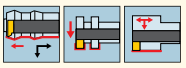
CHAMGROOVE

GIQR/L 11

Precision Ground Single-Ended Inserts for Internal Grooving and Turning, DMIN 11 mm







Left-hand shown

Designation	Dimensions CW	RE	CWTOL[2]	RETOL[3]	CDX[4]	DMIN	INSL	WF	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-0.50-0.00 [1]	0.50	0.00	0.02	0.030	1.00	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-0.75-0.00 [1]	0.75	0.00	0.02	0.030	1.50	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR 11-0.85-0.00 [1]	0.85	0.00	0.02	0.030	1.50	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-0.95-0.00 [1]	0.95	0.00	0.02	0.030	1.80	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.04-0.05 [1]	1.04	0.05	0.02	0.030	2.00	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.20-0.05 [1]	1.20	0.05	0.02	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.40-0.05 [1]	1.40	0.05	0.02	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.50-0.05 [1]	1.50	0.05	0.02	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.70-0.05 [1]	1.70	0.05	0.02	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.96-0.10 [1]	1.96	0.10	0.02	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-2.00-0.10 [1]	2.00	0.10	0.02	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-2.22-0.10	2.22	0.10	0.02	0.030	2.30	11.00	10.68	6.70	●	0.12-0.88	0.03-0.07	0.02-0.05
GIQR/L 11-2.39-0.15	2.39	0.15	0.02	0.030	2.30	11.00	10.68	6.70	●	0.18-0.95	0.03-0.07	0.02-0.05
GIQR/L 11-2.47-0.20	2.47	0.20	0.02	0.030	2.30	11.00	10.68	6.70	●	0.24-0.98	0.03-0.07	0.02-0.05
GIQR/L 11-2.50-0.20	2.50	0.20	0.02	0.030	2.30	11.00	10.68	6.70	●	0.24-1.00	0.03-0.07	0.02-0.05
GIQR/L 11-2.70-0.20	2.70	0.20	0.02	0.030	2.30	11.00	10.68	6.70	●	0.24-1.08	0.03-0.07	0.02-0.05
GIQR/L 11-3.00-0.20	3.00	0.20	0.02	0.030	2.30	11.00	10.68	6.70	●	0.24-1.20	0.03-0.07	0.02-0.05
GIQR 11-3.18-0.20	3.18	0.20	0.02	0.030	2.30	11.00	10.68	6.70	●	0.24-1.27	0.03-0.07	0.02-0.05
GIQR 11-4.00-0.20	4.00	0.20	0.02	0.030	2.30	11.00	10.68	6.70	●	0.24-1.60	0.03-0.07	0.02-0.05
GIQR 11-5.00-0.20	5.00	0.20	0.02	0.030	2.30	11.00	10.68	6.70	●	0.24-2.00	0.03-0.07	0.02-0.05

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

[1] For grooving only

[2] Cutting width tolerance (+/-)

[3] Corner radius tolerance (+/-)

[4] Cutting depth maximum

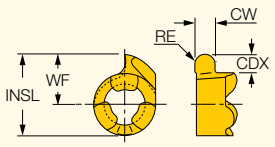
For tools, see pages: MG (414) • MGCH (414)

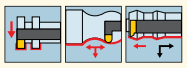
CHAMGROOVE

GIQR/L 11-R

Precision Ground Single-Ended Full Radius Inserts for Internal Grooving and Profiling







Left-hand shown

Designation	Dimensions CW	RE	CWTOL[1]	RETOL[2]	CDX[3]	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-1.20-R060	1.20	0.60	0.02	0.030	2.30	11.00	6.70	10.68	●	0.30-0.60	0.02-0.05	0.01-0.03
GIQR/L 11-1.80-R090	1.80	0.90	0.02	0.030	2.30	11.00	6.70	10.68	●	0.40-0.90	0.02-0.05	0.01-0.03
GIQR/L 11-2.00-R100	2.00	1.00	0.02	0.030	2.30	11.00	6.70	10.68	●	0.50-1.00	0.02-0.05	0.01-0.03
GIQR/L 11-3.00-R150	3.00	1.50	0.02	0.030	2.30	11.00	6.70	10.68	●	0.70-1.50	0.02-0.05	0.01-0.03
GIQR 11-4.00-R200	4.00	2.00	0.02	0.030	2.30	11.00	6.70	10.68	●	1.00-2.00	0.02-0.05	0.01-0.03

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

[1] Cutting width tolerance (+/-)

[2] Corner radius tolerance (+/-)

[3] Cutting depth maximum

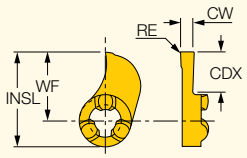
For tools, see pages: MG (414) • MGCH (414)

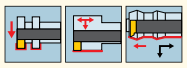
CHAMGROOVE

GIQR/L 11-15

Precision Ground
Single-Ended Inserts for Internal
Deep Grooving and Turning







Left-hand shown

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	DMIN	INSL	WF	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-15-1.50-0.05	1.50	0.05	0.02	0.030	6.30	15.00	14.60	10.60	●	0.10-0.40	0.02-0.05	0.02-0.06
GIQR/L 11-15-2.00-0.10	2.00	0.10	0.02	0.030	6.30	15.00	14.60	10.60	●	0.15-0.50	0.02-0.05	0.02-0.06
GIQR/L 11-15-2.50-0.20	2.50	0.20	0.02	0.030	6.30	15.00	14.60	10.60	●	0.25-0.65	0.02-0.05	0.02-0.06
GIQR/L 11-15-3.00-0.20	3.00	0.20	0.02	0.030	6.30	15.00	14.60	10.60	●	0.25-0.75	0.02-0.05	0.02-0.06

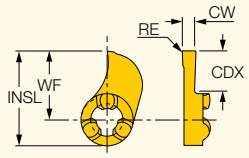
• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum
For tools, see pages: MG (414) • MGCH (414)

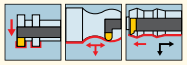
CHAMGROOVE

GIQR/L 11-15-R

Precision Ground Single-Ended
Full Radius Inserts for Deep
Internal Grooving and Profiling







Left-hand shown

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-15-2.00-R100	2.00	1.00	0.02	0.030	6.30	15.00	10.60	14.60	●	0.00-0.50	0.02-0.05	0.02-0.06
GIQR/L 11-15-2.50-R125	2.50	1.25	0.02	0.030	6.30	15.00	10.60	14.60	●	0.00-0.65	0.02-0.05	0.02-0.06
GIQR/L 11-15-3.00-R150	3.00	1.50	0.02	0.030	6.30	15.00	10.60	14.60	●	0.00-0.75	0.02-0.05	0.02-0.06

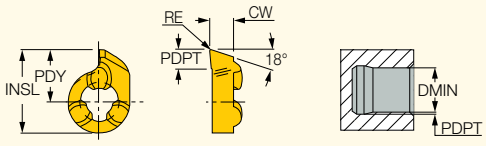
• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum
For tools, see pages: MG (414) • MGCH (414)

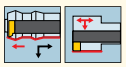
CHAMGROOVE

GIQR/L-A18

Internal Boring and
Profiling Inserts







Left-hand shown

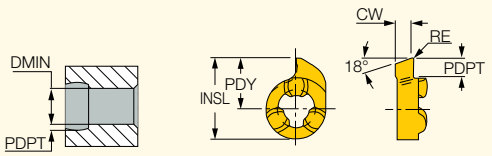
Designation	Dimensions DMIN	CW	RE	PDPT(1)	INSL	PDY	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 8-A18-0.15	7.80	3.00	0.15	1.60	7.60	4.60	●	0.02-1.30	0.02-0.05	0.01-0.03
GIQR/L 11-A18-0.15	11.00	3.00	0.15	2.50	10.70	6.70	●	0.02-2.20	0.02-0.05	0.01-0.03

(1) Cutting depth maximum
For tools, see pages: MG (414) • MGCH (414)

CHAMGROOVE

GIQR/L-B18
Internal Back Boring and Profiling Inserts





Left-hand shown

Designation	Dimensions DMIN	CW	RE	PDPT(1)	PDY	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)
GIQR/L 8-B18-0.15	7.80	2.50	0.15	1.30	4.60	7.60	●	0.02-1.00	0.02-0.05
GIQR/L 11-B18-0.15	11.00	2.50	0.15	2.30	6.70	10.70	●	0.02-2.00	0.02-0.05

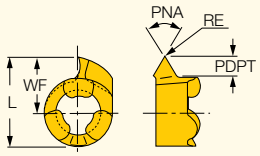
(1) Cutting depth maximum

For tools, see pages: MG (414) • MGCH (414)

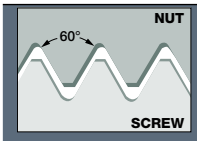
ISCARTHREAD CHAMGROOVE

GIQR/L-MT
Internal Threading Inserts with a 60° Partial Profile for Threading in 8 mm and Larger Holes





Left-hand shown



Designation	Dimensions L	RE	PNA	PDPT(1)	WF	DMIN(2)	TPN(3)	TPX(4)	TPIN(5)	TPIX(6)	IC528
GIQR/L 8-MT-0.05	7.78	0.05	60.0	1.50	4.80	8.00	0.500	1.590	16.00	50.00	●
GIQR/L 11-MT-0.05	10.68	0.05	60.0	2.00	6.70	11.00	0.500	2.300	11.00	50.00	●

• Can be used for thread milling by circular interpolation • Pitch max 0.19xD • D-diameter of thread

(1) Cutting depth maximum

(2) Minimum diameter

(3) Thread pitch minimum (mm)

(4) Thread pitch maximum (mm)

(5) Threads per inch minimum

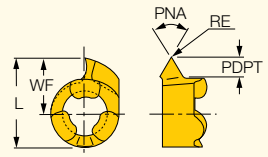
(6) Threads per inch maximum

For tools, see pages: MG (414) • MGCH (414)

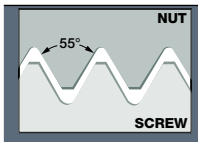
ISCARTHREAD CHAMGROOVE

GIQR/L-WT
Internal Inserts with Whitworth Partial Profile for Threading in 8 mm and Larger Holes





Left-hand shown



Designation	Dimensions L	RE	PNA	PDPT(1)	WF	DMIN	TPIN(2)	TPIX(3)	IC528
GIQR/L 8-WT-0.05	7.78	0.05	55.0	1.50	4.80	8.00	16.00	50.00	●
GIQR/L 11-WT-0.05	10.68	0.05	55.0	2.00	6.70	11.00	11.00	50.00	●

• Can be used for thread milling by circular interpolation • TPI min D/5.9 • D-diameter of thread (pitch max<=W)

(1) Cutting depth maximum

(2) Threads per inch minimum

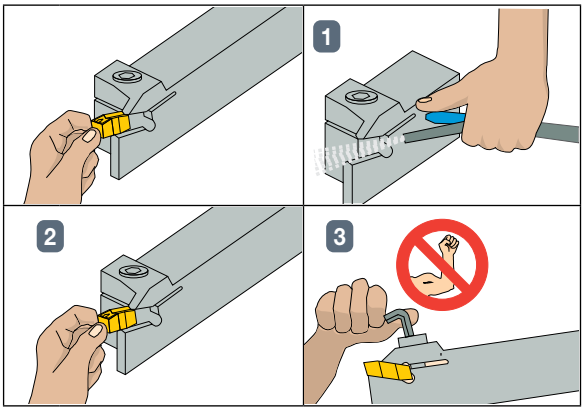
(3) Threads per inch maximum

For tools, see pages: MG (414) • MGCH (414)

What is a GRIP Insert?

A grip insert is a grooving, groove-turn or parting insert that is clamped between 2 prisms.
Clamping a grip insert correctly in the holder is necessary for stable machining.

1. Ensure that the seat is clean of dirt and swarf.
2. In the first stage of clamping, ease the insert gently into place. Make sure that the prismatic surfaces match.
3. Always use the wrench supplied with the tool.
   Use reasonable force to the point of resistance for final clamping.
   The maximum recommended clamping torque is 1.5xd Nm or 15xd Kgf x cm. d=clamping screw dia. in mm.

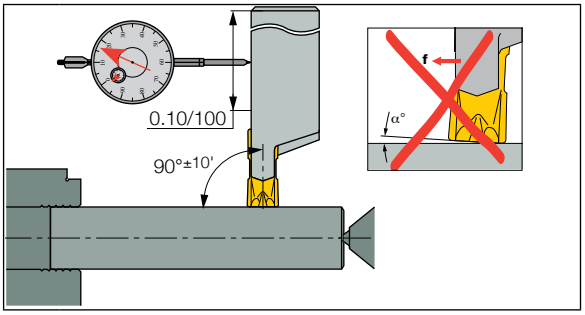


It is very important not to overtighten a grip insert, even though you may get the impression that the insert is more secure. When overtightened, the insert doesn't clamp into its correct and carefully designed clamping points, and therefore, is less stable.

Positioning the Tool on the Turret

Successful machining can be achieved only if the tool is properly positioned on the turret.
The following sequence should be followed:

- Position the grip holder perpendicular to the workpiece; deviation may be 0.10/100 mm along the holder
- Check to ensure that the frontal cutting edge is aligned parallel to the workpiece



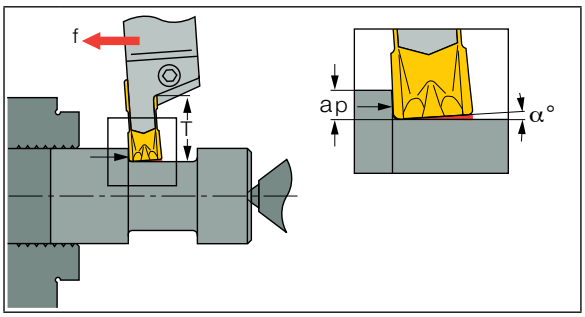
If the cutting edge is not parallel to the workpiece or is positioned as shown, the deflection during machining (in the indicated direction) will be too small and chatter may occur.

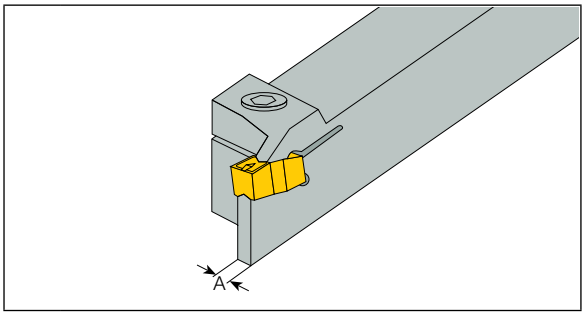
Principles of Turning with Groove-Turn Tools

The basic principle in turning with groove-turn tools is the deflection of the cutting tool, which results in a frontal clearance angle α° between the insert and the workpiece. The clearance angle α° is a function of the side cutting forces and is not constant, as is the case with ISO inserts. The deflection is influenced by the following factors:

Feed: **f**
Depth of Cut: $\mathbf{a_p}$
Overhang of Insert Support: **T**
Width of Insert Support: **A**
Cutting Speed: $\mathbf{V_c}$
Workpiece Material

When all of the above factors remain constant during turning, a high degree of accuracy with a tolerance up to ±0.01 mm can be achieved.





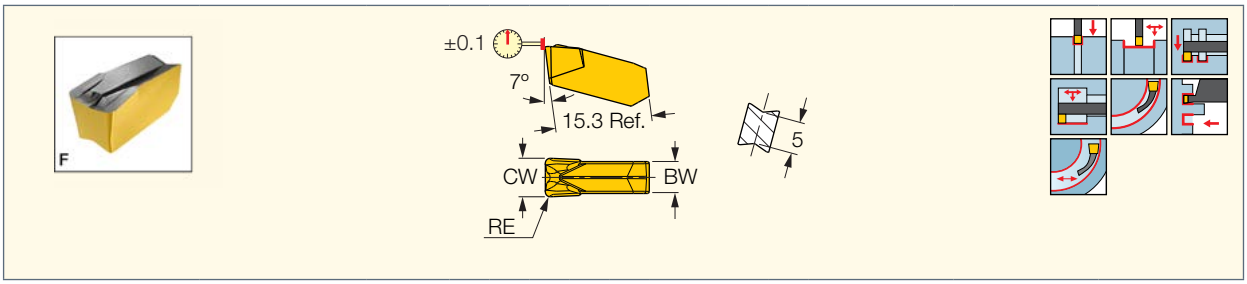
If the conditions are too light (such as in a super finish operation), there may not be enough deflection and the clearance angle will be very small. This may result in chatter and vibration.

Cutting Conditions

Choosing the correct cutting conditions

Specific cutting conditions are listed in the catalog for every individual insert as shown below:

Example: GIMF 608 Utility Inserts for Grooving and Turning

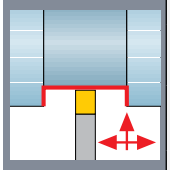


Designation	Dimensions W±0.05	R±0.05	M	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC428	IC5010	IC907	IC806	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMF 608	6.00	0.80	5.0	•	•	•		•		•		•	1.00-3.60	0.24-0.42	0.13-0.25
													Depth of cut	Turning feed	Grooving feed

Grades for Applications and Materials

Carbide grades and cutting speeds:

- Cutting speed recommendations are derived from the type of workpiece material and choice of carbide grade
- Choose the carbide grade according to the chart below.
- For specific workpiece material and cutting speed recommendations, refer to pages 432-433.

Material groups		ISO P 1-11 Steel	ISO P 12-13 Stainless Steel Ferritic & Martensitic	ISO M 14 Stainless Steel Austenitic & Duplex (Ferritic-Austenitic)	ISO K 15-20 Cast Iron	ISO N 21-28 Non-ferrous	ISO S 31-37 High Temperature Alloys	ISO H 38-41 Hard Steel & Cast Iron
 GROOVE-TURN	Harder	IC20N	IC807	IC807		ID5	IC804	**IB50**
					IC5010		**IC806**	
		IC807					IC907	
		IC808 (IC908) IC8250	**IC808 (IC908)**	**IC808 (IC908)**	IC428		IC807	IC807
							IC07	
					IC8250	**IC20**	IC20	IC808
							IC908	
	Tougher	IC830	IC830	IC830			IC08	

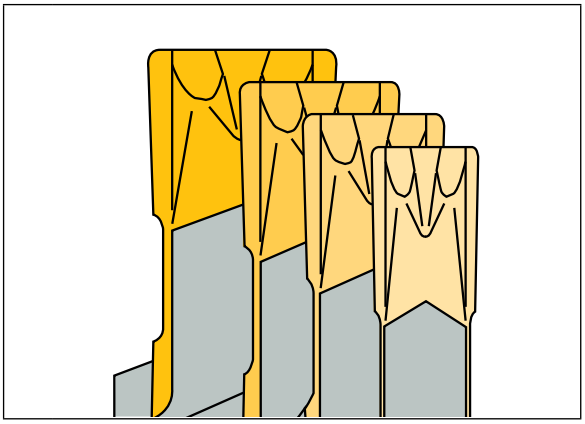
First choice

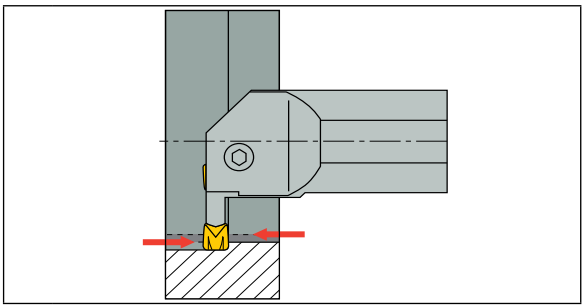
Machining Tips

Insert Width

Generally, the insert width should be as wide as possible as it contributes to its strength. However, there are additional considerations that should be taken into account in order to choose the correct width:

- Workpiece size and clamping stability: A larger width means higher cutting forces during grooving. A width that is too large can cause deformation of the workpiece and/or vibration.
- When using a larger width, make sure your machine has enough power. (see page 426)
- Machining strategy: Grooving in a correct sequence should also affect your choice. (see page 422)
- Required overhang: A larger tool overhang will require a wider insert to maintain stability.
- The larger the insert, the wider the upper and lower jaws can be, therefore, higher forces are required to effect the necessary side deflection.
- If the depth of cut is small, the width of the insert should be proportionately smaller to guarantee the required deflection.



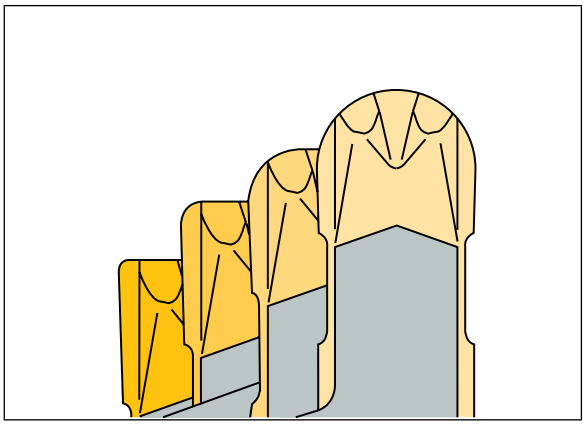


Efficient use of the insert's corners:
Always try to evenly split machining between the two corners. This optimization will increase the insert's life.

Insert Radius

Choosing the insert radius for a particular application is a combination of many factors.
The corner radius of the groove-turn insert influences the product shape and tool life.

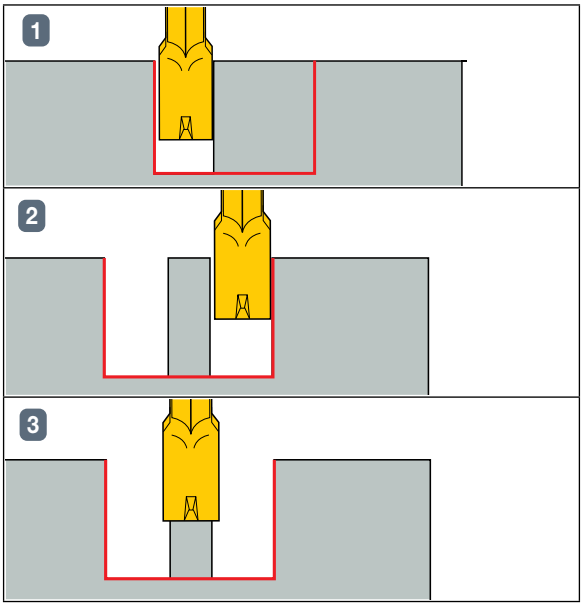
- A larger radius in turning operations normally improves surface quality.
- An insert with a larger radius has a better distribution of the cutting load and of the generated heat. It is stronger and ensures longer tool life.
- Small radii on grip inserts result in increased side forces and side deflection, preventing instability, especially with small depths of cut and feed.
- The best radius to use is basically determined by the geometry and dimensions of the workpiece. The more securely the workpiece is fastened in the machine tool, the larger the radius may be.
- When the ratio of a workpiece's length compared to its diameter is large, inserts with smaller radii will prevent chatter.
- A larger corner radius enables machining at a larger feed rate.
- In profiling operations, inserts with larger corner radii or full radii are required.



Machining Tips

Correct grooving sequence

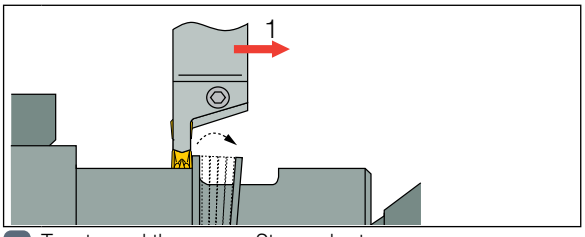
When making a groove where the insert's width is not identical to the groove, it is recommended to select an insert that will enable grooving symmetrically in such a way that the material is always in the center of the insert. This practice will ensure better chipbreaking and symmetrical cutting forces.



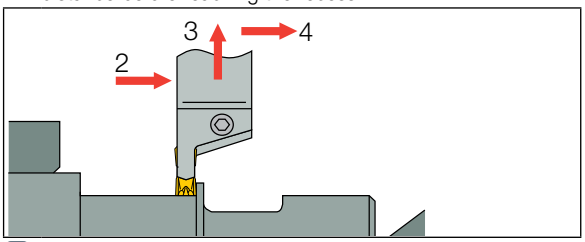
Eliminating a "Hanging Ring"

When turning at the end of a bar or towards a recess between two walls, a "hanging ring" may be formed.

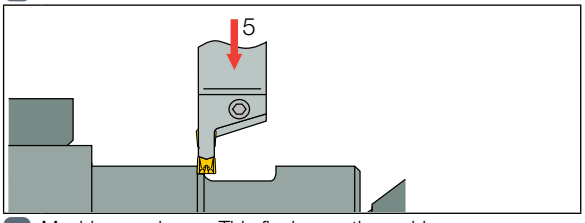
To eliminate the unwanted "hanging ring":



1 Turn toward the recess. Stop a short distance before reaching the recess.



2 Pull back the groove-turn tool and re-position it.



3 Machine as shown. This final operation achieves the size and flatness of the side wall.

Internal Machining

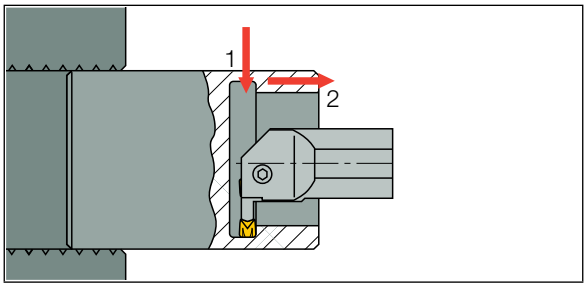
Improving Internal Turning in a Blind Hole

Internal turning in a blind hole brings about the problem of chip exit. When the tool reaches the rear side wall, chips may be caught between the wall and the insert, possibly causing insert breakage. Two solutions that can eliminate this problem:

First Solution

1 Start by grooving at the rear wall.

2 Continue by turning from the inside toward the outside.

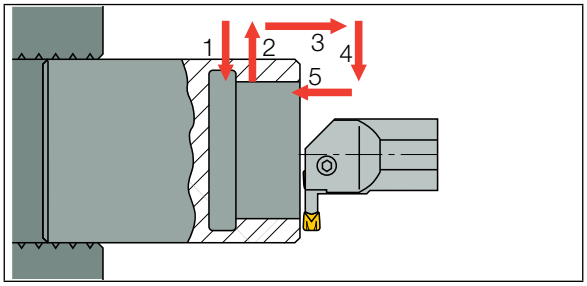


Second Solution

1 Start by grooving at the rear wall.

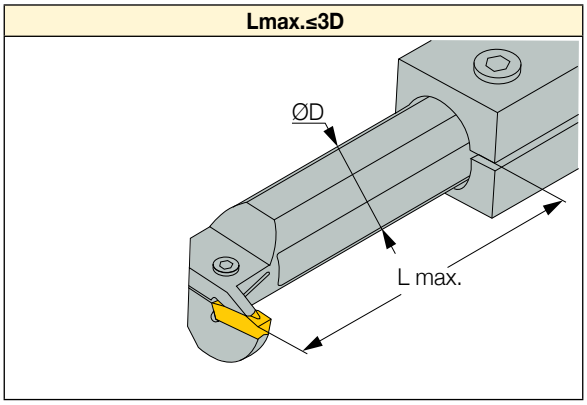
2 Pull the tool back toward the outside.

3 Turn the final diameter from outside, toward the groove.



Optimizing Internal Machining Toolholder Overhang

It is always recommended to use the minimum possible overhang in order to maintain maximum toolholder rigidity. As a general rule, maximum overhang should not exceed three times the holder-bar diameter.



Finishing Operation: Diameter Compensation

A compensation factor for the final diameter must be used in the final machining operation.

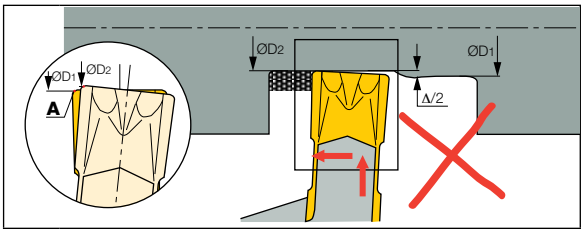
After the initial grooving to the required final diameter, the machining direction is normally changed for longitudinal turning. At this point the deflection occurs. If machining continues without correction, corner A will penetrate the material. This will result in two different diameters: øD1 from the grooving and øD2 from the turning. The difference between øD1 and øD2 is a value we define as Δ. The compensation factor is Δ/2, as shown below.

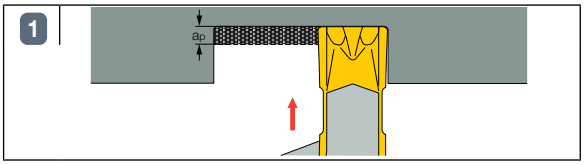
$$\frac{\Delta}{2} = \frac{\text{øD1-øD2}}{2}$$

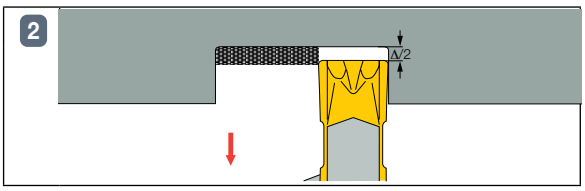
Using the compensation factor will eliminate the small surface step. Follow this simple procedure during machining:

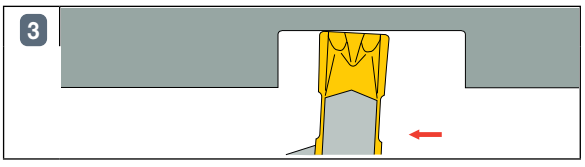
1. Groove to the final diameter
2. Pull the tool back, a distance equal to the value of Δ/2
3. Continue the finish turning operation

Characteristic values of Δ are shown in the diagrams.







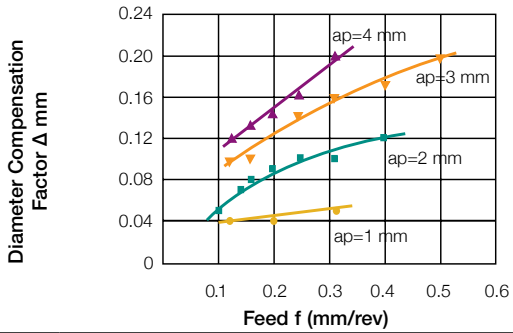


Characteristic Values of Δ

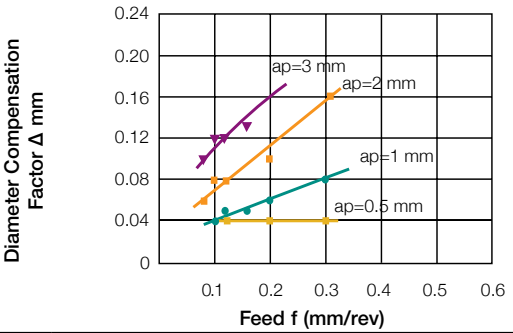
The diagrams show experimental results for specific machining conditions. These are sample values that will vary with different workpiece materials and different holder types.

Measure the Δ value for your finishing operation in a short test using your selected finishing conditions. Do not run your test using the final diameter.

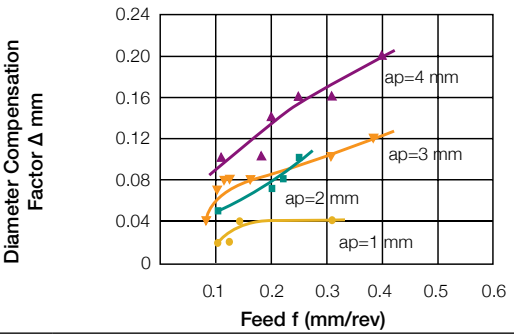
Insert: GIP 4.00E-0.4
Toolholder: GHDR 25-4



Insert: GIP 3.00E-0.4
Toolholder: GHDR 25-3



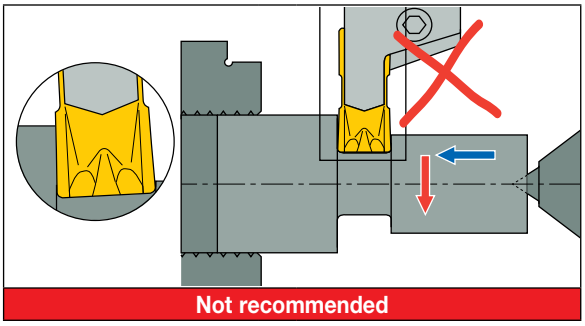
Insert: GIP 6.00E-0.8
Toolholder: GHDR 25-5

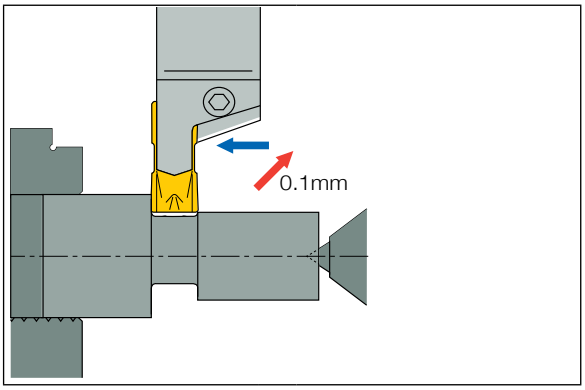


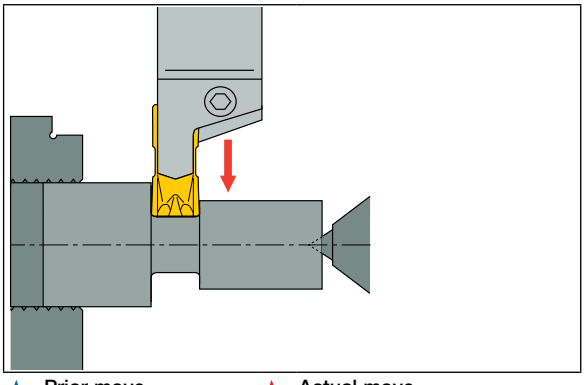
Multifunction Operations

The groove-turn tools are multifunction tools, able to operate in a sequence of grooving and turning modes. Moving from turning to grooving requires consideration of the basic Grip principle, thereby eliminating the possibility of insert breakage. In this situation one must release the side deflection which is necessary in turning, but not recommended in grooving.

The following machining sequence is suggested:
After completing the longitudinal turning, before starting the grooving, the side deflection must be released.
Move the tool in the direction opposite that of the feed, approximately 0.1 mm, and return to the original position without side load.
Then, after the deflection has been released and the holder is perpendicular to the workpiece, the grooving operation may start.







Machining Between Walls

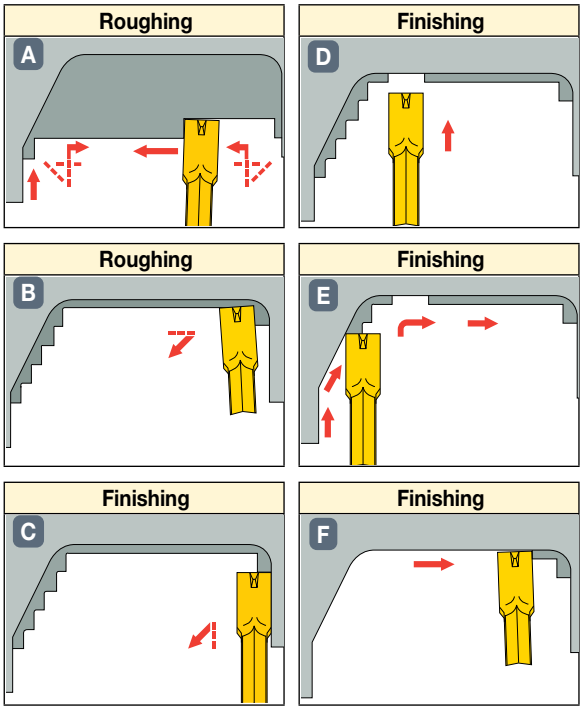
One of the most important advantages of the **GROOVE-TURN** systems is the ability to machine between walls. To achieve the best results, the following sequence is recommended:

Roughing

Plunge to depth of cut. Pull back 0.2 mm radially. Turn longitudinally, retract at the end of the cut by 0.2 mm, simultaneously in radial and axial directions. Plunge again and repeat same cycle leaving steps of 0.2 mm at the shoulders for the finishing cut. Minimum D.O.C. has to be $a_p \geq Rx1.2$ (corner radius).

Finishing

Plunge on the right side, reaching the tangent of the bottom radius. Retract and relieve the tangent point of the radius on the other side. Retract and machine all of the contour, pulling back by compensation value along the bottom (see page 423).

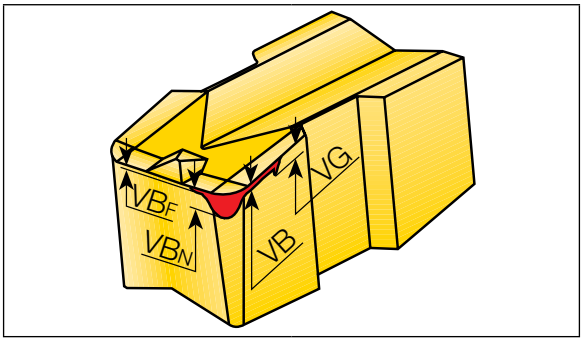


These instructions can be viewed at:
http://www.youtube.com/watch?v=HXhEtc1zl4w

Recommended Criteria for Replacement of the Cutting Edge

The cutting edge should be replaced in time to save costly downtime. The recommended value of wear at replacement is defined as the wear land size. The insert should be replaced when the wear land size is such that the increase in side forces is still small- not causing the insert to break and still maintaining the required workpiece tolerances. Wear is a function of machining time. The cutting edge should normally be replaced after 15 minutes of machining time.

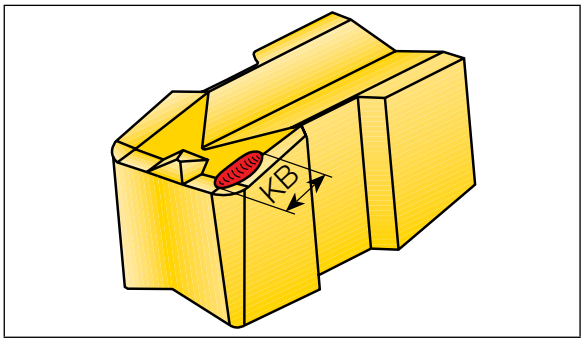
Insert Wear-Tool Life Wear on the Clearance Face
Wear land on groove turn inserts generally occurs at the corner of the clearance face **VBN**, on the side near the corner **VB**, on the frontal cutting edge **VBF** and at the end of the cutting side **VG**. The effective life of the cutting edge ends when any of the wear land values-**VB**, **VB**, **VBF** or **VG**-exceed the recommended maximum values shown. The largest wear land is normally measured at the corner of the clearance face **VBN**. It has the most influence on the dimensions and tolerances of the final workpiece. The wear land shape on GRIP inserts differs slightly from that of ISO inserts. Although the frontal cutting surface of GRIP inserts absorbs more heat land wear, the wear land **VBF** is generally negligible in turning operations when compared to **VB** and **VBN**. Wear may be found only occasionally at the end of the cutting side **VG**.



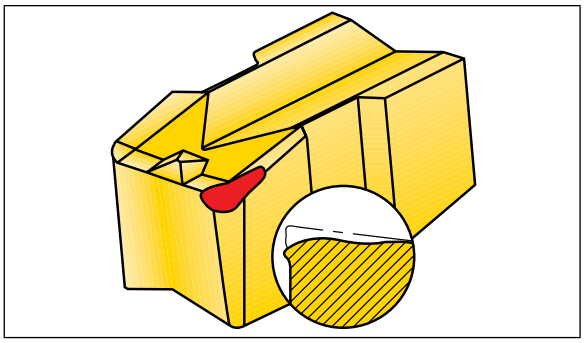
Maximum recommended wear land values relative to insert widths

W Insert Width (mm)	Maximum Wear Land (mm)
≤3	0.20
4	0.22
5	0.25
6	0.27
8	0.27
≥10	0.30

Crater Wear and Tool Life
Crater wear **KB** occurs on the rake face and is mainly affected by feed and cutting speed. Crater wear develops over time toward the frontal cutting edge. If penetration of the frontal cutting edge occurs, it will immediately affect the quality of the machined surface.



Plastic Deformation
Plastic deformation occurs when the hardness of a cutting edge is decreased due to heat and pressure. The so-called "hot hardness" of the cutting tool material limits the feed and the cutting speed.
Plastic deformation will affect the dimensions and tolerances of the finished product. It generally occurs when a small corner radius is used with high cutting speeds and high feeds. Using the proper insert geometry and the correct speed and feed ranges should eliminate the problem.



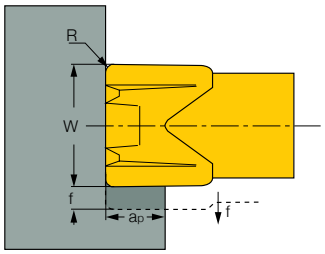
Machine Power Calculation

Calculation of Required Machine Power

Use the formulas below or use our internet web tool at:
http://mpwr.iscar.com/machinimgpwr

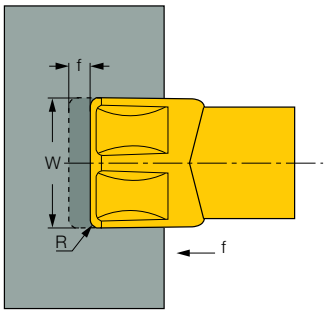
Turning

$$P = \frac{K_c \cdot a_p \cdot f \cdot v_c}{h \cdot 60{,}000} \text{ [kW]}$$



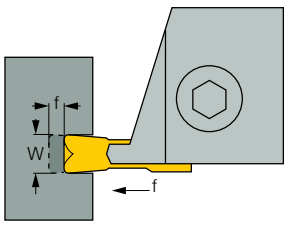
Grooving/Parting

$$P = \frac{K_c \cdot W \cdot f \cdot v_c}{h \cdot 60{,}000} \text{ [kW]}$$



Face Grooving

$$P = \frac{K_c \cdot W \cdot f \cdot v_c}{h \cdot 60{,}000} \text{ [kW]}$$



Where:

K_c - Specific cutting forces (N/mm²), turning values could be used

h - Efficiency (h≈0.8)



M-type Tools

- M-type tools have no support under the insert's cutting edge
- For an insert with a width smaller than 2.2 mm, there are no standard catalog tools available. There are 2 options as to how to use these narrow inserts:

1 Modify an existing tool and adjust the support under the insert to the required width

2 Use a standard M-type tool without support

- In wider widths, there are also cases where the support under the insert will disturb machining (threading inserts, pulley-V inserts and various specially tailored inserts) and therefore the above explanation should be considered
- These tools also provide the option for customers to use a very wide range of insert widths on the same tool (up to 6.4 mm)
- **Machining conditions need to be light due to little support and limited gripping forces**

K_c Values

Mtl. Gr. No.	K_c [N/mm²]
1	2000
2	2100
3	2150
4	2200
5	2100
6	2100
7	2100
8	2100
9	2100
10	2500
11	3250
12	2300
13	2800
14	2600
15	1100
16	1300
17	1100
18	1800
19	900
20	1000
21	500
22	800
23	800
26	700
27	700
28	1700
31	3000
32	3100
33	3300
34	3300
35	3200
36	1700
37	1700
38	4600
39	4700
40	4600
41	4500

For material groups, see page 432

Recommended Clamping Torques and Interchangeable Key Blades and Adjustable Torque Handles (optional) for GROOVE-TURN Tools



TOP-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
TGDR/L			
TGDR/L 1616-3M	6-7	TSA 6 5-14	BLD 6 HEX4
TGDR/L 1616-4M	7-8		BLD 6 HEX4
TGDR/L 2020-3M	7-8		BLD 6 HEX4
TGDR/L 2020-4M	7-8		BLD 6 HEX4
TGDR/L 2525-3M	7-8		BLD 6 HEX4
TGDR/L 2525-4M	6-7		BLD 6 HEX4
TGDR/L 2525-5M	6-7		BLD 6 HEX4
TGDR/L 2525-6M	8-9		BLD 6 HEX5
TGDR/L 3232-5M	7-8		BLD 6 HEX5
TGDR/L 3232-6M	12-13		BLD 6 HEX5

HELI-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
HELIR/L			
HELIR/L 1212-3T12	5-6	TSA 6 5-14	BLD 6 HEX4
HELIR/L 1616-3T12	7-8		BLD 6 HEX4
HELIR/L 1616-3T20	8-9		BLD 6 HEX5
HELIR/L 1616-4T12	5-6		BLD 6 HEX4
HELIR/L 1616-4T20	11-12		BLD 6 HEX5
HELIR/L 2020-3T12	6-7		BLD 6 HEX4
HELIR/L 2020-3T20	7-8		BLD 6 HEX5
HELIR/L 2020-4T12	6-7		BLD 6 HEX4
HELIR/L 2020-4T25	7-8		BLD 6 HEX5
HELIR/L 2020-5T12	7-8		BLD 6 HEX5
HELIR/L 2020-5T25	9-10		BLD 6 HEX5
HELIR/L 2525-3T12	6-7		BLD 6 HEX4
HELIR/L 2525-3T20	10-11		BLD 6 HEX5
HELIR/L 2525-4T12	6-7		BLD 6 HEX4
HELIR/L 2525-4T25	8-9		BLD 6 HEX5
HELIR/L 2525-5T12	8-9		BLD 6 HEX5
HELIR/L 2525-5T25	10-11		BLD 6 HEX5
HELIR/L 2525-6T12	11-12		BLD 6 HEX5
HELIR/L 2525-6T30	10-11		BLD 6 HEX5
HELIR/L 3232-3T20	9-10		BLD 6 HEX5
HELIR/L 3232-4T25	9-10		BLD 6 HEX5
HELIR/L 3232-5T25	10-11		BLD 6 HEX5
HELIR/L 3232-6T30	11-12		BLD 6 HEX5
HELIR/L 4032-4T25	9-10		BLD 6 HEX5
C#-HELIR/L			
C4 HELIR/L 3T20	9-10	TSA 6 5-14	BLD 6 HEX5
C4 HELIR/L 4T25	11-12		BLD 6 HEX5
C5 HELIR/L 3T20	10-11		BLD 6 HEX5
C5 HELIR/L 4T25	11-12		BLD 6 HEX5
C5 HELIR/L 5T25	11-12		BLD 6 HEX5
C6 HELIR/L 3T20	10-11		BLD 6 HEX5
C6 HELIR/L 4T25	12-13		BLD 6 HEX5
C6 HELIR/L 5T25	12-13		BLD 6 HEX5
C6 HELIR/L 6T30	13-14		BLD 6 HEX5

CUT-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
GHDR/L (short pocket)			
GHDR/L 12-3	4-5	TSA 6 5-14	BLD 6 T20
GHDR/L 16-3	5-6		BLD 6 HEX4
GHDR/L 16-3 ST	5-6		BLD 6 HEX4
GHDR/L 16-4	7-8		BLD 6 HEX5
GHDR/L 16-4 ST	7-8		BLD 6 HEX5
GHDR/L 20-3	5-6		BLD 6 HEX4
GHDR/L 20-4	7-8		BLD 6 HEX5
GHDR/L 20-5	8-9		BLD 6 HEX5
GHDR/L 25-3	5-6		BLD 6 HEX4
GHDR/L 25-4	7-8		BLD 6 HEX5
GHDR/L 25-5	8-9		BLD 6 HEX5
GHDR/L 25-6	9-10		BLD 6 HEX5
GHDR/L 32-3	6-7		BLD 6 HEX4
GHDR/L 32-4	8-10		BLD 6 HEX5
GHDR/L 32-5	9-11		BLD 6 HEX5
GHDR/L 25-P8	13-14		BLD 6 HEX6
GHDR/L 32-P8	10-12		BLD 6 HEX6
GHDR/L-JHP (short pocket)			
GHDR/L 20-3-JHP	5-6	TSA 6 5-14	BLD 6 HEX4
GHDR/L 20-4-JHP	7-8		BLD 6 HEX5
GHDR/L 25-3-JHP	7-8		BLD 6 HEX4
GHDR/L 25-4-JHP	10-11		BLD 6 HEX5
GHDR/L 25-5-JHP	10-12		BLD 6 HEX5
GHDR/L 25-P8-JHP	10-11		BLD 6 HEX5
GHDR/L-JHP (long pocket)			
GHDR/L 32-8-JHP	15-17	Not Available	Not Available
GHDR/L-8A			
GHDR/L 25-8A	10-12	TSA 6 5-14	BLD 6 HEX5
GHDR/L 32-8A	10-12		BLD 6 HEX5
GHDR/L (long pocket)			
GHDR/L 25-8	10-12	TSA 6 5-14	BLD 6 HEX5
GHDR/L 25-812	10-12		BLD 6 HEX5
GHDR/L 32-8	10-12		BLD 6 HEX5
GHDR/L 3225-8	10-12		BLD 6 HEX5
GHDR/L 32-812	11-12		BLD 6 HEX5
GHDR/L 25-10	15-17	Not Available	Not Available
GHDR/L 32-836	16-17		
GHDR/L 32-10	15-17		
GHDR/L 40-10	16-17		
C#-GHDR/L			
C4 GHDR/L-3	6-7	TSA 6 5-14	BLD 6 HEX4
C4 GHDR/L-4	7-8		BLD 6 HEX5
C5 GHDR/L-3	6-7		BLD 6 HEX4
C5 GHDR/L-4	7-8		BLD 6 HEX5
C5 GHDR/L-5	8-9		BLD 6 HEX5
C6 GHDR/L-3	6-7		BLD 6 HEX4
C6 GHDR/L-4	7-8		BLD 6 HEX5
C6 GHDR/L-5	8-9		BLD 6 HEX5
C6 GHDR/L-8	10-12		BLD 6 HEX5

CUT-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
GHDR/L/N 12/14			
GHDR/L 2525-14T12	16-17	Not Available	Not Available
GHDR/L 32-12	15-16		
GHDR/L 3232-14T12	16-17		
GHDR/L 3232-14T38	18-20		
GHDN 3232-14T38	18-20		
GHDR/L 4040-14T38	18-20		
GHDN 4040-14T38	18-20		
GHGR/L			
GHGR/L 16-3	7-8	TSA 6 5-14	BLD 6 HEX5
GHGR/L 16-3 ST	7-8		BLD 6 HEX5
GHGR 16-4	7-8		BLD 6 HEX5
GHGR/L 20-2	4-6	HSA 4 1-5	BLD 4 HEX4
GHGR/L 20-3	7-8	TSA 6 5-14	BLD 6 HEX5
GHGR/L 20-4	7-8		BLD 6 HEX5
GHGR/L 25-2	4-5	HSA 4 1-5	BLD 4 HEX4
GHGR/L 25-3	6-8	TSA 6 5-14	BLD 6 HEX5
GHGR/L 25-4	8-10		BLD 6 HEX5
GHGR/L 25-425	8-10		BLD 6 HEX5
GHGR/L 25-5	9-11		BLD 6 HEX5
GHGR/L 25-630	10-12		BLD 6 HEX5
GHGR/L 32-5	10-12		BLD 6 HEX5
GHGR/L 32-632	10-12		BLD 6 HEX5
GHMR/L			
GHMR/L 12	8-9	TSA 6 5-14	BLD 6 T20
GHMR/L 16	10-12		BLD 6 HEX5
GHMR/L 16-3 ST	10-12		BLD 6 HEX5
GHMR/L 20	10-12		BLD 6 HEX5
GHMR/L 25	10-12		BLD 6 HEX5
GHMR/L 32	10-12		BLD 6 HEX5
GHMPR/L			
GHMPR/L 16	4-5	TSA 6 5-14	BLD 6 HEX5
GHMPR/L 20	5-6		BLD 6 HEX5
GHMPR/L 25	8-9		BLD 6 HEX5
GHMUR/L			
GHMUR/L 16	6-7	TSA 6 5-14	BLD 6 HEX5
GHMUR/L 20	8-10		BLD 6 HEX5
GHMUR/L 25	10-11		BLD 6 HEX5
GHSR/L			
GHSR/L 10-2	2-3	HSA 4 1-5	BLD 4 T15
GHSR/L 12-2	2-3		BLD 4 T15
GHSR/L 14-2	2-3		BLD 4 T15
GHSR/L 16-2	4-5	TSA 6 5-14	BLD 6 T20
CGHN-P8			
CGHN 52-P8	6-7	TSA 6 5-14	BLD 6 HEX4
CGHN 53-P8	6-7		BLD 6 HEX4
CGHN-8-10D			
CGHN 52-8D	7-8	TSA 6 5-14	BLD 6 HEX4
CGHN 53-8D	7-8		BLD 6 HEX4
CGHN 52-10D	9-11		BLD 6 HEX5
CGHN 53-10D	9-11		BLD 6 HEX5
CGHR/L-12-14D			
CGHR/L 53-12D	10-12	TSA 6 5-14	BLD 6 HEX5
CGHR/L 53-14D	10-12		BLD 6 HEX5

All JETCUT tools also provide great advantages to standard low-pressure (7-10 bar) machine tools

The **JETCUT** tools provide a great advantage when standard machine pressure (10-20 bar) is applied and on a wide range of popular materials such as alloy & stainless steel, improving their tool life and in some cases chip control.

The main reasons for the improvement in both high and low pressure are:

- The **JETCUT** coolant is pinpointed exactly to the cutting edge where it is most effective.



- The **JETCUT** coolant is steady and not influenced by the operator's attention or interrupted by the chips.



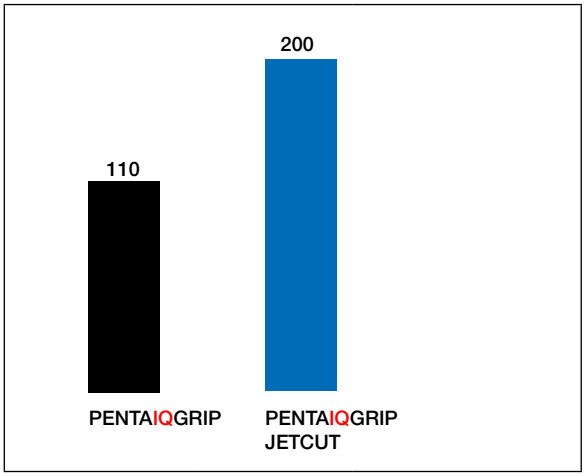
- In parting-off and deep grooving, external coolant loses its effectiveness as the groove becomes deeper.
- With **JETCUT** tools and blades, the coolant delivery is not influenced by the groove's depth.



These advantages were reported by many customers and are presented in various test reports.

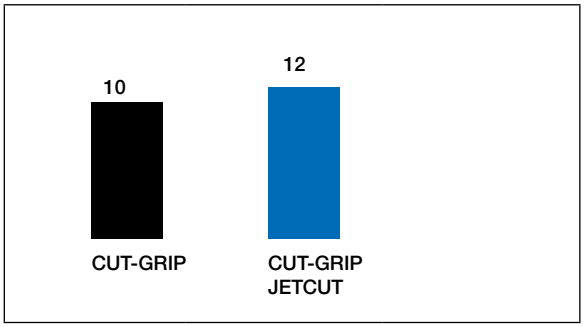
	PENTAIQGRIP	PENTAIQGRIP JETCUT
Material	Stainless Steel AISI 316	
Operation	Grooving	
Pressure (bar)	10 (external)	10 (Internal)
Tool	PCHR 25-D40-3	PCHR 25-D40-3-JHP
Insert	PENTA D40N300C020 IC808G	
V_c (mm/min)	180	
f (mm/rev)	0.2	
Tool life (number of grooves)	110	**200**

Tool life increase 82%



	CUT-GRIP	CUT-GRIP JETCUT
Material	Stainless Steel 1.4301 (AISI 304)	
Operation	External Grooving	
Pressure (bar)	20 (external)	20 (Internal)
Tool	GHDR 20-4	GHDR 20-4-JHP
Insert	GIP 4.00E-0.4 IC808	GIP 4.00E-0.4 IC808
V_c (m/min)	120	**140**
f (mm/rev)	0.12	**0.2**
Cycle time (min)	128.5	**67.4**
Parts/Edge	10	**12**

Tool life increase 20%
Cycle time improvement 52%



JETCUT Tools High-Pressure (up to 340 bar)

The high-pressure coolant feature has been in existence for a long time in the metal removal world, taking a bigger role in today's machining. **ISCAR** was one of the first cutting tools companies to respond to market needs by designing and producing tools for ultra-high and high-pressure coolant flow. High-pressure coolant was initially implemented mainly for difficult-to-machine materials such as Titanium, Inconel and other heat resistant alloys. Later it was found that tool life, productivity and chip control can be improved when machining stainless and alloyed steel. **JETCUT** tools are essential and important in the aviation, aerospace and medical industries.

How does it work?

The stream velocity of the coolant emitted from the pump increases as the coolant holes become smaller. When it emerges out of the tool through the nozzle, the velocity is very high, exerting considerable force on the chips, lowering their temperature and protecting the cutting edge from thermal shock. High temperature alloys produce a very high temperature as they are being cut. By effectively removing the heat, the chips become less ductile and thus easier to break. Shorter chips are easily managed, they do not tangle around the workpiece or machine parts, so there is no need to stop the process frequently. Usually in conventional cooling the chip prevents the coolant from reaching the insert rake face in the cutting zone. The coolant stream of the **JETCUT** tools is directed precisely between the insert rake face and the flowing chip. This results in longer tool life and a much more reliable process.

The coolant channels of the **JETCUT** tools feature outlets very close to the cutting edges, thus gaining the following advantages:

- Shorter machining time – the cutting speed may be increased by up to 200% when machining Titanium & heat resistant alloys
- Longer tool life – tool life increases by up to 100% not only on Titanium and heat resistant alloys, but also on stainless and alloy steels
- Improved chip control – even on the most ductile and problematic materials, small chips can be obtained
- Very effective cooling down of the cutting edge, which reduces sensitivity to heat fluctuations
- Safer and more stable process

JETCUT tools provide advantageous performance also when conventional pressure is applied.

General Information

Pressure Ranges

Up to 30 bar – Low pressure (LP) may provide some improvement in tool life. Usually will not have an effect on chip control. 30 – 120 bar – High-pressure (HP) the most commonly used pressure range used with **JETCUT** tools. Increase in tool life, increase in cutting speeds, improved chip control. 120 – 400 bar – Ultra high-pressure (UHP) requires special tool design in order to take advantage of the extra pressure. Minor increase in tool life compared to HP range. Ultra high-pressure coolant is usually implemented for machining Titanium and heat resistant alloys when there is a need for very small chips and higher machining rates.
Since 2000, **ISCAR** has provided hundreds of special tools featuring ultra high-pressure coolant capability for various customers and applications.

Pressure vs. Flow

Each **JETCUT** tool is designed to work at a certain flow rate, depending on the pressure. The flow rates are listed in the catalog pages for each tool. The user should verify that the pump can supply the required flow in order to achieve the optimal results. The pump data sheet will usually list the maximum flow rate for each pressure range.

Chips & Pressure

The coolant flow will start to break the chips at a certain pressure, depending on the specific tool and the workpiece material. If the chips are not breaking, the pressure should be increased until chip control is achieved. Above this pressure, as it is increased the chips become smaller and smaller. It is possible to control the size of the chips by modifying the pressure in order to achieve the desired chip size.

High-Pressure Coolant with GROOVE-TURN and Parting Tools

In grooving and parting operations, applying high-pressure coolant provides excellent chip breaking results on all materials. On exotic alloys such as Inconel and Titanium, it is usually impossible to break the chips with standard external coolant pressure.
Applying high coolant pressure provides excellent chip breaking results. On some alloyed and stainless steel, especially when low feeds are applied, high-pressure coolant may solve chip breaking problems.
High-pressure coolant reduces or even eliminates built-up edge phenomenon, especially when machining stainless steel and high temperature alloys.
In turning operations, applying high-pressure coolant is less effective because the jet is directed to the frontal edge.

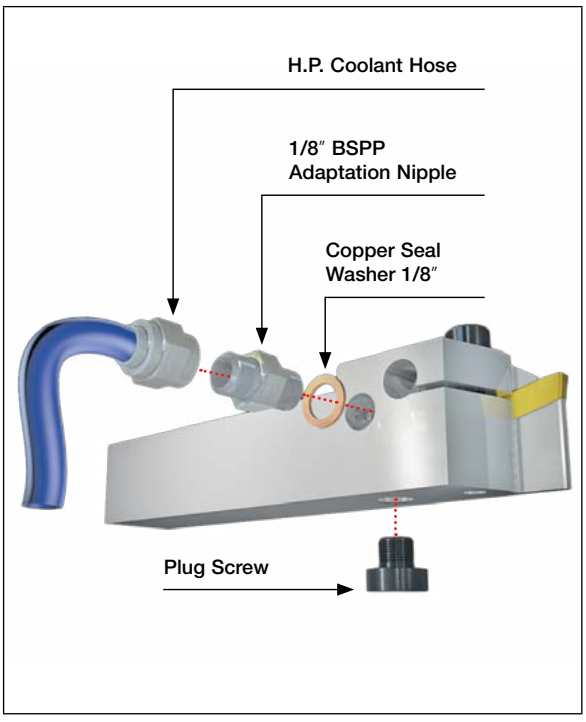
Assembly and Safety Guidelines when Using the JET HP Iso Turning and Grooving Tools

Before use, please ensure that:

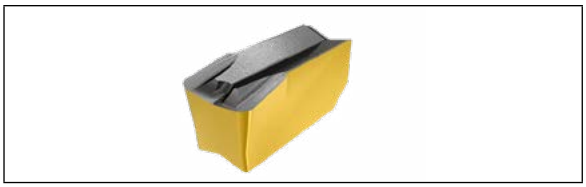
- The machine door is in a fully closed position
- The coolant hose is in the correct location and fully tightened with all seals in position
- A blank plug is inserted into the unused coolant hole
- All O-rings and washers are in place
- The coolant hose is tightened securely to the toolholder and tool block to prevent leakage of coolant

Important

Always pay attention not to exceed the maximum safe working pressure for **GROOVE-TURN tools 340 bar** and **PARTING OFF tools 300 bar.**



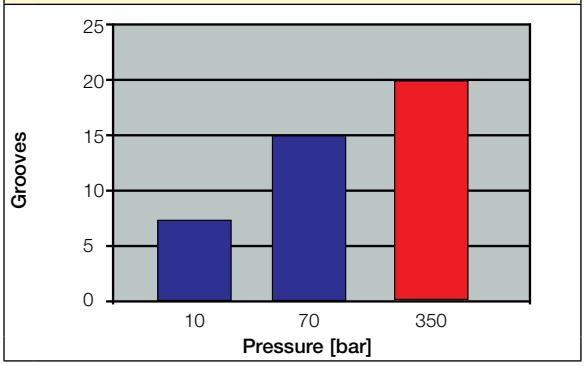
Grooving Test



Material: Titanium (Ti6Al4v)
Operation: Grooving
Tool: GHDL 25-6-JHP
Insert: GIMF 608 IC07
Vc: 50 mm/min
f: 0.15 mm/rev

Pressure [bar]		
10 (External)	70	350
		

Tool Life





Groove-Turn Cutting Speed Recommendations

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.(1)
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quenched and tempered	850	250	3
		>= 0.55 %C	Annealed	750	220	4
		>= 0.55 %C	Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (less than 5% all elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloy steel, cast steel, tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
P	Stainless steel and cast steel		Ferritic/martensitic	680	200	12
			Martensitic	820	240	13
M	Stainless steel and cast steel		Austenitic, duplex	600	180	14
K	Grey cast iron (GG)		Pearlitic/ferritic		180	15
			Pearlitic/martensitic		260	16
	Ductile cast iron (nodular) (GGG)		Ferritic		160	17
			Pearlitic		250	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum-wrought alloys		Not hardenable		60	21
			Hardenable		100	22
	Aluminum-cast alloys	<=12% Si	Not hardenable		75	23
			Hardenable		90	24
		>12% Si	High temperature		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics			29
			Hard rubber			30
S	High temp. alloys	Fe based	Annealed		200	31
			Hardened		280	32
		Ni or Co based	Annealed		250	33
			Hardened		350	34
			Cast		320	35
	Titanium alloys		Pure	400		36
			Alpha+beta alloys hardened	1050		37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron		Hardened		55 HRC	41

(1) For material groups, see pages 786-815

Material Group No.	IC20N	IC8250	IC807	IC808	IC908	IC354	IC830	IC228/328/528		
1	225 - 335	210 - 315	160 - 240	145 - 220	140-210	110 - 170	105 - 155	100 - 145		
2	210 - 290	195 - 270	150 - 205	135 - 190	130-180	105 - 145	95 - 135	90 - 125		
3	160 - 240	150 - 225	115 - 170	105 - 155	100-150	80 - 120	75 - 110	70 - 105		
4	175 - 270	165 - 255	125 - 195	115 - 180	110-170	90 - 135	80 - 125	75 - 120		
5	145 - 225	135 - 210	105 - 160	95 - 145	90-140	70 - 110	65 - 105	65 - 100		
6	175 - 270	165 - 255	125 - 195	115 - 180	110-170	90 - 135	80 - 125	75 - 120		
7	145 - 240	135 - 225	105 - 170	95 - 155	90-150	70 - 120	65 - 110	65 - 105		
8	145 - 225	135 - 210	105 - 160	95 - 145	90-140	70 - 110	65 - 105	65 - 100		
9	130 - 210	120 - 195	90 - 150	85 - 135	80-130	65 - 105	60 - 95	55 - 90		
10	210 - 290	195 - 270	150 - 205	135 - 190	130-180	105 - 145	95 - 135	90 - 125		
11	130 - 210	120 - 195	90 - 150	85 - 135	80-130	65 - 105	60 - 95	55 - 90		

	IC20N	IC806	IC907/807	IC8250	IC808	IC908	IC320	IC830	IC354	
12	180 - 320	130 - 240	125 - 230	120 - 220	115 - 210	110-200	100 - 180	80 - 150	90 - 160	
13	160 - 300	120 - 230	115 - 220	110 - 210	105 - 200	100-190	90 - 170	75 - 140	80 - 150	

	IC20N	IC806	IC907/807	IC8250	IC808	IC908	IC320	IC830	IC354	
14	140 - 270	110 - 205	105 - 195	100 - 185	95 - 180	90-170	80 - 155	65 - 125	70 - 135	

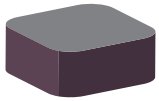
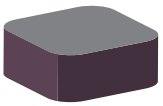
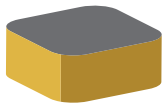
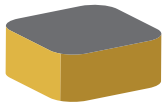
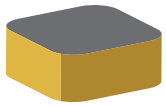
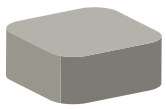
	IC5010	IC418	IC428	IC8250	IC907/807	IC908/808				
15	165 - 295	140 - 255	150-270	135 - 245	105 - 190	95 - 175				
16	145 - 210	125 - 180	130-190	115 - 170	90 - 135	85 - 125				
17	155 - 255	135 - 220	140-230	125 - 205	100 - 160	90 - 150				
18	120 - 200	105 - 170	110-180	100 - 160	75 - 125	70 - 115				
19	185 - 310	160 - 265	170-280	155 - 250	120 - 195	110 - 180				
20	155 - 255	135 - 220	140-230	125 - 205	100 - 160	90 - 150				

	ID5	IC04	IC807	IC20	IC04	IC07	IC08			
21	400-2500	460 - 1380	440 - 1320	400-1200	460 - 1380	440 - 1320	320 - 960			
22	400-2500	345 - 1150	330 - 1100	300-1000	345 - 1150	330 - 1100	240 - 800			
23	400-2500	345 - 1150	330 - 1100	300-1000	345 - 1150	330 - 1100	240 - 800			
24	400-2500	230 - 690	220 - 660	200-600	230 - 690	220 - 660	160 - 480			
25	300-1500	230 - 460	220 - 440	200-400	230 - 460	220 - 440	160 - 320			
26	300-1000	230 - 460	220 - 440	200-400	230 - 460	220 - 440	160 - 320			
27	300-800	170 - 345	165 - 330	150-300	170 - 345	165 - 330	120 - 240			
28	300-800	115 - 230	110 - 220	100-200	115 - 230	110 - 220	80 - 160			
29	150-600	55 - 230	55 - 220	50-200	55 - 230	55 - 220	40 - 160			
30										

No.	IC804	IC806	IC807	IC907	IC908	IC808	IC04	IC07	IC20	IC08
31	60 - 95	50 - 80	50 - 80	45 - 75	40-65	40 - 70	30 - 50	30 - 45	25 - 40	25 - 40
32	45 - 65	35 - 55	35 - 55	35 - 50	30-45	30 - 45	25 - 35	20 - 30	20 - 30	20 - 25
33	45 - 65	35 - 55	35 - 55	35 - 50	30-45	30 - 45	25 - 35	20 - 30	20 - 30	20 - 25
34	35 - 60	30 - 50	30 - 50	30 - 45	25-40	25 - 40	20 - 30	15 - 30	15 - 25	15 - 25
35	30 - 45	25 - 35	25 - 35	25 - 35	20-30	20 - 30	15 - 25	15 - 20	15 - 20	10 - 20
36	150 - 255	125 - 210	120 - 205	115 - 195	100-170	105 - 180	80 - 135	70 - 120	65 - 110	60 - 100
37	50 - 65	45 - 60	40 - 50	40 - 50	35-45	35 - 45	50 - 65	40 - 55	40 - 50	35 - 45

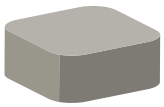
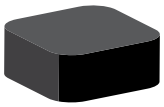
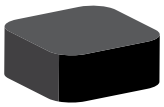
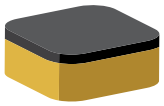
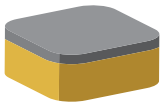
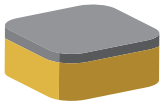
No.	IB10H	IB50	IB20H	IC807	IC907	IC808	IC908			
38	100-155	90-140	80-125	35-45	30-40	30-40	25-35			
39	90-135	80-120	75-110	30-40	25-35	25-35	20-30			
40	110-175	100-160	90-145	45-65	40-60	40-60	30-50			
41	100-135	90-120	80-110	40-50	35-45	35-45	30-40			

ISCAR Groove-Turn Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC228	P30-P45 M25-M40	A very substrate with PVD coating, suitable for machining steels and stainless steel at low to medium cutting speeds.	TiN TICN Base	
	IC528	P30-P45 M25-M40	A tough substrate with PVD coating, suitable for machining steels and stainless steel at low to medium cutting speeds. Can be used under unstable conditions.	TiN TiCN Base	
	IC804	S05-S15	A very hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for semi-finishing and finishing operations under stable conditions on high temperature alloys and Titanium alloys moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC830	P30-P45 M25-M40 S20-S30	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	IC907	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiAlN Base	

* For coated grades

ISCAR Groove-Turn Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	
	IC1007	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating, suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to high speeds under stable conditions. Features high wear resistance and plastic deformation durability. Good choice for non-ferrous materials and cast iron.	TiN TiAlN Base	
	IC1008	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds.	TiN TiAlN Base	
CVD COATED	IC418	 K10-K25 	A tough substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at medium to high cutting speeds. Can be used for interrupted cuts and under heavy machining conditions.	Al_2O_3 Tic Base	
	IC428	 K05-K20 H15-H25	A hard substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds.	Al_2O_3 Tic Base	
	IC5010	 K10-K20 	A hard substrate with MTCVD coating with a special SUMOTEC surface treatment. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds, provides very good resistance to chipping.	TiN Al_2O_3 TiCN Base	
	IC8150	P10-P25 M10-M20 K10-K25 	A hard substrate with a cobalt enriched layer, MTCVD coating with a special SUMOTEC surface treatment. Recommended for high speed machining of steels, alloy steels and martensitic stainless steel with moderate feeds under stable conditions. Features excellent thermal stability, resistance to wear and plastic deformation durability.	TiN Al_2O_3 TiCN Base	
	IC8250	P15-P35 M15-M25 	A tough substrate with a cobalt enriched layer and MTCVD coating with a special SUMOTEC surface treatment. Recommended for general use machining of steels, alloy steels and martensitic stainless steel in a wide range of conditions. Features high toughness and good wear resistance.	TiN Al_2O_3 TiCN Base	

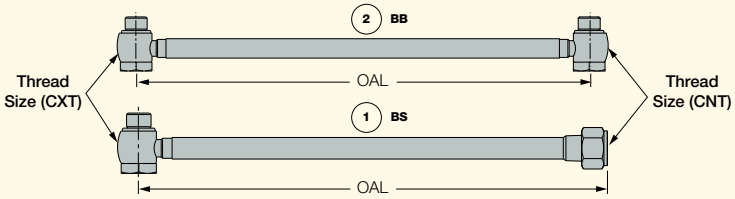
* For coated grades

ISCAR Groove-Turn Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Uncoated
CERMET	IC20N	P05-P25 M05-M15	A very hard cermet grade for turning and grooving, recommended for finishing operations on steels and alloy steels at high cutting speeds and low feeds. Features excellent surface finish, high wear resistance, plastic deformation durability and prevents built-up edge.	Base	
UNCOATED	IC4	N01-N15 S05-S15	A very hard-uncoated carbide grade, suitable for machining aluminum alloys, aluminum alloys with high silicon content and other non-ferrous materials at high cutting speeds.	Base	
	IC07	M10-M20 N05-N20 S10-S25	A hard-uncoated submicron carbide grade, suitable for machining aluminum alloys and other non-ferrous materials at high cutting speeds.	Base	
	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base	
	IC20	K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	
CBN	IB10H	H10	Extra fine PCBN grain size. Suitable for high speed machining of hardened steels (45-65 HRC) under stable conditions.	Base	
	IB20H	H20	A combination of coarse and fine PCBN grain, suitable for general and interrupted cutting of hardened steels.	Base	
	IB50	K01-K10 H01-H10	A PCBN grade, suitable for finish turning and grooving operations on hardened steels 45-65 HRC and nodular cast iron in continuous cutting.	Base	
PCD	ID5	N01-N10	A PCD brazed tip, suitable for machining aluminum alloys (Si < 12%) and other non-ferrous materials. Features very high wear resistance with high toughness. Suitable for finishing operations and can be used for semi roughning operations and interrupted cut.	Base	

Accessories

JHP HOSE
High-Pressure Coolant Hose



Designation	OAL	Fig.	CXT	CNT
JHP HOSE G1/8-7/16-200BS	200.00	1	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE 5/16-G1/8-200BS	200.00	1	5/16"-24 UNF	G1/8"-28 BSPP
JHP HOSE 5/16-7/16-200BS	200.00	1	5/16"-24 UNF	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-200BB	200.00	2	G1/8"-28 BSPP	G1/8"-28 BSPP
JHP HOSE G1/8-7/16-250BS	250.00	1	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-250BB	250.00	2	G1/8"-28 BSPP	G1/8"-28 BSPP

Spare Parts

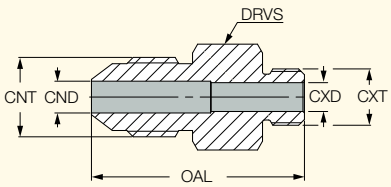
Designation		
JHP HOSE 5/16-7/16-200BS	JHP BANJO BOLT 5/16" UNF	JHP COPPER SEAL 5/16"
JHP HOSE G1/8-G1/8-200BB		JHP COPPER SEAL 1/8"*
JHP HOSE G1/8-G1/8-250BB	JHP BANJO BOLT G1/8"*	JHP COPPER SEAL 1/8"*

* Optional, should be ordered separately

Accessories

JHP NIPPLE
High-Pressure Adaptation Nipple



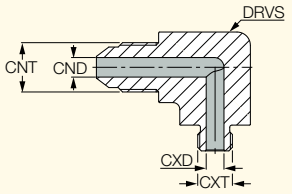


Designation	CXT	CNT	OAL	CND	CXD	DRVS(1)
JHP NIPPLE G1/8"-7/16"UNF	1/8"-28 BSPP	7/16"-20 UNF	28.75	4.00	4.00	14.3
JHP NIPPLE 1/8NPT-7/16UNF	1/8"-27 NPT	7/16"-20 UNF	31.00	4.80	4.40	12.7
JHP NIPPLE 1/4NPT-7/16UNF	1/4"-18 NPT	7/16"-20 UNF	36.00	4.40	4.40	14.3
JHP NIPPLE5/16UNF-7/16UNF	5/16"-24 UNF	7/16"-20 UNF	29.50	4.40	4.00	12.7

(1) Torque key size

Accessories

JHP ELBOW
High-Pressure Adaptation Elbow



Designation	CNT	CND	CXT	CXD	DRVS(2)
JHP ELBOW TUB3/16-5/16UNF (1)	-	3.10	5/16"-24 UNF	4.00	12.7
JHP ELBOW 90-5/16-7/16UNF	7/16"-20 UNF	4.40	5/16"-24 UNF	4.00	12.7
JHP ELBOW 90-G1/8-7/16UNF	7/16"-20 UNF	4.40	1/8"-28 BSPP	4.00	15.9

(1) For connection to a simple 3/16" stainless or copper tube

(2) Torque key size

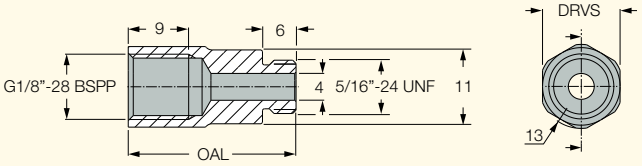
Spare Parts

Designation	
JHP ELBOW 90-5/16-7/16UNF	JHP COPPER SEAL 5/16"-2.5
JHP ELBOW 90-G1/8-7/16UNF	JHP COPPER SEAL 1/8"

Accessories

JHP CONNECTOR
High-Pressure Connector





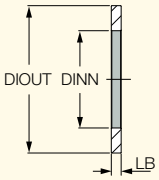
Designation	OAL	DRVS[1]
JHP CONECTOR 5/16"-G1/8"	25.00	12.0

(1) Torque key size

Accessories

JHP COPPER SEAL
High-Pressure Copper Seal

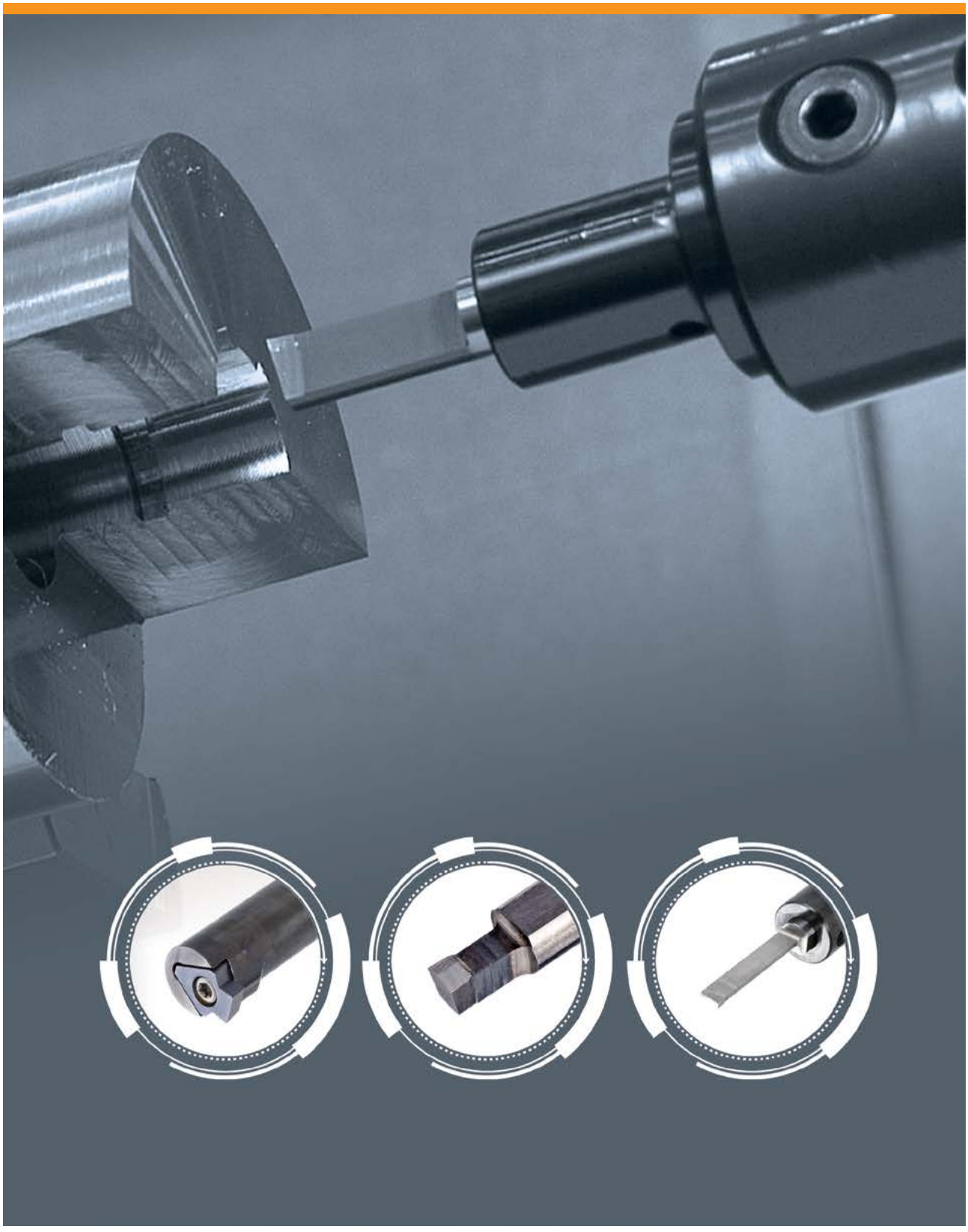




Designation	DIOUT	DINN	LB
JHP COPPER SEAL 5/16"-2.5	9.40	8.00	2.50
JHP COPPER SEAL 5/16"	11.90	8.15	1.35
JHP COPPER SEAL 1/8"	15.00	10.00	1.00



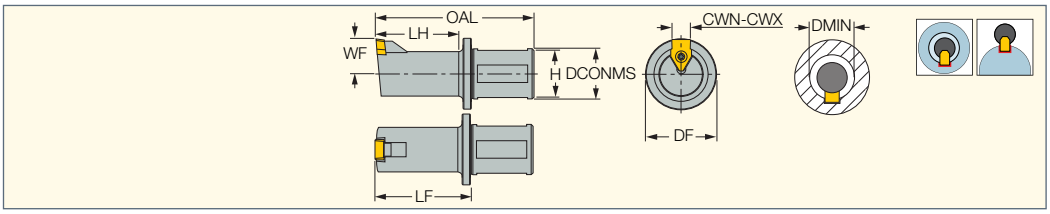
BROACHING TOOLS



ISCARBROACH

SXCIB

Broaching Holders for Lathe and Milling Machines



Designation	DCONMS	OAL	LH	LF	CWN[1]	CWX[2]	WF	DMIN	H	DF	Insert		
SXCIB 25-22-50	25.00	100.00	50.0	60.00	5.00	12.00	12.00	22.00	23.0	33.0	Group #1	SR M5X13 T20	T-20/5
SXCIB 32-30-50	32.00	100.00	50.0	60.00	5.00	12.00	16.50	30.00	30.0	45.0	Group #2	SR M5X13 T20	T-20/5
SXCIB 32-38-50	32.00	100.00	50.0	60.00	5.00	12.00	22.00	38.00	30.0	45.0	Group #3	SR M5X13 T20	T-20/5
SXCIB 32-30-75	32.00	125.00	75.0	85.00	5.00	12.00	16.50	30.00	30.0	45.0	Group #2	SR M5X13 T20	T-20/5
SXCIB 32-38-75	32.00	125.00	75.0	85.00	5.00	12.00	22.00	38.00	30.0	45.0	Group #3	SR M5X13 T20	T-20/5

[1] Minimum cutting width
[2] Maximum cutting width
For inserts, see pages: XNUWB (440) • XNUWB (light fit) (441) • XNUWB (tight fit) (441)

Insert Group #1	Insert Group #2	Insert Group #3
XNUWB 13-4.98-0.2	XNUWB 13-7.98-0.2	XNUWB 13-10.13-1.05
XNUWB 13-5.01-0.2	XNUWB 13-8.13-1.05	XNUWB 13-11.98-0.3
XNUWB 13-5.98-0.2	XNUWB 13-9.98-0.3	XNUWB 13-12.02-0.3
XNUWB 13-6.01-0.2	XNUWB 13-10.01-0.3	XNUWB 13-12.02-0.5
XNUWB 13-6.12-0.85		XNUWB 13-12.15-1.35
XNUWB 13-7.13-0.85		XNUWB 13-12.15-1.75
XNUWB 13-7.98-0.2		XNUWB 13-12.15-2.25
XNUWB 13-8.01-0.2		
XNUWB 13-8.13-1.05		

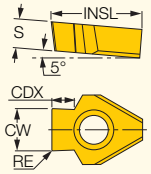
Spare Parts Clamping screw: SR M5X13 T20 **Key:** T-20/5

ISCARBROACH

XNUWB

DIN138 (Tolerance C11) Inserts for Keyway Broaching on Lathe and Milling Machines





Designation	Dimensions							IC908
	CW	RE	CWTOL[1]	RETOL[2]	INSL	CDX[3]	S	
XNUWB 13-6.12-0.85	6.12	0.85	0.02	0.050	17.30	2.60	5.30	●
XNUWB 13-7.13-0.85	7.13	0.85	0.02	0.050	17.30	3.30	5.30	●
XNUWB 13-8.13-1.05	8.13	1.05	0.02	0.050	17.30	3.40	5.30	●
XNUWB 13-10.13-1.05	10.13	1.05	0.02	0.050	20.20	4.20	5.30	●
XNUWB 13-12.15-1.35	12.15	1.35	0.02	0.050	20.20	5.10	5.30	●
XNUWB 13-12.15-1.75	12.15	1.75	0.02	0.050	20.20	6.60	5.30	●
XNUWB 13-12.15-2.25	12.15	2.25	0.02	0.050	20.20	8.50	5.30	●

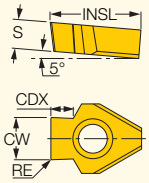
• Typical conditions: V_c = 4000-8000 mm/min, a_p = 0.02-0.08 mm
[1] Cutting width tolerance (+/-)
[2] Corner radius tolerance (+/-)
[3] Cutting depth maximum
For tools, see pages: SXCIB (440)

ISCARBROACH

XNUWB (light fit)

DIN6885 Inserts for Light Fit (JS9) Keyway Broaching on Lathe and Milling Machines





Designation	Dimensions						IC908
	CW(1)	RE	RETOL(2)	INSL	CDX(3)	S	
XNUWB 13-5.01-0.2	5.01	0.20	0.030	17.30	2.70	5.30	•
XNUWB 13-6.0-0.2	6.01	0.20	0.030	17.30	3.40	5.30	•
XNUWB 13-8.01-0.2	8.01	0.20	0.030	17.30	4.10	5.30	•
XNUWB 13-10.01-0.3	10.01	0.30	0.030	17.30	4.20	5.30	•
XNUWB 13-12.02-0.3	12.02	0.30	0.030	20.20	5.70	5.30	•
XNUWB 13-12.02-0.5	12.02	0.50	0.050	20.20	8.50	5.30	•

- Typical conditions: V_c = 4000-8000 mm/min, a_p = 0.02-0.08 mm

(1) Tolerance: +0 -0.03

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

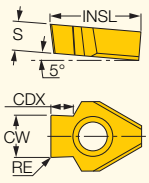
For tools, see pages: SXCIB (440)

ISCARBROACH

XNUWB (tight fit)

DIN6885 Inserts for Tight Fit (P9) Keyway Broaching on Lathe and Milling Machines





Designation	Dimensions					IC908
	CW(1)	RE	INSL	CDX(2)	S	
XNUWB 13-4.98-0.2	4.98	0.20	17.30	2.70	5.30	•
XNUWB 13-5.98-0.2	5.98	0.20	17.30	3.40	5.30	•
XNUWB 13-7.98-0.2	7.98	0.20	17.30	4.10	5.30	•
XNUWB 13-9.98-0.3	9.98	0.30	17.30	4.20	5.30	•
XNUWB 13-11.98-0.3	11.98	0.30	20.20	5.70	5.30	•

- Typical conditions: V_c = 4000-8000 mm/min, a_p = 0.02-0.08 mm

(1) Tolerance: +0 -0.03

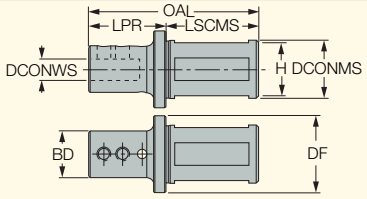
(2) Cutting depth maximum

For tools, see pages: SXCIB (440)

ISCARBROACH

BHDN

Broaching Holders for Lathe and Milling Machines



Designation	DCONWS	DCONMS	BD	DF	LPR	OAL	LSCMS	H	Insert		
BHDN 25-10-33	10.00	25.00	20.00	33.00	33.00	73.00	40.00	23.0	SCB 010	SR M5X6 DIN913	HW 2.5
BHDN 32-10-33	10.00	32.00	20.00	40.00	33.00	73.00	40.00	30.0	SCB 010	SR M5X6 DIN913	HW 2.5

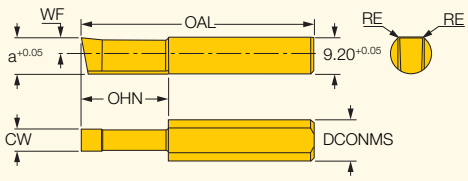
- Holders are suitable for left- and right-hand mini-bars and ISO bars

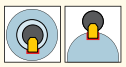
ISCARBROACH

SCB

DIN138 (Tolerance C11) Inserts for Keyway Broaching on Lathe and Milling Machines







Designation	Dimensions								IC908
	CW	RE	DCONMS	WF	a	OAL	OHN(1)	DMIN	
SCB 010.410.050-25	4.10	0.50	10.00	4.00	9.00	50.00	25.0	10.00	●
SCB 010.410.050-41	4.10	0.50	10.00	4.00	9.00	66.00	41.0	10.00	●
SCB 010.510.050-25	5.10	0.50	10.00	4.00	9.00	50.00	25.0	10.00	●
SCB 010.510.050-41	5.10	0.50	10.00	4.00	9.00	66.00	41.0	10.00	●

- Typical conditions: V_c = 4000-8000 mm/min, a_p = 0.02-0.08 mm

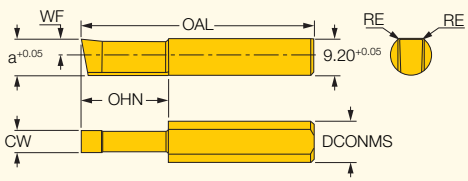
(1) Minimum overhang

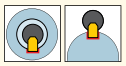
ISCARBROACH

SCB (light fit)

DIN6885 Inserts for Light Fit (JS9) Keyway Broaching on Lathe and Milling Machines







Designation	Dimensions								IC908
	CW	RE	DCONMS	WF	a	OAL	OHN(1)	DMIN	
SCB 010.400.020-25	4.00	0.20	10.00	4.00	9.00	50.00	25.0	10.00	●
SCB 010.400.020-41	4.00	0.20	10.00	4.00	9.00	66.00	41.0	10.00	●
SCB 010.500.020-25	5.00	0.20	10.00	4.00	9.00	50.00	25.0	10.00	●
SCB 010.500.020-41	5.00	0.20	10.00	4.00	9.00	66.00	41.0	10.00	●

- Typical conditions: V_c = 4000-8000 mm/min, a_p = 0.02-0.08 mm

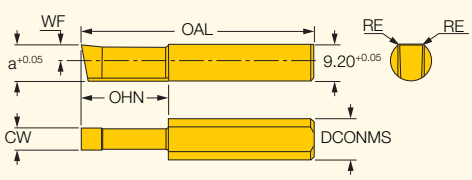
(1) Minimum overhang

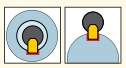
ISCARBROACH

SCB (tight fit)

DIN6885 Inserts for Tight Fit (P9) Keyway Broaching on Lathe and Milling Machines







Designation	Dimensions								IC908
	CW(1)	RE	DCONMS	WF	a	OAL	OHN(2)	DMIN	
SCB 010.398.020-25	3.98	0.20	10.00	4.00	9.00	50.00	25.0	10.00	●
SCB 010.398.020-41	3.98	0.20	10.00	4.00	9.00	66.00	41.0	10.00	●
SCB 010.498.020-25	4.98	0.20	10.00	4.00	9.00	50.00	25.0	10.00	●
SCB 010.498.020-41	4.98	0.20	10.00	4.00	9.00	66.00	41.0	10.00	●

- Typical conditions: V_c = 4000-8000 mm/min, a_p = 0.02-0.08 mm

(1) Tolerance: +0.01 -0.02

(2) Minimum overhang

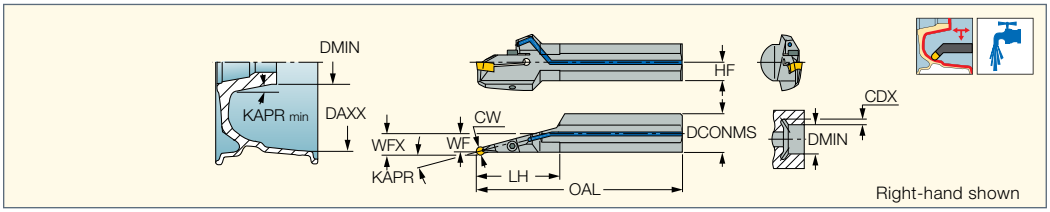
TOOLS FOR ALUMINUM WHEELS



CUTGRIP

GHIUR/L-C-A (15° & 27.5°) Bars

Internal Grooving and Turning Bars for Machining Aluminum Wheels



Designation	CW	DCONMS	DMIN	CDX(1)	OAL	LH	WFX	WF	HF	KAPR(2)
GHIUR/L 40C-15A-6	6.00	40.00	160.00	-	320.00	83.0	21.20	19.0	18.0	15.0
GHIUR/L 40C-15A-8	8.00	40.00	160.00	0.00 (3)	320.00	83.0	21.00	18.0	18.0	15.0
GHIUR 50C-15A-8	8.00	50.00	100.00	0.00 (4)	350.00	83.0	26.00	23.0	23.0	15.0
GHIUR/L 40C-27.5A-6	6.00	40.00	90.00	0.60 (5)	320.00	80.0	25.10	23.5	18.0	27.5
GHIUR/L 50C-27.5A-8	8.00	50.00	120.00	1.80 (5)	350.00	82.0	30.20	28.0	23.0	27.5

- Upper jaw with hard coating to sustain chip deflection

(1) Dimension for minimum bore diameter
(2) Tool cutting edge angle
(3) For bore diameter D>200, CDX is 0.5 mm
(4) For bore diameter D>200, CDX is 1.4 mm
(5) For bore diameter D>200, CDX is 4.0 mm

For inserts, see pages: GDMA (300) • GIPA (full radius W=3-6) (301) • GIPA 8-35V (V-shape) (447) • GIPA/GIDA 8 (full radius) (302)

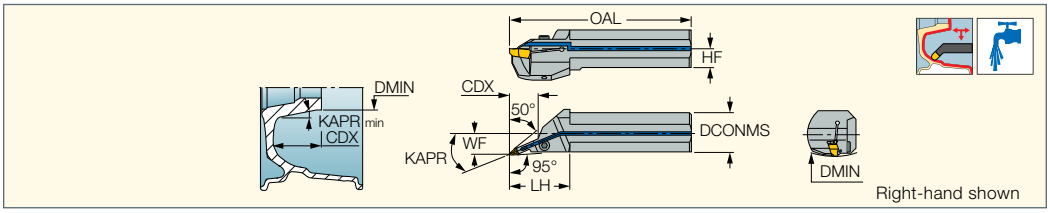
Spare Parts

Designation			
GHIUR/L 40C-15A-6	SR M5X20DIN912	HW 4.0	PL 40
GHIUR/L 40C-15A-8	SR M6X20 DIN912	HW 5.0	PL 40
GHIUR 50C-15A-8	SR M6X25 DIN912	HW 5.0	PL 40
GHIUL 40C-27.5A-6	SR M6X25 DIN912	HW 5.0	PL 40
GHIUR 40C-27.5A-6	SR M6X20 DIN912	HW 5.0	PL 40
GHIUR/L 50C-27.5A-8	SR M6X25 DIN912	HW 5.0	PL 40

CUTGRIP

GHIUR/L-C-22.5A-8V

22.5° Approach Angle Bars for Facing and Internal Machining



Designation	CW	DCONMS	DMIN	CDX	OAL	LH	HF	WF	KAPR(1)
GHIUR/L 40C-22.5A-8V	8.00	40.00	300.00	28.50	250.00	60.0	18.0	21.00	22.5

- Upper jaw with hard coating to sustain chip deflection

(1) Tool cutting edge angle

For inserts, see pages: GIPA 8-35V (V-shape) (447)

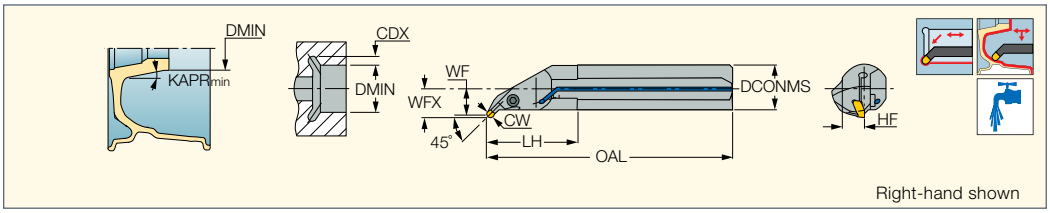
Spare Parts

Designation			
GHIUR/L-C-22.5A-8V	SR M6X20 DIN912	HW 5.0	PL 40

CUTGRIP

GHIUR/L-UC

45° Undercutting Bars for Internal Turning of Aluminum Wheels



Designation	CW	DCONMS	DMIN	CDX(1)	OAL	LH	WFX	WF	HF			
GHIUR/L 40UC-6	6.00	40.00	70.00	0.00 (2)	350.00	75.0	23.80	24.7	18.0	SR M6X20 DIN912	HW 5.0	PL 40
GHIUR 50UC-6	6.00	50.00	78.00	0.00 (3)	350.00	75.0	28.80	29.7	23.0	SR M6X20 DIN912	HW 5.0	PL 40
GHIUR/L 40UC-8	8.00	40.00	68.00	0.00 (4)	350.00	79.0	28.80	26.0	18.0	SR M6X20 DIN912	HW 5.0	PL 40
GHIUR 50UC-8	8.00	50.00	58.00	0.00 (5)	350.00	80.0	30.20	31.4	23.0	SR M6X20 DIN912	HW 5.0	PL 40

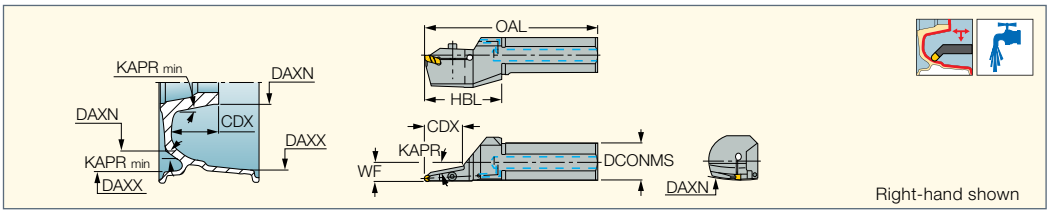
(1) Cutting depth maximum
(2) For bore diameter more than 200, CDX is 1.3 mm
(3) For bore diameter more than 200, CDX is 2.0 mm
(4) For bore diameter more than 200, CDX is 2.8 mm
(5) For bore diameter more than 200, CDX is 6.0 mm

For inserts, see pages: GDMA (300) • GIPA (full radius W=3-6) (301) • GIPA 8-35V (V-shape) (447) • GIPA/GIDA 8 (full radius) (302)

CUTGRIP

GHIFR/L-A

8° / 10° Approach Angle Bars for Facing and Internal Machining



Designation	CW	DAXN(1)	DAXX(2)	OAL	HBL	CDX	WF	KAPR(3)	DCONMS			
GHIFR/L 40C-10A-6	6.00	300.00	360.0	300.00	80.0	40.00	19.30	10.0	40.00	SR M5X20DIN912	HW 4.0	PL 40
GHIFR/L 40C-8A-8	8.00	300.00	360.0	320.00	100.0	70.00	19.50	8.0	40.00	SR M6X25 DIN912	HW 5.0	PL 40

- Upper jaw with hard coating to sustain chip deflection

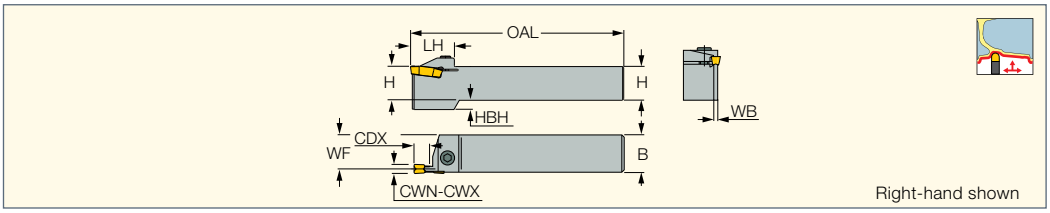
(1) Minimum axial grooving diameter
(2) Maximum axial grooving diameter
(3) Tool cutting edge angle

For inserts, see pages: GDMA (300) • GIPA (full radius W=3-6) (301) • GIPA/GIDA 8 (full radius) (302)

CUTGRIP

GHDR/L-8A

External Tools for Turning, Grooving and Parting; Upper Jaw with Hard Coating to Sustain Chip Deflection



Designation	H	CWN(1)	CWX(2)	CDX(3)	B	OAL	WF	WB	LH	HBH		
GHDR/L 25-8A	25.0	8.00	8.00	25.00	25.0	150.00	22.00	6.00	40.0	7.6	SR M6X16 DIN912	HW 5.0(a)
GHDR 32-8A	32.0	8.00	8.00	25.00	32.0	170.00	29.00	6.00	40.0	-	SR M6X16 DIN912	HW 5.0(a)

- Upper jaw with hard coating to sustain chip deflection • For user guide, see pages 419-428, 432-436

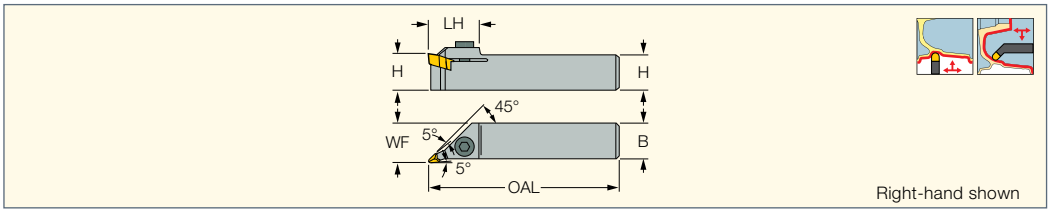
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(a) For optional key with limited tightening torque see page 428

For inserts, see pages: GIPA/GIDA 8 (full radius) (302)

CUTGRIP

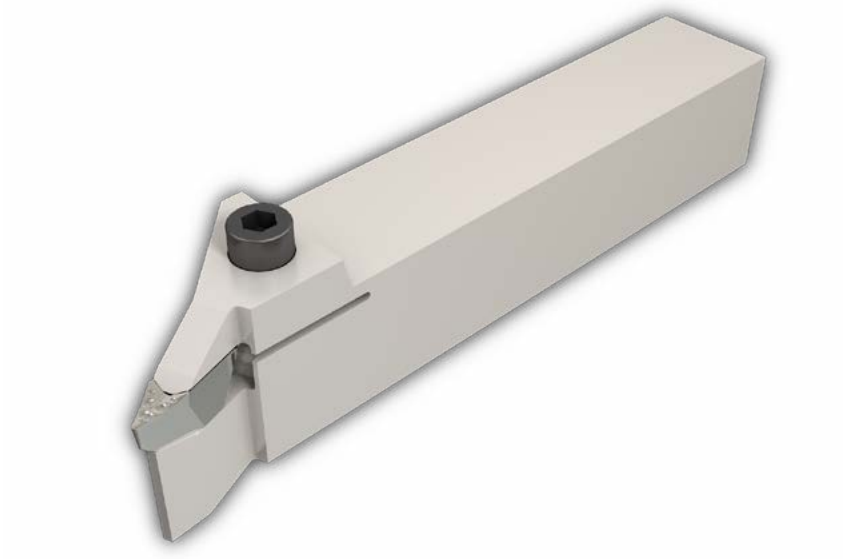
GHVR/L

Internal and External Profiling Holders for Machining Aluminum Wheels



Designation	H	B	OAL	WF	LH		
GHVR/L 25-8	25.0	25.0	150.00	29.00	41.0	SR M6X16 DIN912	HW 5.0

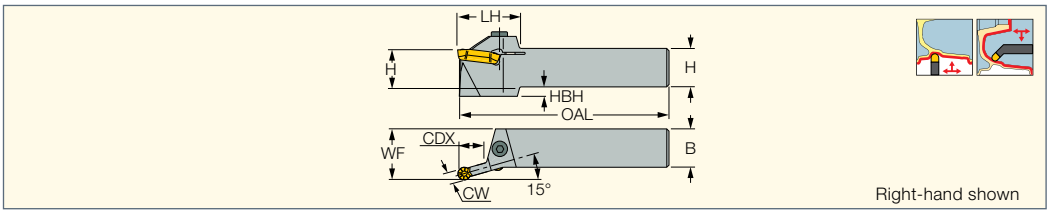
For inserts, see pages: GIPA 8-35V (V-shape) (447)



CUTGRIP

GHDKR/L

External and Internal Profiling Holders for Machining Aluminum Wheels



Designation	CW	H	B	OAL	LH	WF	HBH		
GHDKR/L 25-6 (1)	6.00	25.0	25.0	150.00	40.0	32.20	6.0	SR M6X20 DIN912	HW 5.0
GHDKR/L 25-8	8.00	25.0	25.0	150.00	44.0	33.00	6.0	SR M6X20 DIN912	HW 5.0
GHDKR/L 32-8	8.00	32.0	32.0	170.00	44.0	40.00	-	SR M6X20 DIN912	HW 5.0

(1) Only insert GIPA 6.00-3.00 is suitable for this tool.

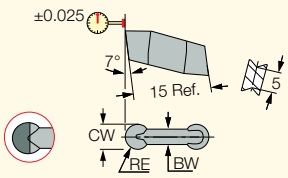
For inserts, see pages: GDMA (300) • GDMY (full radius) (291) • GIPA (full radius W=3-6) (301) • GIPA/GIDA 8 (full radius) (302)

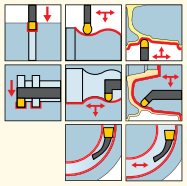
CUTGRIP

GIPA (full radius W=3-6)

Precision Double-Ended Inserts with Polished Top Rake for Machining Aluminum







Designation	Dimensions					Tough ↔ Hard				Recommended Machining Data		
	CW	RE	CWTOL(4)	RETOL(5)	BW	IC20	IC806	IC4	ID5	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIPA 3.00-1.50	3.00	1.50	0.02	0.050	2.40	•				0.00-1.50	0.15-0.30	0.08-0.16
GIPA 3.00-1.50-D (1)	3.00	1.50	0.02	0.050	2.40				•	0.00-1.50	0.19-0.36	0.09-0.19
GIPA 4.00-2.00	4.00	2.00	0.02	0.050	3.20	•	•			0.00-2.00	0.20-0.43	0.10-0.22
GIPA 4.00-2.00-D (1)	4.00	2.00	0.02	0.050	3.20				•	0.00-2.00	0.25-0.53	0.12-0.26
GIPA 4.00-2.00YZ-D (2)	4.00	2.00	0.02	0.050	3.20				•	0.00-2.00	0.25-0.53	0.12-0.26
GIPA 5.00-2.50	5.00	2.50	0.02	0.050	3.90	•	•			0.00-2.50	0.21-0.48	0.09-0.24
GIPA 5.00-2.50-D (1)	5.00	2.50	0.02	0.050	3.90				•	0.00-2.50	0.22-0.60	0.11-0.30
GIPA 5.00-2.50YZ-D (2)	5.00	2.50	0.02	0.050	3.90				•	0.00-2.50	0.22-0.60	0.11-0.30
GIPA 6.00-3.00	6.00	3.00	0.02	0.050	4.80	•		•		0.00-3.00	0.21-0.58	0.11-0.29
GIPA 6.00-3.00-D (1)	6.00	3.00	0.02	0.050	4.80				•	0.00-3.00	0.26-0.72	0.13-0.36
GIPA 6.00-3.00YZ	6.00	3.00	0.02	0.050	4.80	•				0.00-3.00	0.21-0.58	0.11-0.29
GIPA 6.00-3.00YZ-D (2)	6.00	3.00	0.02	0.050	4.80				•	0.00-3.00	0.26-0.72	0.13-0.36
GIPA 6.00-3.00CB (3)	6.00	3.00	0.02	0.050	4.80				•	0.00-3.00	0.21-0.58	0.11-0.29

• For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Single-ended PCD tipped insert

(2) Single-ended molded PCD chipformer tipped insert

(3) Single-ended flat PCD tipped insert with chip deflector

(4) Cutting width tolerance (+/-)

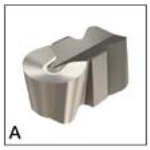
(5) Corner radius tolerance (+/-)

For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDKR/L (446) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHIFR/L-A (445) • GHIUR/L-C-A (15° & 27.5°) Bars (444) • GHIUR/L-UC (444) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)







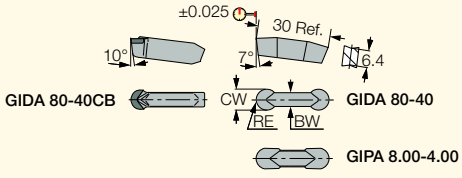


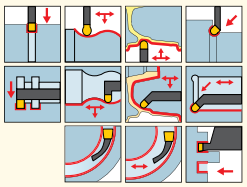
CUTGRIP

GIPA/GIDA 8 (full radius)

Precision Double-Ended Inserts with Polished Top Rake for Machining Aluminum







Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	BW	Tough ↔ Hard IC20	IC4	ID5	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIDA 80-40	8.00	4.00	0.02	0.050	5.60	●	●		0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40-D	8.00	4.00	0.02	0.050	5.60			●	0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40CB-D (1)	8.00	4.00	0.02	0.050	5.60			●	0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40YZ	8.00	4.00	0.02	0.050	5.60	●	●		0.00-4.00	0.24-0.67	0.14-0.38
GIDA 80-40YZ-D	8.00	4.00	0.02	0.050	5.60			●	0.00-4.00	0.35-0.96	0.18-0.48
GIPA 8.00-4.00	8.00	4.00	0.02	0.050	6.00	●			0.00-4.00	0.24-0.67	0.14-0.38

• ID5 is a single-ended PCD tipped insert • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Should not be clamped on tools with "A" suffix

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDKR/L (446) • GHDR/L (long pocket) (285) • GHDR/L-8A (445) • GHDR/L-JHP (long pocket) (285) • GHFGR/L-8 (579) • GHIFR/L-A (445) • GHIR/L (W=7.0-8.3) (355) • GHIUR/L-C-A (15° & 27.5°) Bars (444) • GHIUR/L-UC (444)


GIDA 80-40-D


GIDA 80-40CB-D


GIDA 80-40YZ-D


GIDA 80-40YZ


GIPA 8.00-4.00

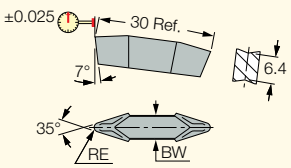

GIDA 80-40

CUTGRIP

GIPA 8-35V (V-shape)

V-Shaped Inserts for Machining Aluminum Wheels







Designation	Dimensions RE	RETOL(2)	BW	Tough ↔ Hard IC20	IC4	ID5	Recommended Machining Data a_p (mm)	f turn (mm/rev)
GIPA 6.0-35V-0.8	0.80	0.050	4.80	●			1.00-3.60	0.21-0.48
GIPA 8YZ-35V-0.80	0.80	0.050	6.00		●		1.00-4.80	0.24-0.56
GIPA 8YZ-35V-1.20	1.20	0.050	6.00		●		1.45-4.80	0.24-0.62
GIPA 8YZ-35V-1.20-D (1)	1.20	0.050	6.00			●	1.45-4.80	0.35-0.88
GIPA 8-35V-1.20	1.20	0.050	6.00	●			1.45-4.80	0.24-0.62
GIPA 8-35V-1.20-D (1)	1.20	0.050	6.00			●	1.45-4.80	0.35-0.88
GIPA 8-35V-3.0	3.00	0.050	6.00	●			3.60-4.80	0.24-0.67

• Precision ground and polished rake to avoid built-up edge • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Single-ended PCD tipped insert

(2) Corner radius tolerance (+/-)

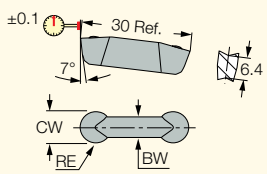
For tools, see pages: GHIUR/L-C-22.5A-8V (444) • GHIUR/L-C-A (15° & 27.5°) Bars (444) • GHIUR/L-UC (444) • GHVR/L (445)

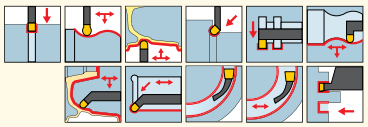
CUTGRIP

GDMA

Utility Double-Ended Insert
for Machining Aluminum







Can cut arcs to 250°

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC07	IC507	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMA 840	8.00	4.00	0.05	0.050	5.60	●	●	0.00-4.00	0.24-0.67	0.14-0.38

• For heavy-duty machining • DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 419-428, 432-436

(1) Cutting width tolerance (+/-)

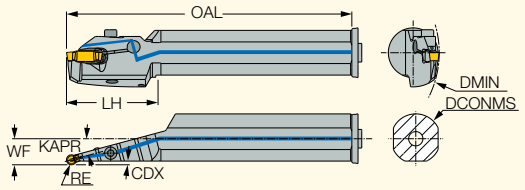
(2) Corner radius tolerance (+/-)

For tools, see pages: GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDKR/L (446) • GHIFR/L-A (445) • GHIR/L (W=7.0-8.3) (355) • GHIUR/L-C-A (15° & 27.5°) Bars (444) • GHIUR/L-UC (444)

FIXGRIP

FSHIUR

10° / 15° Approach Angle
Bars for Facing and Internal
Profiling of Aluminum





Right-hand shown

Designation	CW	DCONMS	DMIN	OAL	LH	CDX(1)	WF	KAPR(2)					
FSHIUR 40C-15A-6	6.00	40.00	160.00	320.00	68.0	2.20	21.00	15.0	SR M6X1-28509	HW 5.0	OR 5X1N	PU SEAL-28510	PL 40
FSHIUR 40C-10A-8	8.00	40.00	160.00	320.00	68.0	2.40	24.30	10.0	SR M6X1-28509	HW 5.0	OR 5X1N	PU SEAL-28510	PL 40
FSHIUR 40C-15A-8	8.00	40.00	160.00	320.00	68.0	3.00	21.00	15.0	SR M6X1-28509	HW 5.0	OR 5X1N	PU SEAL-28510	PL 40

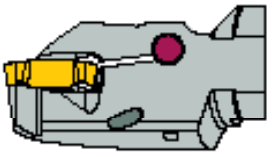
• Clamping torque for FSHIUR..-6: 9 Nxm, for FSHDR..-8: 10.5 Nxm

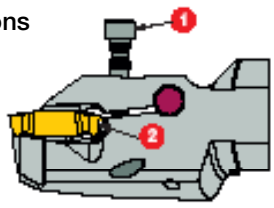
(1) Cutting depth maximum

(2) Tool cutting edge angle

For inserts, see pages: FSPA/FSMA (449)

Insert Clamping Instructions

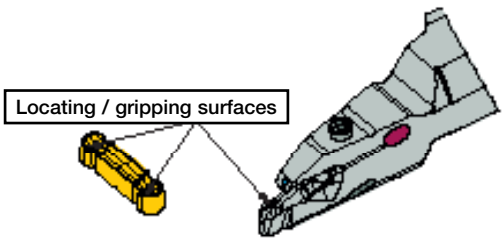




1 Position the insert in the pocket so the notch on the insert sits on top of the frontal bulge of the pocket

2 Close the clamping screw 1





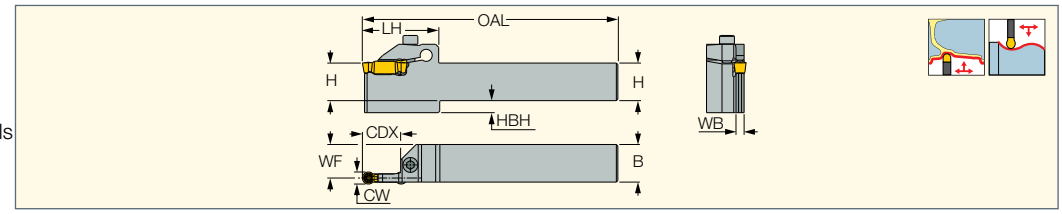
Warning

- Do not apply any force and do not hold the insert in place while closing the screw
- There is no contact between the insert and pocket rear wall 2

FIXGRIP

FSHDR

Tools with a Very Strong Insert Grip for Interrupted Cuts and Back Turning of Aluminum Wheels



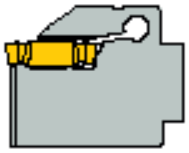
Designation	CW	CDX(1)	H	B	WF	WB	LH	HBH	OAL		
FSHDR 25-6	6.00	21.00	25.0	25.0	22.80	4.40	51.0	8.0	150.00	SR M5X20DIN912	HW 4.0
FSHDR 25-8	8.00	25.50	25.0	25.0	22.30	5.40	51.5	8.0	170.00	SR M6X25 DIN912	HW 5.0

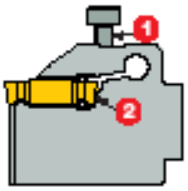
- Clamping torque for FSHDR..-6: 7.5 Nxm, for FSHDR..-8: 10 Nxm

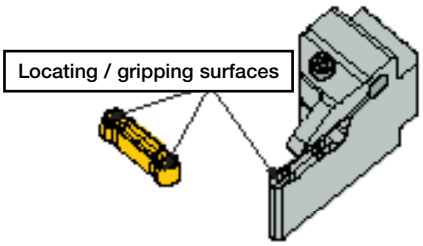
(1) Cutting depth maximum

For inserts, see pages: FSPA/FSMA (449)

Insert Clamping Instructions







1 Position the insert in the pocket so the notch on the insert sits on top of the frontal bulge of the pocket
2 Close the clamping screw 1



Warning

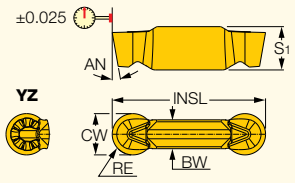
- Do not apply any force and do not hold the insert in place while closing the screw.
- There is no contact between the insert and pocket rear wall 2

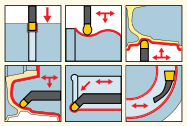
FIXGRIP

FSPA/FSMA

Full Radius Precision Inserts for Machining Aluminum at Medium to High Feeds







Designation	Dimensions CW	CWTOL(2)	RE	S1	BW	INSL	AN	Tough ↔ Hard IC20	IC07	ID5	Recommended Machining Data a_p (mm)	f turn (mm/rev)
FSPA 6.00-3.00	6.00	0.02	3.00	7.50	4.60	25.00	9.0	●			0.05-3.00	0.30-0.55
FSPA 6.00-3.00YZ	6.00	0.02	3.00	7.50	4.60	25.00	9.0	●			0.05-3.00	0.30-0.55
FSPA 6.00-3.00YZ-D	6.00	0.02	3.00	7.50	4.60	25.00	9.0			●	0.05-3.00	0.30-0.55
FSPA 80-40	8.00	0.02	4.00	8.40	5.60	29.70	10.0	●			0.05-4.00	0.40-0.72
FSPA 80-40-D	8.00	0.02	4.00	8.40	5.60	29.70	10.0			●	0.05-4.00	0.40-0.72
FSPA 80-40YZ	8.00	0.02	4.00	8.40	5.60	29.70	10.0	●			0.05-4.00	0.40-0.72
FSPA 80-40YZ-D	8.00	0.02	4.00	8.40	5.60	29.70	10.0			●	0.05-4.00	0.40-0.72
FSMA 80-40 (1)	8.00	0.04	4.00	8.40	5.60	29.70	10.0		●		0.05-4.00	0.40-0.72

(1) Utility insert

(2) Cutting width tolerance (+/-)

For tools, see pages: DTF50 FSHDR-8 (451) • DTF50 FSHIUR (451) • FSHDR (449) • FSHIUR (448)





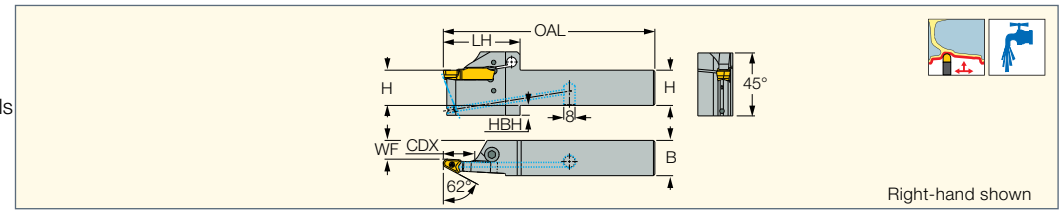




FIXGRIP

FGHDUR

Tools for Interrupted Cuts and Back Turning of Aluminum Wheels



Designation	CDX(1)	H	B	OAL	WF	LH	HBH		
FGHDUR 25C-3A-10S	22.30	25.0	25.0	150.00	13.30	54.4	7.0	SR M6X25 DIN912	HW 5.0

- Upper jaw with hard coating to sustain chip deflection
- For mounting and removing the inserts, see page 419

(1) Cutting depth maximum

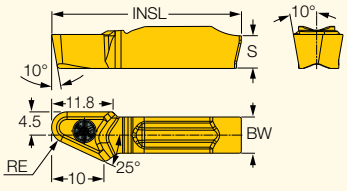
For inserts, see pages: FGPAM (450)

FIXGRIP

FGPAM

V-Shaped Inserts for Machining Aluminum Wheels





Designation	Dimensions RE	BW	S	INSL	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)
FGPAM 10S-3R-25A	3.00	7.00	8.20	36.50	•	0.05-12.00	0.40-0.72

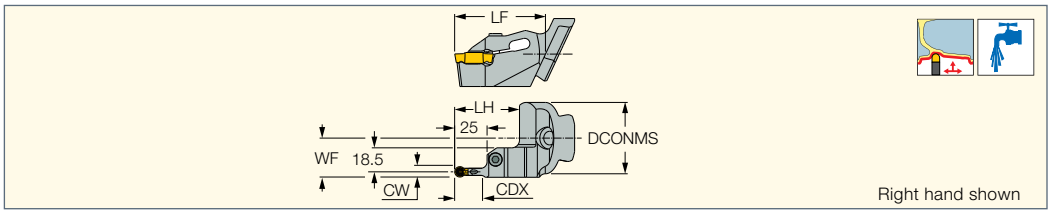
For tools, see pages: FGHDUR (450)



FIXGRIP

DTF50 FSHDR-8

CUT GRIP Heads with DOVE-TAIL Connection for External Turning of Aluminum Wheels



Designation	CW	CDX	LH	WF	LF	DCONMS	Insert
DTF50 FSHDR-8	8.00	21.50	50.0	30.00	70.00	55.00	FSPA 8...

For inserts, see pages: FSPA/FSMA (449)
For holders, see pages: VDI-DTF50E-L60R (453)

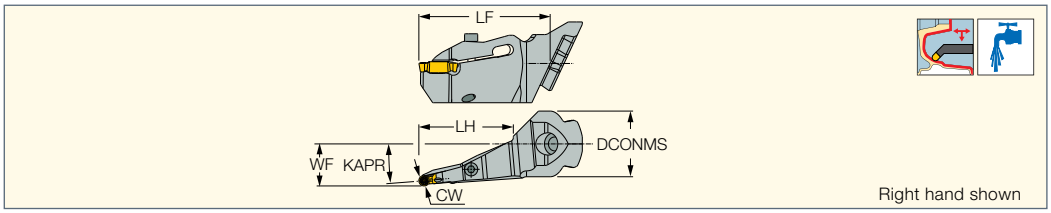
Spare Parts

Designation		
DTF50 FSHDR-8	SR M6X25DIN912	HW 5.0X120 MM

FIXGRIP

DTF50 FSHIUR

CUT GRIP Heads for Internal Profiling, Undercutting and Facing of Aluminum Wheels



Designation	DMIN	CW	KAPR[1]	LH	WF	LF	DCONMS	Insert
DTF50 FSHIUR-5A-8	250.00	8.00	5.0	72.0	32.00	100.00	50.00	FSPA 8...
DTF50 FSHIUR-8A-8	250.00	8.00	8.0	72.0	32.00	100.00	50.00	FSPA 8...
DTF50 FSHIUR-15A-8	250.00	8.00	15.0	80.0	36.00	100.00	50.00	FSPA 8...
DTF50 FSHIUR-22.5A-8	250.00	8.00	22.5	50.0	36.00	70.00	50.00	FSPA 8...
DTF50 FSHIUR-27.5A-8	250.00	8.00	27.5	60.0	40.00	80.00	50.00	FSPA 8...
DTF50 FSHIUR-45A-8	250.00	8.00	45.0	-	55.00	70.00	50.00	FSPA 8...
DTF50 FSHIUR-67.5A-8	250.00	8.00	67.5	-	60.00	70.00	50.00	FSPA 8...
DTF50 FSHIUR-80A-8	250.00	8.00	80.0	-	60.00	70.00	50.00	FSPA 8...

[1] Tool cutting edge angle
For inserts, see pages: FSPA/FSMA (449)
For holders, see pages: VDI-DTF50 (453)

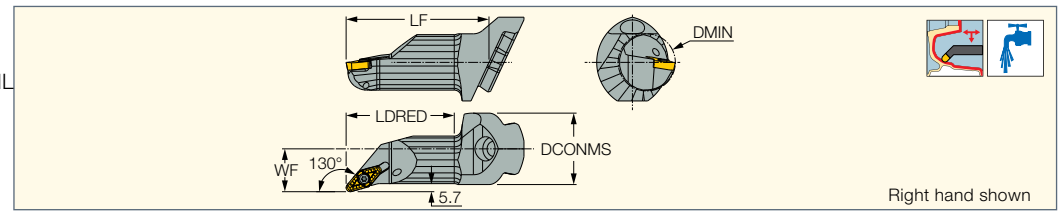
Spare Parts

Designation			
DTF50 FSHIUR-5A-8	SR M6X25DIN912	SR M5X6 DIN913	HW 5.0X120 MM
DTF50 FSHIUR-8A-8	SR M6X25DIN912	SR M6X6 DIN913	HW 5.0X120 MM
DTF50 FSHIUR-15A-8	SR M6X25DIN912	SR M6X6 DIN913	HW 5.0X120 MM
DTF50 FSHIUR-22.5A-8	SR M6X25DIN912		HW 5.0X120 MM
DTF50 FSHIUR-27.5A-8	SR M6X25DIN912		HW 5.0X120 MM
DTF50 FSHIUR-45A-8	SR M6X25DIN912		HW 5.0X120 MM
DTF50 FSHIUR-67.5A-8	SR M6X25DIN912	SR M5X6 DIN913	HW 5.0X120 MM
DTF50 FSHIUR-80A-8	SR M6X25DIN912		HW 5.0X120 MM

ISOTURN

DTF50 SVXCR-22

ISO Boring Heads with DOVE-TAIL Connection for VCGT 22 Inserts for Machining Aluminum Wheels



Designation	DMIN	WF	LF	LDRED	DCONMS	Insert
DTF50 SVXCR-22	40.00	30.00	100.00	76.0	50.00	VCGT 22...

For inserts, see pages: VCGT-AF (212) • VCGT-AS (211) • VCGT-DW (PCD) (223)
For holders, see pages: VDI-DTF50 (453)

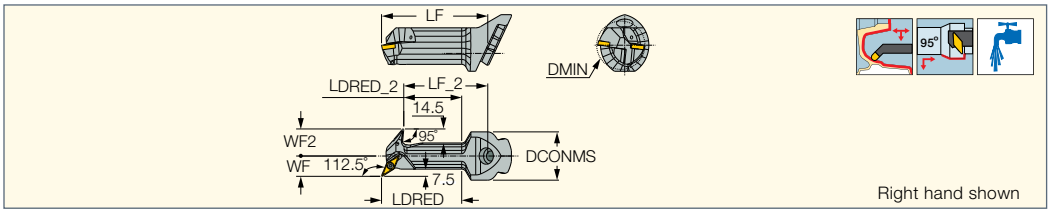
Spare Parts

Designation		
DTF50 SVXCR-22	SR 16-212	T-20/5

ISOTURN

DTF50 SVXCR-16X2

ISO Double Pocket Boring Heads with DOVE-TAIL Connection for VCGT 16 Inserts for Machining Aluminum Wheels



Designation	DMIN	WF	WF2	LF	LF_2	LDRED	LDRED_2	DCONMS	Insert
DTF50 SVXCR-16X2	50.00	21.00	28.0	110.00	87.00	83.0	60.0	50.00	VCGT 16...

For inserts, see pages: VCGT-AS (211) • VCGT-DW (PCD) (223)
For holders, see pages: VDI-DTF50 (453)

Spare Parts

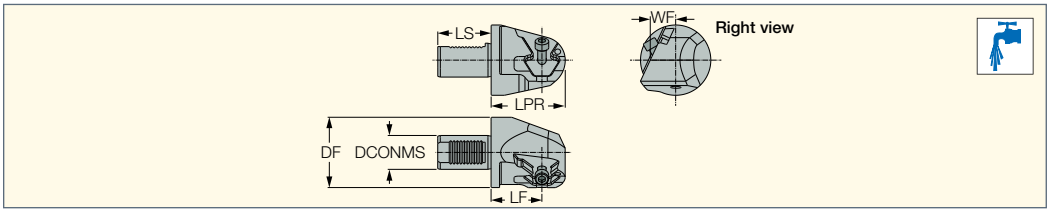
Designation			
DTF50 SVXCR-16X2	SR 16-236	T-15/5	SR M5X8 DIN913



VDI

VDI-DTF50E-L60R

QUICK-CHANGE Holder with a DOVE-TAIL Connection for External Turning of Aluminum Wheels with CUT GRIP Heads



Designation	WF	LF	LPR	LS	DF	DCONMS
VDI40-DTF50E-L60R	30.00	60.00	87.50	63.0	83.00	40.00
VDI50-DTF50E-L60R (1)	37.00	60.00	87.50	78.0	98.00	50.00

(1) on request

For tools, see pages: DTF50 FSHDR-8 (451)

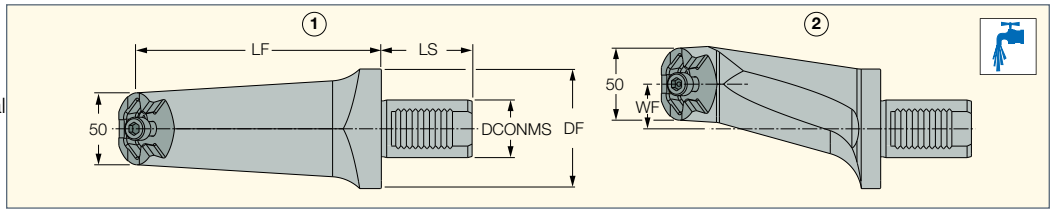
Spare Parts

Designation			
VDI-DTF50E-L60R	SR M10X45 DIN912	HW8 L208	OR 5X1N

VDI

VDI-DTF50

QUICK-CHANGE Holder with DOVE-TAIL Connection for Internal Turning of Aluminum Wheels with CUT-GRIP and ISO-TURN Heads



Designation	WF	LF	LS	DF	DCONMS	Fig.
VDI40-DTF50F31L140R	31.00	140.00	63.0	83.00	40.00	2
VDI40-DTF50L110	0.00	110.00	63.0	83.00	40.00	1
VDI40-DTF50L140	0.00	140.00	63.0	83.00	40.00	1
VDI40-DTF50L170	0.00	170.00	63.0	83.00	40.00	1
VDI50-DTF50F31L140R (1)	31.00	140.00	78.0	98.00	50.00	2
VDI50-DTF50L110 (1)	0.00	110.00	78.0	98.00	50.00	1
VDI50-DTF50L140 (1)	0.00	140.00	78.0	98.00	50.00	1
VDI50-DTF50L170 (1)	0.00	170.00	78.0	98.00	50.00	1

(1) on request

For tools, see pages: DTF50 FSHIUR (451) • DTF50 SVXCR-16X2 (452) • DTF50 SVXCR-22 (452)

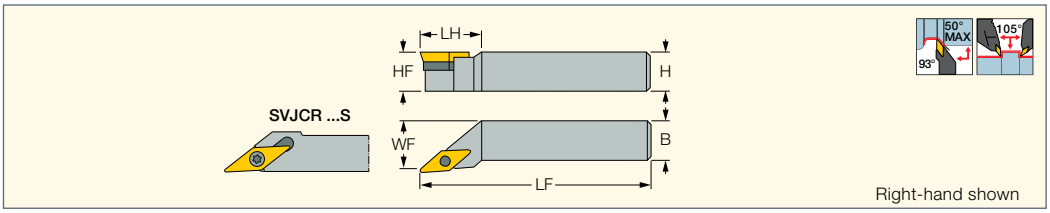
Spare Parts

Designation		
VDI-DTF50	SR M10X45 DIN912	HW8 L208

ISOTURN

SVJCR/L

93° Lead Angle Screw Lock Tools Carrying the 35° Diamond Inserts with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SVJCR/L 0808K-11S (1)	8.0	8.0	8.0	125.00	11.5	8.20	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1010K-11S (1)	10.0	10.0	10.0	125.00	22.0	10.20	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1212K-11S (1)	12.0	12.0	12.0	125.00	-	12.20	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1616K-11	16.0	16.0	16.0	125.00	25.0	20.00	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 2020K-11	20.0	20.0	20.0	125.00	30.0	25.00	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 2525M-11	25.0	25.0	25.0	150.00	30.0	32.00	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 2020K-16	20.0	20.0	20.0	125.00	30.0	25.00	0.0	0.0	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5
SVJCR/L 2525M-16	25.0	25.0	25.0	150.00	30.0	32.00	0.0	0.0	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5

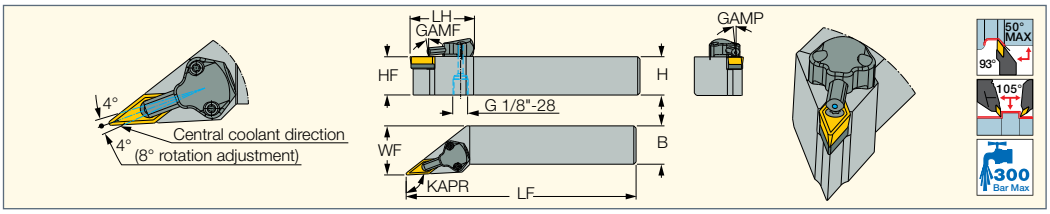
(1) For Swiss-type machines

For inserts, see pages: VCGT-F1M-20P (196) • VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCET-WF (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN JETCUT

SVJCR/L-16-JHP

Screw Lock Tools with Channels for High Pressure Coolant Carrying 35° Rhombic Inserts with 7° Clearance Angle



Designation	H	B	HF	LF	LH	WF	KAPR(1)	GAMP	GAMF	Insert
SVJCR/L 2525M-16-JHP	25.0	25.0	25.0	150.00	42.0	32.00	93.0	0.0	0.0	VCMT 1604

• For user guide, see pages 78-84

(1) Tool cutting edge angle

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

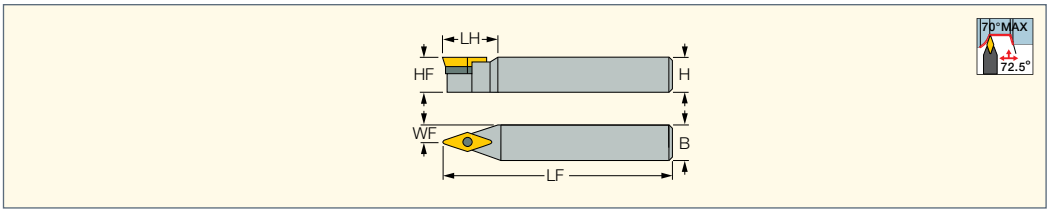
Spare Parts

Designation							
SVJCR/L 2525M-16-JHP	TVC 3-1	SR TC-3	SR 16-236 P	CU-V-JHP	T-15/5	HW 2.5	T-8/5

ISOTURN

SVVCN

72.5° Lead Angle Screw Lock Tools Carrying the 35° Diamond Inserts with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SVVCN 0808K-11S (1)	8.0	8.0	8.0	125.00	-	4.30	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVVCN 1010K-11S (1)	10.0	10.0	10.0	125.00	-	5.30	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVVCN 1212K-11S (1)	12.0	12.0	12.0	125.00	-	6.30	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVVCN 1616K-11S (1)	16.0	16.0	16.0	125.00	-	8.30	0.0	0.0	VC..1103	SR 14-560	T-8/5			
SVVCN 2020K-16	20.0	20.0	20.0	125.00	34.0	10.00	0.0	0.0	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5
SVVCN 2525M-16	25.0	25.0	25.0	150.00	38.1	12.50	0.0	0.0	VC..1604	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5

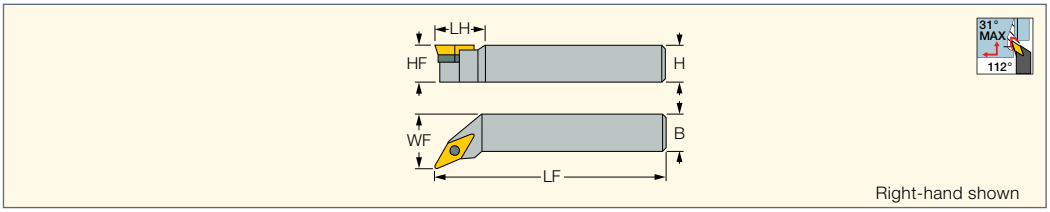
(1) For Swiss-type machines

For inserts, see pages: • VCGT-F1M-20P (196) • VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN

SVXCR/L

112° Lead Angle Screw Lock Tools Carrying the 35° Diamond Inserts with 7° Clearance Angle



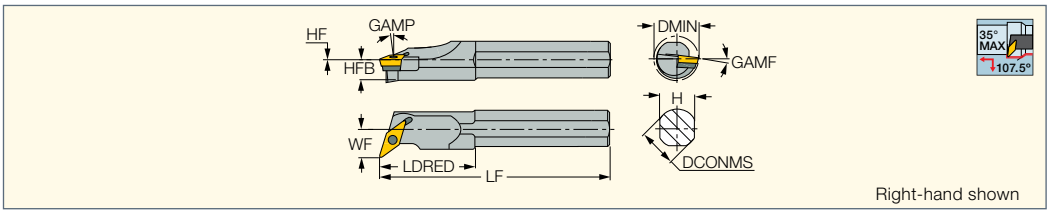
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SVXCR/L 2020K-16	20.0	20.0	20.0	125.00	25.0	25.00	0.0	0.0	VC..1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5
SVXCR/L 2525M-16	25.0	25.0	25.0	150.00	30.0	32.00	0.0	0.0	VC..1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

ISOTURN

A/S-SVQCR/L

Screw Lock Boring Bars
Carrying the 35° Rhombic
Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP	GAMF	CSP(1)	Insert
S25S SVQCR/L-16	25.00	250.00	61.0	23.0	12.0	17.00	0.5	32.00	0.0	-5.0	0	VC.. 1604
S32T SVQCR/L-16	32.00	300.00	70.0	30.0	15.0	22.00	0.0	40.00	0.0	-5.0	0	VC.. 1604
A40U SVQCR/L-22	40.00	350.00	64.0	36.0	18.0	27.00	0.0	47.50	0.0	-8.0	1	VCGT 2205

(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCGT-AF (212) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

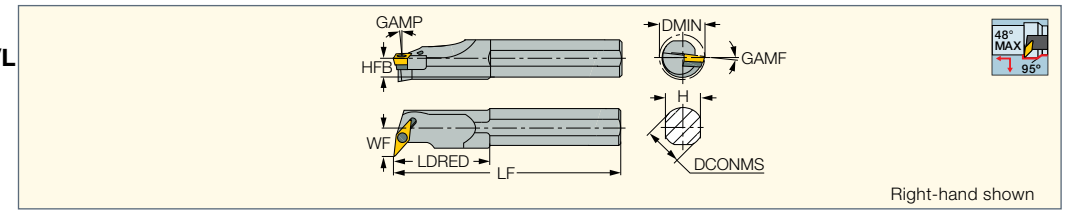
Spare Parts

Designation						
S25S SVQCR/L-16	SR 16-236 P	T-15/5				
S32T SVQCR/L-16	SR 16-236 P	T-15/5	TVC 3-1P	SR TC-3P	HW 4.0	
A40U SVQCR/L-22	SR 14-536	T-20/5	TVC 22T330	SR TC-3	HW 2.5	PL 40

ISOTURN

A/S-SVLFCR/L; A-SVUCR/L

Screw Lock Boring Bars
Carrying the 35° Rhombic
Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	CSP(2)	Insert
A32T SVUCR/L-16 (1)	32.00	300.00	50.0	29.0	14.5	22.00	40.00	0.0	-8.0	1	VC.. 1604
S32T SVLFCR/L-16	32.00	300.00	56.0	29.0	14.5	22.00	39.50	0.0	-8.0	0	VC.. 1604
S40U SVLFCR/L-16	40.00	350.00	-	36.0	18.0	27.00	49.00	0.0	-5.0	0	VC.. 1604
A40U SVLFCR/L-22	40.00	350.00	70.0	36.0	18.0	27.00	48.00	0.0	-8.0	1	VC.. 2205

(1) 93° approach angle

(2) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: VCMT-F3P (195) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCGT-AF (212) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223) • VCMT-FPC-CERMET (196) • VCGW-2 (CBN) (232)

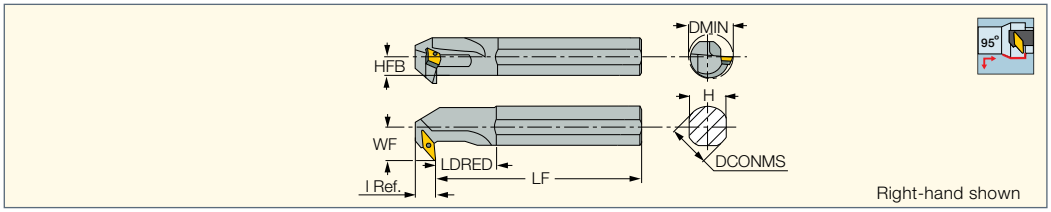
Spare Parts

Designation							
A32T SVUCR/L-16	TVC 3-1P	SR TC-3P	HW 1.5	HW 4.0	SR 16-236 P	PL 32	T-15/5
S32T SVLFCR/L-16	TVC 3-1P	SR TC-3P	HW 4.0		SR 16-236 P		T-15/5
S40U SVLFCR/L-16	TVC 3-1P	SR TC-3P	HW 4.0		SR 16-236 P		T-15/5
A40U SVLFCR/L-22	TVC 22T330	SR TC-3	HW 2.5		SR 14-536	PL 40	T-20/5

ISOTURN

A/S-SVLBCR/L

Screw Lock Back Boring Bars
Carrying the 35° Rhombic
Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	l Ref.	H	HFB	WF	DMIN	GAMP	GAMF	CSP(1)	Insert
A32T SVLBCL-16	32.00	300.00	76.5	18.50	29.0	14.5	27.50	40.00	0.0	-8.0	1	VC.. 1604
A32T SVLBCR-16	32.00	300.00	76.5	18.50	29.0	14.5	27.50	40.00	0.0	-8.0	0	VC.. 1604
S32T SVLBCR/L-16	32.00	300.00	63.2	18.50	29.0	14.5	22.00	40.00	0.0	-8.0	0	VC.. 1604
S40U SVLBCR/L-16	40.00	350.00	60.0	20.00	36.0	18.0	27.00	49.50	0.0	-5.0	0	VC.. 1604

(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: VCMT-FPC-CERMET (196) • VCMT-F3P (195) • VCGW-2 (CBN) (232) • VCMT-F3M (195) • VCMT-M3M (196) • VCMT-SM (197) • VCGT-AS (211) • VCMT-14 (198) • VCMW (198) • VCMT (CBN) (222) • VCGT (PCD) (223) • VCGT-DW (PCD) (223)

Spare Parts

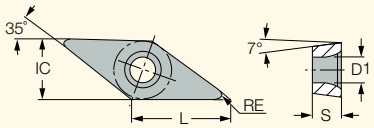
Designation					
A/S-SVLBCR/L	TVC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5

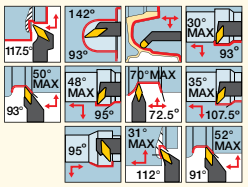
ISOTURN

VCGT-AS

35° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC920	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 110302-AS	11.10	6.35	3.18	0.20	2.90	●	●	0.20-2.50	0.05-0.20
VCGT 110304-AS	11.10	6.35	3.18	0.40	2.90		●	0.50-3.00	0.05-0.25
VCGT 160401-AS	16.60	9.52	4.76	0.10	4.40		●	0.20-2.50	0.05-0.20
VCGT 160402-AS	16.60	9.52	4.76	0.20	4.40		●	0.50-2.50	0.05-0.25
VCGT 160404-AS	16.60	9.52	4.76	0.40	4.40		●	0.50-3.00	0.05-0.25
VCGT 160408-AS	16.60	9.52	4.76	0.80	4.40		●	0.50-3.00	0.10-0.25
VCGT 160412-AS	16.60	9.52	4.76	1.20	4.40		●	0.50-3.00	0.10-0.25
VCGT 220530-AS	22.10	12.70	5.56	3.00	5.50		●	1.50-4.50	0.15-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-254

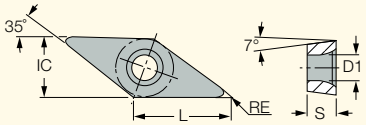
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • AVC-SVUCR/L (95) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • DTF50 SVXCR-16X2 (452) • DTF50 SVXCR-22 (452) • HSK A63WH-SVJCR/L (67) • NQCH-SVACR/L-S-JHP (67) • NQCH-Y-SVJCR-S-JHP (65) • PVACR/L-JHP (68) • PVACR/L-S (64) • S/A-SVJCR/L (114) • SVACR/L (67) • SVJCR-PAD (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVPCR/L (69) • SVVCN (454) • SVXCR/L (454) • Y-SVJCR (65) • Y-SVJCR-JHP (65) • AVC-SVLCR/L (96) • PVACR/L-JHP-MC (68)

ISOTURN

VCGT-AF

Inserts with a Very Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing on Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 220508-AF	22.10	12.70	5.56	0.80	5.50	●	1.00-4.50	0.10-0.25
VCGT 220512-AF	22.10	12.70	5.56	1.20	5.50	●	1.00-4.50	0.10-0.30
VCGT 220516-AF	22.10	12.70	5.56	1.60	5.50	●	1.50-4.50	0.10-0.35

• For user guide and cutting speed recommendations, see pages 122-134, 236-254

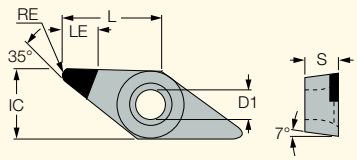
For tools, see pages: A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • DTF50 SVXCR-22 (452)

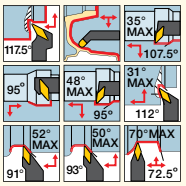
ISOTURN

VCGT-DW (PCD)

Inserts with 7° Clearance and a Single PCD Top Corner Tip Chipformer for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 160404-DW	16.60	9.52	4.76	0.40	4.40	●	0.10-3.00	0.05-0.30
VCGT 160408-DW	16.60	9.52	4.76	0.80	4.40	●	0.10-3.00	0.05-0.30
VCGT 160412-DW	16.60	9.52	4.76	1.20	4.40	●	0.10-3.00	0.05-0.30
VCGT 220516-DW	22.10	12.70	5.56	1.60	5.50	●	0.10-3.00	0.05-0.30
VCGT 220520-DW	22.10	12.70	5.56	2.00	5.50	●	0.10-3.00	0.05-0.30
VCGT 220530-DW	22.10	12.70	5.56	3.00	5.50	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 122-134, 236-254

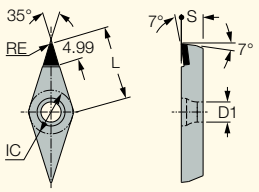
For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • DTF50 SVXCR-16X2 (452) • DTF50 SVXCR-22 (452) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

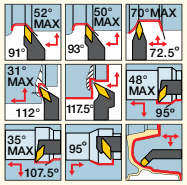
ISOTURN

VCGT (PCD)

35° Rhombic Single Brazed Tip Corner Inserts for Finishing Aluminum (PCD)







Designation	Dimensions IC	S	RE	L	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 160404D	9.52	4.76	0.40	16.60	4.40	●	0.10-3.00	0.05-0.30
VCGT 160408D	9.52	4.76	0.80	16.60	4.40	●	0.10-3.00	0.05-0.30

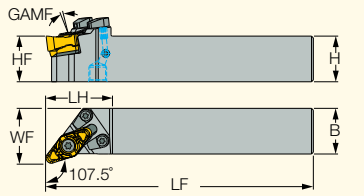
• For user guide and cutting speed recommendations, see pages 122-134, 236-254

For tools, see pages: A/S-SVLBCR/L (114) • A/S-SVLFCR/L; A-SVUCR/L (113) • A/S-SVQCR/L (113) • AVC-SVLCR/L-VH (98) • C#-SVJCR/L (66) • C#-SVJCR/L-JHP (66) • C#-SVVCN (69) • HSK A63WH-SVJCR/L (67) • SVJCR/L (453) • SVJCR/L-16-JHP (454) • SVVCN (454) • SVXCR/L (454) • AVC-SVLCR/L (96)

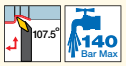
ISOTURN JETCUT

SVHNR/L-AL-JHP

Screw Lock Tools with Channels for High Pressure Coolant Carrying 35° Rhombic Inserts







Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	MIID(1)
SVHNR/L 2525M-22-AL-JHP	25.0	25.0	25.0	146.34	36.3	30.03	7.0	6.0	VNGU 220630-R3N

• For user guide, see pages 78-84

(1) Master insert identification

For inserts, see pages: VNGU-R3N (210)

Spare Parts

Designation									
SVHNR/L 2525M-22-AL-JHP	TVX 2230(a)	SR 14-591/L-SN	SW6-T-SH	BLD T20/S7	HW 3.0	SR TC-4	CH-1.9D-JHP-A SET	TVX 2212(b)*	TVX 2216(c)*

* Optional, should be ordered separately

(a) For VNGU 220630-R3N insert

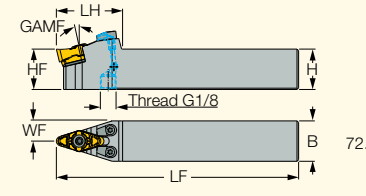
(b) For VNGU 220612-R3N insert

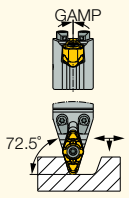
(c) For VNGU 220616-R3N insert

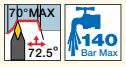
ISOTURN JETCUT

SVVNN-AL-JHP

Screw Lock Tools with Channels for High Pressure Coolant Carrying 35° Rhombic Inserts







Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	MIID(1)
SVVNN 2525M-22-AL-JHP	25.0	25.0	25.0	150.00	41.0	12.50	0.0	-13.5	VNGU 220630-R3N

(1) Master insert identification

For inserts, see pages: VNGU-R3N (210)

Spare Parts

Designation									
SVVNN 2525M-22-AL-JHP	TVX 2230(a)	HW 3.0	BLD T20/S7	SW6-T-SH	SR TC-4	SR 14-591/L-SN	CH-1.9D-JHP-A SET	TVX 2212(b)*	TVX 2216(c)*

* Optional, should be ordered separately

(a) For VNGU 220630-R3N insert

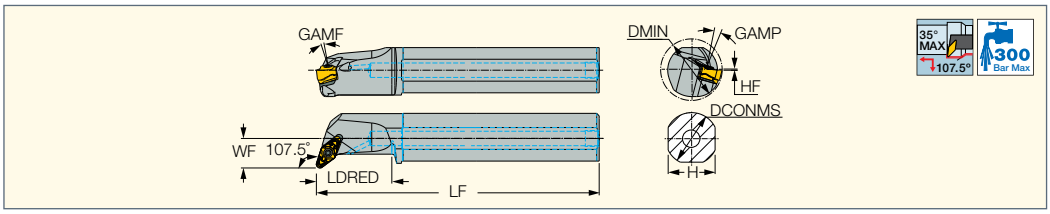
(b) For VNGU 220612-R3N insert

(c) For VNGU 220616-R3N insert

ISOTURN

A-SVQNR/L-AL-JHP

Screw Lock Boring Bars Carrying the 35° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HF	WF	DMIN	GAMP	GAMF	MIID[1]
A40U SVQNR/L-22-AL-JHP	40.00	348.10	60.0	36.0	0.1	23.40	49.00	14.5	6.5	VNGU 220630-R3N

(1) Master insert identification

For inserts, see pages: VNGU-R3N (210)

Spare Parts

Designation									
A40U SVQNR/L-22-AL-JHP	TVX 2230[a]	SR 14-591/L-SN	HW 3.0	SW6-T-SH	BLD T20/S7	PL 40	SR TC-4	TVX 2212[b]*	TVX 2216[c]*

* Optional, should be ordered separately

(a) For VNGU 220630-R3N insert

(b) For VNGU 220612-R3N insert

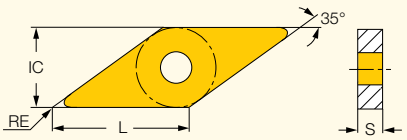
(c) For VNGU 220616-R3N insert

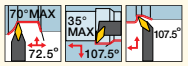
ISOTURN

VNGU-R3N

Double-Sided Sharp-Edged Positive Rake Inserts for Rough Machining on Aluminum and Other Non-Ferrous Materials



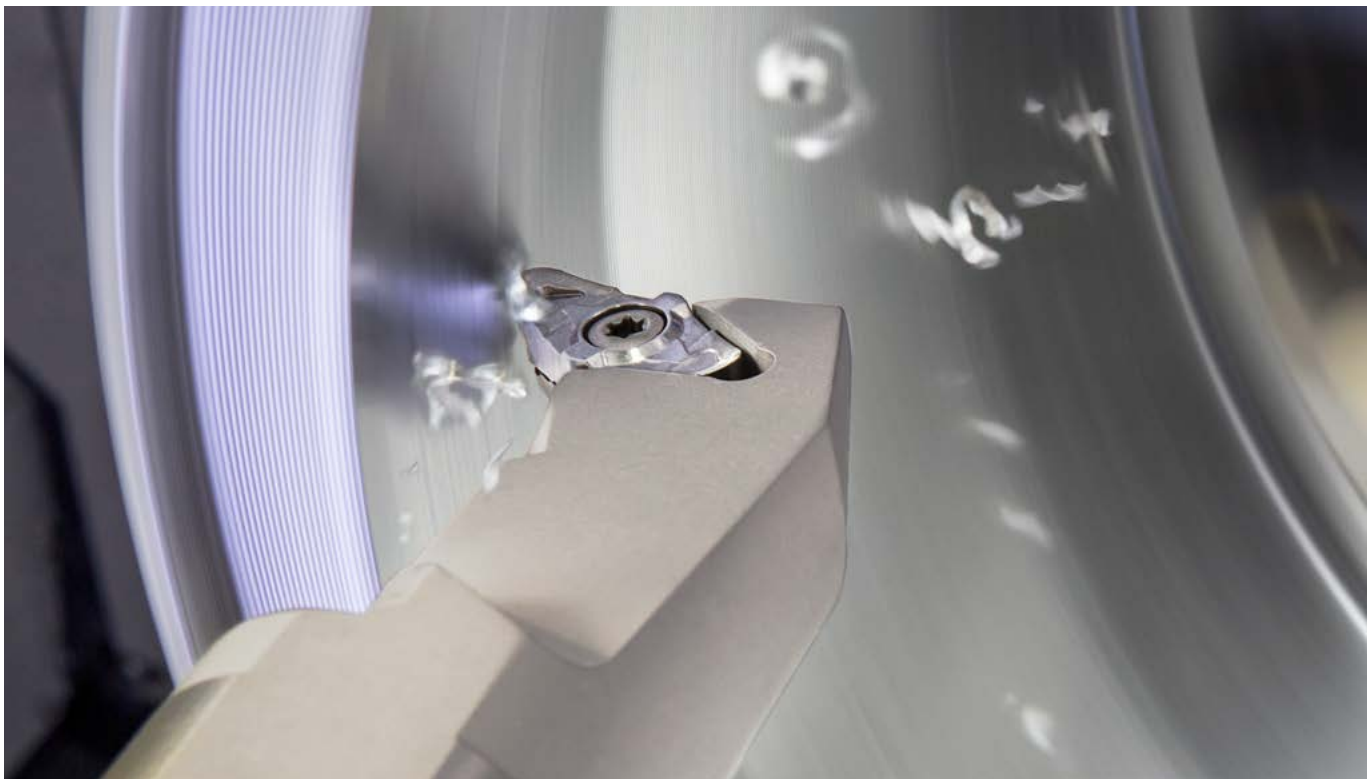




Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VNGU 220612-R3N	22.00	12.70	6.77	1.20	●	1.00-4.50	0.10-0.30
VNGU 220616-R3N	22.00	12.70	6.51	1.60	●	1.50-4.50	0.10-0.35
VNGU 220630-R3N	22.00	12.70	6.35	3.00	●	1.50-4.50	0.15-0.40

• For user guide and cutting speed recommendations, see pages 122-134, 236-254

For tools, see pages: A-SVLFNR-AL-JHP (108) • A-SVQNR/L-AL-JHP (108) • SVHNR/L-AL-JHP (34) • SVVNN-AL-JHP (34)



PARTING



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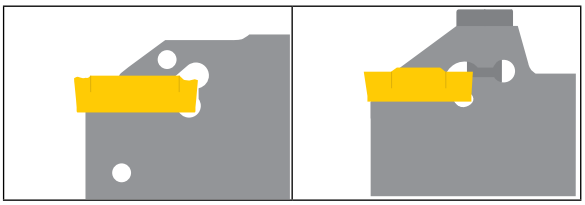
Modular-Grip Adaptations 747

Clamping Systems

DO-GRIP

- First choice for parting
- Double-ended insert
- Self-clamped for deeper grooving and parting medium to large diameters
- Screw-clamped for small diameters
- See also **HELI-GRIP**, page 259

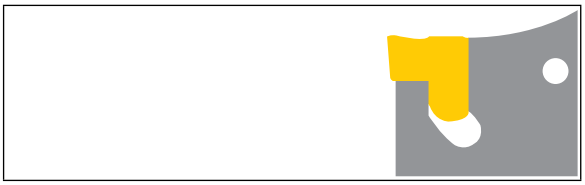
FIRST CHOICE!



Self-clamped | Screw-clamped

TANG-GRIP

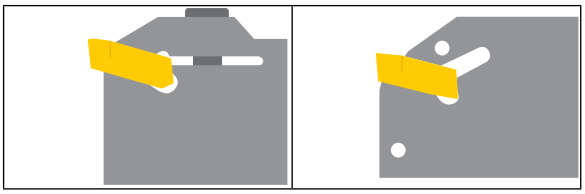
- Very rigid clamping in a tangentially oriented pocket
- Enables machining at very high feed rates and provides excellent straightness and surface finish
- Recommended for parting large diameter parts and for interrupted cuts
- Offers a free, unobstructed chip flow



TANG-GRIP

CUT-GRIP

- Single-ended insert
- Self- and screw-clamped options

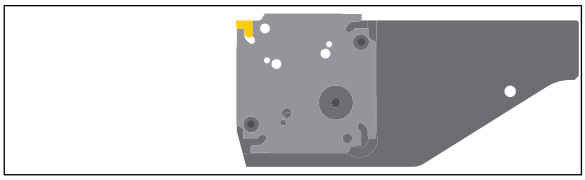


Screw-clamped | Self-clamped

LOGIQ F GRIP

HIGH FEED GRIP HOLDER

- Unique adaptation for Quad /Square type adapters with 4 pockets
- Outstanding stability, vibration free parting system also on big diameters
- Improves insert life, surface finish and workpiece straightness due to robust design
- Enables reduction of cutting width due to excellent stability, leading to material savings
- **Ø120mm** bar can be cut with only 3 mm insert width
- Guarantees high productivity, especially when using **TAG N...HF** inserts with feed of up to 0.4 mm\rev.
- Economical adapters with 4 pockets
- User friendly, easy to operate
- Saves set up time after pocket replacement; adapter can be positioned with new pocket without set up
- Several adapters can be clamped on one tool block
- The tools and adapters are designed for **JET-CUT** cooling up to 140 Bar

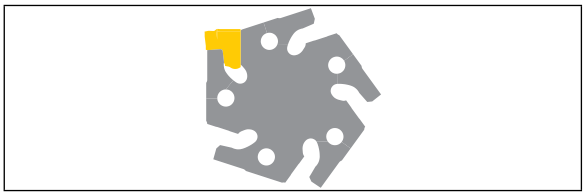


LOGIQ-F-GRIP

TANG 5 GRIP

PARTING AND GROOVING

- Economical pentagonal adapters with 5 pockets
- No setup time after pocket replacement
- Several adapters can be clamped on one holder
- The tools and adapters are designed for **JET-CUT** cooling up to 340 Bar



TANG-5-GRIP

PENTACUT

- 5 cutting edges
- Fast edge indexing
- For shallow grooving and up to 20 mm parting diameter
- **PENTA-IQ** for parting up to 40mm bar diameter



PENTACUT | PENTAIQ

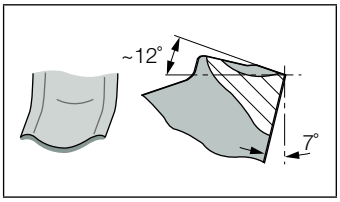
Main Chipformers

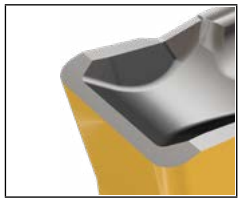
HF-Type

- For high feed machining only!
- Reinforced cutting edge (negative rake)
- Should be used with short extension tools

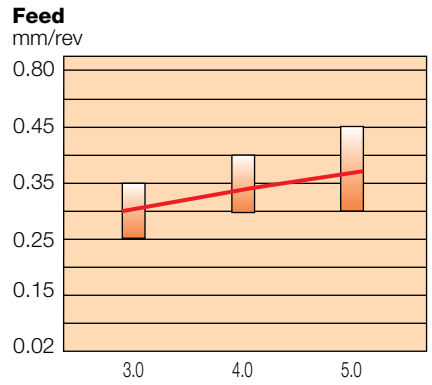
$$f \approx \frac{W\ insert}{12}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✗	✗	✗	✓





Recommended feed range as a function of insert width



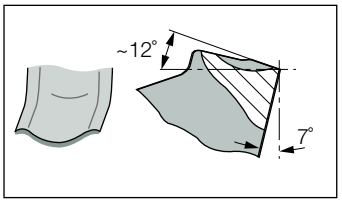
C-Type

- First choice for parting of bars, hard materials and tough applications
- A positive rake, single cavity with negative land and shoulders provides extra cutting-edge strength
- Medium-to-high feed

$$f \approx \frac{W\ insert}{18}\ [mm/rev]$$

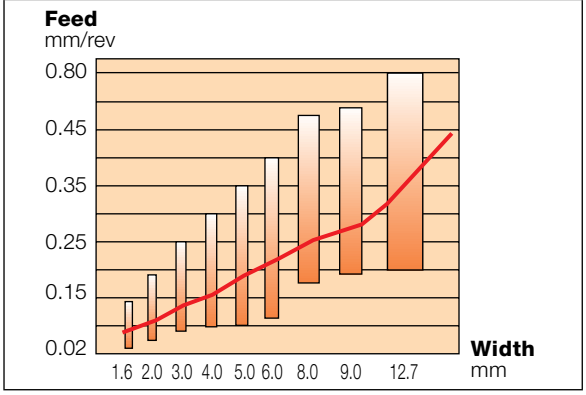
Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✗	✓ (IC20 only)	✓ (IC20 only)	✓

Recommendations are for neutral inserts.
For R/L inserts, reduce feed by 20-40%.





Recommended feed range as a function of insert width

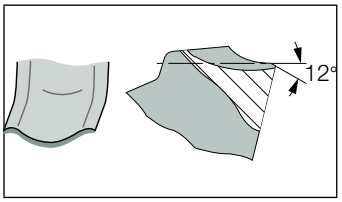


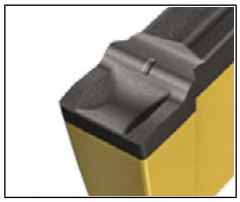
MF Type

- Parting and Grooving Insert for Soft and Hard Materials, Medium Feed

$$f \approx \frac{W\ insert}{21}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✗	✓





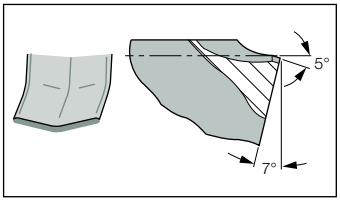
JT-Type

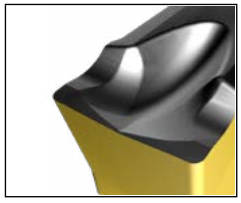
Based on the J-type chipformer with a T-land reinforced frontal cutting edge.

- Provides a solution for the intermediate range between the strong and negative C-type configuration and the positive edged J-type chipformer.
- Can be used on a wide range of materials.
- Same manner as the J-type, but it can be used at higher feeds due to its reinforced edge.

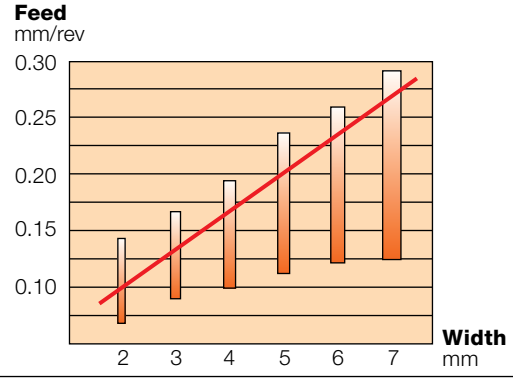
$$f \approx \frac{\text{W insert}}{24} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✗	✓





Recommended feed range as a function of insert width



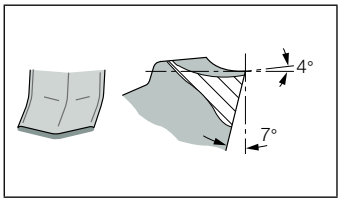
J-Type

- First choice for soft materials, parting tubes, small diameters and thin-walled parts
- Cutting edge with positive rake
- Low-to-medium feed

$$f \approx \frac{\text{W insert}}{26} \text{ [mm/rev]}$$

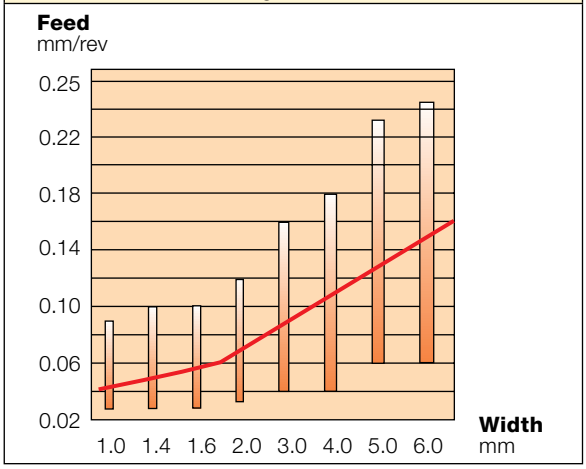
Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✓	✗

Recommendations are for neutral inserts.
For R/L inserts, reduce feed by 20-40%.





Recommended feed range as a function of insert width

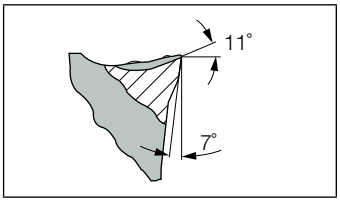


Z-Type

- Cutting edge with high positive rake, suitable for parting tubes, thin walled arts and for small diameters
- Suitable for soft materials
- Excellent for cutting bearing steel and stainless steel
- Low-to-medium feeds

$$f \approx \frac{W\ insert}{28}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✓	✗



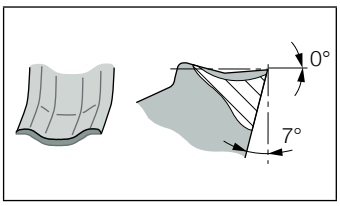


LF

- Parting and Grooving Insert for Stainless Steel & soft materials
- Miniature Parts
- Low Feeds

$$f \approx \frac{W\ insert}{31}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✗	✗

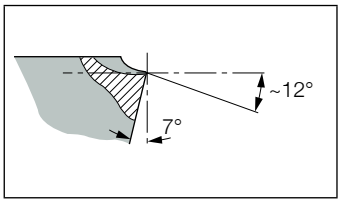




UA/UT-Type

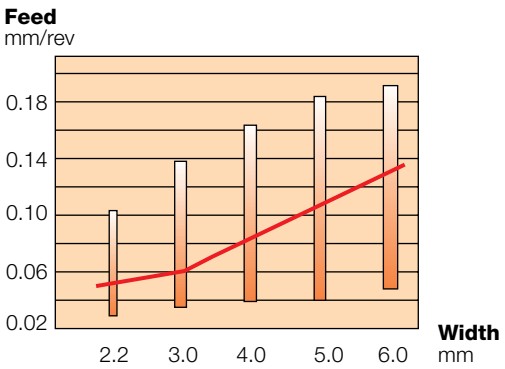
- A chipformer for use at low feeds
- Recommended for CrNi alloys and low carbon steel, especially in the bearing industry and on similar, ductile materials
- The narrow chipformer design ensures short deformed chips and provides improved performance
- **UA** and **UT** are similar chipformers. **UT** is slightly tighter than the **UA** chipformer

$$f \approx \frac{W\ insert}{40}\ [mm/rev]$$





Recommended feed range as a function of insert width

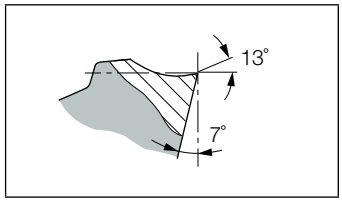


P-Type

- Very positive rake inclination and sharp cutting edge
- For soft materials, slim parts and general parting
- Low feeds

$$f \approx \frac{\text{W insert}}{55} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✗	✓	✗



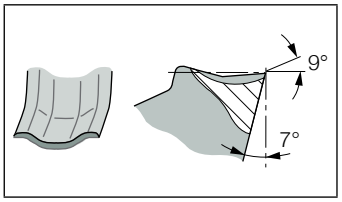


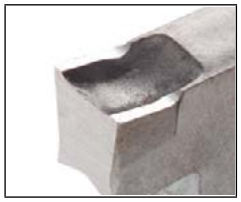
A-Type

- Positive rake, sharp edge
- For parting aluminum
- In grade **IC20**

$$f \approx \frac{\text{W insert}}{43} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✗	✗	✗	✓	✗



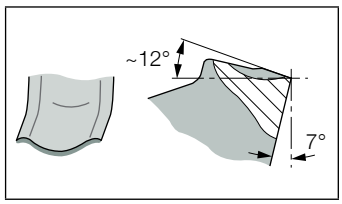


M-Type

- Similar to C-type, but with modified edge (smaller K-land)
- Improved chip control at medium feed

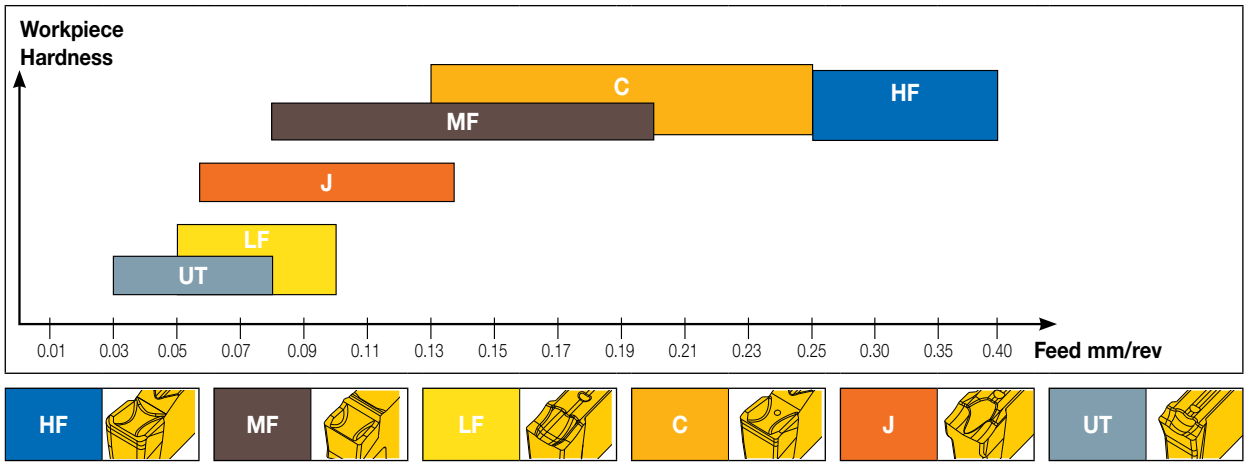
$$f \approx \frac{\text{W insert}}{22} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✗	✓	✗	✗

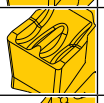
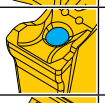
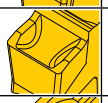
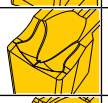
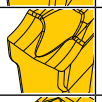
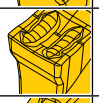
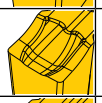
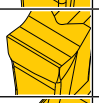
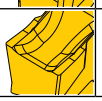




Main Chipformers Recommended Feed



Selection of Chipformers for Various Workpiece Materials

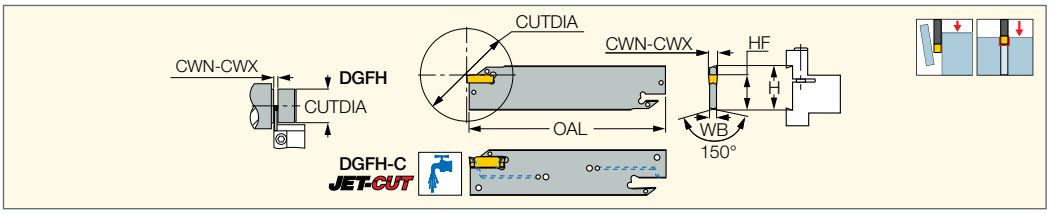
	Inserts		Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
		HF	✔	✘	✘	✘	✔
		C	✔	✘	✔ (IC20 only)	✔ (IC20 only)	✔
High		W	✔	✘	✘	✘	✔
		C-jet (Coolant)	✔	✔	✔	✘	✘
		MF	✔	Medium to high feed	✔	✘	✔
		JT	✔	✔	✔	✘	✔
Feed		J	✔	✔	✔	✔	✘
		Z	✔	✔	✔	✔	✘
		LFT	✔	✔	✔	✘	✘
		LF	✔	✔	✔	✘	✘
Low		UT	✔	✘	✘	✘	✘
		P	✔	✔	✘	✔	✘
		A	✘	✘	✘	✔	✘

✔ First choice

DO-GRIP TWISTED 2-SIDED HELI-GRIP

DGFH

Parting and Grooving Blades with and without Coolant Channels Carrying DO-GRIP and HELI-GRIP Inserts



Designation	H	CWN[4]	CWX[5]	WB	OAL	HF	CUTDIA	Insert
DGFH 26-1.4	26.0	1.40	1.40	2.50 [7]	110.00	21.4	26.0	DG. 14..
DGFH 26-2 [1]	26.0	1.90 [6]	2.50	1.60	110.00	21.4	39.0 [8]	DG. 1.../DG. 2...
DGFH 26-3 [1]	26.0	3.00 [6]	3.18	2.40	110.00	21.4	39.0 [8]	DG. 1.../DG. 3...
DGFH 26C-3 [2]	26.0	3.00	3.18	2.40	110.00	21.4	39.0 [8]	DGNC/DGRC/DGLC 3...
DGFH 26-4	26.0	4.00	4.00	3.20	110.00	21.4	80.0	DG. 4.../GRIP 4...
DGFH 32-1.4	32.0	1.40	1.40	2.50 [7]	150.00	24.8	26.0	DG. 14
DGFH 32-2 [1]	32.0	1.90 [6]	2.50	1.80	150.00	24.8	39.0 [8]	DG. 1.../DG. 2...
DGFH 32-3 [1]	32.0	3.00 [6]	3.18	2.40	150.00	24.8	39.0 [8]	DG. 1.../DG. 3...
DGFH 32C-3 [2]	32.0	3.00	3.18	2.40	150.00	24.8	39.0 [8]	DGNC/DGRC/DGLC 3...
DGFH 32-4	32.0	4.00	4.00	3.20	150.00	24.8	100.0	DG. 4.../GRIP 4...
DGFH 32C-4 [3]	32.0	4.00	4.00	3.20	150.00	24.8	69.0	DGNC/DGRC/DGLC 4...
DGFH 32-5	32.0	5.00	5.00	4.00	150.00	24.8	120.0	DG. 5.../GRIP 5...
DGFH 32-6	32.0	6.00	6.35	5.20	150.00	24.8	120.0	DG. 6.../GRIP 6...
DGFH 45-3	45.0	3.00 [6]	3.18	2.40	225.00	38.0	160.0	DG. 1.../DG. 3...
DGFH 45-4	45.0	4.00	4.10	3.20	225.00	38.0	160.0	DG. 4.../GRIP 4...
DGFH 45-5	45.0	4.80	5.00	4.00	225.00	38.0	160.0	DG. 5.../GRIP 5...
DGFH 45-6	45.0	6.00	6.40	5.20	225.00	38.0	160.0	DG. 6.../GRIP 6...

• DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified • For user guide, see pages 538-547

[1] For CUTDIA 50 mm, use single-ended insert (should be modified by the user)

[2] Blades with frontal coolant holes (JET-CUT) • For CUTDIA 50 mm, use single-ended insert (should be modified by the user)

[3] These blades are suitable for turning, using GRIP 4 inserts • Blades with frontal coolant holes (JET-CUT)

[4] Minimum cutting width

[5] Maximum cutting width

[6] For DG. 1... insert, modify holder

[7] Thickness at the D.O.C. area is 1.0 mm

[8] Maximum diameter with double-sided inserts.

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN/DGNC/DGNM-C (481) • DGR/L-C DGRC/LC-C (482) • DGN/DGNM-J/JS/JT (483) • DGR/L-J/JS (484) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • GRIP (269) • GRIP (full radius) (270)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBK (617) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

Spare Parts

Designation						
DGFH 26-1.4	EDG 23B*					
DGFH 26-2	EDG 23A*					
DGFH 26-3	EDG 23A*					
DGFH 26C-3	EDG 23A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 26-4	EDG 23A*					
DGFH 32-1.4	EDG 23B*					
DGFH 32-2	EDG 33A*					
DGFH 32-3	EDG 33A*					
DGFH 32C-3	EDG 33A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 32-4	EDG 33A*					
DGFH 32C-4	EDG 33A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 32-5	EDG 33A*					
DGFH 32-6	EDG 33A*					
DGFH 45-3	EDG 33A*					
DGFH 45-4	EDG 33A*					
DGFH 45-5	EDG 33A*					
DGFH 45-6	EDG 33A*					

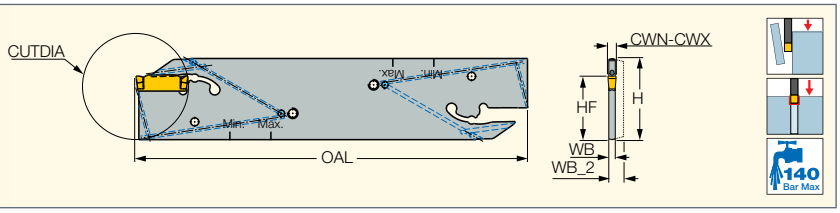
* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED JETCUT

DGFH-JHP

Parting and Grooving Blades with Channels for Low and High-Pressure Coolant Carrying DO-GRIP Inserts





Designation	CWN[2]	CWX[3]	WB	WB_2	OAL	H	HF	CUTDIA	Insert			
DGFH 32-2-JHP [1]	1.90 [4]	2.50	1.80	2.5	150.00	32.0	24.8	39.0	DG. 1.../DG. 2...		SGC 340	EDG 33A-JHP*
DGFH 32-3-JHP	3.00 [4]	3.18	2.50	-	152.00	32.0	24.8	90.0	DG. 1.../DG. 3...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-4-JHP	4.00	4.00	3.20	-	152.00	32.0	24.9	90.0	DG. 4.../GRIP 4...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-5-JHP	5.00	5.00	4.00	-	152.00	32.0	24.9	90.0	DG. 5.../GRIP 5...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-6-JHP [1]	6.00	6.35	5.20	-	160.00	32.0	24.9	90.0	DG. 6.../GRIP 6...		SGC 340	EDG 33A-JHP*

- For user guide and accessories, see pages 538-547

[1] Only an upper channel
[2] Minimum cutting width
[3] Maximum cutting width
[4] For DG. 1... insert, modify holder
* Optional, should be ordered separately

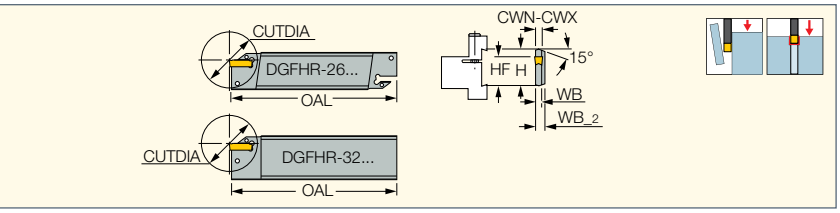
For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484) • GRIP (269) • GRIP (full radius) (270)

For holders, see pages: TGTBU-JHP (497)

DO-GRIP TWISTED 2-SIDED

DGFHR/L

Parting and Grooving Reinforced Blades Carrying DO-GRIP Inserts



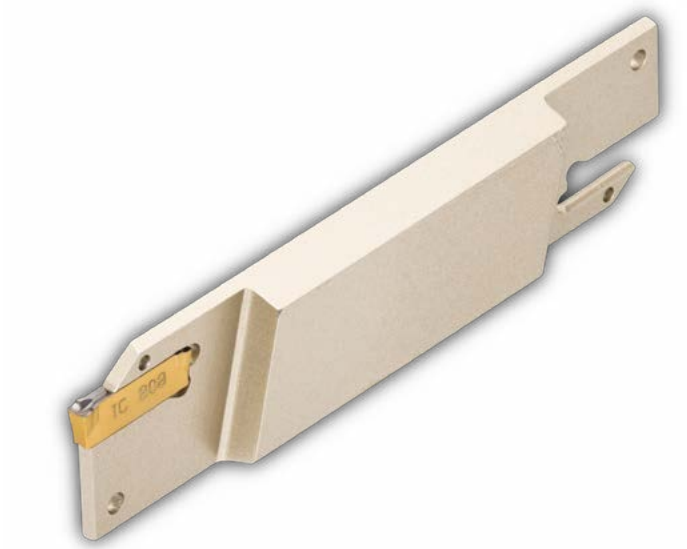
Designation	H	CWN[1]	CWX[2]	WB_2	WB	OAL	HF	CUTDIA[3]	Machines	Insert	
DGFHR 26T16-2	26.0	1.90	2.50	8.0	1.70	110.00	21.4	42.0	TNS-30	DG. 1.../DG. 2..	EDG 23A*
DGFHR/L 26T23-2	26.0	1.90	2.50	8.0	1.60	110.00	21.4	42.0	TNS-30/112	DG. 1.../DG. 2..	EDG 23A*
DGFHR/L 26T16-3	26.0	3.00	3.18	8.0	2.40	110.00	21.4	30.0	TNS-30	DG. 1.../DG. 3..	EDG 23A*
DGFHR/L 26T23-3	26.0	3.00	3.18	8.0	2.40	110.00	21.4	42.0	TNS-30/42	DG. 1.../DG. 3..	EDG 23A*
DGFHR/L 32T22-2	32.0	1.90	2.50	8.0	1.60	110.00	24.8	42.0	TNS-42	DG. 1.../DG. 2..	EDG 33A*
DGFHR/L 32T33-3	32.0	3.00	3.18	8.0	2.40	110.00	24.8	60.0	TNS-42/60/65	DG. 1.../DG. 3..	EDG 33A*
DGFHR/L 32T33-4	32.0	4.00	4.00	8.0	3.40	110.00	24.8	60.0	TNS-42/60/65	DG. 4.../GRIP 4..	EDG 33A*
DGFHL 32T41-4	32.0	4.00	4.00	10.0	3.40	110.00	24.8	80.0	TNS-65/80/480	DG. 4.../GRIP 4..	EDG 33A*
DGFHR 32T41-4	32.0	4.00	4.00	8.0	3.40	110.00	24.8	80.0	TNS-65/80/480	DG. 4.../GRIP 4..	

- Insert limit is Tmax=18 mm. If deeper penetration is required, the insert should be modified into single-ended by the user.
- DG..1.0 insert can be mounted into pocket sizes 2 and 3. in which case the pocket width has to be modified - see page 479
- For user guide, see pages 538-547

[1] Minimum cutting width • For DG: 1.0 insert - modify holder
[2] Maximum cutting width
[3] The specified limit refers to the tool
* Optional, should be ordered separately

For inserts, see pages: DGN-LF/LFT (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

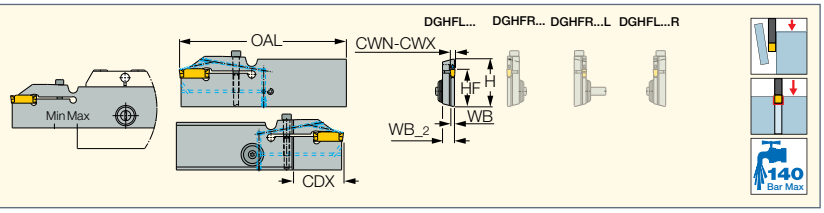


DO-GRIP TWISTED 2-SIDED JETCUT

DGFHR/L-BC-JHP

Parting and Grooving Reinforced Blades with Channels for High-Pressure Coolant Carrying DO-GRIP Inserts





Designation	CWN(1)	CWX(2)	WB_2	WB	OAL	H	HF	CDX(3)	Insert				
DGFHR/L 32BC-3T33-JHP	3.00	3.18	7.9	2.40	111.00	32.0	24.8	33.00	DG. 3..	SR M4-21532	HW 3.0	SGC 340	SR M3X3DIN913
DGFHL 32BC-3T33R-JHP	3.00	3.18	7.9	2.40	111.00	32.0	24.8	33.00	DG. 3..	SR M4-21532	HW 3.0	SGC 340	SR M3X3DIN913
DGFHR 32BC-3T33L-JHP	3.00	3.18	7.9	2.40	111.00	32.0	24.8	33.00	DG. 3..	SR M4-21532	HW 3.0	SGC 340	SR M3X3DIN913

- For user guide and accessories, see pages 538-547

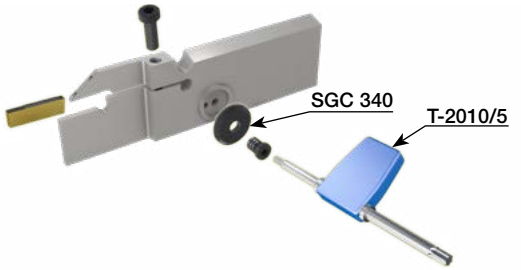
(1) Minimum cutting width • For DG: 1.0 insert - modify holder

(2) Maximum cutting width

(3) The specified limit refers to the tool

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

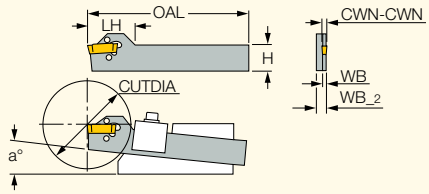
For holders, see pages: TGTBU-JHP (497)



DO-GRIP TWISTED 2-SIDED

DGFS

Blades for Multi-Spindle Machines, Replacement for HSS and Brazed Tools



Designation	H	CWN(7)	CWX(8)	CUTDIA	WB	WB_2	OAL	LH	a°	
DGFS 0-12-2 (1)	12.7	1.90	2.50	32.0	1.60	3.2	110.00	32.0	0	EDG 33B*
DGFS 0-17-2 (2)	17.4	1.90	2.50	35.0	1.60	3.2	110.00	32.0	0	EDG 33B*
DGFS 0-17-3 (2)	17.4	3.00	3.18	60.0	2.40	3.2	110.00	32.0	0	EDG 33B*
DGFS 5-17-2 (3)	17.4	1.90	2.50	35.0	1.60	3.2	110.00	32.0	5	EDG 33B*
DGFS 5-17-3 (3)	17.4	3.00	3.18	60.0	2.40	3.2	110.00	32.0	5	EDG 33B*
DGFS 5-17-4 (3)	17.4	4.00	4.00	60.0	3.20	3.2	110.00	32.0	5	EDG 33B*
DGFS 5-22-2 (4)	22.2	1.90	2.50	50.0	1.60	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-22-3 (5)	22.2	3.00	3.18	75.0	2.40	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-22-4 (5)	22.2	4.00	4.00	80.0	3.20	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-24-3	23.8	3.00	3.18	80.0	2.40	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-28-2 (6)	28.5	1.90	2.50	65.0	1.60	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-28-4 (6)	28.5	4.00	4.00	100.0	3.20	3.2	150.00	32.0	5	EDG 33B*

- DG..1.0 insert can be mounted into pocket sizes 2 and 3. in which case the pocket width has to be modified -see page 479
- For user guide, see pages 538-547

(1) Toolholder assembly X18-1,46,47-WT,160-CL,354-CL,701-ACL,702,702-CL,703,703-CL,704,704-CL,6921,6925

(2) Toolholder assembly E-7,47,102-CL,103-CL,161-A-CL,162-A-CL

(3) Toolholder assembly 226,226-CL,275,275-CL,276-CL,361-CL,431,630,707-A,707-A-CL

(4) Toolholder assembly 100-CL,274,277,277-CL,274-CL,370,383-CL, 6722,6754,6755,6854,6855,6922,51,51-CL,353-CL,167,370-CL

(5) Toolholder assembly 100-CL,274,277,277-CL,274-CL,370,383-CL, 6722,6754,6755,6854,6855,51,51-CL,353-CL,167,370-CL

(6) Toolholder assembly 278,278-CL,279,279-CL,280,280-CL,281,281-CL,375-CL,359-CL,372-CL,A6120,52,52-CL

(7) Minimum cutting width • For DG: 1.0 insert - modify holder

(8) Maximum cutting width

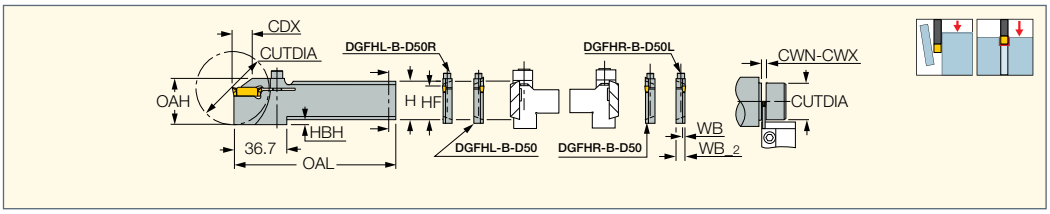
* Optional, should be ordered separately

For inserts, see pages: DGN-LF/LFT (485) • DGN/DGNC/DGNM-C (481) • DGR/L-C DGRC/LC-C (482) • DGN/DGNM-J/JS/JT (483) • DGR/L-J/JS (484) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • GRIP (269) • GRIP (full radius) (270)

DO-GRIP TWISTED 2-SIDED

DGFHR/L-B-D..(R/L)

Reinforced Type Blades with Screw Clamping



Designation	H[4]	CWN[5]	CWX[6]	WB	WB_2	OAL	OAH	HF	HBH	CDX[7]	CUTDIA[8]	Insert		
DGFHR/L 26B-2D50 [1]	26.0	1.90	2.50	1.60	8.0	110.00	33.7	21.4	3.6	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-2D50R [2]	26.0	1.90	2.50	1.60	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR 26B-2D50L [2]	26.0	1.90	2.50	1.60	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR/L 26B-3D50 [1]	26.0	3.00	3.18	2.40	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-3D50R [2]	26.0	3.00	3.18	2.40	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHR 26B-3D50L [2]	26.0	3.00	3.18	2.40	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHR/L 32B-2D50 [3]	32.0	1.90	2.50	1.60	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHL 32B-2D50R [2]	32.0	1.90	2.50	1.60	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR 32B-2D50L [2]	32.0	1.90	2.50	1.60	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR/L 32B-3D50 [3]	32.0	3.00	3.18	2.40	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHL 32B-3D50R [2]	32.0	3.00	3.18	2.40	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHR 32B-3D50L [2]	32.0	3.00	3.18	2.40	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0

- Insert (double sided) limit is CDX=18 mm, If deeper penetration is required the insert should be changed to a single-ended insert DGNM type.
- DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified-see page 479
- For user guide, see pages 538-547

[1] For Traub machines, model TNC 30, TNM 28, TNS 26/30/42/112, TNA 300, TNK 260
[2] For Tornos Bechler, Emco 2000/20, 2000/26 machines
[3] For TRAUB machines, model TNC 42/65, TNM 42/65, TNS 42/60/65, TNA 300/400
[4] Mounted on all ISCAR standard blocks
[5] Minimum cutting width • For DG: 1.0 insert - modify holder
[6] Maximum cutting width
[7] Cutting depth maximum
[8] The specified limit refers to the tool

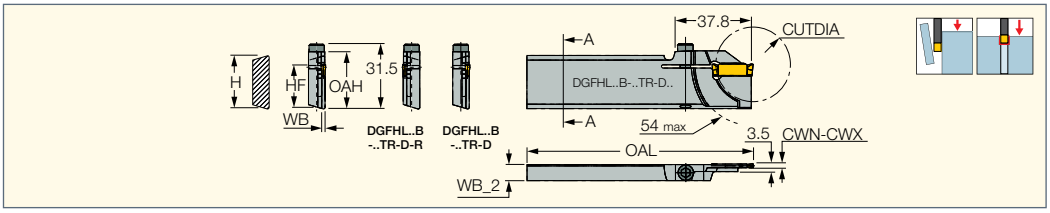
For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

DO-GRIP TWISTED 2-SIDED

DGFHL-26B-TR-D

Reinforced Type Blades with Screw Clamping for TRAUB and Index Machines



Designation	H[2]	CWN[3]	CWX[4]	WB	WB_2	OAL	OAH	HF	CUTDIA[5]	Insert		
DGFHL 26B-1.5TR-D20 [1]	26.0	1.00	1.50	1.20	7.9	110.00	27.9	21.4	20.0	DG. 1.../DG. 15..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-2TR-D36	26.0	1.90 [6]	2.50	1.60	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 2..	SR M5X20-01172	HW 3.0
DGFHL 26B-2TR-D36R	26.0	1.90 [6]	2.50	1.60	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-3TR-D36	26.0	3.00 [6]	3.18	2.40	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-3TR-D36R	26.0	3.00 [6]	3.18	2.40	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 3..	SR M5X20-01172	HW 3.0

- Insert limit is Tmax=18 mm. If deeper penetration is required, the insert should be modified into single-ended by the user
- DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified - see page 479
- For user guide, see pages 538-547

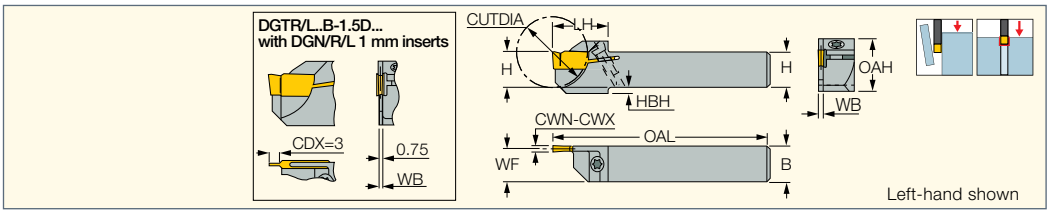
[1] Do not use DG.. 1.4 on this tool!
[2] Mounted on all ISCAR standard blocks
[3] Minimum cutting width
[4] Maximum cutting width
[5] The specified limit refers to the tool
[6] For DG: 1.0 insert - modify holder

For inserts, see pages: DGN-LF/LFT (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

DO-GRIP TWISTED 2-SIDED

DGTR/L-B-D-SH

Parting and Grooving Short Head Tools for CNC and Swiss Automatics



Designation	CWN[2]	CWX[3]	H	B	WB	WF	LH	CUTDIA	OAH	HBH	OAL	Insert		
DGTR/L 8B-1.4SH	1.40	1.40	8.0	8.0	1.00	7.50	18.0	10.0	15.4	2.0	125.00	DG. 14..	SR 16-236 P[a]	T-15/5
DGTR/L 10B-1.4D20SH	1.40	1.40	10.0	10.0	1.00	9.50	18.0	20.0	13.7	2.0	120.00	DG. 14..	SR 16-236 P[a]	T-15/5
DGTR/L 10B-1.5D20SH [1]	1.00	1.50	10.0	10.0	1.00	9.50	19.0	20.0	15.7	2.0	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 10B-2D20SH	1.90	2.50	10.0	10.0	1.60	9.20	19.0	20.0	15.7	2.0	120.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-1.4D24SH	1.40	1.40	12.0	12.0	1.00	11.50	19.0	24.0	15.7	-	120.00	DG. 14..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-1.5D24SH [1]	1.00	1.50	12.0	12.0	1.00	11.40	19.0	24.0	15.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-2D24SH	1.90	2.50	12.0	12.0	1.60	11.20	19.0	24.0	15.7	-	120.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR 12B-2D24SH-L85	1.90	2.50	12.0	12.0	1.60	11.20	19.0	24.0	15.7	-	85.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-3D24SH	3.00	3.18	12.0	12.0	2.40	10.80	19.0	24.0	15.7	-	120.00	DG. 3.../DG. 10..	SR 16-236 P[a]	T-15/5
DGTR/L 16B-1.5D25SH [1]	1.00	1.50	16.0	16.0	1.20	15.40	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 16B-2D25SH	1.90	2.50	16.0	16.0	1.60	15.20	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR/L 16B-3D25SH	3.00	3.18	16.0	16.0	2.40	14.80	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 3..	SR 16-236 P[a]	T-15/5
DGTR/L 20B-1.5D25SH [1]	1.00	1.50	20.0	20.0	1.20	19.40	19.5	25.4	23.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 20B-3D25SH	3.00	3.18	20.0	20.0	2.40	18.80	19.5	25.4	23.7	-	120.00	DG. 1.../DG. 3..	SR 16-236 P[a]	T-15/5

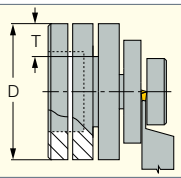
- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3. For insert depth capacity table and modification instructions for the 2 and 3 holder pockets, see page 479
- For user guide, see pages 538-547

[1] Do not use DG.. 1.4 on this tool!
[2] Minimum cutting width
[3] Maximum cutting width
[a] Recommended tightening torque for this item: 3 N*m (26.5 lbf*in)

For inserts, see pages: DGN-LF/LFT (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

Depth Capacity DGTR/L-B-D

Depth of Cut as Function of Workpiece Diameter (DGN/R/L-100... excluded)



Designation	øDmax																
DGTR/L 10B-1.4D20	—	—	—	—	—	—	—	—	—	—	20	23	26	32	45	76	NL
DGTR/L 12B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 20B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 10B-2D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 12B-2D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-2D32	—	—	—	—	32	35	37	41	47	55	69	93	150	400	NL	NL	NL
DGTR/L 20B-2D35	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-2D35	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 12B-3D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-3D35	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 20B-3D40	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-3D40	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
Depth T →	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

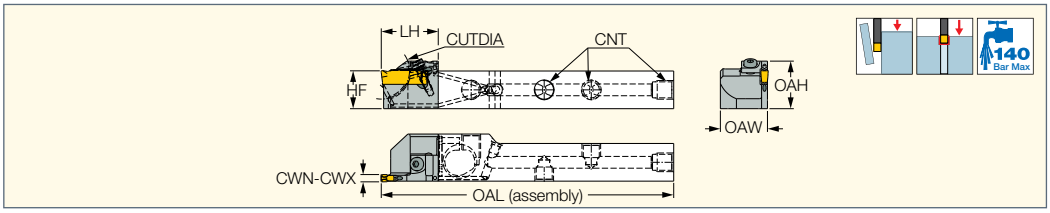
NL- No Limit

Example:
For 9 mm depth of groove on a 75 mm workpiece diameter, six tools may be used.

NEOSWISS INDEXABLE HEADS DO-GRIP TWISTED 2-SIDED

NQCH-DGTR/L-D-SH-JHP

Screw Lock JETCUT Modular Heads for Swiss Type Machines - Double-Sided Parting Inserts



Designation	CWN(1)	CWX(2)	HF	OAW	OAH	LH	OAL	CUTDIA	Insert		
NQCH12-DGTL-2D24SH-JHP	1.90	2.50	12.1	20.00	16.20	24.0	124.00	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH12-DGTR-2D24SH-JHP	1.90	2.50	12.1	20.00	16.20	24.2	124.20	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH16-DGTL-2D24SH-JHP	1.90	2.50	16.1	20.00	20.20	24.0	124.00	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH16-DGTR-2D24SH-JHP	1.90	2.50	16.1	20.00	20.20	24.2	124.20	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH12-DGTL-3D24SH-JHP	3.00	3.18	12.1	20.00	16.20	24.0	124.00	24.0	DGN 3	SR M3X10DIN912	HW 2.5
NQCH12-DGTR-3D24SH-JHP	3.00	3.18	12.1	20.00	16.20	24.2	124.20	24.0	DGN 3	SR M3X10DIN912	HW 2.5
NQCH16-DGTL-3D24SH-JHP	3.00	3.18	16.1	20.00	20.20	24.0	124.00	24.0	DGN 3	SR M3X10DIN912	HW 2.5
NQCH16-DGTR-3D24SH-JHP	3.00	3.18	16.1	20.00	20.20	24.2	124.20	24.0	DGN 3	SR M3X10DIN912	HW 2.5

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

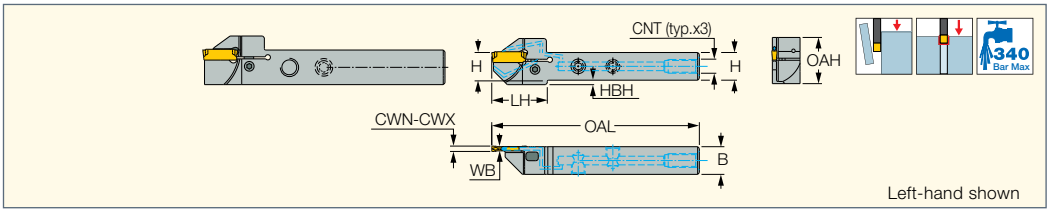
For holders, see pages: NQCH-JHP (61)



DO-GRIP TWISTED 2-SIDED JETCUT

DGTR/L-B-D-JHP-SL

Parting and Grooving Side Lock Type Tools with High-Pressure Coolant for CNC and Swiss Automatics



Designation	CWN(1)	CWX(2)	H	B	WB	LH	CUTDIA(3)	OAH	HBH	OAL	Insert	CNT
DGTR/L 12B-2D24-JHP-SL	1.90	2.50	12.0	12.0	1.70	29.4	24.0	25.7	6.5	100.00	DG. 2...	5/16"-24 UNF
DGTR/L 16B-2D35-JHP-SL	1.90	2.50	16.0	16.0	1.70	32.0	35.0	26.7	2.6	120.00	DG. 2...	5/16"-24 UNF
DGTL 20B-2D35-JHP-SL	1.90	2.50	20.0	20.0	1.70	32.0	35.0	28.1	-	140.00	DG. 2...	1/8"-28 BSPP
DGTR 20B-2D35-JHP-SL	1.90	2.50	20.0	20.0	1.70	32.0	35.0	28.1	-	140.00	DG. 2..	1/8"-28 BSPP
DGTR/L 12B-3D24-JHP-SL	3.00	3.18	12.0	12.0	2.40	29.4	24.0	25.7	6.5	100.00	DG. 3..	5/16"-24 UNF
DGTR/L 16B-3D35-JHP-SL	3.00	3.18	16.0	16.0	2.40	32.0	35.0	26.7	2.6	120.00	DG. 3..	5/16"-24 UNF
DGTR/L 20B-3D40-JHP-SL	3.00	3.18	20.0	20.0	2.40	35.6	40.0	28.1	-	140.00	DG. 3..	1/8"-28 BSPP
DGTR/L 25B-2D35-JHP-SL	1.90	2.50	25.0	25.0	1.70	32.1	35.0	33.1	-	140.00	DG. 2..	1/8"-28 BSPP
DGTR/L 25B-3D40-JHP-SL	3.00	3.18	25.0	25.0	2.40	35.6	40.0	33.1	-	140.00	DG. 3..	1/8"-28 BSPP
DGTR 25B-4D40-JHP-SL	4.00	4.76	25.0	25.0	3.40	34.6	40.0	33.0	-	140.00	DG..4..	1/8"-28 BSPP

• For insert depth capacity table and modification instructions for the holder pockets, see page 479 • For user guide, see pages 538-547

(1) Minimum cutting width

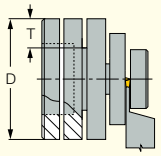
(2) Maximum cutting width

(3) Maximum cutting diameter

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

Depth Capacity
DGTR/L-B-D-JHP-SL

Depth of Cut as Function of Workpiece Diameter (DGN/R/L-100... excluded)



Designation	øDmax																
DGTR/L 12B-2D24-JHP-SL	—	—	—	—	—	—	—	—	24	26	27	28	30	32	36	42	52
DGTR/L 16B-2D35-JHP-SL	—	—	—	—	—	—	—	—	24	26	27	28	30	32	36	42	52
DGTR/L 20B-2D35-JHP-SL	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 25B-2D35-JHP-SL	—	—	—	65	70	75	80	90	100	120	140	180	250	410	1200	NL	NL
DGTR/L 12B-3D24-JHP-SL	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 16B-3D35-JHP-SL	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 20B-3D40-JHP-SL	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-3D40-JHP-SL	50	55	60	67	75	85	100	115	140	200	350	NL	NL	NL	NL	NL	NL
Depth T →	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

NL - No Limit

Example:

For a 9 mm depth of groove on a 75 mm workpiece diameter, six tools may be used.

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
DGTR/L ...2-JHP-SL	3-4	4-5	5-6
DGTR/L ...3-JHP-SL	5-6	6-7	7-8

Spare Parts

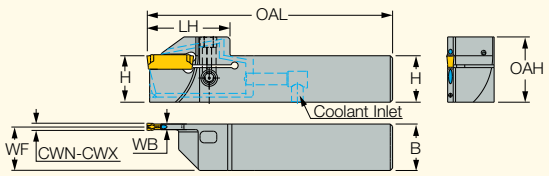
Designation							
DGTR/L 12B-2D24-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 20B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTL 12B-3D24-JHP-SL	PIN-32121	SR M5-24145	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR 12B-3D24-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-3D35-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 20B-3D40-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTL 25B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360		HW 5.0	
DGTR 25B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTL 25B-3D40-JHP-SL					BLD HW2.5		SW6-SD
DGTR/L 25B-3D40-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360		HW 5.0	
DGTR 25B-3D40-JHP-SL					BLD HW2.5*		SW6-SD*

* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED JETCUT

DGTR/L-B-D-JHP-SL-MC

Parting and Grooving Side Lock Type Tools with Bottom Inlets for High-Pressure Coolant



Left-hand shown

Designation	CWN[1]	CWX[2]	H	B	WB	WF	LH	CUTDIA[3]	OAH	OAL	Insert
DGTR/L 20B-2D35-JHP-SL-MC	1.90	2.50	20.0	20.0	1.70	19.15	32.1	35.0	28.10	102.10	DG. 2...
DGTR/L 20B-3D40-JHP-SL-MC	3.00	3.18	20.0	20.0	2.40	18.80	35.6	40.0	28.10	105.60	DG. 3...
DGTR/L 25B-2D35-JHP-SL-MC	1.90	2.50	25.0	25.0	1.70	24.15	32.1	35.0	33.10	117.10	DG. 2...
DGTR/L 25B-3D40-JHP-SL-MC	3.00	3.18	25.0	25.0	2.40	23.80	35.6	40.0	33.10	120.60	DG. 3...

• For insert depth capacity table and modification instructions for the holder pockets, see page 479 • For user guide, see pages 538-547

[1] Minimum cutting width

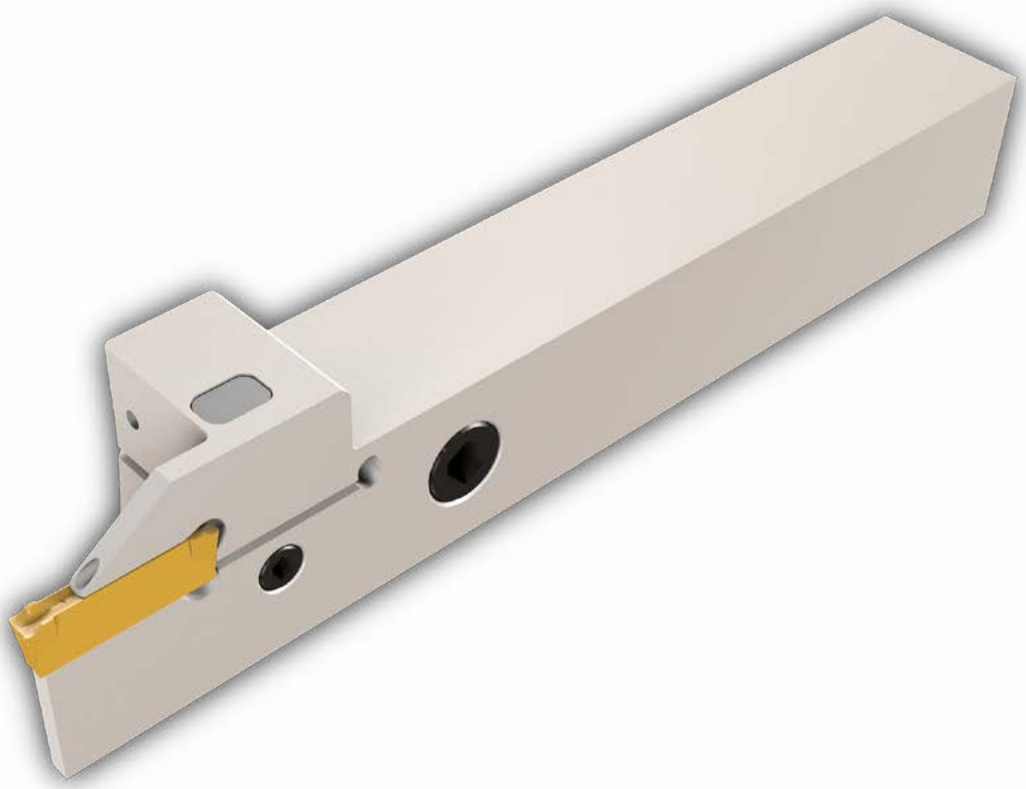
[2] Maximum cutting width

[3] Maximum cutting diameter

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

Spare Parts

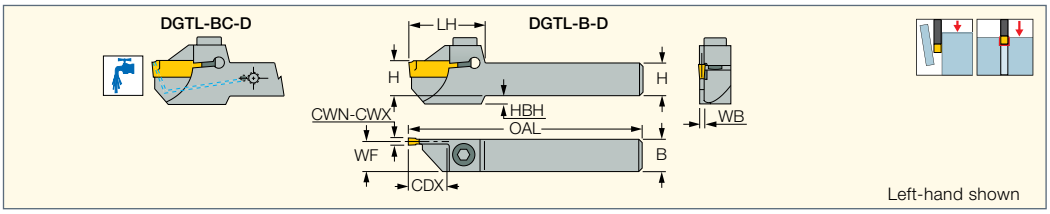
Designation							
DGTR/L-B-D-JHP-SL-MC	SR M5-24145-RL	SR M8X10 DIN913	PIN-32121	SW6-SD	BLD HW2.5	SR M3X3DIN913	SR M2.5X2.5 DIN913



DO-GRIP JETCUT TWISTED 2-SIDED

DGTR/L-B/BC-D

Integral Shank Reinforced Parting and Grooving Tools Especially for DGNC Type of Inserts



Designation	CWN[3]	CWX[4]	H	B	WB	OAL	LH	CDX[5]	WF	HBH	CSP[6]	Insert
DGTR/L 10B-1.4D20	1.40	1.40	10.0	10.0	1.00	140.00	23.6	10.00	9.50	2.0	0	DG. 14..
DGTR/L 12B-1.4D30	1.40	1.40	12.0	12.0	1.00	140.00	29.6	15.00	11.50	3.5	0	DG. 14..
DGTR/L 16B-1.4D30	1.40	1.40	16.0	16.0	1.00	140.00	29.6	15.00	15.50	-	0	DG. 14..
DGTR/L 20B-1.4D30	1.40	1.40	20.0	20.0	1.00	140.00	29.6	15.00	19.50	-	0	DG. 14..
DGTR/L 10B-2D30	1.90	2.50	10.0	10.0	1.60	140.00	29.6	15.00	9.20	6.6	0	DG. 1.../DG. 2..
DGTR/L 12B-2D30	1.90	2.50	12.0	12.0	1.60	140.00	29.6	15.00	11.20	3.5	0	DG. 1.../DG. 2..
DGTR/L 16B-2D32	1.90	2.50	16.0	16.0	1.60	140.00	30.6	16.00	15.20	-	0	DG. 1.../DG. 2..
DGTR/L 20B-2D35	1.90	2.50	20.0	20.0	1.60	140.00	32.1	17.50	19.20	-	0	DG. 1.../DG. 2..
DGTR/L 25B-2D35	1.90	2.50	25.0	25.0	1.60	140.00	32.1	17.50	24.20	-	0	DG. 1.../DG. 2..
DGTR/L 12B-3D30	3.00	3.18	12.0	12.0	2.40	140.00	29.6	15.00	10.80	3.5	0	DG. 1.../DG. 3..
DGTR/L 16B-3D35	3.00	3.18	16.0	16.0	2.40	140.00	32.1	16.00	14.80	2.6	0	DG. 1.../DG. 3..
DGTR/L 16BC-3D35 [1]	3.00	3.18	16.0	16.0	2.40	140.00	31.1	16.00	14.80	2.6	1	DGNC/DGRC/DGLC 3...
DGTR/L 20B-3D40 [2]	3.00	3.18	20.0	20.0	2.40	140.00	35.6	20.00	18.80	-	0	DG. 1.../DG. 3..
DGTR/L 20BC-3D40 [1]	3.00	3.18	20.0	20.0	2.40	140.00	34.6	20.00	18.80	-	1	DGNC/DGRC/DGLC 3...
DGTR/L 25B-3D40 [2]	3.00	3.18	25.0	25.0	2.40	140.00	35.6	20.00	23.80	-	0	DG. 1.../DG. 3..

- Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width tools
- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3.
- For insert depth capacity table and modification instructions for the 2 and 3 holder pockets, see page 479
- For user guide, see pages 538-547

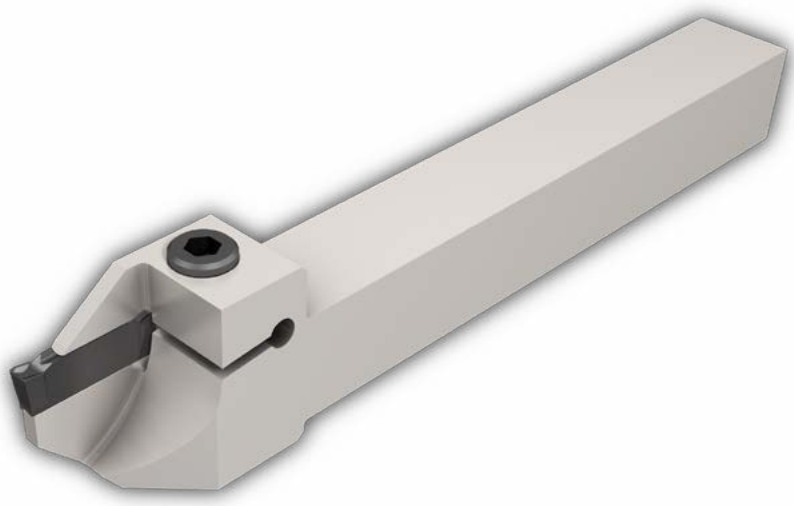
[1] Tools for inserts with coolant holes for high temperature alloys and stainless steel
[2] Insert's Tmax=18 mm, for deeper penetration modify insert into single-ended
[3] Minimum cutting width
[4] Maximum cutting width
[5] The specified limit refers to the tool
[6] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DGN-LF/LFT (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

Spare Parts

Designation						
DGTR/L 10B-1.4D20	SR M5X12 DIN912	HW 4.0				
DGTR/L 12B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 20B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 10B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 12B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-2D32	SR M4X14 DIN912	HW 3.0				
DGTR/L 20B-2D35	SR M4X14 DIN912	HW 3.0				
DGTL 25B-2D35	SR M5X12 DIN912	HW 4.0				
DGTR 25B-2D35	SR M4X14 DIN912	HW 3.0				
DGTR/L 12B-3D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-3D35	SR M5X12 DIN912	HW 4.0				
DGTR/L 16BC-3D35	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*
DGTR/L 20B-3D40	SR M5X12 DIN912	HW 4.0				
DGTR/L 20BC-3D40	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*
DGTR/L 25B-3D40	SR M5X12 DIN912	HW 4.0				

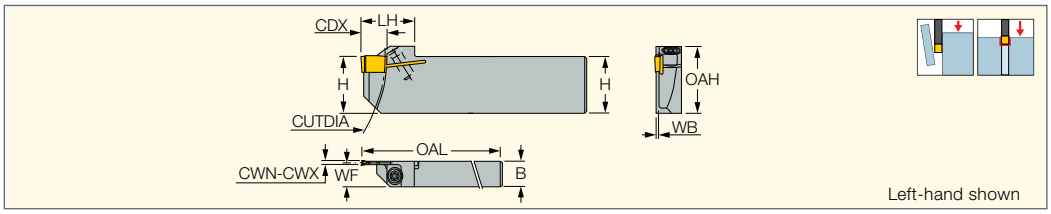
* Optional, should be ordered separately



DO-GRIP TWISTED 2-SIDED

DGTR/L-B-T-SH

Reinforced Parting and Grooving Short Head Tools Carrying DGN Double-Ended Inserts



Designation	CWN(1)	CWX(2)	H	B	WB	WF	OAL	LH	CUTDIA	CDX(3)	OAH		
DGTR/L 2009B-1.5T9SH	1.00	1.50	20.0	9.0	1.20	8.40	100.00	19.0	95.0	9.00	23.7	SR 16-236 P	T-15/5

- Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width
- For user guide, see pages 538-547

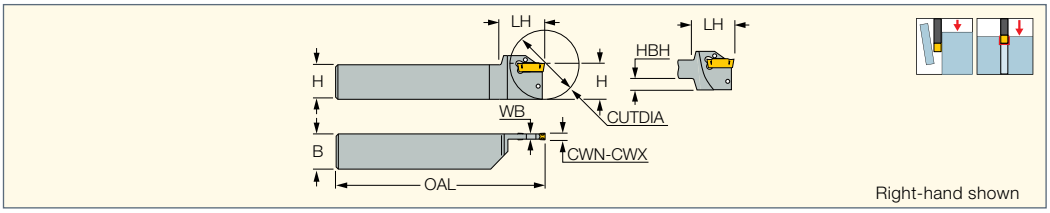
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

For inserts, see pages: DGN-P (487) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR/L-J/JS (484)

DO-GRIP TWISTED 2-SIDED

DGTR/L

Integral Shank Parting and Grooving Tools



Designation	CWN(1)	CWX(2)	H	B	WB	OAL	LH	HBH	CUTDIA	Insert	
DGTR/L 1010-2	1.90	2.50	10.0	10.0	1.80	150.00	29.0	6.6	35.0	DG. 1.../DG. 2..	EDG 33B*
DGTR/L 1212-2	1.90	2.50	12.0	12.0	1.80	150.00	29.0	6.6	35.0	DG. 1.../DG. 2..	EDG 33B*
DGTR/L 1616-2	1.90	2.50	16.0	16.0	1.80	150.00	29.0	2.6	35.0	DG. 1.../DG. 2..	EDG 33B*
DGTR/L 2012-2	1.90	2.50	20.0	12.0	1.80	125.00	29.0	-	35.0	DG. 1.../DG. 2..	EDG 33A*
DGTR/L 1212-3	3.00	3.18	12.0	12.0	2.50	150.00	29.0	6.6	35.0 (3)	DG. 1.../DG. 3..	EDG 33B*
DGTR/L 1616-3	3.00	3.18	16.0	16.0	2.50	150.00	29.0	6.6	35.0 (4)	DG. 1.../DG. 3..	EDG 33B*
DGTR/L 2012-3	3.00	3.18	20.0	12.0	2.50	125.00	29.0	-	35.0 (3)	DG. 1.../DG. 3..	EDG 33A*
DGTR/L 2020-3	3.00	3.18	20.0	20.0	2.50	125.00	29.0	-	35.0 (3)	DG. 1.../DG. 3..	EDG 33A*
DGTR/L 2525-3	3.00	3.18	25.0	25.0	2.50	150.00	29.0	-	35.0 (3)	DG. 1.../DG. 3..	EDG 33A*
DGTR/L 2020-4	4.00	4.76	20.0	20.0	3.40	125.00	31.0	-	51.0	DG. 4.../GRIP 4..	EDG 33A*
DGTR/L 2525-4	4.00	4.76	25.0	25.0	3.40	150.00	31.0	-	51.0	DG. 4.../GRIP 4..	EDG 33A*
DGTR/L 2020-5	4.80	5.00	20.0	20.0	4.00	125.00	33.0	-	59.0	DG. 5.../GRIP 5..	EDG 33A*
DGTR/L 2525-5	4.80	5.00	25.0	25.0	4.00	150.00	33.0	-	76.0	DG. 5.../GRIP 5..	EDG 33A*
DGTR/L 2525-6	6.00	6.35	25.0	25.0	5.30	150.00	33.0	-	76.0	DG. 6.../GRIP 6..	EDG 33A*

- Insert limit is Tmax=18 mm. If deeper penetration is required, the insert should be modified into single-ended by the user
- DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified - see page 479
- For user guide, see pages 538-547

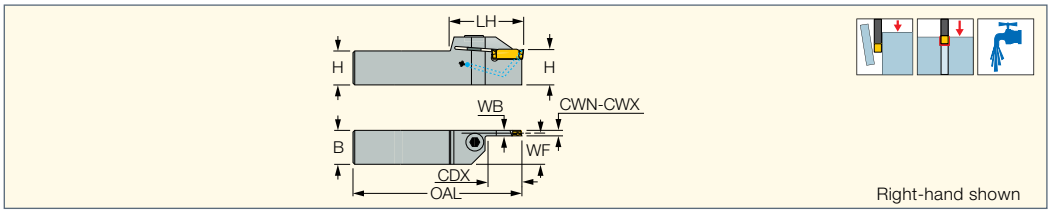
(1) Minimum cutting width
(2) Maximum cutting width
(3) Dmax=43 mm when single-ended insert is used
(4) Dmax=43(1.69") when single-ended insert is used
* Optional, should be ordered separately

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN/DGNC/DGNM-C (481) • DGR/L-C DGRC/LC-C (482) • DGN/DGNM-J/JS/JT (483) • DGR/L-J/JS (484) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • GRIP (269) • GRIP (full radius) (270)

DO-GRIP TWISTED 2-SIDED JETCUT

DGTR/L-BC-T

Parting and Grooving Tools with Coolant Holes Carrying JET-CUT Inserts



Designation	H	B	CWN(1)	CWX(2)	OAL	WB	WF	LH	CDX(3)	Insert
DGTR/L 20BC-4T25	20.0	20.0	4.00	4.00	140.00	3.40	18.30	42.0	25.00	DGNC/DGRC/DGLC 4...
DGTR/L 25BC-4T25	25.0	25.0	4.00	4.00	140.00	3.40	23.30	42.0	25.00	DGNC/DGRC/DGLC 4...

- For user guide, see pages 538-547

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

For inserts, see pages: DGN-UT/UA (487) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

Spare Parts

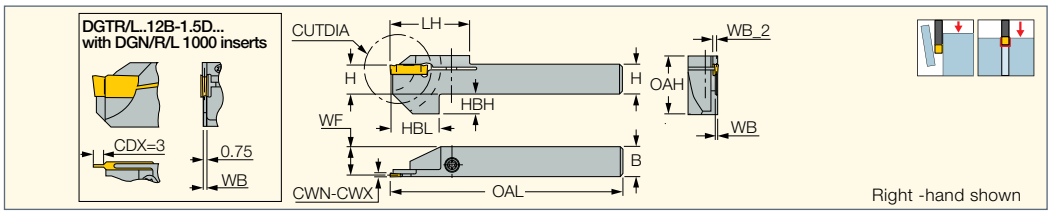
Designation						
DGTR/L-BC-T	SR M6X16 DIN912	SGCU 341*	CGF 343*	CF 343*	CGM 343*	HW 5.0

* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED

DGTR/L-B-D-TR

Reinforced Parting and Grooving Tools Carrying Double-Ended DO-GRIP Inserts



Designation	CWN(1)	CWX(2)	H	B	WB	WB_2	WF	OAL	LH	HBL	CUTDIA	OAH	HBH	Insert
DGTR/L 12B-1.4D20-TR12	1.40	1.40	12.0	12.0	1.00	2.3	11.50	95.00	32.5	20.00	20.0	23.7	8.0	DG. 14..
DGTL 12B-1.5D20-TR12	1.00	1.50	12.0	12.0	1.20	2.3	11.30	95.00	32.5	20.00	20.0	23.7	8.0	DG. 1.../DG. 15..
DGTR 12B-1.5-D20-TR12	1.00	1.50	12.0	12.0	1.20	2.3	11.30	95.00	32.5	20.00	20.0	23.7	8.0	DG. 1.../DG. 15..

- Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width! • For TRAUB machines, model TNL 12/7
- For user guide, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: DGN-P (487) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR/L-J/JS (484)

Spare Parts

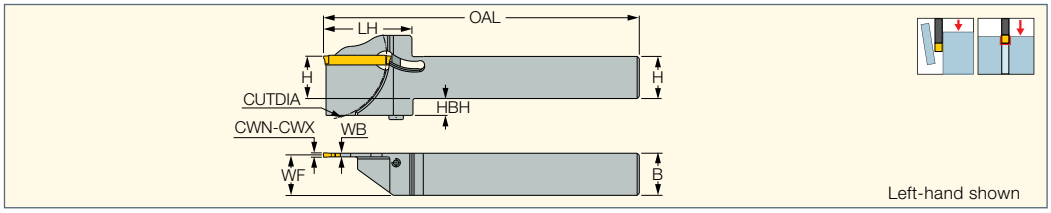
Designation		
DGTR/L-B-D-TR	SR 16-236 P(a)	T-15/5

(a) 3N*M(26.5LBF*in)

DO-GRIPXL

DGTR/L-XL

Integral Shank Reinforced Parting and Grooving Tools for Parting Up to 65 mm Diameters



Designation	CW	CUTDIA	H	B	WB	OAL	LH	WF	HBH		
DGTR/L 20B-2XL-D60	2.00	60.0	20.0	20.0	1.74	150.00	43.2	19.10	8.0	SR M4X35DIN912	HW 3.0
DGTR/L 25B-2XL-D60	2.00	60.0	25.0	25.0	1.74	150.00	43.2	24.10	3.0	SR M4X35DIN912	HW 3.0
DGTR/L 20B-3XL-D65	3.00	65.0	20.0	20.0	2.40	150.00	43.2	18.80	12.0	SR M5X40DIN912	HW 4.0
DGTR/L 25B-3XL-D65	3.00	65.0	25.0	25.0	2.40	150.00	43.2	23.80	7.0	SR M5X40DIN912	HW 4.0

- For insert depth capacity table, see page 477 • For user guide, see pages 538-547

For inserts, see pages: DGN-C-XL (490) • DGN-J-XL (491) • DGR/L-C-XL (491) • DGR/L-J-XL (491)

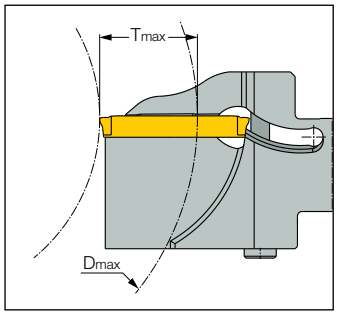
Depth of Cut as Function of Workpiece Diameter

Tmax/Dmax for DGTR/L...-2XL

T max	D max
15	No limit
16	600
17	300
18	200
19	150
20	130
21	120
22	100
23	90
24	85
25	80
26	75
27	70
28	65
29	63
30	60

Tmax/Dmax for DGTR/L...-3XL

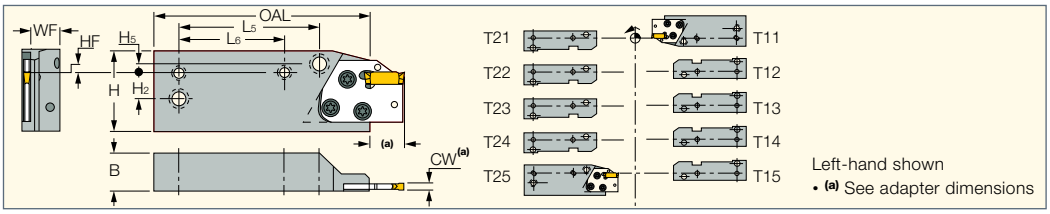
T max	D max
15	No limit
16	1000
17	400
18	300
19	230
20	180
21	150
22	130
23	115
24	105
25	95
26	90
27	85
28	80
29	75
30	72
31	70
32.5	65



DO-GRIP TWISTED 2-SIDED

DGHAL-DECO

Holders for DGAD Adapters for Tornos Bechler Deco Machines



Left-hand shown
• (a) See adapter dimensions

Designation	H	B	OAL	WF	HF	H2	H5	L6	L5
DGHAL DECO 7-10 (1)	40.3	18.2	106.00	15.0	-	12.8	4.8	52.00	69.00
DGHAL DECO 13 (2)	42.0	35.2	115.00	28.7	2.0	16.0	16.0	60.00	60.00
DGHAL DECO 20-26 (2)	44.8	23.2	120.00	20.0	4.0	17.0	17.0	65.00	65.00

• DGAD-... HGAD-... adapters should be ordered separately
(1) Positioning combinations: T11; T25
(2) Positioning combinations: All
For tools, see pages: DGAD-B-D (479) • DGAD/HGAD (479) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498)

Spare Parts

Designation							
DGHAL DECO 7-10	SR 14-519-L9.7(a)	HW 4.0	SR 16-212-L9.5	T-20/5	SR 16-212	SR M5X25DIN912	
DGHAL DECO 13	SR 14-519-L9.7(a)	HW 5.0	SR 16-212-L7.5	T-20/5	SR 16-212	SR M6X25 DIN912	
DGHAL DECO 20-26	SR 14-519-L12.8(a)	HW 5.0	SR 16-212-L7.5	T-20/5	SR 16-212	SR M6X25 DIN912	EZ 104

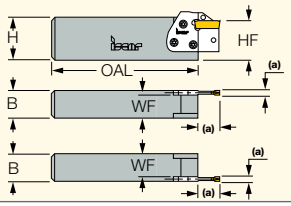
(a) Recommended tightening torque: 9 N*m (80lbf*in)



DO-GRIP TWISTED 2-SIDED

HMSN-New Britain

Holders for Grooving and Turning Adapters for New Britain Multi-Spindle Bar Machines



(a) See adapter dimensions

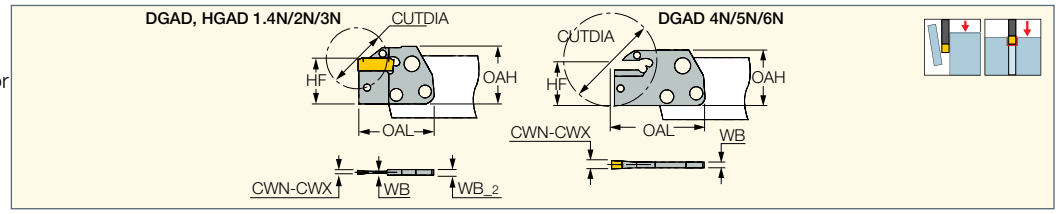
Designation	H	B	HF	OAL	WF	S1(2)			
HMSN 35/3722 (1)	36.5	22.4	34.5	181.70	18.4	226	SR 16-212	SR 14-519	T-20/5

• DGAD-... HGAD-..., adapters should be ordered separately
(1) For models #42; #52; #60; #61; #62; #602
(2) Comparable Empire block
For tools, see pages: DGAD-B-D (479) • DGAD/HGAD (479) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73)

DO-GRIP TWISTED 2-SIDED

DGAD/HGAD

Parting and Grooving Adapters for DO-GRIP Double-Ended Inserts



Designation	CWN(2)	CWX(3)	WB	WB_2	OAH	HF	OAL	CUTDIA	
DGAD 1.4N	1.40	1.40	1.00	3.2	30.0	24.0	41.50	28.0	EDG 23B*
DGAD 2N	1.90 (4)	2.50	1.60	3.2	30.0	24.0	41.50	32.0	EDG 33A*
DGAD 3N (1)	3.00 (4)	3.18	2.40	4.0	30.0	24.0	41.50	32.0	EDG 33A*
HGAD 3N	3.00	3.00	2.40	4.0	30.0	24.0	50.50	50.0	EDG 23B*
DGAD 4N	4.00	4.00	3.20	-	30.0	24.0	50.50	50.0	EDG 33A*
DGAD 5N	4.80	5.00	4.00	-	30.0	24.0	50.50	50.0	EDG 33A*
DGAD 6N	6.00	6.35	5.20	-	30.0	24.0	50.50	50.0	EDG 33A*

- DG..1.0 insert can be mounted into pocket sizes 2 and 3 in which case the pocket width has to be modified - see page 479
- For user guide, see pages 538-547

(1) Only the DGN/R/L inserts are suitable for this adapter
(2) Minimum cutting width
(3) Maximum cutting width
(4) For 1 mm inserts, modify adapter
* Optional, should be ordered separately

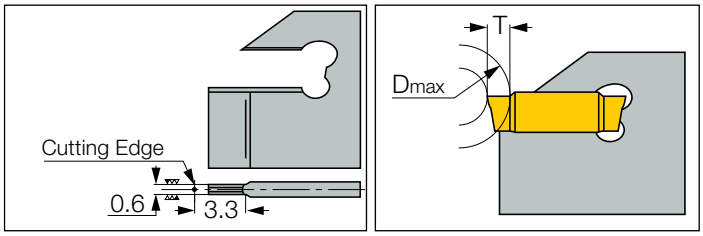
For inserts, see pages: DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484) • GRIP (269) • GRIP (full radius) (270) • HGN-C (489) • HGN-J (489) • HGN-UT (490) • HGR/L-C (489) • HGR/L-J/JS (490)

For holders, see pages: MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633) • C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • HMSN-New Britain (478) • DGHAL-DECO (478)

Depth Capacity for DGN/R-1002J Insert on Standard Holders

Depth: T		D max
Up to	1.2	No limit
	1.3	830
	1.4	218
	1.5	126
	1.6	88.4
	1.7	68.2
	1.8	55.6
	1.9	46.9
	2.0	40.7
	2.1	36.0

Depth: T		D max
Up to	2.2	32.3
	2.3	29.3
	2.4	26.7
	2.5	24.8
	2.6	23.2
	2.7	21.7
	2.8	20.5
	2.9	19.4
	3.0	18.4



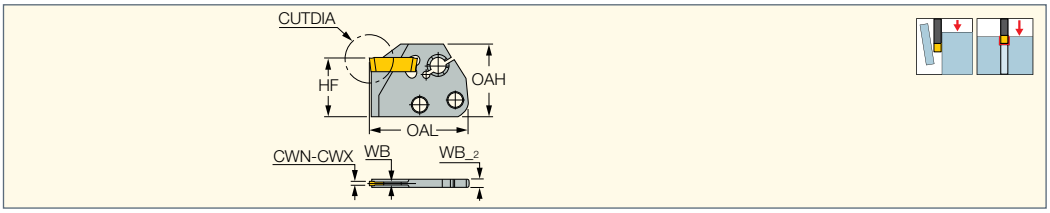
Standard Holders Modification

To achieve no limitation on the workpiece diameter up to 3 mm depth, the steel support under the insert should be ground, as per the shown sketch.

DO-GRIP TWISTED 2-SIDED

DGAD-B-D

Parting and Grooving Screw-Clamped Adapters for DO-GRIP Double-Ended Inserts



Designation	CWN(2)	CWX(3)	WB	WB_2	OAL	CUTDIA	HF	OAH
DGAD 1.4B-D16	1.40	1.40	1.00	3.2	36.80	16.0	24.0	30.3
DGAD 1.5B-D20 (1)	1.00	1.50	1.00	3.2	41.00	20.0	24.0	30.3
DGAD 2B-D20	1.90	2.50	1.60	3.2	41.00	20.0	24.0	30.3

- Up to 3 mm depth, without any limitation on the diameter • DG..1.0 insert can also be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified-see page 479
- For user guide, see pages 538-547

(1) Do not use DG.. 1.4 on this tool!
(2) Minimum cutting width
(3) Maximum cutting width

For inserts, see pages: DGN-LF/LFT (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

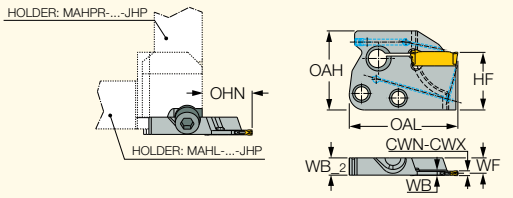
For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHR/L-JHP-MC (280) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633) • HMSN-New Britain (478) • DGHAL-DECO (478)

DO-GRIP TWISTED 2-SIDED JETCUT
MODULAR GRIP

DGPAD-JHP

Adapters with High-Pressure Coolant Channels for DO-GRIP Parting and Grooving Inserts





Designation	CWN[1]	CWX[2]	CUTDIA	OHN[3]	WF	WB	WB_2	OAL	OAH	HF	Insert
DGPAD 2R/L-D22-JHP	1.90	2.50	22.0	21.0	6.40	1.60	7.2	45.50	33.0	24.0	DG. 2...
DGPAD 2R/L-D32-JHP	1.90	2.50	32.0	21.0	6.40	1.60	7.2	45.50	33.0	24.0	DG. 2...
DGPAD 3R/L-D32-JHP	3.00	3.18	32.0	21.0	6.00	2.40	7.2	45.50	33.0	24.0	DG. 3...
DGPAD 2R/L-D42-JHP	1.90	2.50	42.0	21.0	6.30	1.70	7.2	49.00	33.0	24.0	DG. 2...

- For user guide and accessories, see pages 538-547

(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum overhang

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

Flow Rate vs. Pressure

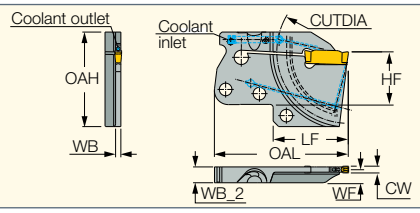
Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
DGPAD 2R/L-D22-JHP	5	6	7
DGPAD 2R/L-D32-JHP	5	6	7
DGPAD 3R/L-D32-JHP	8.5	10	12



DO-GRIP TWISTED 2-SIDED JETCUT

DGPAD-XL-JHP

Parting and Grooving Extra Long Adapters with Coolant Channels Carrying DO-GRIP Inserts



Designation	CW	CUTDIA	WF	WB	WB_2	LF	OAL	OAH	HF	Insert
DGPAD-XL 3R/L-D52-JHP	3.00	52.0	6.00	2.40	7.2	27.70	54.40	43.00	34.0	DG. 3...
DGPAD-XL 3L-D65-JHP	3.00	65.0	6.00	2.40	7.2	34.20	60.40	43.00	34.0	DG. 3...
DGPAD-XL 3R-D65-JHP	3.00	65.0	6.00	2.40	7.2	34.20	60.00	43.00	34.0	DG. 3...

- For user guide and accessories, see pages 538-547

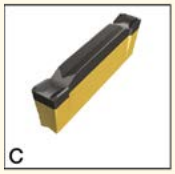
For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

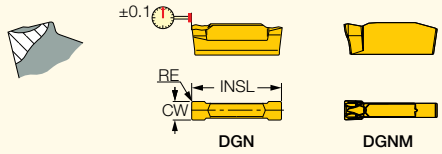
For holders, see pages: ABC MAHDR-#-XL-JHP (782) • MAHPR/L-XL-JHP (561) • MAHR/L-MG-XL-JHP (501) • MAHR/L-MG-XL-JHP-MC (501) • TR TNK36 MAHDL-R-XL-JHP (782) • TR45TNL MAHDN-R-XL-JHP (781) • V## MAHD#-#-XL-##-JHP (778)

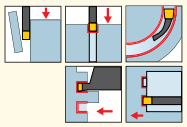
DO-GRIP TWISTED 2-SIDED

DGN/DGNC/DGNM-C

Double-Sided Parting Inserts for Parting and Grooving Bars, Hard Materials and Tough Applications







Designation	Dimensions CW	CWTOL(3)	RE	RETOL(4)	CDX(5)	INSL	Tough ↔ Hard IC328	IC830	IC928	IC1030	IC1028	IC354	IC5400	IC1010	IC308	IC808	IC908	IC30N	IC20	IC807	IC907	Recommended Machining Data f groove (mm/rev)
DGN 2002C	2.00	0.03	0.20	0.020	18.00	19.90	●	●		●	●	●	●	●		●	●		●			0.05-0.16
DGN 2202C	2.20	0.03	0.20	0.020	18.00	19.80	●	●		●	●	●	●	●	●	●	●	●	●		●	0.05-0.16
DGN 2502C	2.50	0.03	0.20	0.020	18.00	20.70			●	●				●			●					0.08-0.20
DGN 3102C	3.10	0.04	0.20	0.020	18.00	20.10	●	●		●	●	●	●	●	●	●	●	●	●	●	●	0.10-0.25
DGNC 3102C (1)	3.10	0.04	0.20	0.020	18.00	21.00										●	●					0.10-0.25
DGNM 3202C (2)	3.18	0.04	0.20	0.020	- (6)	20.40	●					●					●					0.10-0.25
DGN 4003C	4.00	0.04	0.30	0.030	- (6)	18.80	●	●		●	●	●		●	●	●	●	●	●	●		0.10-0.30
DGNC 4003C (1)	4.00	0.04	0.30	0.030	- (6)	19.00										●	●					0.10-0.30
DGN 4803C	4.80	0.04	0.30	0.030	- (6)	19.90	●															0.12-0.35
DGN 5003C	5.00	0.04	0.30	0.030	- (6)	19.10	●	●		●	●	●		●		●	●	●	●			0.12-0.35
DGN 6303C	6.35	0.04	0.35	0.030	- (6)	19.10	●	●			●	●		●		●	●		●			0.15-0.40

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 538-547

(1) Inserts with coolant holes, recommended coolant pressure 10 bar minimum

(2) Single-ended insert

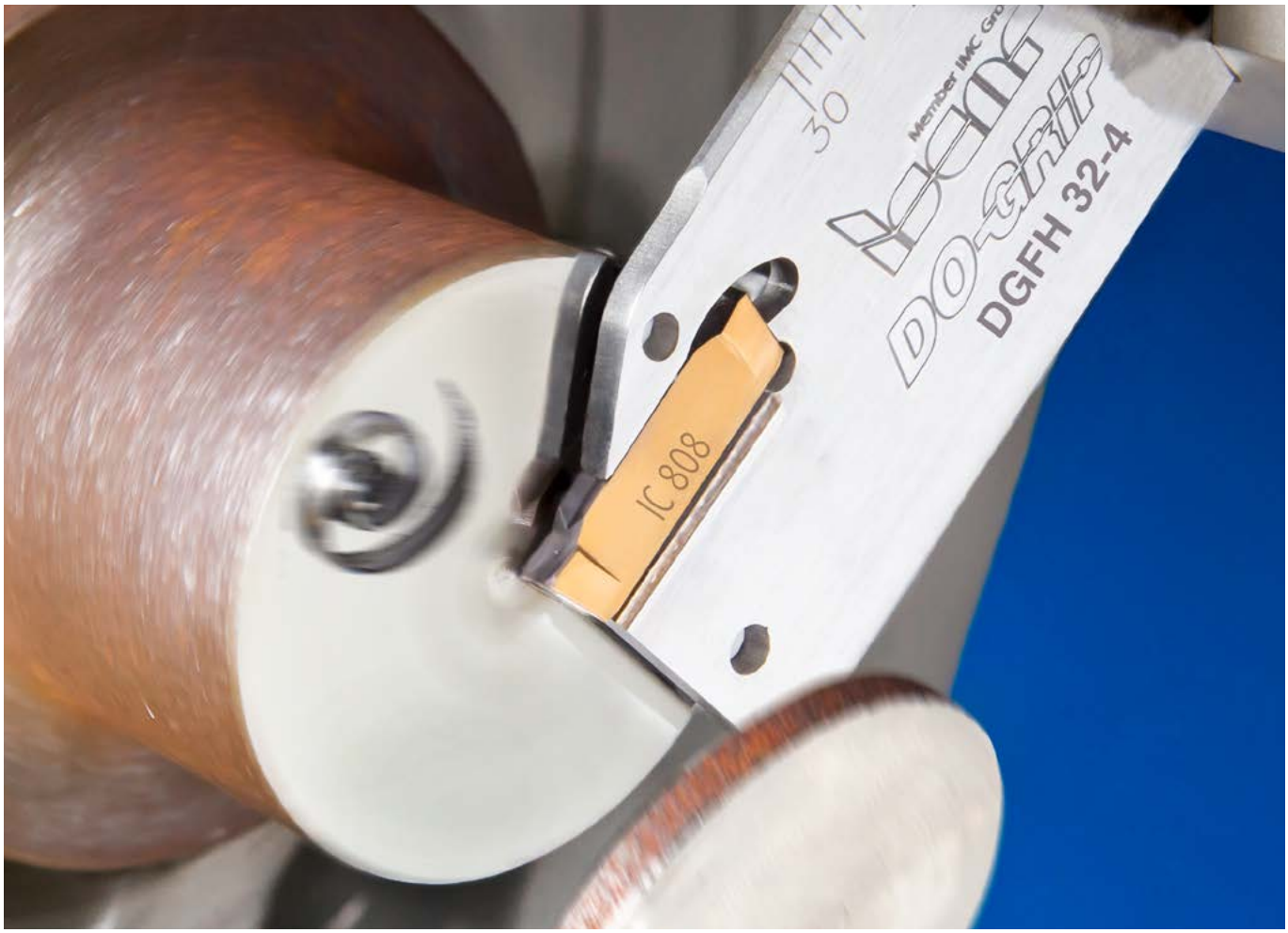
(3) Cutting width tolerance (+/-)

(4) Corner radius tolerance (+/-)

(5) Cutting depth maximum

(6) No depth limit

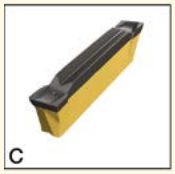
For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • DGTR/L-BC-T (476) • HELIR/L (266) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFHR/L-6T (561) • HFIR/L-MC (574) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574) • NQCH-DGTR/L-D-SH-JHP (472)



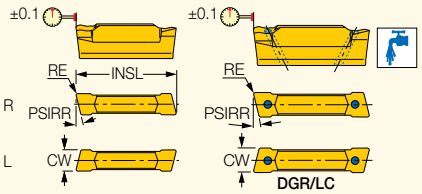
DO-GRIP TWISTED 2-SIDED

DGR/L-C DGRC/LC-C

Double-Sided Inserts for Parting Bars, Hard Materials and Tough Applications









Designation	Dimensions CW	RE	CDX[2]	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC808	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGL 2202C-6D	2.20	0.20	18.00	6.0	-	20.80	●		●	●	●	●		●	●	0.04-0.12
DGR 2202C-6D	2.20	0.20	18.00	-	6.0	20.80	●	●	●	●	●	●	●	●	●	0.04-0.12
DGL 3102C-15D	3.10	0.20	18.00	15.0	-	21.00	●	●	●	●						0.08-0.14
DGL 3102C-6D	3.10	0.20	18.00	6.0	-	21.00	●	●	●	●	●	●	●	●	●	0.08-0.18
DGLC 3102C-6D [1]	3.10	0.20	18.00	6.0	-	21.00							●	●		0.08-0.18
DGR 3102C-15D	3.10	0.20	18.00	-	15.0	20.90	●	●	●	●		●		●		0.08-0.14
DGR 3102C-6D	3.10	0.20	18.00	-	6.0	21.00	●	●	●	●	●	●	●	●	●	0.08-0.18
DGR 3102C-8D	3.10	0.20	18.00	-	8.0	21.10	●	●	●	●						0.05-0.15
DGRC 3102C-6D [1]	3.10	0.20	18.00	-	6.0	20.90							●	●		0.08-0.18
DGL 4003C-4D	4.00	0.30	- [3]	4.0	-	18.90	●		●	●	●	●		●	●	0.08-0.20
DGLC 4003C-4D [1]	4.00	0.30	- [3]	4.0	-	19.00							●			0.08-0.20
DGR 4003C-4D	4.00	0.30	- [3]	-	4.0	18.80	●	●		●	●	●		●	●	0.08-0.20
DGRC 4003C-4D [1]	4.00	0.30	- [3]	-	4.0	19.00							●	●		0.08-0.20
DGR 4800CS-4D	4.80	0.02	- [3]	-	4.0	19.70	●									0.05-0.15
DGR 4800CS-8D	4.80	0.02	- [3]	-	8.0	19.70	●									0.05-0.15
DGR 4803C-4D	4.80	0.30	- [3]	-	4.0	20.30	●									0.10-0.25
DGR 4803C-8D	4.80	0.30	- [3]	-	8.0	20.30	●									0.10-0.20
DGL 5003C-4D	5.00	0.30	- [3]	4.0	-	19.10	●				●				●	0.10-0.25
DGR 5003C-4D	5.00	0.30	- [3]	-	4.0	19.20	●				●				●	0.10-0.25
DGL 6303C-4D	6.35	0.35	- [3]	4.0	-	19.10	●				●				●	0.12-0.30
DGR 6303C-4D	6.35	0.35	- [3]	-	4.0	19.10	●				●				●	0.12-0.30

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 538-547

[1] Inserts with coolant holes, recommended coolant pressure 10 bar minimum

[2] Cutting depth maximum

[3] No depth limit

For tools, see pages: C#-HELIR/L (265) • D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • DGTR/L-BC-T (476) • HELIR/L (266) • NQCH-DGTR/L-D-SH-JHP (472)

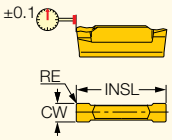
DO-GRIP TWISTED 2-SIDED

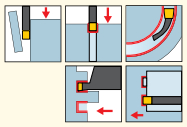
DGN-W

Double-Sided Inserts with Central Ridged Chipformer for Parting and Grooving Hard Materials and Interrupted Cuts









Designation	Dimensions CW	RE	CWTOL[1]	RETOL[2]	INSL	Tough ↔ Hard IC328	IC1030	IC354	Recommended Machining Data f groove (mm/rev)
DGN 5003W	5.00	0.30	0.04	0.030	19.00	●	●	●	0.12-0.33

• No depth limit • For cutting speed recommendations and user guide, see pages 538-547

[1] Cutting width tolerance (+/-)

[2] Corner radius tolerance (+/-)

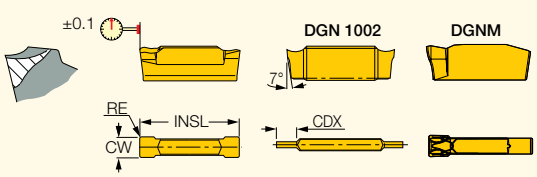
For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGTR/L (476) • HELIR/L (266) • HFAER/L-5T, 6T (566) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-5T (560) • HFIR/L-MC (574) • HFPAD-5 (563) • HFPAD-JHP (562) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574) • NQCH-DGTR/L-D-SH-JHP (472)

DO-GRIP TWISTED 2-SIDED

DGN/DGNM-J/JS/JT

Double-Sided Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts





Designation	Dimensions CW	CWTOL[3]	RE	RETOL[4]	CDX[5]	INSL	Tough ↔ Hard IC328	IC830	IC928	IC1030	IC1028	IC354	IC5400	IC1010	IC308	IC808	IC908	IC20	IC807	IC907	Recommended Machining Data f groove (mm/rev)
DGN 1002J	1.00	0.02	0.16	0.020	3.00	21.00	●			●	●			●			●				0.02-0.07
DGN 1402J	1.40	0.03	0.16	0.020	15.00	15.80	●	●		●	●	●		●	●	●	●				0.03-0.12
DGN 1502J	1.50	0.03	0.16	0.020	18.00	20.90	●			●	●			●			●				0.03-0.12
DGN 2002JT	2.00	0.03	0.20	0.020	18.00	19.80										●					0.04-0.14
DGN 2200JS [1]	2.20	0.03	0.02	0.020	18.00	19.00	●	●		●				●							0.03-0.08
DGN 2202J	2.20	0.03	0.20	0.020	18.00	19.80	●	●		●	●	●	●	●	●	●	●	●	●		0.04-0.12
DGN 2202JT	2.20	0.03	0.20	0.020	18.00	19.80		●					●			●					0.04-0.14
DGN 3100JS [1]	3.10	0.04	0.02	0.020	18.00	19.70	●			●				●	●						0.03-0.10
DGN 3102J	3.10	0.04	0.20	0.020	18.00	20.10	●	●		●	●	●	●	●	●	●	●	●		●	0.04-0.16
DGN 3102JT	3.10	0.04	0.20	0.020	18.00	20.10		●					●			●				●	0.05-0.18
DGN 3202J	3.18	0.04	0.20	0.020	18.00	20.10											●				0.04-0.16
DGNM 3202J [2]	3.18	0.04	0.20	0.020	- [6]	20.30	●			●		●		●			●				0.04-0.16
DGN 4003J	4.00	0.04	0.30	0.030	- [6]	18.90	●	●		●	●	●		●	●	●	●	●	●		0.05-0.18
DGN 4003JT	4.00	0.04	0.30	0.030	- [6]	18.90		●													0.05-0.18
DGN 4803J	4.80	0.04	0.30	0.030	- [6]	20.40	●														0.05-0.20
DGN 5003J	5.00	0.04	0.30	0.030	- [6]	19.00	●	●		●	●	●		●		●	●	●			0.05-0.20
DGN 5003JT	5.00	0.04	0.30	0.030	- [6]	19.00			●								●				0.05-0.20
DGN 6303J	6.35	0.04	0.35	0.030	- [6]	19.10	●	●		●	●	●		●		●	●	●			0.05-0.25
DGN 6303JT	6.35	0.04	0.35	0.030	- [6]	19.10			●								●				0.05-0.25

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative frontal edge; most suitable for soft materials at low to medium feeds
- For cutting speed recommendations and user guide, see pages 538-547

[1] Sharp corners
[2] Single-ended insert
[3] Cutting width tolerance (+/-)
[4] Corner radius tolerance (+/-)
[5] Cutting depth maximum
[6] No depth limit

For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B-D-TR (477) • DGTR/L-B-T-SH (476) • DGTR/L-B/BC-D (475) • DGTR/L-BC-T (476) • HELIR/L (266) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFHR/L-6T (561) • HFIR/L-MC (574) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574) • NQCH-DGTR/L-D-SH-JHP (472)

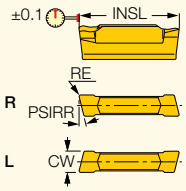
DO-GRIP TWISTED 2-SIDED

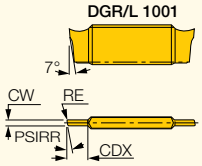
DGR/L-J/JS

Double-Sided Inserts for Parting Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts











Designation	Dimensions CW	RE	CDX(2)	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGL 1001J-8D	1.00	0.07	3.00	21.00	-	8.0							●		●		0.02-0.06
DGR 1001J-8D	1.00	0.07	3.00	21.00	8.0	-	●			●		●	●		●		0.02-0.06
DGL 1400JS-15D (1)	1.40	0.02	14.00	15.40	-	15.0	●		●								0.03-0.07
DGR 1400JS-15D (1)	1.40	0.02	14.00	15.40	15.0	-	●	●	●	●		●	●		●		0.03-0.07
DGL 1402J-8D	1.40	0.16	14.00	15.80	-	8.0	●			●							0.03-0.08
DGR 1402J-8D	1.40	0.16	14.00	15.80	8.0	-	●	●	●	●			●		●		0.03-0.08
DGR 1500J-8D	1.50	0.05	18.00	20.90	8.0	-	●	●	●	●		●	●				0.03-0.08
DGL 2200JS-15D (1)	2.20	0.02	18.00	20.60	-	15.0	●		●	●	●		●		●		0.03-0.07
DGL 2200JS-6D (1)	2.20	0.02	18.00	20.60	-	6.0	●			●			●		●		0.03-0.08
DGR 2200JS-15D (1)	2.20	0.02	18.00	20.60	15.0	-	●		●	●	●	●	●		●	●	0.03-0.07
DGR 2200JS-6D (1)	2.20	0.02	18.00	20.60	6.0	-	●	●	●	●	●	●	●		●		0.03-0.08
DGL 2202J-6D	2.20	0.20	18.00	21.00	-	6.0	●		●	●	●	●			●	●	0.03-0.10
DGR 2202J-15D	2.20	0.20	18.00	21.00	15.0	-	●	●	●	●							0.03-0.08
DGR 2202J-6D	2.20	0.20	18.00	21.00	6.0	-	●	●	●	●	●	●			●	●	0.03-0.10
DGL 3100JS-15D (1)	3.10	0.02	18.00	20.60	-	15.0	●			●	●		●		●		0.03-0.07
DGL 3100JS-6D (1)	3.10	0.02	18.00	20.60	-	6.0	●			●			●		●		0.03-0.08
DGR 3100JS-15D (1)	3.10	0.02	18.00	20.60	15.0	-	●	●	●	●	●	●	●		●		0.03-0.07
DGR 3100JS-6D (1)	3.10	0.02	18.00	20.60	6.0	-	●	●	●	●	●	●	●		●		0.03-0.08
DGL 3102J-15D	3.10	0.20	18.00	21.00	-	15.0	●		●	●							0.04-0.10
DGL 3102J-6D	3.10	0.20	18.00	21.00	-	6.0	●	●	●	●	●	●			●	●	0.04-0.14
DGR 3102J-15D	3.10	0.20	18.00	21.00	15.0	-	●		●	●	●	●			●		0.04-0.10
DGR 3102J-6D	3.10	0.20	18.00	21.00	6.0	-	●	●	●	●	●	●		●	●	●	0.04-0.14
DGR 4000JS-15D (1)	4.00	0.00	- (3)	19.30	15.0	-	●		●								0.04-0.10
DGL 4003J-4D	4.00	0.30	- (3)	18.90	-	4.0	●		●	●	●	●			●	●	0.04-0.15
DGR 4003J-4D	4.00	0.30	- (3)	18.90	-	4.0	●	●		●	●	●		●	●	●	0.04-0.15
DGR 4800JS-4D (1)	4.80	0.03	- (3)	19.80	-	4.0	●										0.04-0.12
DGR 4800JS-8D (1)	4.80	0.03	- (3)	19.80	-	8.0	●										0.04-0.14
DGR 4803J-4D	4.80	0.30	- (3)	19.80	-	4.0	●										0.04-0.18
DGR 4803J-8D	4.80	0.30	- (3)	19.80	-	8.0	●										0.04-0.15
DGL 5003J-4D	5.00	0.30	- (3)	19.80	-	4.0	●				●						0.05-0.20
DGR 5003J-4D	5.00	0.30	- (3)	19.80	-	4.0	●			●	●					●	0.05-0.20
DGL 6303J-4D	6.35	0.35	- (3)	19.10	-	4.0	●				●						0.05-0.25
DGR 6303J-4D	6.35	0.35	- (3)	19.10	-	4.0	●										0.05-0.25

• For cutting speed recommendations and user guide, see pages 538-547

(1) Sharp corners

(2) Cutting depth maximum

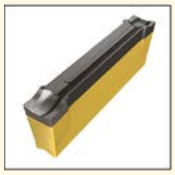
(3) No depth limit.

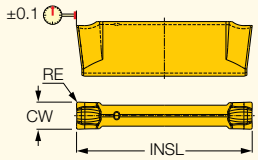
For tools, see pages: C#-HELIR/L (265) • D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B-D-TR (477) • DGTR/L-B-T-SH (476) • DGTR/L-B/BC-D (475) • DGTR/L-BC-T (476) • HELIR/L (266) • NQCH-DGTR/L-D-SH-JHP (472)

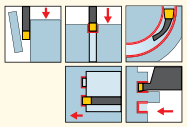
DO-GRIP TWISTED 2-SIDED

DGN-LF/LFT

Double-Sided Inserts for Parting and Grooving Stainless Steel







Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC830	IC928	IC1030	IC5400	IC1010	IC808	IC908	Recommended Machining Data f groove (mm/rev)
DGN 2002LF	2.00	0.03	0.20	0.020	18.00	19.80	●			●	●	●		0.03-0.08
DGN 2202LF	2.20	0.03	0.20	0.020	18.00	19.80		●	●	●	●		●	0.03-0.08
DGN 2502LF	2.50	0.03	0.20	0.020	18.00	19.80			●		●			0.03-0.08
DGN 3102LF	3.10	0.04	0.20	0.020	18.00	20.10	●	●	●	●	●	●	●	0.04-0.10
DGN 3102LFT	3.10	0.04	0.20	0.020	18.00	21.10		●					●	0.04-0.12

- The LFT chipformer features basically the same design as the LF chipformer, except that it is reinforced by a T-land to improve its durability in interrupted-cut or on hard materials applications. It can be applied at higher feeds than the LF chipformer
- For cutting speed recommendations and user guide, see pages 538-547

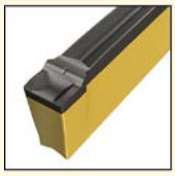
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

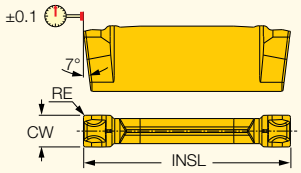
For tools, see pages: DGAD-B-D (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • NQCH-DGTR/L-D-SH-JHP (472)

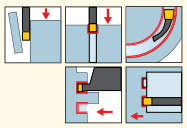
DO-GRIP TWISTED 2-SIDED

DGN-MF

Double-Sided Inserts for Parting and Grooving Soft and Hard Materials at Medium Feeds







Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	INSL	Tough ↔ Hard IC830	IC1030	IC5400	IC1010	IC808	Recommended Machining Data f groove (mm/rev)
DGN 2002MF	2.00	0.20	0.04	18.00	19.90	●	●	●	●	●	0.04-0.12
DGN 2202MF	2.20	0.20	0.04	18.00	19.90		●		●		0.04-0.12
DGN 3002MF	3.00	0.20	0.04	18.00	20.10			●			0.06-0.18
DGN 3102MF	3.10	0.20	0.04	18.00	20.10	●	●	●	●	●	0.06-0.18
DGN 4003MF	4.00	0.30	0.04	- (3)	18.80	●				●	0.08-0.20

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)
(2) Cutting depth maximum
(3) No depth limit

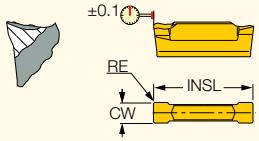
For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • HELIR/L (266) • HFAER/L-4 (565) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFIR/L-MC (574) • HFPAD-4 (563) • HFPAD-JHP (562) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574) • NQCH-DGTR/L-D-SH-JHP (472)

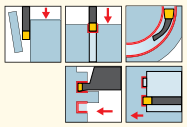
DO-GRIP TWISTED 2-SIDED

DGN-Z

Double-Sided Inserts for Parting Tubes, Thin-Walled and Small Parts







Designation	Dimensions CW	CDX[1]	CWTOL[2]	RE	RETOL[3]	INSL	Tough ↔ Hard IC1030	IC1010	IC808	IC908	Recommended Machining Data f groove (mm/rev)
DGN 2002Z	2.00	18.00	0.03	0.20	0.020	20.90	●	●	●	●	0.03-0.12
DGN 3002Z	3.00	18.00	0.03	0.20	0.020	20.90			●	●	0.03-0.16

- For cutting speed recommendations and user guide, see pages 538-547

[1] Cutting depth maximum

[2] Cutting width tolerance (+/-)

[3] Corner radius tolerance (+/-)

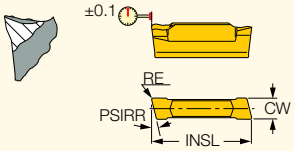
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • NQCH-DGTR/L-D-SH-JHP (472)

DO-GRIP TWISTED 2-SIDED

DGR-Z/ZS

Double-Sided Inserts with Very Positive Rake for Parting Tubes and Thin-Walled and Small Parts







Designation	Dimensions CW	RE	INSL	CDX[2]	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
DGR 2000ZS-15D [1]	2.00	0.02	20.40	18.00	15.0	●	0.03-0.07
DGR 2000ZS-6D [1]	2.00	0.02	20.40	18.00	6.0	●	0.03-0.08
DGR 2002Z-15D	2.00	0.20	20.90	18.00	15.0	●	0.03-0.10
DGR 2002Z-6D	2.00	0.20	20.90	18.00	6.0	●	0.03-0.10
DGR 3000ZS-15D [1]	3.00	0.02	20.40	18.00	15.0	●	0.03-0.10
DGR 3000ZS-6D [1]	3.00	0.02	20.40	18.00	6.0	●	0.03-0.12
DGR 3002Z-6D	3.00	0.20	20.90	18.00	6.0	●	0.03-0.14

- For cutting speed recommendations and user guide, see pages 538-547

[1] Sharp corners

[2] Cutting depth maximum

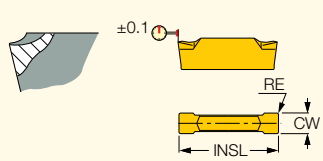
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • NQCH-DGTR/L-D-SH-JHP (472)

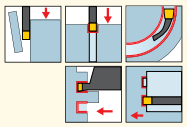
DO-GRIP TWISTED 2-SIDED

DGN-UT/UA

Double-Sided Inserts for Parting and Grooving Cr-Ni Alloys, Low Carbon Steel and Ductile Materials at Low Feeds







Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC328	IC1030	IC1028	IC354	IC350	IC1010	IC308	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGN 2202UA	2.20	0.03	0.20	0.020	18.00	19.90	●		●	●						0.04-0.13
DGN 2202UT	2.20	0.03	0.20	0.020	18.00	19.60					●			●		0.03-0.11
DGN 3003UA	3.00	0.03	0.25	0.020	18.00	20.50	●	●	●	●		●	●		●	0.04-0.15
DGN 3003UT	3.00	0.03	0.25	0.020	18.00	20.50							●	●		0.04-0.13
DGN 4003UA	4.00	0.04	0.30	0.020	- (4)	19.40	●			●						0.05-0.16
DGN 4003UT	4.00	0.04	0.30	0.020	- (4)	19.30	●			●				●		0.04-0.15
DGN 5003UT	5.00	0.04	0.30	0.020	- (4)	19.00	●		●				●	●		0.05-0.18
DGN 6008UT	6.00	0.04	0.80	0.050	- (4)	19.10	●			●			●	●		0.06-0.20

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum
(4) No depth limit

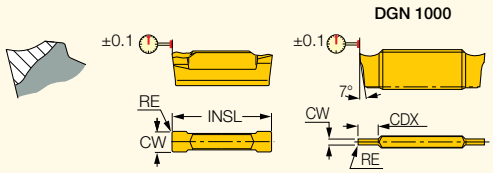
For tools, see pages: C#-HELIR/L (265) • D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • DGTR/L-BC-T (476) • HELIR/L (266) • HGPAD (267) • HGPAD-JHP (267) • NQCH-DGTR/L-D-SH-JHP (472)

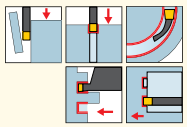
DO-GRIP TWISTED 2-SIDED

DGN-P

Double-Sided Inserts for Parting and Grooving Soft Materials, Thin and Miniature Parts







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	CDX(3)	IC508	Recommended Machining Data f groove (mm/rev)
DGN 1000P	1.00	0.05	0.02	0.020	20.00	3.00	●	0.02-0.05
DGN 1500P	1.50	0.05	0.02	0.020	20.00	18.00	●	0.02-0.07
DGN 2000P	2.00	0.05	0.02	0.020	20.00	18.00	●	0.02-0.08
DGN 3000P	3.00	0.05	0.02	0.020	20.00	18.00	●	0.02-0.10

- For cutting speed recommendations and user guide, see pages 538-547

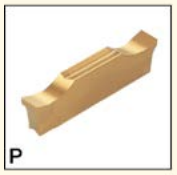
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

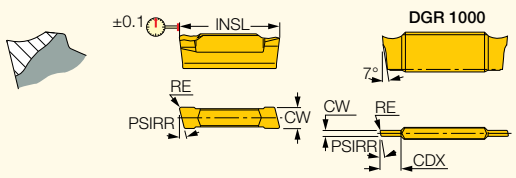
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFHR/L-BC-JHP (469) • DGFS (469) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B-D-TR (477) • DGTR/L-B-T-SH (476) • DGTR/L-B/BC-D (475) • NQCH-DGTR/L-D-SH-JHP (472)

DO-GRIP TWISTED 2-SIDED

DGR-P

Double-Sided Inserts for Parting Soft Materials, Thin and Miniature Parts





Designation	Dimensions CW	RE	INSL	CDX(1)	PSIRR	IC508	Recommended Machining Data f groove (mm/rev)
DGR 1000P-15D	1.00	0.05	20.60	2.90	15.0	●	0.02-0.03
DGR 1000P-6D	1.00	0.05	20.60	2.90	6.0	●	0.02-0.04
DGR 1500P-15D	1.50	0.05	20.60	18.00	15.0	●	0.02-0.04
DGR 1500P-6D	1.50	0.05	20.60	18.00	6.0	●	0.02-0.05
DGR 2000P-15D	2.00	0.05	20.60	18.00	15.0	●	0.02-0.05
DGR 2000P-6D	2.00	0.05	20.60	18.00	6.0	●	0.02-0.07

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting depth maximum

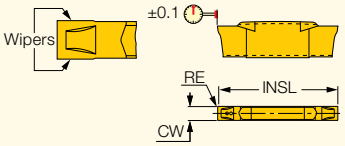
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFS (469) • DGPAD-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B-D-TR (477) • DGTR/L-B-T-SH (476) • DGTR/L-B/BC-D (475) • NQCH-DGTR/L-D-SH-JHP (472)

DO-GRIP TWISTED 2-SIDED

DGN-WP

Double-Sided Parting and Grooving Inserts with a Wiper Design for High Flatness and Surface Finish





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (mm/rev)
DGN 1900WP	1.90	0.05	0.02	0.020	6.00	19.70	●	●	0.04-0.12
DGN 2400WP	2.39	0.05	0.02	0.020	6.00	20.40	●	●	0.05-0.14

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

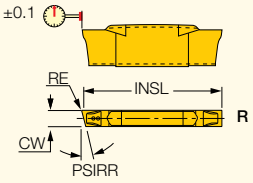
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHL-26B-TR-D (470) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFS (469) • DGPAD-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • NQCH-DGTR/L-D-SH-JHP (472)

DO-GRIP TWISTED 2-SIDED

DGR-WP

Double-Sided Parting Inserts with a Wiper Design for High Flatness and Surface Finish





Designation	Dimensions CW	RE	CDX(1)	INSL	PSIRR	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (mm/rev)
DGR 1900WP-12D	1.90	0.05	6.00	19.70	12.0	●	●	0.04-0.10
DGR 1900WP-5D	1.90	0.05	6.00	19.70	5.0	●		0.04-0.10
DGR 2400WP-12D	2.39	0.05	6.00	20.40	12.0	●	●	0.04-0.10
DGR 2400WP-5D	2.39	0.05	6.00	20.40	5.0	●		0.04-0.12

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting depth maximum

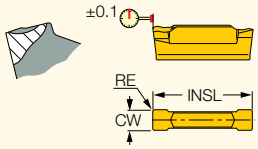
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD-B-D (479) • DGAD/HGAD (479) • DGAQ (515) • DGAQ-JHP (515) • DGFH (268) • DGFH-JHP (269) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • DGFS (469) • DGPAD-JHP (480) • DGTR/L (476) • DGTR/L-B-D-JHP-SL (473) • DGTR/L-B-D-JHP-SL-MC (474) • DGTR/L-B-D-SH (471) • DGTR/L-B/BC-D (475) • NQCH-DGTR/L-D-SH-JHP (472)

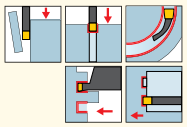
DO-GRIP TWISTED 2-SIDED

HGN-C

Parting and Grooving Inserts for Parting Bars, Hard Materials and Tough Applications







Designation	Dimensions CW	RE	CWTOL(1)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	IC908	Recommended Machining Data f groove (mm/rev)
HGN 3003C	3.00	0.30	0.05	15.80	●	●	●	●	●	0.08-0.20

• No depth limit • For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

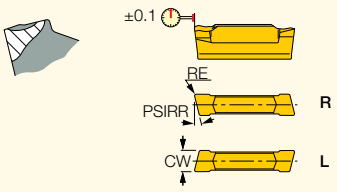
For tools, see pages: C#-HELIR/L (265) • D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • HELIR/L (266) • HFPAD-3 (562) • HFPAD-JHP (562) • HGAIR/L-3 (568) • HGFH (268) • HGHR/L-3 (558) • HGPAD (267) • HGPAD-JHP (267)

DO-GRIP TWISTED 2-SIDED

HGR/L-C

Inserts for Parting Bars, Hard Materials and Tough Applications







Designation	Dimensions CW	RE	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	Recommended Machining Data f groove (mm/rev)
HGL 3003C-6D	3.00	0.30	15.60	6.0	-	●		0.06-0.16
HGR 3003C-6D	3.00	0.30	15.60	-	6.0	●	●	0.06-0.16

• No depth limit • For cutting speed recommendations and user guide, see pages 538-547

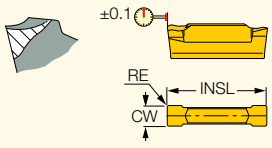
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • HELIR/L (266) • HGFH (268)

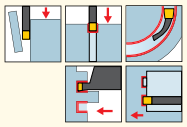
DO-GRIP TWISTED 2-SIDED

HGN-J

Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	Recommended Machining Data f groove (mm/rev)
HGN 3002J	3.00	0.20	0.05	0.030	16.10	●	●	●	●	0.04-0.15

• No depth limit • For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

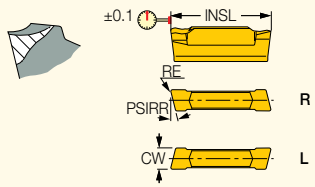
For tools, see pages: C#-HELIR/L (265) • D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • HELIR/L (266) • HFPAD-3 (562) • HFPAD-JHP (562) • HGAIR/L-3 (568) • HGFH (268) • HGHR/L-3 (558) • HGPAD (267) • HGPAD-JHP (267)

DO-GRIP TWISTED 2-SIDED

HGR/L-J/JS

Double-Sided Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts







Designation	Dimensions CW	RE	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC354	Recommended Machining Data f groove (mm/rev)
HGL 3000JS-15D (1)	3.00	0.02	15.0	-	15.20	●			0.03-0.07
HGR 3000JS-15D (1)	3.00	0.02	-	15.0	15.20	●			0.03-0.07
HGL 3002J-6D	3.00	0.20	6.0	-	15.70	●			0.04-0.12
HGR 3002J-6D	3.00	0.20	-	6.0	15.70	●	●	●	0.04-0.12

• No depth limit • For cutting speed recommendations and user guide, see pages 538-547

(1) Sharp corners

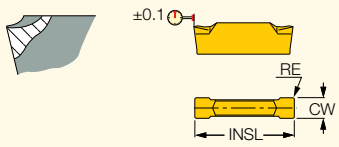
For tools, see pages: D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • HELIR/L (266) • HGFH (268)

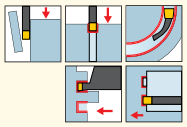
DO-GRIP TWISTED 2-SIDED

HGN-UT

Double-Sided Inserts for Parting and Grooving Low Feeds on Cr-Ni Alloys and Low Carbon Steel







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC354	Recommended Machining Data f groove (mm/rev)
HGN 3003UT	3.00	0.30	0.05	0.030	15.80	●	●	0.04-0.13

• No depth limit • For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

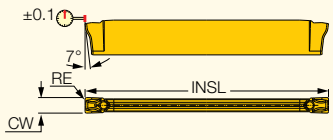
For tools, see pages: C#-HELIR/L (265) • D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • HELIR/L (266) • HFPAD-3 (562) • HFPAD-JHP (562) • HGAIR/L-3 (568) • HGFH (268) • HGHR/L-3 (558) • HGPAD (267) • HGPAD-JHP (267)

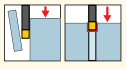
DO-GRIPXL

DGN-C-XL

Extra Long Parting and Grooving Inserts for Parting Bars Up to 65 mm Diameters, Hard Materials and Tough Applications







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC830	IC5400	IC808	Recommended Machining Data f groove (mm/rev)
DGN 2002C-XL	2.05	0.20	0.04	0.030	30.00	32.00	●	●	●	0.05-0.16
DGN 3002C-XL	3.00	0.20	0.04	0.030	32.50	35.00	●		●	0.07-0.20

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

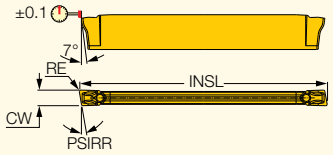
For tools, see pages: DGTR/L-XL (477)

DO-GRIPXL

DGR/L-C-XL

Extra Long Double-Sided Inserts for Parting Bars, Hard Materials and Tough Applications







Right-hand shown

Designation	Dimensions CW	RE	CDX(1)	PSIRL	PSIRR	INSL	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
DGL 2002C-6D-XL	2.00	0.20	30.00	6.0	-	32.00	●	●	0.05-0.12
DGR 2002C-6D-XL	2.00	0.20	30.00	-	6.0	32.00	●	●	0.05-0.12
DGL 3002C-6D-XL	3.00	0.20	32.50	6.0	-	35.00	●	●	0.08-0.18
DGR 3002C-6D-XL	3.00	0.20	32.50	-	6.0	35.00	●	●	0.08-0.18

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting depth maximum

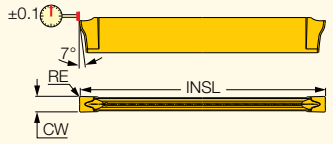
For tools, see pages: DGTR/L-XL (477)

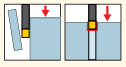
DO-GRIPXL

DGN-J-XL

Extra Long Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC830	IC5400	IC808	Recommended Machining Data f groove (mm/rev)
DGN 2002J-XL	2.05	0.20	0.04	0.030	30.00	32.00	●	●	●	0.04-0.14
DGN 3002J-XL	3.00	0.20	0.04	0.030	32.50	35.00	●		●	0.04-0.16

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

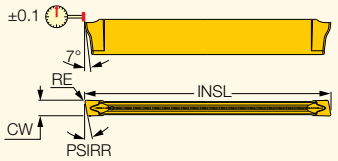
For tools, see pages: DGTR/L-XL (477)

DO-GRIPXL

DGR/L-J-XL

Extra Long Double-Sided Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts







Right-hand shown

Designation	Dimensions CW	RE	CDX(1)	PSIRL	PSIRR	INSL	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
DGL 2002J-6D-XL	2.00	0.20	30.00	6.0	-	32.00	●	●	0.04-0.10
DGR 2002J-6D-XL	2.00	0.20	30.00	-	6.0	32.00	●	●	0.04-0.10
DGL 3002J-6D-XL	3.00	0.20	32.50	6.0	-	35.00	●	●	0.04-0.14
DGR 3002J-6D-XL	3.00	0.20	32.50	-	6.0	35.00	●	●	0.04-0.14

- For cutting speed recommendations and user guide, see pages 538-547

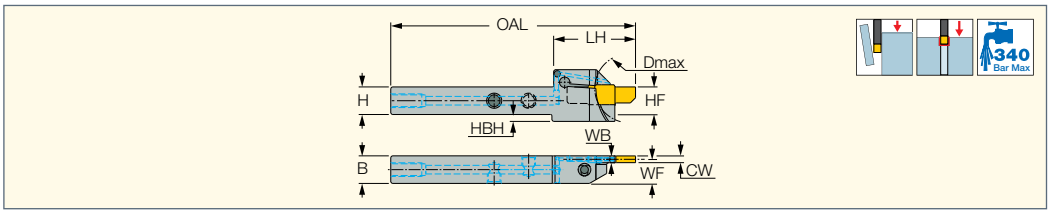
(1) Cutting depth maximum

For tools, see pages: DGTR/L-XL (477)

ISCARPARTING
JETCUT

BGTR/L-B-JHP

Integral Shank Parting and Grooving Tools with Coolant Channels Carrying Narrow Inserts for Parting up to 20 mm Bars



Designation	CWN[1]	CWX[2]	H	HF	B	WB	OAL	LH	D max[3]	WF	HBH
BGTR/L 16B-D20-JHP	0.80	1.50	16.0	16.0	16.0	4.00	142.00	47.5	40.0 [4]	14.00	4.0
BGTR/L 20B-D20-JHP	0.80	1.50	20.0	20.0	20.0	4.00	142.00	47.5	40.0 [4]	18.00	-
BGTR/L 25B-D20-JHP	0.80	1.50	25.0	25.0	25.0	4.00	142.00	47.5	40.0 [4]	23.00	-

- For user guide, see pages 538-547

[1] Minimum cutting width
[2] Maximum cutting width
[3] The specified limit refers to the tool
[4] for grooving

For inserts, see pages: BGM N-J (492) • BGM R/L-J (492)
For holders, see pages: AVC-D80-VH (98) • C#-ADE (732) • C#-ADES (732) • C#-ASHA (731) • C#-ASHR/L (731) • C#-ASHR/L-45 (732)
• DT30/2 ASH# 16/20-1-35080 (759) • HSK A-WH-ASHR/L-1 (736) • HSK A63WH-ASHN-45 (736) • HSK A63WH-ASHR/L-2 (736) • HSK A63WH-ASHR/L-3 (737)
• HSK A63WH-ASHR/L-45 (736)

Spare Parts

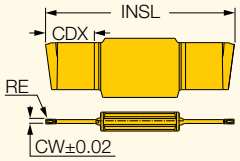
Designation				
BGTR/L 16B-D20-JHP	SR M5X16 DIN912		SR 5/16UNF TL360	HW 4.0
BGTR/L 20B-D20-JHP	SR M5X16 DIN912	HW 3.0	PLG G1/8 TL360	HW 5.0
BGTL 25B-D20-JHP	SR M5X16 DIN912	HW 3.0	PLG G1/8 TL360	HW 5.0
BGTR 25B-D20-JHP	SR M5X16 DIN912	HW 4.0	PLG G1/8 TL360	HW 5.0

ISCARPARTING

BGM N-J

Narrow Material Cost Saving Inserts for Grooving and Parting up to 20 mm Bar Diameters





Designation	Dimensions CW	CWTOL[1]	RE	RETOL[2]	CDX	INSL	IC1008	Recommended Machining Data f groove (mm/rev)
BGM N0801J	0.80	0.02	0.10	0.020	10.00	38.70	●	0.02-0.05
BGM N1001J	1.00	0.02	0.10	0.020	10.00	38.70	●	0.02-0.08
BGM N1201J	1.20	0.02	0.10	0.020	10.00	38.70	●	0.03-0.10
BGM N1501J	1.50	0.02	0.10	0.020	10.00	38.70	●	0.05-0.12

- For cutting speed recommendations and user guide, see pages 538-547

[1] Cutting width tolerance (+/-)
[2] Corner radius tolerance (+/-)

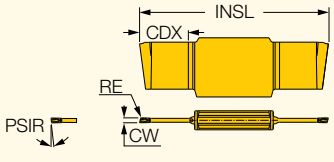
For tools, see pages: BGTR/L-B-JHP (492)

ISCARPARTING

BGM R/L-J

Narrow Material Cost Saving Inserts for Parting up to 20 mm Bar Diameters





Designation	Dimensions CW	RE	INSL	CDX	PSIR	IC1008	Recommended Machining Data f groove (mm/rev)
BGM R/L1001J-15D	1.00	0.10	38.70	10.00	15.0	●	0.02-0.06
BGM R/L1001J-6D	1.00	0.10	38.70	10.00	6.0	●	0.02-0.08

- For cutting speed recommendations and user guide, see pages 538-547

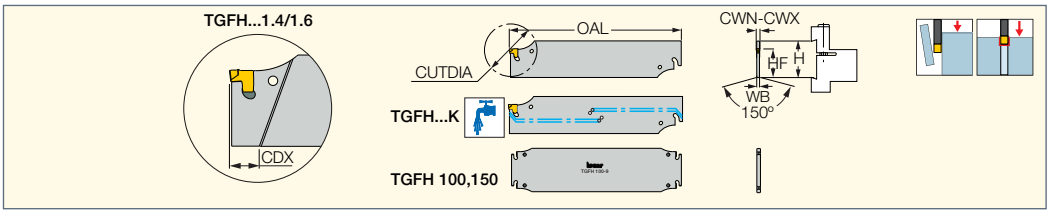
For tools, see pages: BGTR/L-B-JHP (492)

TANG-GRIP PARTING LINE

SUMO-GRIP HEAVY DUTY LINE

TGFH/R/L

Blades with a Tangentially Oriented Pocket Carrying TANG-GRIP Single-Ended Inserts for Parting and Grooving



Designation	H	CWN[2]	CWX[3]	WB	OAL	CDX	HF	CUTDIA	CSP[4]	Insert		
TGFH 19-1.4	19.0	1.40	1.40	1.05 [5]	86.00	9.60	15.7	30.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 19-1.6	19.0	1.60	1.60	1.30 [6]	86.00	11.00	15.7	32.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 19-2	19.0	1.80	2.40	1.65	86.00	-	15.7	38.0	0	TAG 2	ETG 2*	
TGFH 26-1.4	26.0	1.40	1.40	1.05 [5]	110.00	8.30	21.4	29.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 26-1.6	26.0	1.60	1.60	1.30 [6]	110.00	10.00	21.4	35.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 26-2	26.0	1.80	2.40	1.65	110.00	-	21.4	50.0	0	TAG 2	ETG 2*	
TGFH 26-3	26.0	2.80	3.50	2.50	110.00	-	21.4	75.0	0	TAG 3	ETG 3-4*	
TGFH 26K-3 [1]	26.0	2.80	3.50	2.50	110.00	-	21.4	75.0	1	TAG 3	ETG 3-4-SH*	SGC 340
TGFH 26-4	26.0	3.70	4.50	3.40	110.00	-	21.4	80.0	0	TAG 4	ETG 3-4*	
TGFH 26-5	26.0	4.70	5.50	4.00	150.00	-	21.4	80.0	0	TAG 5	ETG 5-7*	
TGFH 32-1.4	32.0	1.40	1.40	1.05 [5]	150.00	7.10	24.8	29.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 32-1.6	32.0	1.60	1.60	1.30 [5]	150.00	10.00	24.8	38.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 32-2	32.0	1.80	2.40	1.65 [5]	150.00	-	24.8	50.0	0	TAG 2	ETG 2*	
TGFH 32-3	32.0	2.80	3.50	2.50	150.00	-	24.8	100.0	0	TAG 3	ETG 3-4*	
TGFH 32K-3 [1]	32.0	2.80	3.50	2.50	150.00	-	24.8	100.0	1	TAG 3	ETG 3-4-SH*	SGC 340
TGFH 32-4	32.0	3.70	4.50	3.40	150.00	-	24.8	100.0	0	TAG 4	ETG 3-4*	
TGFH 32K-4 [1]	32.0	3.70	4.50	3.40	150.00	-	24.8	100.0	1	TAG 4	ETG 3-4-SH*	SGC 340
TGFH 32-5	32.0	4.70	5.50	4.00	150.00	-	24.8	120.0	0	TAG 5	ETG 5-7*	
TGFH 32-6	32.0	5.70	6.50	5.20	150.00	-	24.8	120.0	0	TAG 6	ETG 5-7*	
TGFH 32-7	32.0	6.80	7.50	6.00	148.00	-	24.8	120.0	0	TAG 7	ETG 5-7*	
TGFH 45-3	45.0	2.80	3.50	2.50	225.00	-	38.1	160.0	0	TAG 3	ETG 3-4*	
TGFH 45-4	45.0	3.70	4.50	3.40	225.00	-	38.1	160.0	0	TAG 4	ETG 3-4*	
TGFH 45-5	45.0	4.70	5.50	4.00	225.00	-	38.1	160.0	0	TAG 5	ETG 5-7*	
TGFH 45-6	45.0	5.70	6.50	5.20	225.00	-	38.1	160.0	0	TAG 6	ETG 5-7*	
TGFH 45-7	45.0	6.80	7.50	6.00	225.00	-	38.1	160.0	0	TAG 7	ETG 5-7*	
TGFH 52-7	52.6	6.80	7.50	6.00	190.00	-	45.2	190.0	0	TAG 7	ETG 5-7*	
TGFH 53-7	52.6	6.80	7.50	6.00	260.00	-	45.2	220.0	0	TAG 7	ETG 5-7*	
TGFH 52K-8 [1]	52.6	7.70	8.50	7.20	190.00	-	45.2	190.0	1	TAG 8	ETG 8-12*	
TGFH 53K-8 [1]	52.6	7.70	8.50	7.20	260.00	-	45.2	215.0	1	TAG 8	ETG 8-12*	
TGFH 52K-9 [1]	52.6	8.70	10.00	8.20	190.00	-	45.2	190.0	1	TAG 9	ETG 8-12*	
TGFH 53K-9 [1]	52.6	8.70	10.00	8.20	260.00	-	45.2	215.0	1	TAG 9	ETG 8-12*	
TGFHR/L 53K-12 [1]	52.6	11.70	12.70	10.00	260.00	-	45.2	215.0	1	TAG 12	ETG 8-12*	
TGFH 100-9	100.0	8.70	10.00	8.20	460.00	-	92.5	450.0	0	TAG 9	ETG 8-12*	
TGFH 100-12	100.0	11.70	12.70	10.00	460.00	-	92.5	450.0	0	TAG 12	ETG 8-12*	
TGFH 150-12	150.0	11.70	12.70	10.00	610.00	-	142.5	600.0	0	TAG 12	ETG 8-12*	

• For user guide, see pages 538-547

[1] With coolant holes, the recommended coolant pressure is 10 bar min.; cooling tube SGCU 341 should be ordered separately

[2] Minimum cutting width

[3] Maximum cutting width

[4] 0 - Without coolant supply, 1 - With coolant supply

[5] Thickness beyond the D.O.C. area is 2.50 mm

[6] Thickness beyond the D.O.C. area is 1.60 mm

* Optional, should be ordered separately

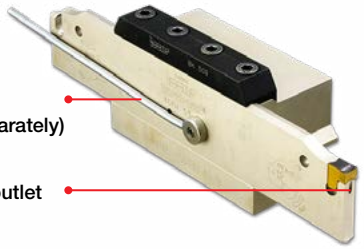
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509) • TAGB/TAGBA (333)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBK (617) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

K TYPE COOLANT

Coolant inlet SGCU-341
(should be ordered separately)

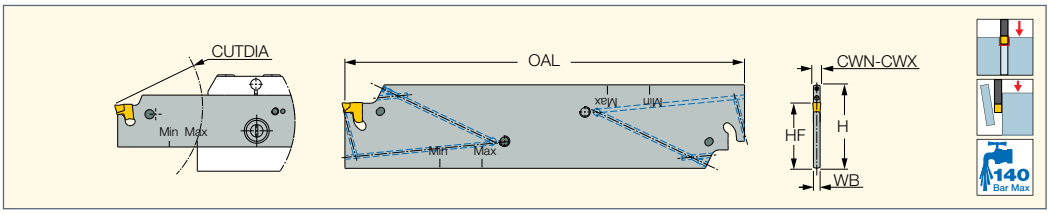
Coolant outlet



TANG-GRIP PARTING LINE JETCUT

TGFH-JHP

Parting and Grooving Blades with Channels for Low and High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	H	CWN(2)	CWX(3)	WB	OAL	HF	CUTDIA	Insert		
TGFH 26C-3-JHP	26.0	2.80	3.50	2.50	140.00	21.4	75.0	TAG 3	SGC 340	ETG 3-4-SH*
TGFH 32C-3-JHP	32.0	2.80	3.50	2.50	150.00	24.8	90.0	TAG 3	SGC 340	ETG 3-4-SH*
TGFH 26C-4-JHP	26.0	3.70	4.50	3.40	140.00	21.4	75.0	TAG 4	SGC 340	ETG 3-4-SH*
TGFH 32C-4-JHP	32.0	3.70	4.50	3.40	150.00	24.8	90.0	TAG 4	SGC 340	ETG 3-4-SH*
TGFH 32C-5-JHP	32.0	4.70	5.50	4.00	160.00	24.8	120.0	TAG 5	SGC 340	ETG 5-7*
TGFH 32C-6-JHP (1)	32.0	5.70	6.50	5.20	160.00	24.8	120.0	TAG 6	SGC 340	ETG 5-7*

- For user guide and accessories, see pages 538-547

(1) Only an upper channel
(2) Minimum cutting width
(3) Maximum cutting width
* Optional, should be ordered separately

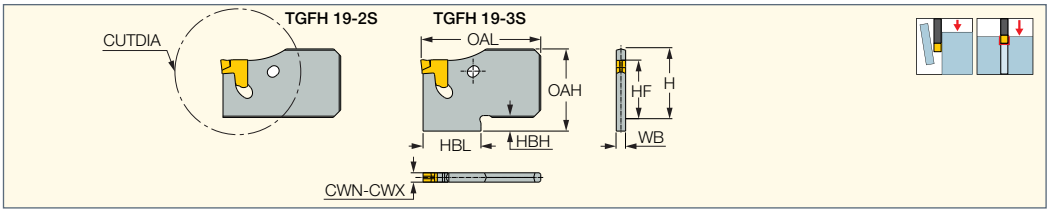
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509) • TAGB/TAGBA (333)

For holders, see pages: TGTBU-JHP (497)

TANG-GRIP PARTING LINE

TGFH-S

Parting and Grooving Single-Sided Blades Carrying TANG-GRIP Inserts



Designation	H	CWN(1)	CWX(2)	WB	OAL	HF	OAH	HBH	HBL	CDX(3)	CUTDIA	
TGFH 19-2S	19.0	1.80	2.40	1.65	32.00	15.7	19.0	-	-	12.00	36.0	ETG 2*
TGFH 19-3S	19.0	2.80	3.50	2.50	34.60	15.7	22.0	3.0	15.5	16.00	40.0	ETG 3-4-SH*

- For Dmax and Tmax drawing, see SGBHR/L holder

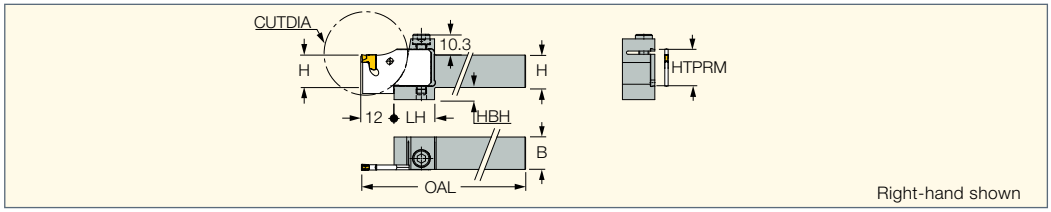
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

SELF-GRIP

SGBHR/L

Tool Blocks for SELF-GRIP Single-Sided Blades



Designation	H	B	HBH	OAL	HTPRM	LH	CDX(1)	CUTDIA
SGBHR/L 1010	10.0	10.0	10.0	154.00	19.0	20.0	16.00	40.0
SGBHR 1212	12.0	12.0	8.0	154.00	19.0	20.0	16.00	40.0
SGBHR 1414	14.0	14.0	6.0	154.00	19.0	20.0	16.00	40.0
SGBHR/L 1616	16.0	16.0	6.0	154.00	19.0	20.0	16.00	40.0
SGBHR/L 2020	20.0	20.0	2.0	154.00	19.0	20.0	16.00	40.0
SGBHR/L 2525	25.0	25.0	-	154.00	19.0	20.0	16.00	40.0

- For Dmax and Tmax dimensions, see TGFH-S adapters

(1) Cutting depth maximum

For tools, see pages: TGFH-S (494)

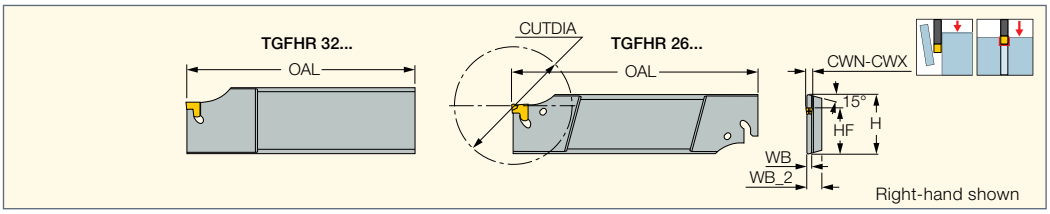
Spare Parts

Designation			
SGBHL 1010	SET ESG 1	SR M5X25DIN912	HW 4.0
SGBHR 1010		SR M5X25DIN912	HW 4.0
SGBHR 1212		SR M5X25DIN912	HW 4.0
SGBHR 1414	SET ESG 1	SR M5X25DIN912	HW 4.0
SGBHR/L 1616		SR M5X25DIN912	HW 4.0
SGBHL 2020		SR M5X25DIN912	HW 4.0
SGBHR 2020	SET ESG 1	SR M5X25DIN912	HW 4.0
SGBHR/L 2525		SR M5X25DIN912	HW 4.0

TANG-GRIP PARTING LINE

TGFHR/L

Single- and Double-Ended Parting and Grooving Reinforced Blades Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	H	CWN(1)	CWX(2)	WB	WB_2	OAL	HF	CUTDIA	
TGFHL 26T16-2	26.0	1.80	2.40	1.65	7.9	110.50	21.4	43.0	ETG 2*
TGFHR 26T16-3	26.0	2.80	3.50	2.50	7.9	110.50	21.4	43.0	ETG 3-4-SH*
TGFHR/L 26T23-2	26.0	1.80	2.40	1.65	7.9	110.50	21.4	46.0	ETG 2*
TGFHR/L 26T23-3	26.0	2.80	3.50	2.50	7.9	110.50	21.4	46.0	ETG 3-4-SH*
TGFHR/L 32T22-2	32.0	1.80	2.40	1.65	7.9	110.50	24.8	42.0	ETG 2*
TGFHR/L 32T22-3	32.0	2.80	3.50	2.50	7.9	110.50	24.8	42.0	ETG 3-4-SH*
TGFHR/L 32T33-3	32.0	2.80	3.50	2.50	7.9	110.50	24.8	66.0	ETG 3-4-SH*
TGFHR/L 32T33-4	32.0	3.70	4.50	3.40	7.9	110.50	24.8	66.0	ETG 3-4-SH*

- For user guide, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

* Optional, should be ordered separately

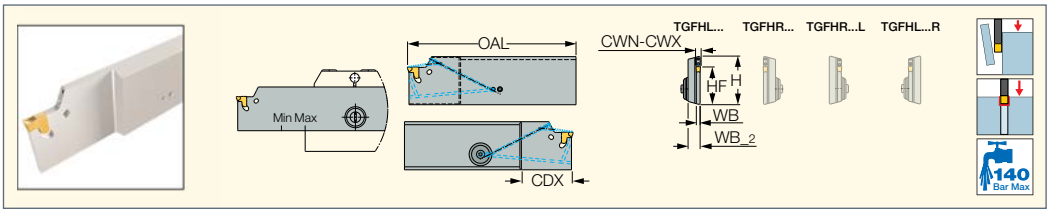
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBK (617) • SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

TANG-GRIP PARTING LINE JETCUT

TGFHR/L-JHP

Parting and Grooving Reinforced Blades with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	WB_2	WB	OAL	H	HF	CDX(3)	Insert		
TGFHR/L 32C-3T33-JHP	2.80	3.50	7.9	2.50	110.50	32.0	24.8	33.00	TAG 3	ETG 3-4-SH*	SGC 340
TGFHL 32C-3T33R-JHP	2.80	3.50	7.9	2.50	110.50	32.0	24.8	33.00	TAG 3	ETG 3-4-SH*	SGC 340
TGFHR 32C-3T33L-JHP	2.80	3.50	7.9	2.50	110.50	32.0	24.8	33.00	TAG 3	ETG 3-4-SH*	SGC 340

- For user guide and accessories, see pages 538-547

(1) Minimum cutting width

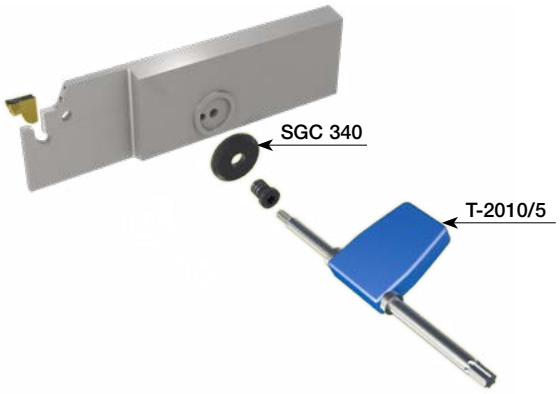
(2) Maximum cutting width

(3) Cutting depth maximum

* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

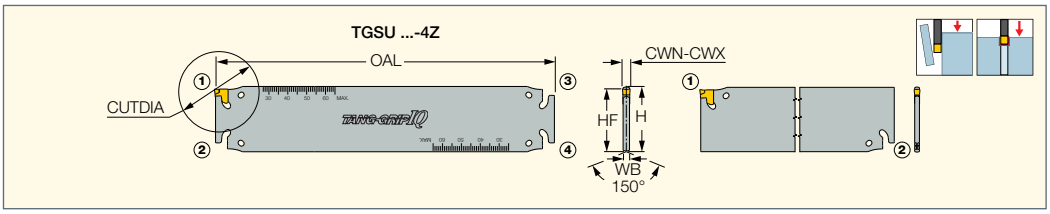
For holders, see pages: TGTBU-JHP (497)



TANG-GRIP IQ 350 LINE

TGSU

Parting and Grooving Flat Top Blades with Tangential Pockets Carrying TANG-GRIP Single-Ended Inserts



Designation	H	CWN[2]	CWX[3]	CUTDIA	NOP[4]	WB	OAL	HF	CSP[5]	Insert	
TGSU 35-1.4-IQ	35.0	1.40	1.40	35.0	2	2.50 [6]	180.00	33.2	0	TAG 1.4	ETG 1.4/1.6*
TGSU 35-2-IQ	35.0	1.80	2.40	59.5	2	2.50 [7]	160.00	33.2	0	TAG 2	ETG 2*
TGSU 35-3-IQ-4Z	35.0	2.80	3.50	120.0	4	2.50	180.00	33.2	0	TAG 3	ETG 3-4-SH*
TGSU 35-4-IQ-4Z	35.0	3.70	4.50	120.0	4	3.40	180.00	33.2	0	TAG 4	ETG 3-4-SH*
TGSU 35-5-IQ	35.0	4.70	5.50	144.0	2	4.00	180.00	33.2	0	TAG 5	ETG 5-7*
TGSU 35-6-IQ	35.0	5.70	6.50	144.0	2	5.20	180.00	33.2	0	TAG 6	ETG 5-7*
TGSU 35-7-IQ	35.0	6.80	7.50	144.0	2	6.00	180.00	33.2	0	TAG 7	ETG 5-7*
TGSU 35C-8-IQ [1]	35.0	7.70	8.50	144.0	2	7.20	180.00	33.2	1	TAG 8	ETG 8-12*
TGSU 35C-9-IQ [1]	35.0	8.70	10.00	144.0	2	8.20	180.00	33.2	1	TAG 9	ETG 8-12*
TGSU 56C-7-IQ [1]	56.0	6.80	7.50	220.0	2	6.00	260.00	53.6	1	TAG 7	ETG 5-7*
TGSU 56C-8-IQ [1]	56.0	7.70	8.50	220.0	2	7.20	260.00	53.6	1	TAG 8	ETG 8-12*
TGSU 56C-9-IQ [1]	56.0	8.70	10.00	220.0	2	8.20	260.00	53.6	1	TAG 9	ETG 8-12*

- For user guide, see pages 538-547

[1] C- Internal coolant, use with TGTBU HD blocks only; cooling tube SGCU 341 should be ordered separately
[2] Minimum cutting width
[3] Maximum cutting width
[4] Number of pockets
[5] 0 - Without coolant supply, 1 - With coolant supply
[6] Thickness at the D.O.C. area is 1.05 mm
[7] Thickness at the D.O.C. area is 1.65 mm
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509) • TAGB/TAGBA (333)
For holders, see pages: TGTBU (496)

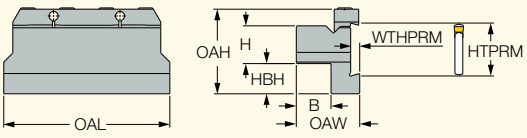
TGSU 35-3-IQ-4Z
TGSU 35-4-IQ-4Z



TANG-GRIP IQ 350 LINE

TGTBU

Tool Blocks for TGSU Parting and Grooving Blades



Choose blade by HTPRM dimension

Designation	H	B	HTPRM	WTHPRM	OAW	OAH	HBH	OAL			
TGTBU 20-35	20.0	19.0	35.0	6.00	38.00	56.0	23.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 25-35	25.0	23.0	35.0	6.00	42.00	56.0	18.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 32-35	32.0	29.0	35.0	6.00	48.00	56.0	11.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 32-35 HD [1]	32.0	30.0	35.0	8.00	55.00	64.0	18.0	130.00	BK 509	SR M8X20DIN912	HW 6.0
TGTBU 40-35	40.0	41.0	35.0	6.00	60.00	56.0	3.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 40-35 HD [1]	40.0	41.0	35.0	8.00	66.00	64.0	10.0	130.00	BK 509	SR M8X20DIN912	HW 6.0
TGTBU 40-56 HD [1]	40.0	41.0	56.0	8.00	66.00	72.0	28.0	130.00	BK 509	SR M8X20DIN912	HW 6.0

[1] HD - recommended blocks for TGSU...-8, TGSU...-9 blades

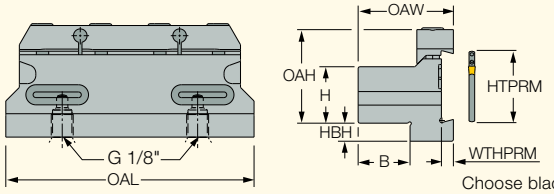
For tools, see pages: TGSU (496)

JETCUT

TGTBU-JHP

Tool Blocks for Parting and Grooving Blades for High-Pressure Coolant





Choose blade by prism height dimension

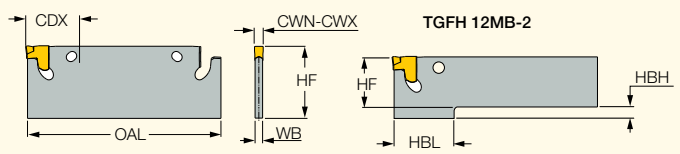
Designation	H	B	HTPRM	OAW	OAH	HBH	WTHPRM	OAL				
TGTBU 16-5G-JHP	16.0	16.9	26.0	35.60	29.9	13.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-5G-JHP	20.0	20.9	26.0	39.60	33.9	9.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-35-JHP	20.0	19.0	35.0	38.00	32.3	23.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-6G-JHP	20.0	19.0	32.0	39.20	36.4	15.0	5.30	100.00	BKU 100	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-5G-JHP	25.0	26.1	26.0	44.10	39.0	5.5	4.10	110.00	BKU 105	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-6G-JHP	25.0	23.0	32.0	43.20	41.4	8.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-35-JHP	25.0	23.0	35.0	42.00	37.3	18.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-6G-JHP	32.0	29.0	32.0	49.20	48.4	5.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-35-JHP	32.0	29.0	35.0	48.00	44.3	11.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N

For tools, see pages: DGFH-JHP (269) • DGFHR/L-BC-JHP (469) • TGFH-JHP (494) • TGFHR/L-JHP (495)

TANG-GRIP PARTING LINE

TGFH-MB

Parting and Grooving Blades for Other Manufacturers Blocks



Designation	CWN(1)	CWX(2)	WB	OAL	HF	HBH	HBL	CDX(3)	Insert	
TGFH 12MB-2 L58	1.80	2.40	1.65	58.00	12.2	2.8	15.5	11.50	TAG 2	ETG 2*
TGFH 17MB-2 L58	1.80	2.40	1.65	58.00	17.2	-	-	11.50	TAG 2	ETG 2*
TGFH 22MB-2 L58	1.80	2.40	1.65	58.00	22.2	-	-	11.50	TAG 2	ETG 2*
TGFH 17MB-3	2.80	3.50	2.50	64.00	17.2	-	-	12.00	TAG 3	ETG 3-4-SH*
TGFH 22MB-3	2.80	3.50	2.50	64.00	22.2	-	-	12.00	TAG 3	ETG 3-4-SH*
TGFH 22MB-3-L84	2.80	3.50	2.50	84.00	22.2	-	-	16.00	TAG 3	ETG 3-4-SH*
TGFH 28MB-3	2.80	3.50	2.50	100.00	28.0	-	-	19.00	TAG 3	ETG 3-4-SH*
TGFH 17MB-4	3.70	4.50	3.40	70.00	17.2	-	-	14.00	TAG 4	ETG 3-4-SH*
TGFH 22MB-4	3.70	4.50	3.40	70.00	22.2	-	-	14.00	TAG 4	ETG 3-4-SH*
TGFH 22MB-4-L90	3.70	4.50	3.40	90.00	22.2	-	-	17.00	TAG 4	ETG 3-4-SH*
TGFH 28MB-4	3.70	4.50	3.40	100.00	28.0	-	-	19.00	TAG 4	ETG 3-4-SH*

• For user guide, see pages 538-547

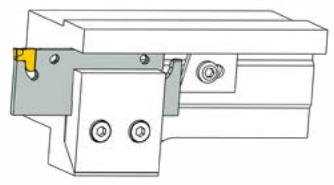
(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

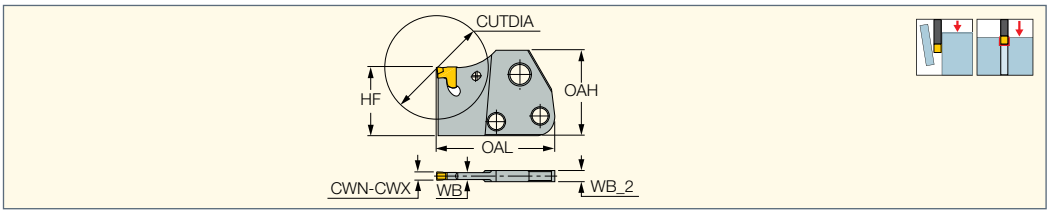
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)



TANG-GRIP PARTING LINE

TGAD
Parting and Grooving Adapters Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	CWN(1)	CWX(2)	WB_2	WB	OAL	CUTDIA	HF	OAH	Insert	
TGAD 1.4N	1.40	1.40	3.20	1.1	41.50	32.0	24.0	29.0	TAG 1.4	ETG 1.4/1.6*
TGAD 2N	1.80	2.40	3.20	1.7	41.50	32.0	24.0	30.0	TAG 2	ETG 2*
TGAD 3N	2.80	3.50	4.00	2.4	41.50	35.0	24.0	30.0	TAG 3	ETG 3-4-SH*
TGAD 4N	3.70	4.50	3.20	3.2	50.50	50.0	24.0	30.0	TAG 4	ETG 3-4-SH*
TGAD 5N	4.70	5.50	4.00	4.0	50.50	50.0	24.0	30.0	TAG 5	ETG 5-7*

- For user guide, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

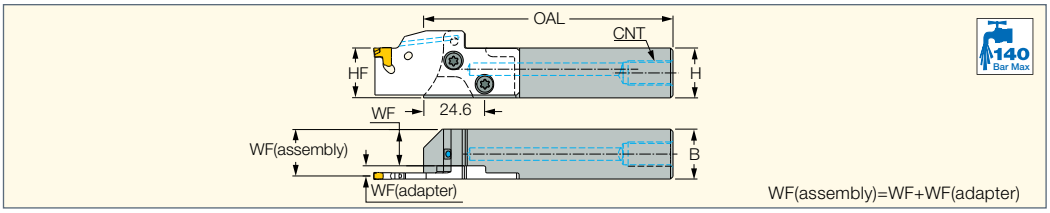
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: DGHAL-DECO (478) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • IM-MAHPD (633) • MAHR/L-JHP-MC (280)

MODUGRIP MODULAR GRIP CARTRIDGES JETCUT

NMAHR/L-JHP
Holders with High-Pressure Coolant Channels Carrying MODU-GRIP Adapters



Designation	H	B	OAL	WF	CNT	HF
NMAHR/L 20-MG-JHP	20.0	20.0	100.00	14.70	G1/8	20.0
NMAHR/L 25-MG-JHP	25.0	25.0	100.00	19.70	G1/8	25.0

For tools, see pages: D/HGAD RE/LE-JHP (499) • PCAD RE/LE-JHP (499) • TGAD RE/LE-JHP (498)

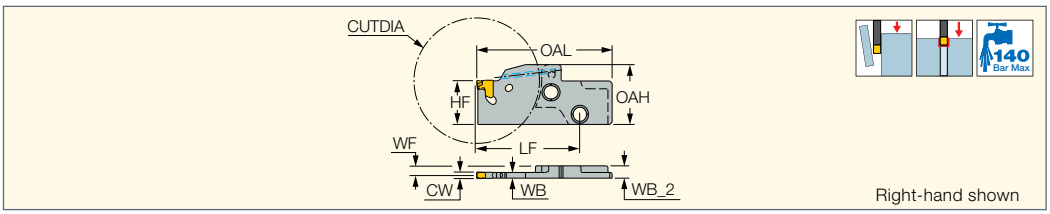
Spare Parts

Designation				
NMAHR/L-JHP	SR M5-04451	SW6-T-SH	BLD T20/S7	OR 5X1N

TANG-GRIP PARTING LINE JETCUT

MODUGRIP MODULAR GRIP CARTRIDGES

TGAD RE/LE-JHP
Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	WF	WB	WB_2	LF	OAL	OAH	HF	CUTDIA	Insert
TGAD 2R/LE-D54-JHP	1.80	2.40	4.48	1.65	5.3	44.40	58.30	25.80	18.9	54.0	TAG 2
TGAD 3R/LE-D54-JHP	3.00	3.50	4.08	2.45	5.3	44.40	58.30	25.80	18.9	54.0	TAG 3

- For user guide and accessories, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: NMAHR/L-JHP (498)

Spare Parts

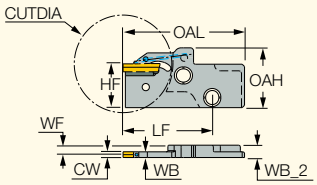
Designation	
TGAD 2R/LE-D54-JHP	ETG 2*
TGAD 3R/LE-D54-JHP	ETG 3-4-SH*

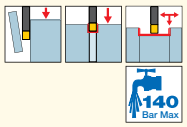
* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED JETCUT
MODUGRIP MODULAR GRIP CARTRIDGES

D/HGAD RE/LE-JHP

Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying DO-GRIP Inserts





Designation	CWN(2)	CWX(3)	WF	WB	WB_2	LF	OAL	OAH	HF	CUTDIA	Insert	
DGAD 2R/LE-D38-JHP (1)	1.90	2.50	4.50	1.60	5.3	40.40	54.35	25.80	18.9	38.0	DGN 2	EDG 33A*
DGAD 3R/LE-D38-JHP (1)	3.00	3.18	4.08	2.45	5.3	40.40	54.35	25.80	18.9	38.0	DGN 3	EDG 33A*
HGAD 3R/LE-D42-JHP	3.00	3.00	4.08	2.45	5.3	38.40	52.35	25.80	18.9	42.0	HGN 3/GRIP 3	EDG 23B*

- For user guide and accessories, see pages 538-547

(1) For parting and external grooving only
(2) Minimum cutting width
(3) Maximum cutting width
* Optional, should be ordered separately

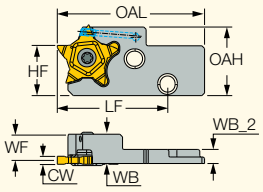
For inserts, see pages: DGN-P (487) • DGN-UT/UA (487) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484) • GRIP (269) • GRIP (full radius) (270) • HGN-C (489) • HGN-J (489) • HGN-UT (490) • HGR/L-C (489) • HGR/L-J/JS (490)

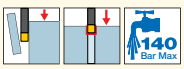
For holders, see pages: NMAHR/L-JHP (498)

PENTACUT PARTING & GROOVING LINE JETCUT
MODUGRIP MODULAR GRIP CARTRIDGES

PCAD RE/LE-JHP

Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying PENTA 24 Inserts





Right-hand shown

Designation	CWN(1)	CWX(2)	WF	WB	WB_2	LF	OAL	OAH	HF	Insert
PCAD 24R/LE-JHP	0.50	3.18	5.20	11.00	5.3	41.40	55.30	25.80	18.9	PENTA 24

- For user guide and accessories, see pages 538-547

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664) • PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320) • PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530) • PENTA 24R/L-Z (533)

For holders, see pages: NMAHR/L-JHP (498)

Spare Parts

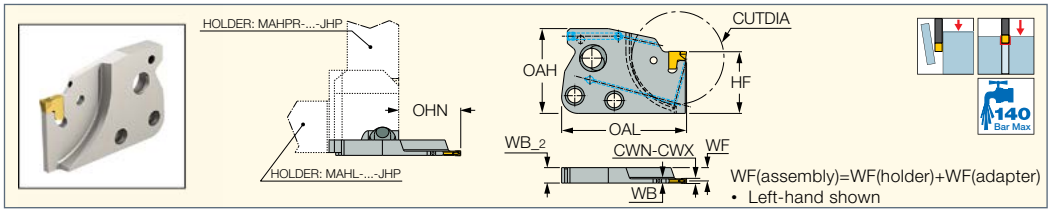
Designation	
PCAD 24LE-JHP	SR 16-212-01397L
PCAD 24RE-JHP	SR 16-212-01397



TANG-GRIP JETCUT PARTING LINE
MODULAR-GRIP

TAGPAD-JHP

Parting and Grooving Adapters with Coolant Channels for High-Pressure Carrying TANG-GRIP Inserts



Designation	CWN[1]	CWX[2]	CUTDIA	OHN[3]	WF	WB	WB_2	OAL	OAH	HF	Insert	
TAGPAD 2R/L-D42-JHP	1.80	2.40	42.0	24.0	5.18	1.65	6.0	48.40	33.0	24.0	TAG 2	ETG 2*
TAGPAD 2R/L-D52-JHP	1.80	2.40	52.0	29.0	5.18	1.65	6.0	53.40	33.0	24.0	TAG 2	ETG 2*
TAGPAD 3R/L-D42-JHP	2.80	3.50	42.0	24.0	4.80	2.40	6.0	48.40	33.0	24.0	TAG 3	ETG 3-4-SH*
TAGPAD 3R/L-D52-JHP	2.80	3.50	52.0	29.0	4.80	2.40	6.0	53.40	33.0	24.0	TAG 3	ETG 3-4-SH*

• For user guide and accessories see pages 538-547
(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum overhang
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: ABC MAHDR-#-XL-JHP (782) • DT##/2 MAHD#-#-XL-JHP (758) • MAHR/L-JHP-MC (280) • MS##-##-MG-JHP (757) • MS-ES#####-GWS-MG-JHP (759) • TR45 MAHDR-#-XL-JHP (781) • V## MAHD#-#-XL-##-JHP (778) • V## MAHD-XL-JHP (779)

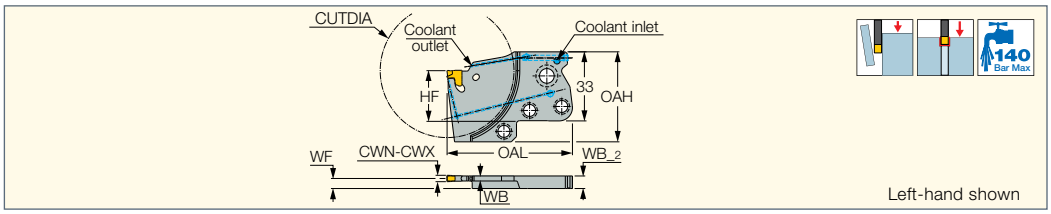
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TAGPAD 2R/L-D42-JHP	5	6	7
TAGPAD 2R/L-D52-JHP	5	6	7
TAGPAD 3R/L-D42-JHP	8.5	10	12
TAGPAD 3R/L-D52-JHP	8.5	10	12

TANG-GRIP JETCUT PARTING LINE

TAGPAD-XL-JHP

Extra Long Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN[1]	CWX[2]	WF	WB	WB_2	OAL	OAH	HF	CUTDIA	Insert	
TAGPAD-XL 2R/L-D65-JHP	1.80	2.40	5.20	1.60	6.0	60.00	43.0	34.0	65.0	TAG 2	ETG 2*
TAGPAD-XL 3R/L-D52-JHP	2.80	3.50	4.80	2.40	6.0	53.40	43.0	34.0	52.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 3R/L-D65-JHP	2.80	3.50	4.80	2.40	6.0	59.90	43.0	34.0	65.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 3R/L-D82-JHP	2.80	3.50	4.80	2.40	6.0	70.40	43.0	34.0	82.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 3R/L-D102-JHP	2.80	3.50	4.80	2.40	6.0	82.50	43.0	34.0	102.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 4R/L-D52-JHP	3.70	4.50	4.30	3.40	6.0	53.40	43.0	34.0	52.0	TAG 4	ETG 3-4-SH*
TAGPAD-XL 4R/L-D65-JHP	3.70	4.50	4.30	3.40	6.0	60.00	43.0	34.0	65.0	TAG 4	ETG 3-4-SH*
TAGPAD-XL 4R/L-D82-JHP	3.70	4.50	4.30	3.40	6.0	70.00	43.0	34.0	82.0	TAG 4	ETG 3-4-SH*
TAGPAD-XL 4R/L-D102-JHP	3.70	4.50	4.30	3.40	6.0	83.00	43.0	34.0	102.0	TAG 4	ETG 3-4-SH*

• For user guide and accessories, see pages 538-547
(1) Minimum cutting width
(2) Maximum cutting width
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

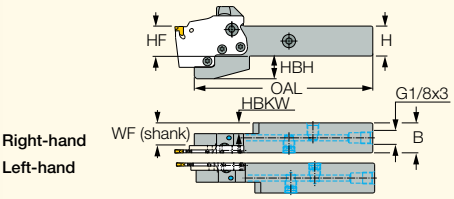
For holders, see pages: ABC MAHDR-#-XL-JHP (782) • MAHPR/L-XL-JHP (561) • MAHR/L-MG-XL-JHP (501) • MAHR/L-MG-XL-JHP-MC (501) • TR TNK36 MAHDL-R-XL-JHP (782) • TR45 MAHDR-#-XL-JHP (781) • TR45TNL MAHDN-R-XL-JHP (781) • V## MAHD#-#-XL-##-JHP (778) • V## MAHD-XL-JHP (779)

JETCUT

MAHR/L-MG-XL-JHP

Holders with High-Pressure Coolant Channels for Interchangeable Adapters





140 Bar Max

WF(assembly)=WF(shank)+WF(adapter)

Designation	H	B	OAL	HBH	WF	HBKW
MAHR/L 20-MG-XL-JHP	20.0	20.0	149.10	24.0	14.0	4.00
MAHR/L 25-MG-XL-JHP	25.0	25.0	149.10	19.0	19.0	9.00

• For user guide and accessories, see pages 538-547

For tools, see pages: DGPAD-XL-JHP (480) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TNFPAD-XL-JHP (569)

Spare Parts

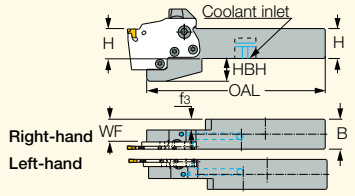
Designation							
MAHR/L 20-MG-XL-JHP	SR M6X12DIN6912-P	HW 5.0	SR M5-04451	T-20/5	SR M6X14-XT DIN 912	OR 5X1N	PLG G1/8 TL360
MAHR/L 25-MG-XL-JHP	SR M6X12DIN6912-P	HW 5.0	SR M5-04451	T-20/5	SR M6X14-XT DIN 912	OR 5X1N	PLG G1/8 TL360



JETCUT

MAHR/L-MG-XL-JHP-MC

Holders with Bottom Inlets for High-Pressure Coolant Channels Carrying Parting and Grooving Adapters



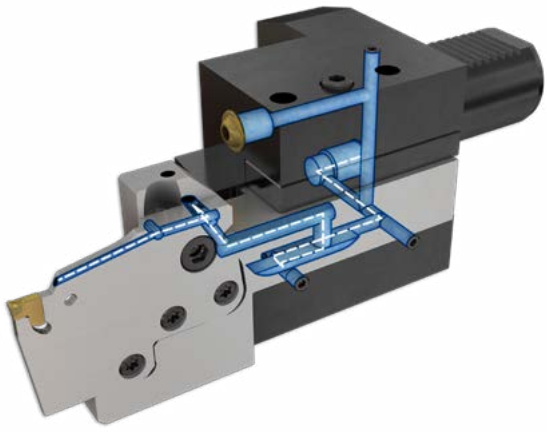
140 Bar Max

WF(assembly)=WF(shank)+WF(adapter)

Designation	H	B	OAL	HBH	WF	HBKW
MAHR/L 20-MG-XL-JHP-MC	20.0	20.0	116.10	10.0	14.0	4.00
MAHR/L 25-MG-XL-JHP-MC	25.0	25.0	114.00	10.0	19.0	9.00

• For Tmax, refer to the adapters data

For tools, see pages: DGPAD-XL-JHP (480) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TNFPAD-XL-JHP (569)



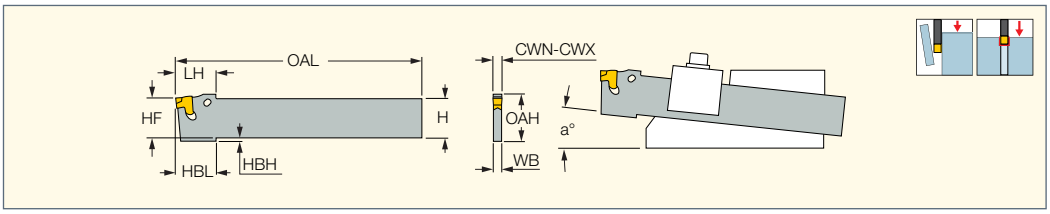
Spare Parts

Designation						
MAHR/L-MG-XL-JHP-MC	SR M6X14-XT DIN 912	HW 5.0	SR M5-04451	T-20/5	SR M6X12DIN6912-P	OR 5X1N

TANG-GRIP PARTING LINE

TGFS

Blades for Multi-Spindle Machines - Replacement for HSS and Brazed Tools



Designation	CWN(1)	CWX(2)	H	WB	OAL	OAH	HF	LH	HBL	HBH	CUTDIA	a°	Insert	
TGFS 0-17-2	1.80	2.40	17.2	1.65	110.00	17.2	17.2	-	18.00	1.8	35.0	0	TAG 2	ETG 2*
TGFS 0-17-3	2.80	3.50	17.2	2.50	110.00	19.0	17.2	-	18.00	1.8	60.0	0	TAG 3	ETG 3-4-SH*
TGFS 5-17-2	1.80	2.40	17.4	1.65	110.00	18.9	17.5	18.0	18.00	1.5	35.0	5	TAG 2	ETG 2*
TGFS 5-17-3	2.80	3.50	17.4	2.50	110.00	20.7	17.5	18.0	18.00	1.5	60.0	5	TAG 3	ETG 3-4-SH*
TGFS 5-17-4	3.70	4.50	17.4	3.40	110.00	20.7	17.5	18.0	18.00	1.5	60.0	5	TAG 4	ETG 3-4-SH*
TGFS 5-22-2	1.80	2.40	22.2	1.65	150.00	23.8	22.4	18.0	-	-	50.0	5	TAG 2	ETG 2*
TGFS 5-22-3	2.80	3.50	22.2	2.50	150.00	24.1	22.4	18.0	-	-	75.0	5	TAG 3	ETG 3-4-SH*
TGFS 5-22-4	3.70	4.50	22.2	3.40	150.00	24.1	22.4	18.0	-	-	80.0	5	TAG 4	ETG 3-4-SH*
TGFS 5-28-4	3.70	4.50	28.6	3.40	150.00	30.4	28.7	18.0	-	-	100.0	5	TAG 4	ETG 3-4-SH*

- For user guide, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

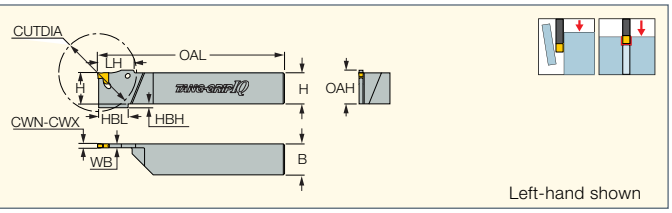
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

TANG-GRIP IQ 350 LINE

TGTR/L-IQ

Integral Shank TANG-GRIP Toolholders for Parting and Grooving



Designation	CWN(2)	CWX(3)	H	B	WB	OAL	OAH	LH	HBL	HBH	CUTDIA	Insert	
TGTR/L 1010-1.4-IQ	1.40	1.45	10.0	10.0	1.05	140.00	15.0	-	15.50	5.0	20.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1212-1.4-IQ	1.40	1.45	12.0	12.0	1.05	140.00	12.0	-	16.00	3.0	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1616-1.4-IQ	1.40	1.45	16.0	16.0	1.05	140.00	16.0	-	16.00	-	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 2020-1.4-IQ	1.40	1.45	20.0	20.0	1.05	140.00	20.0	-	16.00	-	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1010-1.6-IQ	1.60	1.64	10.0	10.0	1.30	120.00	-	-	16.00	5.0	28.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1212-1.6-IQ	1.60	1.64	12.0	12.0	1.30	120.00	-	-	16.00	3.0	32.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1616-1.6-IQ	1.60	1.64	16.0	16.0	1.30	120.00	-	-	16.00	-	35.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1010-2-IQ	1.80	2.40	10.0	10.0	1.65	150.00	15.0	-	15.50	5.0	28.0	TAG 2	ETG 2*
TGTR/L 1212-2-IQ	1.80	2.40	12.0	12.0	1.65	150.00	15.0	-	17.00	3.0	32.0	TAG 2	ETG 2*
TGTR/L 1612-2-L120-IQ	1.80	2.50	16.0	12.0	1.65	120.00	16.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 1616-2-IQ	1.80	2.40	16.0	16.0	1.65	150.00	16.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 2012-2-IQ	1.80	2.40	20.0	12.0	1.65	125.00	20.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 1212-3-IQ	2.80	3.50	12.0	12.0	2.50	150.00	19.0	-	19.00	7.0	32.0	TAG 3	ETG 3-4-SH*
TGTR/L 1612-3-L120-IQ	2.80	3.50	16.0	12.0	2.50	120.00	19.0	-	19.00	3.0	35.0	TAG 3	ETG 3-4-SH*
TGTR/L 1616-3-IQ	2.80	3.50	16.0	16.0	2.50	150.00	19.0	-	19.00	3.0	35.0	TAG 3	ETG 3-4-SH*
TGTR/L 2012-3-IQ	2.80	3.50	20.0	12.0	2.50	125.00	20.0	-	19.00	-	43.0	TAG 3	ETG 3-4-SH*
TGTR/L 2020-3-IQ	2.80	3.50	20.0	20.0	2.50	120.50	21.7	23.4	19.00	-	54.0	TAG 3	ETG 3-4*
TGTR/L 2525-3-IQ	2.80	3.50	25.0	25.0	2.50	150.50	26.7	23.4	19.00	-	56.0	TAG 3	ETG 3-4*
TGTR 2525K-3 (1)	2.80	3.50	25.0	25.0	2.50	150.00	26.7	23.4	19.00	-	56.0	TAG 3	ETG 3-4*
TGTR/L 2020-4-IQ	3.70	4.50	20.0	20.0	3.40	120.50	21.7	23.4	19.00	-	57.0	TAG 4	ETG 3-4*
TGTR/L 2525-4-IQ	3.70	4.50	25.0	25.0	3.40	150.50	26.7	23.4	19.00	-	65.0	TAG 4	ETG 3-4*
TGTR/L 2020-5-IQ	4.70	5.50	20.0	20.0	4.00	120.00	21.7	-	19.00	-	57.0	TAG 5	ETG 5-7*
TGTR/L 2525-5-IQ	4.70	5.50	25.0	25.0	4.00	150.00	25.0	-	19.00	-	76.0	TAG 5	ETG 5-7*
TGTR/L 2525-6-IQ	5.70	6.50	25.0	25.0	5.20	150.00	25.0	-	19.00	-	76.0	TAG 6	ETG 5-7*

- For user guide, see pages 538-547

(1) With coolant

(2) Minimum cutting width

(3) Maximum cutting width

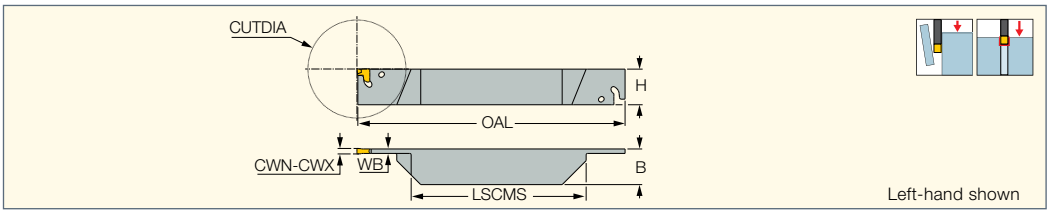
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509) • TAGB/TAGBA (333)

TANG-GRIP IQ 350 LINE

TGTR/L-IQ-2Z

Integral Shank TANG-GRIP Toolholders with 2 Pockets for Parting and Grooving



Designation	CWN[1]	CWX[2]	CUTDIA	H	B	WB	OAL	LSCMS	Insert	
TGTR/L 2020-3-IQ-2Z	2.80	3.50	54.0	20.0	20.0	2.50	150.00	98.90	TAG 3	ETG 3-4-SH*
TGTR/L 2525-3-IQ-2Z	2.80	3.50	56.0	25.0	25.0	2.50	150.00	98.00	TAG 3	ETG 3-4-SH*
TGTR/L 2020-4-IQ-2Z	3.70	4.50	57.0	20.0	20.0	3.40	150.00	95.00	TAG 4	ETG 3-4-SH*
TGTR/L 2525-4-IQ-2Z	3.70	4.50	65.0	25.0	25.0	3.40	150.00	88.00	TAG 4	ETG 3-4-SH*

- For user guide, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

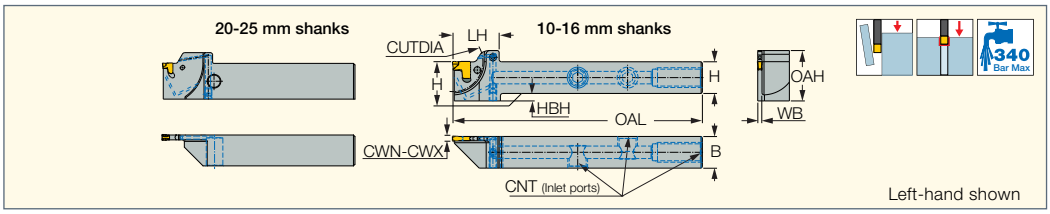
* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

TANG-GRIP PARTING LINE JETCUT

TGTR/L-JHP

Parting and Grooving Tools with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN[1]	CWX[2]	H	B	WB	OAL	OAH	LH	HBH	CNT	CUTDIA	Insert
TGTR/L 1010-2JHP	1.80	2.50	10.0	10.0	1.72	100.00	19.5	18.5	5.0	UNF 5/16-24	24.0	TAG 2
TGTR/L 1212-2JHP	1.80	2.50	12.0	12.0	1.72	100.00	19.5	18.5	3.0	UNF 5/16-24	24.0	TAG 2
TGTR/L 1616-2JHP	1.80	2.50	16.0	16.0	1.72	120.00	21.5	25.5	-	UNF 5/16-24	35.0	TAG 2
TGTR/L 2012-2JHP	1.80	2.50	20.0	12.0	1.72	120.00	25.6	25.5	-	UNF 5/16-24	35.0	TAG 2
TGTR/L 1616-3JHP	2.80	3.50	16.0	16.0	2.50	120.00	24.5	25.5	3.0	UNF 5/16-24	35.0	TAG 3
TGTR/L 2020-3JHP	2.80	3.50	20.0	20.0	2.50	120.00	27.0	35.0	-	G 1/8-28	54.0	TAG 3
TGTR/L 2525-3JHP	2.80	3.50	25.0	25.0	2.50	150.00	32.5	35.0	-	G 1/8-28	56.0	TAG 3
TGTR/L 2020-4JHP	3.70	4.50	20.0	20.0	3.40	120.00	27.0	35.0	-	G 1/8-28	54.0	TAG 4
TGTR/L 2525-4JHP	3.70	4.50	25.0	25.0	3.40	150.00	32.5	35.0	-	G 1/8-28	56.0	TAG 4

- For user guide and accessories, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TGTR/L...-2JHP	2-4	4-6	6-8
TGTR/L...-3JHP	7-9	9-11	11-13
TGTR/L...-4JHP	7-9	9-11	11-13

Spare Parts

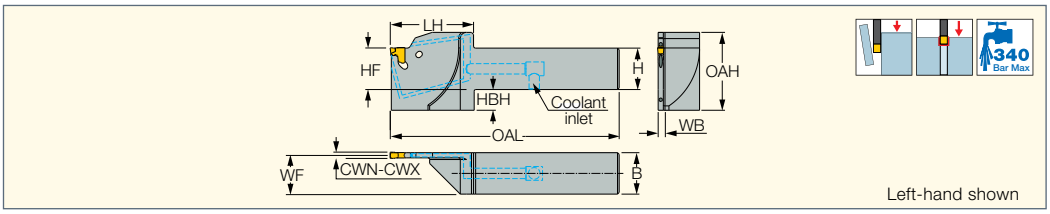
Designation					
TGTR/L 1010-2JHP	ETG 2-SH-T*		SR 5/16XUNF-TL-S		HW 5/32"
TGTR/L 1212-2JHP	ETG 2-SH-T*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1616-2JHP	ETG 2*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 2012-2JHP	ETG 2*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1616-3JHP	ETG 3-4-SH*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 2020-3JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	
TGTR/L 2525-3JHP	ETG 3-4-SH*	PLG G1/8 TL360	SR 5/16UNF TL360	HW 5.0	HW 5/32"
TGTR/L 2020-4JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	
TGTR/L 2525-4JHP	ETG 3-4-SH*	PLG G1/8 TL360	SR 5/16UNF TL360	HW 5.0	HW 5/32"

* Optional, should be ordered separately

TANG-GRIP JETCUT PARTING LINE

TGTR/L-JHP-MC

Parting and Grooving Toolholders with Bottom Inlets for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN[1]	CWX[2]	H	B	HF	WB	OAL	OAH	LH	HBH	CUTDIA[3]	Insert
TGTR/L 2020-D42-2-JHP-MC	1.80	2.50	20.0	20.0	20.0	1.72	99.00	25.70	29.0	-	42.0	TAG 2
TGTR/L 2020-D65-3-JHP-MC	2.80	3.50	20.0	20.0	20.1	2.50	110.50	37.60	40.5	10.0	65.0	TAG 3
TGTR/L 2020-D82-3-JHP-MC	2.80	3.50	20.0	20.0	20.1	2.50	119.00	38.80	49.0	10.0	82.0	TAG 3
TGTR/L 2525-D65-3-JHP-MC	2.80	3.50	25.0	25.0	25.1	2.50	126.00	37.60	41.0	5.0	65.0	TAG 3
TGTR/L 2525-D82-3-JHP-MC	2.80	3.50	25.0	25.0	25.1	2.50	134.50	38.80	49.5	5.0	82.0	TAG 3

- For user guide and accessories, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum cutting diameter

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

Spare Parts

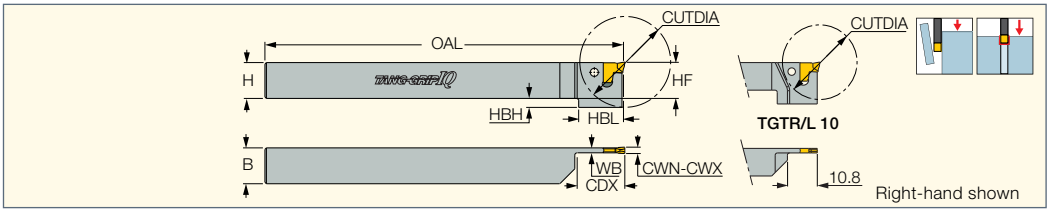
Designation	
TGTR/L 2020-D42-2-JHP-MC	ETG 2*
TGTR/L 2020-D65-3-JHP-MC	ETG 3-4-SH*
TGTR/L 2020-D82-3-JHP-MC	ETG 3-4-SH*
TGTR/L 2525-D65-3-JHP-MC	ETG 3-4-SH*
TGTR/L 2525-D82-3-JHP-MC	ETG 3-4-SH*

* Optional, should be ordered separately

TANG-GRIP IQ 350 LINE

TGTR/L-2T..SH-L120

Integral Shank Short-Head TANG-GRIP Toolholders for Parting and Grooving



Designation	CWN[1]	CWX[2]	H	HF	B	WB	OAL	HBL	HBH	CDX[3]	CUTDIA[4]
TGTR/L 1010-2T10SH-L120-IQ	1.80	2.50	10.0	10.1	10.0	1.65	120.00	15.0	5.0	10.00	26.0
TGTR/L 1212-2T15SH-L120-IQ	1.80	2.50	12.0	12.1	12.0	1.65	120.00	15.0	3.0	15.00	30.0
TGTR/L 1616-2T18SH-L120-IQ	1.80	2.50	16.0	16.1	16.0	1.65	120.00	-	-	18.00	36.0

- For user guide, see pages 538-547

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

(4) For parting

* Optional, should be ordered separately

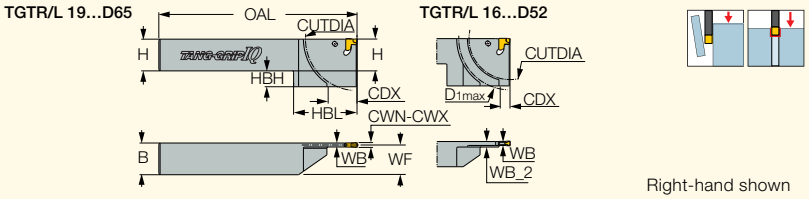
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

TANG-GRIP IQ 350 LINE

TGTR/L-D

Integral Shank TANG-GRIP Toolholders with Reinforced Blades for Parting and Grooving Mainly Sub-Spindle Machines





Designation	CW	CWN(1)	CWX(2)	H	B	WB	WB_2	OAL	HBL	WF	HBH	CUTDIA	D1 max	CDX	Insert	
TGTR/L 1616-2-D52-IQ	2.00	1.80	2.40	16.0	16.0	1.65	3.50	125.00	40.0	15.20	14.0	52.0	65.0	6.00	TAG 2	ETG 2*
TGTR/L 2020-2-D65-IQ	2.00	1.80	2.40	20.0	20.0	1.65	-	125.00	40.0	19.20	10.0	65.0	-	18.00	TAG 2	ETG 2*
TGTR/L 1616-3-D52-IQ	3.00	2.80	3.50	16.0	16.0	2.50	3.50	125.00	40.0	14.80	14.0	52.0	65.0	6.00	TAG 3	ETG 3-4-SH*
TGTR/L 2020-3-D65-IQ	3.00	2.80	3.50	20.0	20.0	2.50	-	125.00	40.0	18.80	10.0	65.0	-	18.00	TAG 3	ETG 3-4-SH*

- For user guide, see pages 538-547

(1) Minimum cutting width

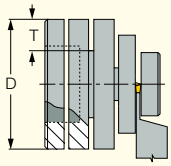
(2) Maximum cutting width

* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

Depth Capacity DGTR/L-D

Table Determining Depth of Cut as Function of Workpiece Diameter

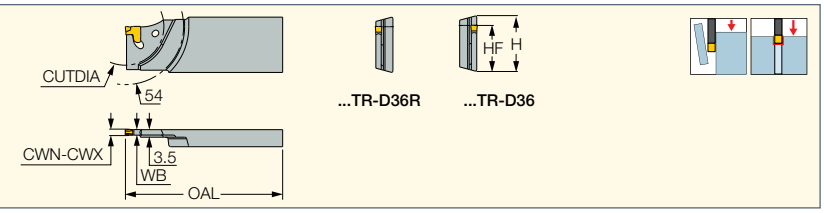


Designation	Tmax									
TGTR/L 1616-2-D52-IQ	20	25	19	16	15	13	11	10	9	8
TGTR/L 2020-2-D65-IQ	20	25	30	31	29	26	24	23	22	20
TGTR/L 1616-3-D52-IQ	20	25	20	17	15	13	11	10	9	8
TGTR/L 2020-3-D65-IQ	20	25	30	31	29	26	24	23	22	20
D →	40	50	60	70	80	100	120	150	200	300

TANG-GRIP PARTING LINE

TGFHL-TR

Reinforced Blades for TRAUB and Index Machines Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	H	CWN(1)	CWX(2)	WB	OAL	HF	CUTDIA	Insert	
TGFHL 26-2TR-D36	26.0	1.80	2.40	1.65	110.00	21.4	36.0	TAG 2	ETG 2*
TGFHL 26-2TR-D36R	26.0	1.80	2.40	1.65	110.00	21.4	36.0	TAG 2	ETG 2*
TGFHL 26-3TR-D36	26.0	2.80	3.50	2.50	110.00	21.4	36.0	TAG 3	ETG 3-4-SH*
TGFHL 26-3TR-D36R	26.0	2.80	3.50	2.50	110.00	21.4	36.0	TAG 3	ETG 3-4-SH*

- For user guide, see pages 538-547

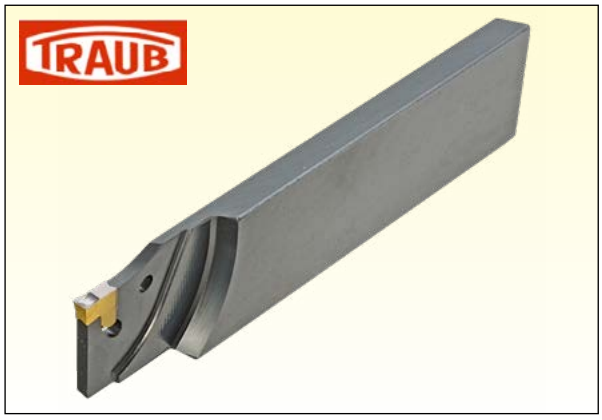
(1) Minimum cutting width

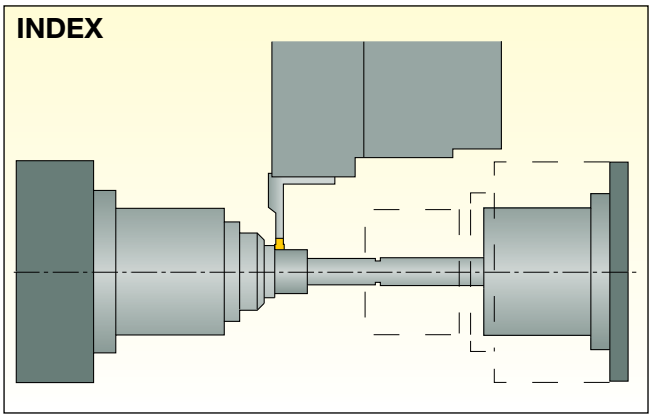
(2) Maximum cutting width

* Optional, should be ordered separately

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: SGTBR/L (617) • SGTBU/SGTBN (616) • UBHCR/L (618)





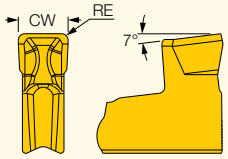
TANG F GRIP HIGH FEED PARTING

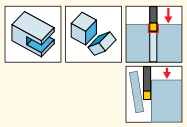
TANG GRIP PARTING LINE

TAG N-HF

Single-Ended Inserts for High Feed Parting and Grooving, Hard Materials and Tough Applications







Designation	Dimensions CW	CWTOL[1]	RE	Tough ↔ Hard IC830	IC1030	IC1010	IC808	Recommended Machining Data f groove (mm/rev)
TAG N3HF	3.00	0.040	0.40	●	●	●	●	0.25-0.35
TAG N4HF	4.00	0.040	0.50	●	●	●	●	0.30-0.40
TAG N5HF	5.00	0.040	0.50	●			●	0.30-0.40

• For cutting speed recommendations and user guide, see pages 538-547

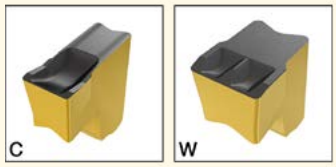
[1] Cutting width tolerance (+/-)

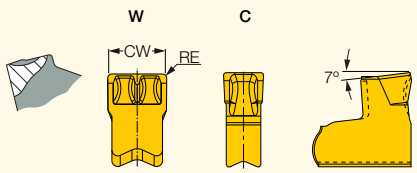
For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

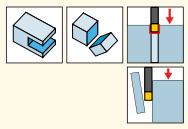
TANG GRIP PARTING LINE

TAG N-C/W/M

Single-Ended Inserts for Parting, Grooving and Slitting Bars, Hard Materials and Tough Applications







Designation	Dimensions CW	CWTOL[3]	RE	Tough ↔ Hard IC830	IC928	IC1030	IC5400	IC1010	IC808	IC908	IC30N	IC20	IC807	Recommended Machining Data f groove (mm/rev)
TAG N1.4C	1.40	0.04	0.16										●	0.04-0.10
TAG N1.6C	1.60	0.04	0.16	●					●					0.04-0.14
TAG N2C	2.00	0.04	0.20	●		●	●	●	●		●	●		0.05-0.16
TAG N2.4C	2.40	0.04	0.16	●					●					0.06-0.18
TAG N3CB [1]	3.00	0.04	0.35	●					●					0.12-0.30
TAG N3C	3.05	0.04	0.20	●	●	●	●	●	●	●	●	●	●	0.10-0.25
TAG N3M [2]	3.05	0.04	0.20	●						●				0.06-0.18
TAG N3W	3.05	0.04	0.20	●						●				0.10-0.25
TAG N4C	4.00	0.04	0.24	●	●	●	●	●	●	●		●	●	0.10-0.30
TAG N4CB [1]	4.00	0.04	0.40	●						●				0.10-0.33
TAG N4M [2]	4.00	0.04	0.24	●						●				0.06-0.20
TAG N4W	4.00	0.04	0.24	●						●				0.10-0.30
TAG N4.8C	4.80	0.04	0.30	●					●					0.10-0.35
TAG N5C	5.05	0.04	0.25	●					●			●		0.10-0.35
TAG N6.3C	6.30	0.04	0.35	●					●					0.15-0.40
TAG N7W	7.00	0.08	0.50	●					●					0.18-0.40
TAG N8C	8.00	0.10	0.50	●					●					0.20-0.70
TAG N9.5W	9.50	0.05	0.50	●					●					0.22-0.80
TAG N9.5C	9.50	0.10	0.50	●					●					0.25-0.80
TAG N12.7W	12.70	0.10	0.85	●					●					0.30-0.80

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 538-547

[1] Larger corner radii for interrupted cut and high feed applications

[2] Similar to C-type, but with a modified edge; improved chip control at medium feeds

[3] Cutting width tolerance (+/-)

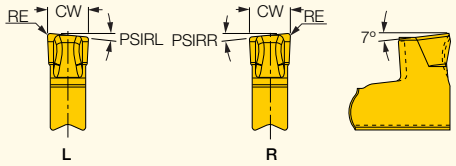
For tools, see pages: ADMP D45 (521) • Anti-Vibration Blades (284) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGBHR/L (330) • TGBHR/L-JHP (331) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

TANG-GRIP PARTING LINE

TAG R/L-C

Single-Ended Inserts for Parting Bars, Hard Materials and Tough Parting Applications







Designation	Dimensions CW	CWTOL(1)	RE	PSIRR	PSIRL	Tough ↔ Hard IC830	IC928	IC808	IC908	IC30N	Recommended Machining Data f groove (mm/rev)
TAG L2C-6D	2.05	0.10	0.20	-	6.0	●		●			0.04-0.12
TAG R2C-6D	2.05	0.10	0.20	6.0	-	●		●			0.04-0.12
TAG R2.4C-8D	2.40	0.10	0.16	8.0	-			●			0.05-0.13
TAG L3C-6D	3.00	0.10	0.20	-	6.0	●	●	●	●		0.08-0.18
TAG R3C-6D	3.00	0.10	0.20	6.0	-	●	●	●	●		0.08-0.18
TAG R3C-8D	3.00	0.10	0.20	8.0	-					●	0.06-0.16
TAG L3C-15D	3.00	0.10	0.20	-	15.0	●	●	●	●		0.08-0.16
TAG R3C-15D	3.00	0.10	0.20	15.0	-	●	●	●	●		0.08-0.16
TAG L4C-4D	4.05	0.10	0.24	-	4.0	●		●			0.08-0.20
TAG R4C-4D	4.05	0.10	0.24	4.0	-	●	●	●	●		0.08-0.20
TAG L5C-4D	5.05	0.10	0.25	-	4.0	●		●			0.10-0.25
TAG R5C-4D	5.05	0.10	0.25	4.0	-	●		●			0.10-0.25
TAG L6.3C-4D	6.35	0.10	0.35	-	4.0	●		●			0.12-0.30
TAG R6.3C-4D	6.35	0.10	0.35	4.0	-	●		●			0.12-0.30

• For cutting speed recommendations and user guide, see pages 538-547

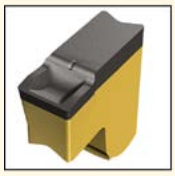
(1) Cutting width tolerance (+/-)

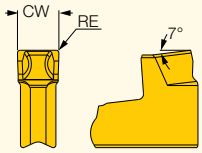
For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGBHR/L (330) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

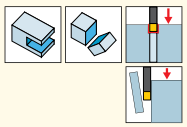
TANG-GRIP PARTING LINE

TAG N-MF

Single-Ended Inserts for Parting Grooving and Slitting Stainless and Alloy Steel at Medium Feed







Designation	Dimensions CW	CWTOL(1)	RE	Tough ↔ Hard IC830	IC1030	IC5400	IC1010	IC808	Recommended Machining Data f groove (mm/rev)
TAG N2MF	2.00	0.05	0.20	●	●	●	●	●	0.04-0.15
TAG N3MF	3.05	0.05	0.20	●	●	●	●	●	0.06-0.18
TAG N4MF	4.00	0.05	0.25	●	●	●	●	●	0.07-0.22
TAG N5MF	5.00	0.05	0.25	●				●	0.08-0.25

• For cutting speed recommendations and user guide, see pages 538-547

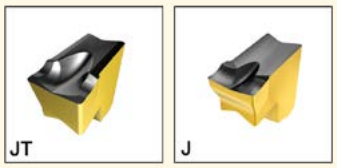
(1) Cutting width tolerance (+/-)

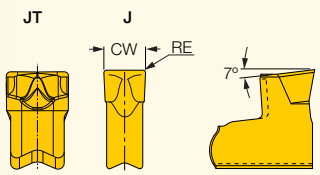
For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

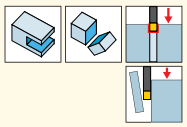
TANG-GRIP PARTING LINE

TAG N-J/JS/JT

Single-Ended Inserts for Parting, Grooving and Slitting Soft Materials







Designation	Dimensions CW	RE	CWTOL[2]	RETOL[3]	Tough ↔ Hard IC830	IC928	IC1030	IC5400	IC1010	IC808	IC908	IC20	IC807	Recommended Machining Data f groove (mm/rev)
TAG N1.4J	1.40	0.16	0.04	0.030	●					●			●	0.03-0.10
TAG N1.6J	1.60	0.16	0.04	0.030	●					●				0.03-0.12
TAG N2JS [1]	2.00	0.02	0.04	0.020	●					●				0.03-0.08
TAG N2J	2.00	0.20	0.04	0.040	●		●	●	●	●		●		0.04-0.12
TAG N2JT	2.00	0.20	0.04	0.040	●	●		●		●	●			0.04-0.14
TAG N3JS [1]	3.05	0.02	0.04	0.020	●					●				0.04-0.10
TAG N3J	3.05	0.20	0.04	0.030	●	●	●	●	●	●	●	●	●	0.04-0.16
TAG N3JT	3.05	0.20	0.04	0.030	●			●		●	●			0.05-0.18
TAG N3.2JT	3.25	0.20	0.04	0.030	●					●				0.05-0.18
TAG N4J	4.00	0.24	0.04	0.030	●	●	●	●	●	●	●		●	0.04-0.18
TAG N4JT	4.05	0.24	0.04	0.030	●			●		●	●			0.06-0.20
TAG N5J	5.05	0.25	0.04	0.040	●				●	●				0.05-0.20
TAG N5JT	5.05	0.25	0.04	0.040	●					●	●			0.06-0.22
TAG N6.3J	6.35	0.34	0.04	0.040	●					●				0.06-0.22
TAG N6.3JT	6.35	0.34	0.04	0.040	●						●			0.08-0.25
TAG N7JT	7.05	0.50	0.04	0.040	●					●				0.10-0.28

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative frontal edge; most suitable for soft materials at low to medium feeds.
- For cutting speed recommendations and user guide, see pages 538-547

[1] Sharp corners cannot be used on TGSF slitting cutters

[2] Cutting width tolerance (+/-)

[3] Corner radius tolerance (+/-)

For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGBHR/L (330) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

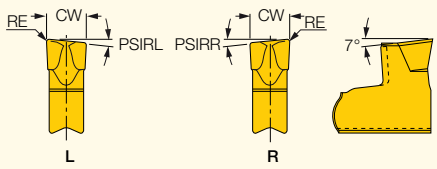


TANG-GRIP PARTING LINE

TAG R/L-J/JS

TANG-GRIP Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts







Designation	Dimensions CW	RE	PSIRL	PSIRR	Tough ↔ Hard IC830	IC928	IC808	IC908	IC807	Recommended Machining Data f groove (mm/rev)
TAG L1.4J-8D	1.40	0.16	8.0	-	•		•		•	0.03-0.08
TAG R1.4J-8D	1.40	0.16	-	8.0	•		•		•	0.03-0.08
TAG L1.4JS-10D (1)	1.40	0.02	10.0	-	•		•		•	0.02-0.06
TAG R1.4JS-10D (1)	1.40	0.02	-	10.0	•		•		•	0.02-0.06
TAG L2J-6D	2.00	0.20	6.0	-	•		•			0.03-0.10
TAG R2J-6D	2.00	0.20	-	6.0	•		•			0.03-0.10
TAG L2JS-6D (1)	2.00	0.02	6.0	-	•		•			0.02-0.08
TAG R2JS-6D (1)	2.00	0.02	-	6.0	•		•			0.02-0.08
TAG L2J-15D	2.00	0.20	15.0	-	•		•			0.03-0.08
TAG R2J-15D	2.00	0.20	-	15.0	•		•			0.03-0.08
TAG L2JS-15D (1)	2.00	0.02	15.0	-	•		•			0.02-0.06
TAG R2JS-15D (1)	2.00	0.02	-	15.0	•		•			0.02-0.06
TAG L3J-6D	3.00	0.20	6.0	-	•	•	•	•		0.04-0.14
TAG R3J-6D	3.00	0.20	-	6.0	•	•	•	•		0.04-0.14
TAG L3JS-6D (1)	3.00	0.02	6.0	-	•		•			0.03-0.10
TAG R3JS-6D (1)	3.00	0.02	-	6.0	•		•			0.03-0.10
TAG L3J-15D	3.00	0.20	15.0	-	•	•	•	•		0.04-0.12
TAG R3J-15D	3.00	0.20	-	15.0	•	•	•	•		0.04-0.12
TAG L3JS-15D (1)	3.00	0.02	15.0	-	•		•			0.03-0.08
TAG R3JS-15D (1)	3.00	0.02	-	15.0	•		•			0.03-0.08
TAG L4J-4D	4.00	0.24	4.0	-	•		•			0.04-0.15
TAG R4J-4D	4.00	0.24	-	4.0	•	•	•	•		0.04-0.15
TAG L5J-4D	5.05	0.25	4.0	-	•		•			0.05-0.18
TAG R5J-4D	5.05	0.25	-	4.0	•		•			0.05-0.18
TAG L6.3J-4D	6.35	0.35	4.0	-	•		•			0.05-0.20
TAG R6.3J-4D	6.35	0.35	-	4.0	•		•			0.05-0.20

• For cutting speed recommendations and user guide, see pages 538-547

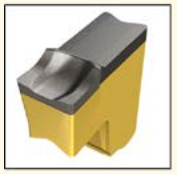
(1) Sharp corners cannot be used on TGSF slitting cutters

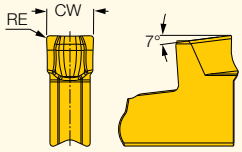
For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGBHR/L (330) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

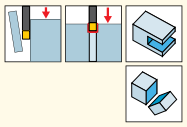
TANG-GRIP PARTING LINE

TAG N-LF

Single-Ended Inserts for Parting, Grooving and Slitting Stainless Steel







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC1030	IC5400	IC1010	IC808	Recommended Machining Data f groove (mm/rev)
TAG N2LF	2.00	0.20	0.04	0.030	•	•	•	•	•	0.03-0.08
TAG N3LF	3.05	0.20	0.04	0.030	•	•	•	•	•	0.04-0.10

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

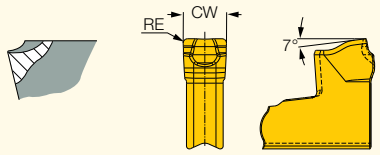
For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

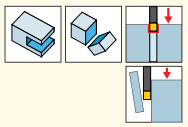
TANG-GRIP PARTING LINE

TAG N-UT

Single-Sided Inserts for Parting, Grooving & Slitting at Low Feeds on Cr-Ni Alloys, Ductile Materials & Low Carbon Steel







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	IC908	Recommended Machining Data f groove (mm/rev)
TAG N2UT	2.00	0.20	0.04	0.040	●	●	●	0.03-0.10
TAG N3UT	3.00	0.30	0.04	0.040	●	●		0.04-0.12
TAG N4UT	4.00	0.30	0.04	0.040			●	0.05-0.15
TAG N5UT	5.00	0.30	0.04	0.040			●	0.05-0.18
TAG N6UT	6.00	0.85	0.04	0.040			●	0.06-0.22

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

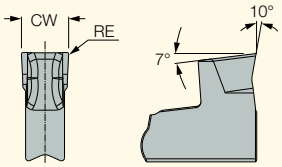
For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGBHR/L (330) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

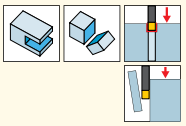
TANG-GRIP PARTING LINE

TAG N-A

Single-Ended Inserts for Parting, Grooving and Slitting Aluminum







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC20	Recommended Machining Data f groove (mm/rev)
TAG N2A	2.00	0.20	0.04	0.040	●	0.02-0.10
TAG N3A	3.07	0.20	0.04	0.040	●	0.03-0.14
TAG N4A	4.00	0.24	0.04	0.030	●	0.03-0.16

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

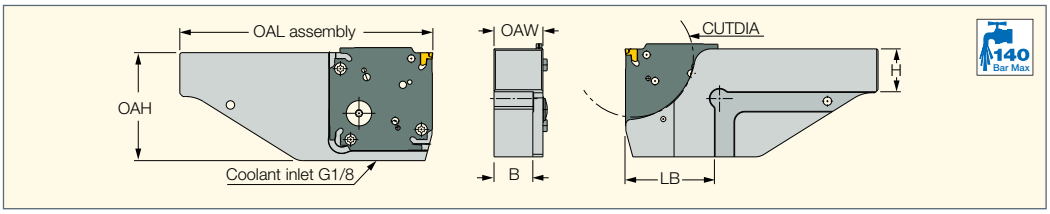
(2) Corner radius tolerance (+/-)

For tools, see pages: ADMP D45 (521) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGAD (498) • TGAD RE/LE-JHP (498) • TGAQ (514) • TGAQ-ECD (JET-CROWN) (516) • TGAQ-JHP (513) • TGFH-JHP (494) • TGFH-MB (497) • TGFH-S (494) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGFHR/L-JHP (495) • TGFS (502) • TGSU (496) • TGTR/L-2T..SH-L120 (504) • TGTR/L-D (505) • TGTR/L-IQ (502) • TGTR/L-IQ-2Z (503) • TGTR/L-JHP (503) • TGTR/L-JHP-MC (504)

LOGIQ F GRIP HIGH FEED GRIP HOLDER

TGTBQ-JHP

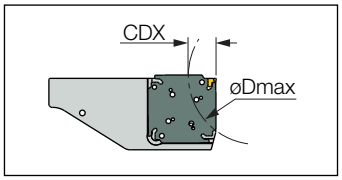
Tool Blocks for Square TANG-F-GRIP and DO-F-GRIP Parting and Grooving Adapters for High-Pressure Coolant



Designation	OAH	H	B	OAW	OAL	LB	CUTDIA
TGTBQ 20L-D52-JHP	50.00	20.0	20.5	26.50	122.00	34.00	52.0
TGTBQ 20R-D52-JHP	50.00	20.0	20.5	26.50	122.00	34.00	52.0
TGTBQ 25L-D52-JHP	50.00	25.0	25.5	31.50	132.00	34.00	52.0
TGTBQ 25R-D52-JHP	50.00	25.0	25.5	31.50	132.00	34.00	52.0
TGTBQ 20L-D82-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 20R-D82-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 25L-D82-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0
TGTBQ 25R-D82-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0
TGTBQ 32L-D82-JHP	64.00	32.0	32.5	38.50	150.50	53.50	82.0
TGTBQ 32R-D82-JHP	64.00	32.0	32.5	38.50	150.50	53.50	82.0
TGTBQ 25L-D120-JHP	95.00	25.0	25.5	31.50	165.00	67.00	120.0
TGTBQ 25R-D120-JHP	95.00	25.0	25.5	31.50	165.00	67.00	120.0
TGTBQ 32L-D120-JHP	95.00	32.0	32.5	38.50	165.00	67.00	120.0
TGTBQ 32R-D120-JHP	95.00	32.0	32.5	38.50	165.00	67.00	120.0
TGTBQ 25L-D160-JHP	107.00	25.0	25.5	31.50	190.50	92.50	160.0
TGTBQ 25R-D160-JHP	107.00	25.0	25.5	31.50	190.50	92.50	160.0
TGTBQ 32L-D160-JHP	107.00	32.0	32.5	38.50	190.50	92.50	160.0
TGTBQ 32R-D160-JHP	107.00	32.0	32.5	38.50	190.50	92.50	160.0
TGTBQ 40L-D160-JHP	107.00	40.0	40.5	46.50	190.50	92.50	160.0
TGTBQ 40R-D160-JHP	107.00	40.0	40.5	46.50	190.50	92.50	160.0

For tools, see pages: DGAQ (515) • DGAQ-JHP (515) • TGAQ (514) • TGAQ-JHP (513)

Table determining depth of cut for grooving as function of workpiece diameter

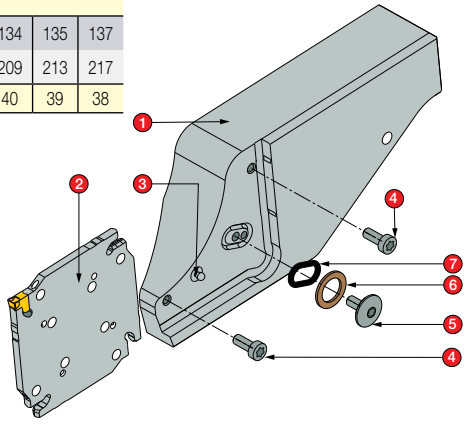


Designation	øDmax																	
TGTBQ...D52-JHP	53	54	55	56	57	59	61	64	67	71	75	81	88	96	107	122	141	169
TGTBQ...D82-JHP	107	110	114	119	124	130	137	145	154	165	178	194	213	237	267	308	363	443
TGTBQ...D120-JHP	202	210	219	229	240	253	267	283	302	324	349	380	417	462	518	592	689	827
TGTBQ...D160-JHP	345	361	377	396	418	441	468	499	534	576	624	682	753	840	951	1096	1294	1583
CDX	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

Designation	øDmax															
TGTBQ...D82-JHP	83	83	84	84	85	86	87	88	89	91	92	94	96	98	101	103
TGTBQ...D120-JHP	139	141	143	145	148	150	153	156	160	164	168	172	177	183	188	195
TGTBQ...D160-JHP	220	225	229	234	239	245	251	257	264	271	279	288	298	308	320	332
CDX	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22

Designation	øDmax																
TGTBQ...D120-JHP	121	122	123	123	124	125	125	126	127	128	129	130	131	132	134	135	137
TGTBQ...D160-JHP	171	177	181	183	184	186	188	190	193	195	198	200	203	206	209	213	217
CDX	56-60	53-55	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38

1. **Block:** TGTBQ...D...
2. **Blade:** T/DGAQ...
3. **Locating Pin:** Side thrust Pin 3mm
4. **Screw:** SR M4x10 ISO 14580
5. **Screw:** SR M4x9-Seal-JHP
6. **Seal washer:** CSW 1/8"
7. **O-ring:** O-ring 10x2 NBR



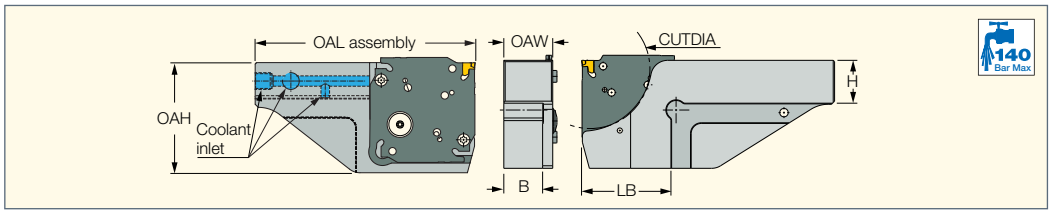
Spare Parts

Designation							
TGTBQ-JHP	SR M4X9-SEAL-JHP	SIDE THRUST PIN 3mm	JHP COPPER SEAL 1/8"	SR ISO 14580 M4X10	SW6-SD	BLD T20/S7	O-RING 10X2 NBR

LOGIQFGRIP HIGH FEED GRIP HOLDER

TGTBQ-JHP-MC

Tool Blocks for Parting and Grooving Square Adapters for High-Pressure Coolant with Three Cooling Inlets



Designation	OAH	H	B	OAW	OAL	LB	CUTDIA
TGTBQ 20R/L-D52-JHP-MC	50.00	20.0	20.5	26.50	112.00	42.00	52.0
TGTBQ 25R/L-D52-JHP-MC	50.00	25.0	26.5	31.50	125.00	40.00	52.0
TGTBQ 20R/L-D82-JHP-MC	64.00	20.0	20.5	26.50	127.50	57.50	82.0
TGTBQ 25R/L-D82-JHP-MC	64.00	25.0	26.5	31.50	142.50	57.50	82.0
TGTBQ 25R/L-D120-JHP-MC	95.00	25.0	26.5	31.50	158.00	73.00	120.0

For tools, see pages: DGAQ (515) • DGAQ-JHP (515) • TGAQ (514) • TGAQ-JHP (513)

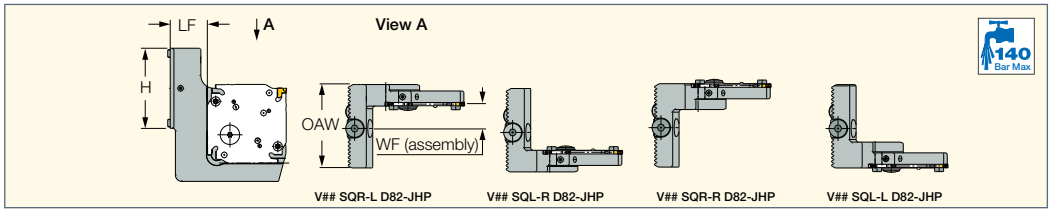
Spare Parts

Designation								
TGTBQ-JHP-MC	SR M4X9-SEAL-JHP	SIDE THRUST PIN 3mm	JHP COPPER SEAL 1/8"	SR ISO 14580 M4X10	BLD T20/S7	SW6-SD	O-RING 10X2 NBR	PLG G1/8 TL360

LOGIQFGRIP HIGH FEED GRIP HOLDER

V## SQ#-#-D82-JHP

Intermediate Holders for TANG-F-GRIP and DO-F-GRIP Square Type D82 Adapters Designed for Modular Tooling Systems



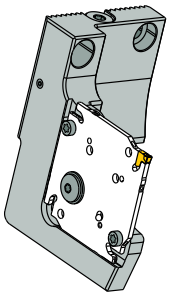
Designation	H	LF	OAW	WF[1]
V60 SQL-L-D82-JHP	62.0	34.70	64.50	28.95
V60 SQL-R-D82-JHP	62.0	34.70	64.50	15.35
V60 SQR-L-D82-JHP	62.0	34.70	64.50	18.85
V60 SQR-R-D82-JHP	62.0	34.70	64.50	32.45
V85 SQL-L-D82-JHP	83.0	34.70	85.00	40.95
V85 SQL-R-D82-JHP	83.0	34.70	85.00	27.35
V85 SQR-L-D82-JHP	83.0	34.70	85.00	27.35
V85 SQR-R-D82-JHP	83.0	34.70	85.00	40.95

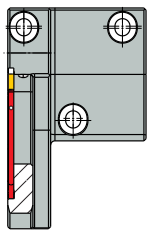
[1] When 3mm width insert is used.

For tools, see pages: DGAQ (515) • DGAQ-JHP (515) • TGAQ (514) • TGAQ-JHP (513)

Identification Key

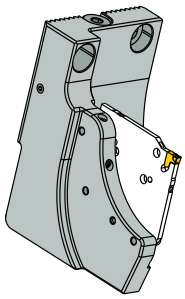
V60 SQL-L-D82-JHP

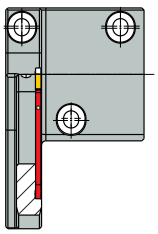




L- Holder (prism) orientation
L- Pocket side

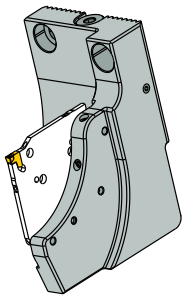
V60 SQL-R-D82-JHP

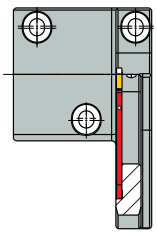




L- Holder (prism) orientation
R- Pocket side

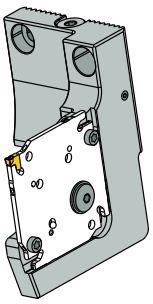
V60 SQR-L-D82-JHP

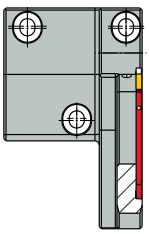




R- Holder (prism) orientation
L- Pocket side

V60 SQR-R-D82-JHP





R- Holder (prism) orientation
R- Pocket side

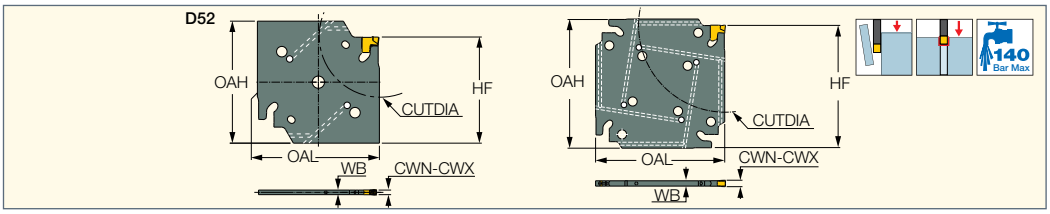
Spare Parts

Designation					
V## SQ#-#-D82-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	O-RING 10X2 NBR	SIDE THRUST PIN 3mm	SR ISO 14580 M4X10

TANG-F-GRIP HIGH FEED PARTING

TGAQ-JHP

Parting and Grooving Square Adapters with Internal Coolant Holes Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	OAL	OAH	CWN[1]	CWX[2]	WB	HF	CUTDIA[3]	MIID[4]	CSP[5]
TGAQ D52-2-2Z-JHP	50.00	50.00	1.80	2.50	1.65	43.5	52.0	TAG 2	1
TGAQ D52-3-2Z-JHP	50.00	50.00	2.80	3.50	2.50	43.5	52.0	TAG 3	1
TGAQ D52-4-2Z-JHP	50.00	50.00	3.70	4.50	3.40	43.5	52.0	TAG 4	1
TGAQ D82-2-4Z-JHP	61.00	61.00	1.80	2.50	1.65	58.0	82.0	TAG 2	1
TGAQ D82-3-4Z-JHP	61.00	61.00	2.80	3.50	2.50	58.0	82.0	TAG 3	1
TGAQ D82-4-4Z-JHP	61.00	61.00	3.70	4.50	3.40	58.0	82.0	TAG 4	1
TGAQ D120-3-4Z-JHP	90.50	90.50	2.80	3.50	2.50	84.0	120.0	TAG 3	1
TGAQ D120-4-4Z-JHP	90.50	90.50	3.70	4.50	3.40	84.0	120.0	TAG 4	1
TGAQ D120-5-4Z-JHP	90.50	90.50	4.70	5.50	4.00	84.0	120.0	TAG 5	1
TGAQ D160-3-4Z-JHP	100.00	100.00	2.80	3.50	2.50	97.0	160.0	TAG 3	1
TGAQ D160-4-4Z-JHP	100.00	100.00	3.70	4.50	3.40	97.0	160.0	TAG 4	1
TGAQ D160-5-4Z-JHP	100.00	100.00	4.70	5.50	4.00	97.0	160.0	TAG 5	1

- Suitable for all TANG-GRIP inserts

[1] Minimum cutting width
[2] Maximum cutting width
[3] Maximum diameter for parting
[4] Master insert identification
[5] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)
For holders, see pages: TGTBQ-JHP (511) • TGTBQ-JHP-MC (512) • TGTBY-JHP (517) • V## SQ#-#-D82-JHP (512)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TGAQ D.../-2.../-3...-JHP	4-7	5-8	6-9
TGAQ D.../-4.../-5...-JHP	6-7	7-8	8-9

Spare Parts

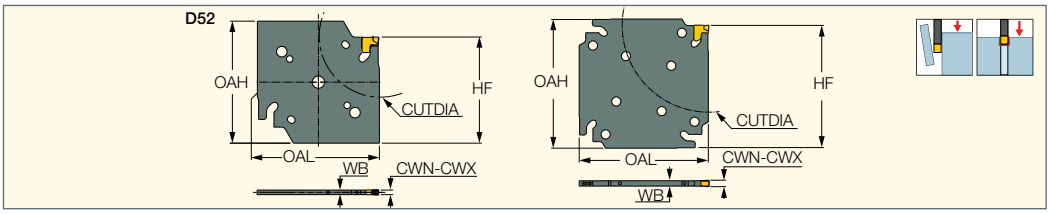
Designation			
TGAQ D52-2-2Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 2*
TGAQ D52-3-2Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D52-4-2Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D82-2-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 2*
TGAQ D82-3-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D82-4-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D120-3-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D120-4-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D120-5-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 5-7*
TGAQ D160-3-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D160-4-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D160-5-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 5-7*

* Optional, should be ordered separately

TANG-F-GRIP HIGH FEED PARTING

TGAQ

Parting and Grooving Square Adapters Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	OAL	OAH	CWN[1]	CWX[2]	WB	HF	CUTDIA[3]	MIID[4]	CSP[5]
TGAQ D52-2-2Z	50.00	50.00	1.80	2.50	1.65	43.5	52.0	TAG 2	0
TGAQ D52-3-2Z	50.00	50.00	2.80	3.50	2.50	43.5	52.0	TAG 3	0
TGAQ D52-4-2Z	50.00	50.00	3.70	4.50	3.40	43.5	52.0	TAG 4	0
TGAQ D82-2-4Z	61.00	61.00	1.80	2.50	1.65	58.0	82.0	TAG 2	0
TGAQ D82-3-4Z	61.00	61.00	2.80	3.50	2.50	58.0	82.0	TAG 3	0
TGAQ D82-4-4Z	61.00	61.00	3.70	4.50	3.40	58.0	82.0	TAG 4	0
TGAQ D120-3-4Z	90.50	90.50	2.80	3.50	2.50	84.0	120.0	TAG 3	0
TGAQ D120-4-4Z	90.50	90.50	3.70	4.50	3.40	84.0	120.0	TAG 4	0
TGAQ D120-5-4Z	90.50	90.50	4.70	5.50	4.00	84.0	120.0	TAG 5	0
TGAQ D160-3-4Z	100.00	100.00	2.80	3.50	2.50	97.0	160.0	TAG 3	0
TGAQ D160-4-4Z	100.00	100.00	3.70	4.50	3.40	97.0	160.0	TAG 4	0
TGAQ D160-5-4Z	100.00	100.00	4.70	5.50	4.00	97.0	160.0	TAG 5	0

- Suitable for all TANG-GRIP inserts

[1] Minimum cutting width

[2] Maximum cutting width

[3] Maximum diameter for parting

[4] Master insert identification

[5] 0 - Without coolant supply, 1 - With coolant supply

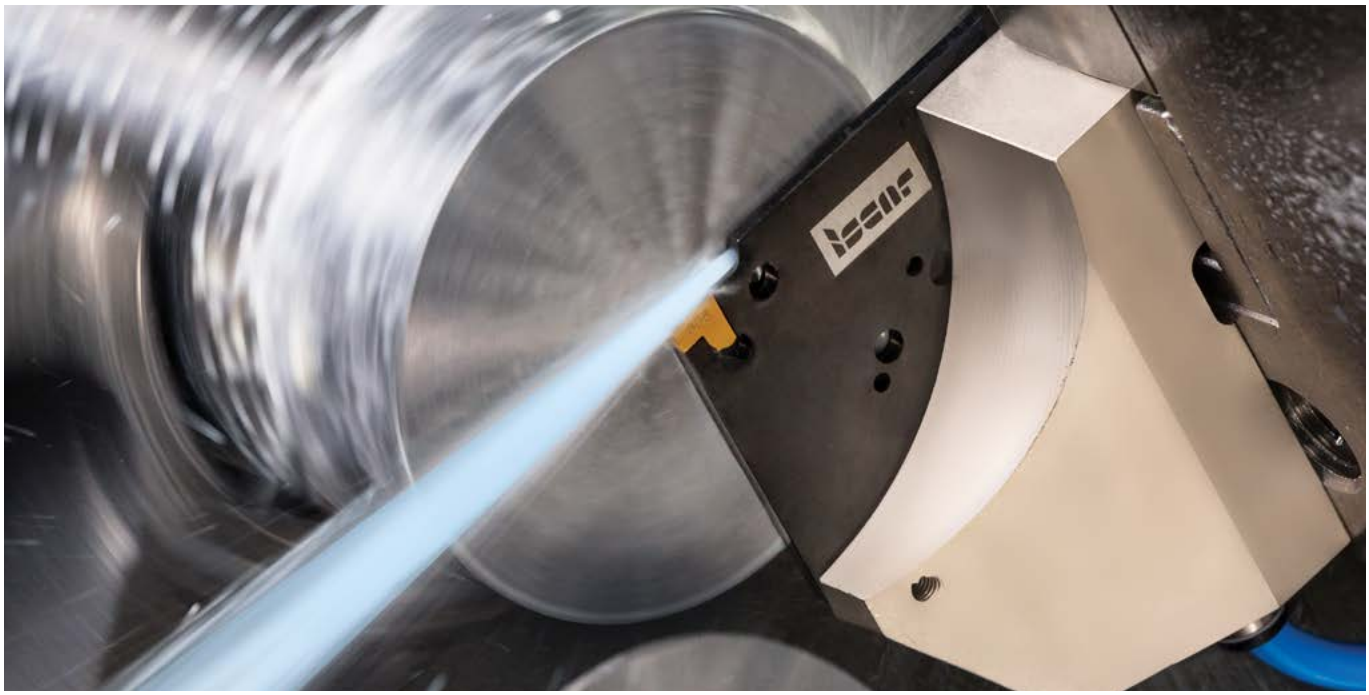
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: TGTBQ-JHP (511) • TGTBQ-JHP-MC (512) • TGTBY-JHP (517) • V## SQ#-#-D82-JHP (512)

Spare Parts

Designation		
TGAQ D52-2-2Z	SR ISO 14580 M4X10	ETG 2*
TGAQ D52-3-2Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D52-4-2Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D82-2-4Z	SR ISO 14580 M4X10	ETG 2*
TGAQ D82-3-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D82-4-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D120-3-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D120-4-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D120-5-4Z	SR ISO 14580 M4X10	ETG 5-7*
TGAQ D160-3-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D160-4-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D160-5-4Z	SR ISO 14580 M4X10	ETG 5-7*

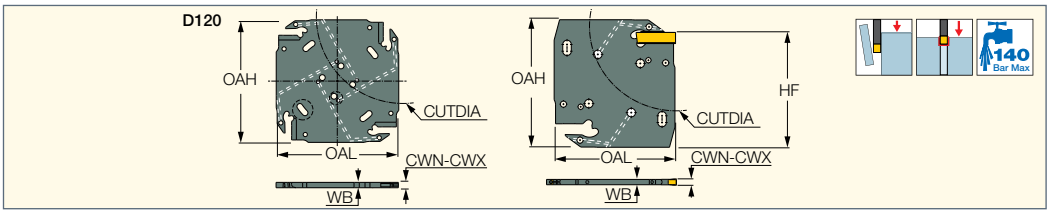
* Optional, should be ordered separately



DOFGRIP TWISTED 2-SIDED

DGAQ-JHP

Parting and Grooving Square Adapters with Internal Coolant Holes Carrying DO-GRIP Inserts



Designation	OAL	OAH	CWN[1]	CWX[2]	WB	HF	CUTDIA[3]	MIID[4]	CSP[5]
DGAQ D52-2-2Z-JHP	50.00	50.00	1.90	2.50	1.72	43.5	52.0	DGN 2	1
DGAQ D52-3-2Z-JHP	50.00	50.00	3.00	3.18	2.50	43.5	52.0	DGN 3	1
DGAQ D52-4-2Z-JHP	50.00	50.00	4.00	4.00	3.20	43.5	52.0	DGN 4	1
DGAQ D82-3-2Z-JHP	64.40	64.40	3.00	3.18	2.50	58.0	82.0	DGN 3	1
DGAQ D82-4-2Z-JHP	64.40	64.40	4.00	4.00	3.20	58.0	82.0	DGN 4	1
DGAQ D82-5-2Z-JHP	64.40	64.40	5.00	5.00	4.00	58.0	82.0	DGN 5	1
DGAQ D120-4-4Z-JHP	90.50	90.50	4.00	4.00	3.20	84.0	120.0	DGN 4	1
DGAQ D120-5-4Z-JHP	90.50	90.50	5.00	5.00	4.00	84.0	120.0	DGN 5	1

- When using 2 and 3mm double-sided inserts, the depth of cut is limited up to 19mm. For larger depth, use a DGNM type single-ended insert.

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum diameter for parting
(4) Master insert identification
(5) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

For holders, see pages: TGTBQ-JHP (511) • TGTBQ-JHP-MC (512) • TGTBY-JHP (517) • V## SQ#-#-D82-JHP (512)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
DGAQ D.../-2/-3...-JHP	4-7	5-8	6-9
DGAQ D.../-4/-5...-JHP	6-7	7-8	8-9

Spare Parts

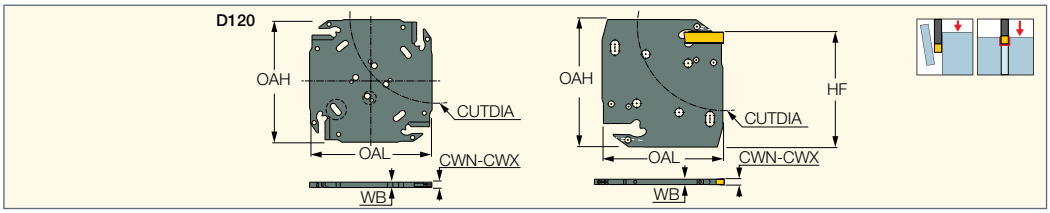
Designation			
DGAQ-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	EDG 33A*

* Optional, should be ordered separately

DOFGRIP TWISTED 2-SIDED

DGAQ

Parting and Grooving Square Adapters Carrying DO-GRIP Inserts



Designation	OAL	OAH	CWN[1]	CWX[2]	WB	HF	CUTDIA[3]	MIID[4]	CSP[5]
DGAQ D52-2-2Z	50.00	50.00	1.90	2.50	1.72	43.5	52.0	DGN 2	0
DGAQ D52-3-2Z	50.00	50.00	3.00	3.18	2.50	43.5	52.0	DGN 3	0
DGAQ D52-4-2Z	50.00	50.00	4.00	4.00	3.20	43.5	52.0	DGN 4	0
DGAQ D82-3-2Z	64.40	64.40	3.00	3.18	2.50	58.0	82.0	DGN 3	0
DGAQ D82-4-2Z	64.40	64.40	4.00	4.00	3.20	58.0	82.0	DGN 4	0
DGAQ D82-5-2Z	64.40	64.40	5.00	5.00	4.00	58.0	82.0	DGN 5	0
DGAQ D120-4-4Z	90.50	90.50	4.00	4.00	3.20	84.0	120.0	DGN 4	0
DGAQ D120-5-4Z	90.50	90.50	5.00	5.00	4.00	84.0	120.0	DGN 5	0

- When using 2 and 3mm double-sided inserts, the depth of cut is limited up to 19mm. For larger depth, use a DGNM type single-ended insert.

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum diameter for parting
(4) Master insert identification
(5) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DGN-LF/LFT (485) • DGN-MF (485) • DGN-P (487) • DGN-UT/UA (487) • DGN-W (482) • DGN-WP (488) • DGN-Z (486) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGR-P (488) • DGR-WP (488) • DGR-Z/ZS (486) • DGR/L-C DGRC/LC-C (482) • DGR/L-J/JS (484)

For holders, see pages: TGTBQ-JHP (511) • TGTBQ-JHP-MC (512) • TGTBY-JHP (517) • V## SQ#-#-D82-JHP (512)

Spare Parts

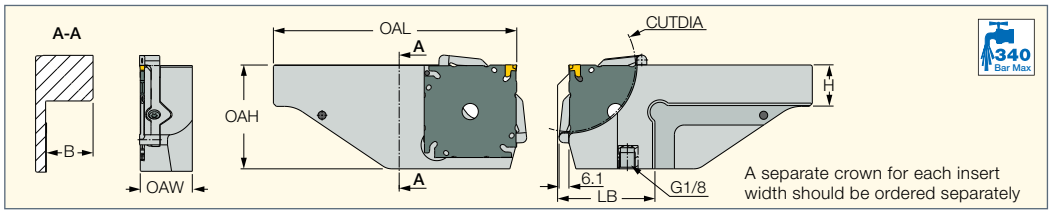
Designation		
DGAQ	SR ISO 14580 M4X10	EDG 33A*

* Optional, should be ordered separately

LOGIQ F GRIP HIGH FEED GRIP HOLDER
JETCROWN LOGIQ JET COOLANT

TGTBQ-ECD-JHP (JET-CROWN)

Tool Blocks for Square TANG-F-GRIP (TGAQ-ECD) Parting and Grooving Adapters for High-Pressure Coolant



Designation	OAH	H	B	OAW	OAL	LB	CUTDIA
TGTBQ 20L-D65-ECD-JHP	55.00	20.0	20.5	26.50	129.00	42.00	65.0
TGTBQ 20R-D65-ECD-JHP	55.00	20.0	20.5	26.50	129.00	42.00	65.0
TGTBQ 25L-D65-ECD-JHP	55.00	25.0	25.5	31.50	139.00	42.00	65.0
TGTBQ 25R-D65-ECD-JHP	55.00	25.0	25.5	31.50	139.00	42.00	65.0
TGTBQ 20L-D82-ECD-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 20R-D82-ECD-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 25L-D82-ECD-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0
TGTBQ 25R-D82-ECD-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0

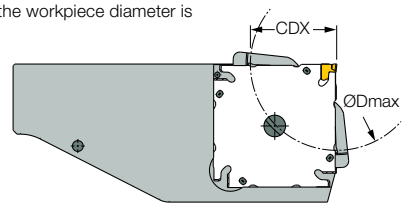
- A separate crown for each insert width should be ordered separately.

For tools, see pages: TGAQ-ECD (JET-CROWN) (516)

Depth of cut as function of workpiece diameter

Designation	Dmax																			
TGTBQ ..R/L-D65-ECD	98	95	90	87	84	81	78	76	74	73	72	70	69	68	67	66	65			
CDX	8	9	10	11	12	13	14	15	16	17	18	19	20-21	22	23-24	25-33	32.5			
TGTBQ ..R/L-D82-ECD	118	116	112	108	105	102	99	97	95	93	91	90	89	88	87	86	85	84	83	82
CDX	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	31	41

The tool cannot be used for grooving applications when the workpiece diameter is larger than 118mm.





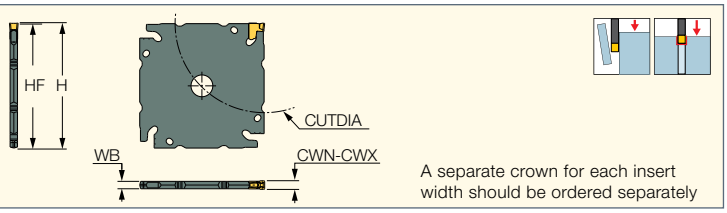
Spare Parts

Designation			
TGTBQ-ECD-JHP (JET-CROWN)	SR M7-R-L	BLD T20/S7	SW6-SD

TANG F GRIP HIGH FEED PARTING
JETCROWN LOGIQ JET COOLANT

TGAQ-ECD (JET-CROWN)

Parting and Grooving Square Adapters Compatible with TANG-GRIP Inserts (Single-Ended)



Designation	CWN(1)	CWX(2)	WB	H	HF(3)	CUTDIA	MIID(4)
TGAQ D65-2-4Z-ECD	1.80	2.50	1.65	49.0	48.7	65.0	TAG N2
TGAQ D65-3-4Z-ECD	2.80	3.50	2.50	49.0	48.7	65.0	TAG N3
TGAQ D82-2-4Z-ECD	1.80	2.50	1.65	58.0	57.7	82.0	TAG N2
TGAQ D82-3-4Z-ECD	2.80	3.50	2.50	58.0	57.7	82.0	TAG N3
TGAQ D82-4-4Z-ECD	3.70	3.40	3.40	58.0	57.7	82.0	TAG N4

- Suitable for all TANG-GRIP inserts

(1) Minimum cutting width
(2) Maximum cutting width
(3) Related to insert
(4) Master insert identification

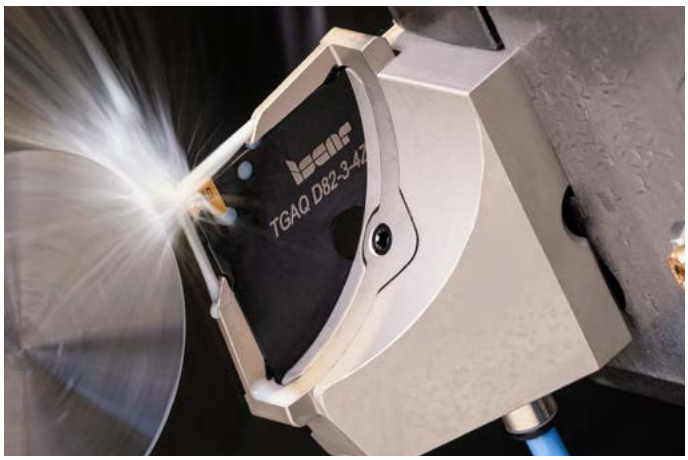
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: TGTBQ-ECD-JHP (JET-CROWN) (516)

Spare Parts

Designation		
TGAQ D65-2-4Z-ECD	ECD D65-2-TG*	ETG 2*
TGAQ D65-3-4Z-ECD	ECD D65-3-TG*	ETG 3-4-SH*
TGAQ D82-2-4Z-ECD	ECD D82-2-TG*	ETG 2*
TGAQ D82-3-4Z-ECD	ECD D82-3-TG*	ETG 3-4-SH*
TGAQ D82-4-4Z-ECD	ECD D82-4-TG*	ETG 3-4-SH*

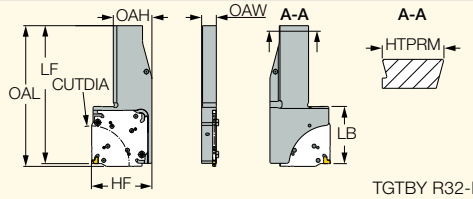
* Optional, should be ordered separately



LOGIQFGRIP HIGH FEED Y-AXIS

TGTBY-JHP

Y-Axis Intermediate Prismatic Holders for Square JHP Adapters on Multi-Task Machines for Parting and Grooving



TGTBY R32-D82R-JHP with TGAQ Shown

Designation	OAH	HF	OAW	LF	LB	CUTDIA	OAL[1]	OAL_2[2]	HTPRM
TGTBY L32-D82R-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00
TGTBY R32-D82L-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00
TGTBY R32-D82R-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00
TGTBY L32-D82L-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00

• Can be used also for X-axis (multi-task machines) - location pin should be removed • For set up procedure see page 518

(1) Overall length with TGAQ adapter

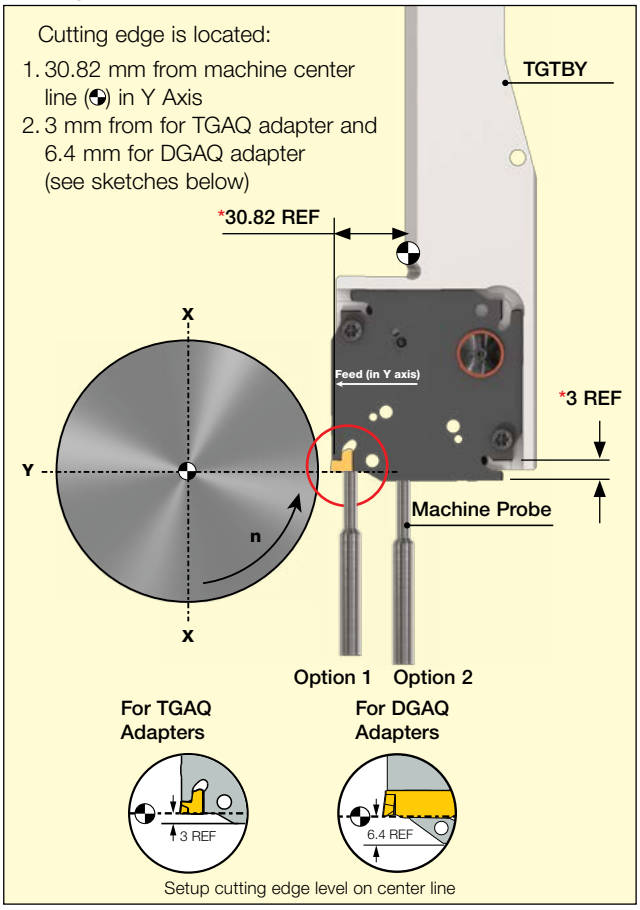
(2) Overall length with DGAQ adapter

For tools, see pages: DGAQ (515) • DGAQ-JHP (515) • TGAQ (514) • TGAQ-JHP (513)



Y-Axis Tool Setup on Multi-Task Machines

Parting and Setup in Y-Axis Direction

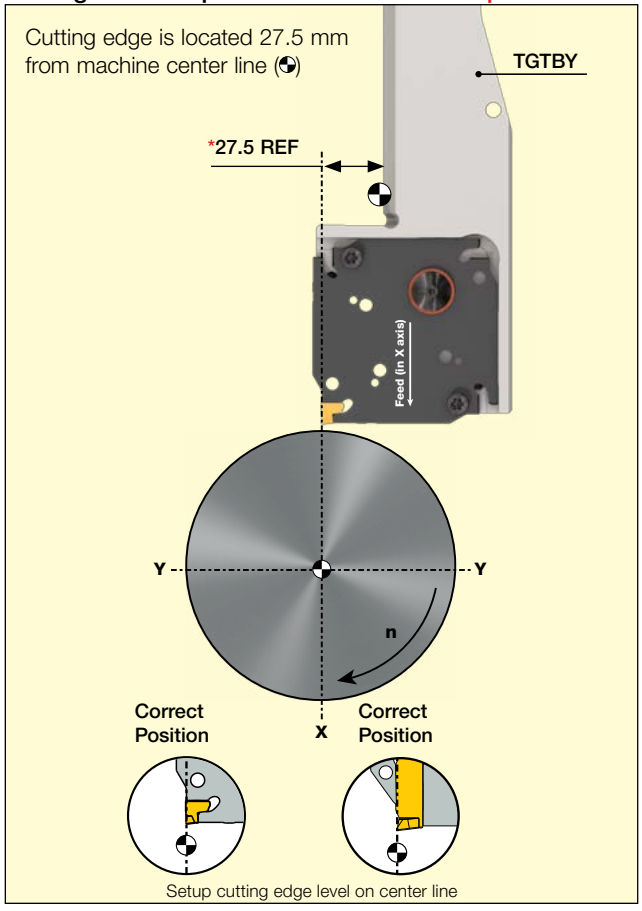


* For Y-Axis cut off, compensate 30.82 mm in Y-Axis direction and compensate 3 mm for TGAQ adapters or 6.4 mm for DGAQ adapters in X-Axis direction.

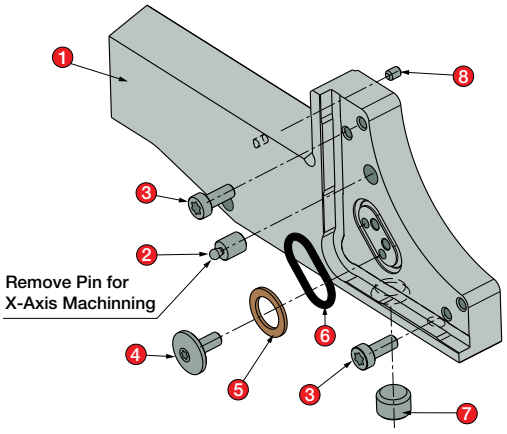
Set the cutting edge on the center line:
Option 1 - Gauge the cutting edge - this is preferable due to better accuracy
Option 2 - Gauge the blade and compensate 3mm / 6.4mm

1. **Block:** TGTBY
2. **Locating pin:** Side thrust Pin 3 mm
3. **Clamping screw :** SR M4x10 ISO 14580
4. **Clamping & sealing screw:** SR M4x9-Seal-JHP
5. **Seal washer:** CSW 1/8″
6. **O-ring:** O-ring 10x2 NBR
7. **Lower sealing plug:** Plug G1/8-6.5 TL360
8. **Upper sealing screw:** SR M3x4-**DIN913**

Parting and Setup in X-Axis Direction - Optional



* For X-Axis cut off, compensate 27.5 mm in Y-Axis direction. Location pin should be removed.



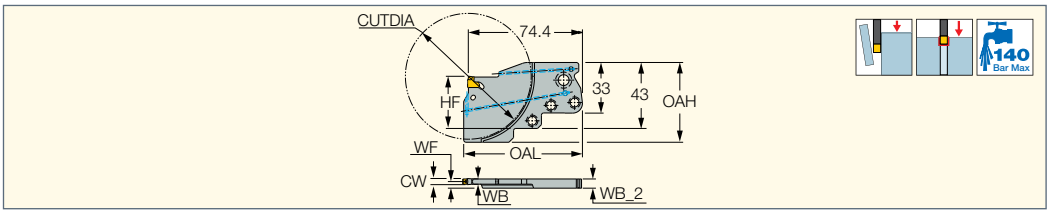
Spare Parts

Designation									
TGTBY-JHP	SR ISO 14580 M4X10	SR M4X9-SEAL-JHP	OR 16X2 NBR	JHP COPPER SEAL 1/8"	BLD T20/S7	SW6-SD	PLG G1/8 TL360	HW 5.0	SIDE THRUST PIN 3mm

TANG-GRIP
Y AXIS PARTING LINE

TAGPAD-Y-JHP

Y-Axis Adapters for Parting & Grooving on Multi-Task Machines & Turning Centers with JHP Channels and TANG-GRIP Inserts



Designation	CW	WF	WB	WB_2	OAL	OAH	HF	CUTDIA	MIID(1)	
TAGPAD-Y-D82R/L-3C	3.00	4.80	2.40	6.0	77.40	52.00	34.0	82.0	TAG N3HF	ETG 3-4-SH*
TAGPAD-Y-D82R/L-4C	4.00	4.30	3.40	6.0	77.40	52.00	34.0	82.0	TAG N4HF	ETG 3-4-SH*

- Can be offered for parting up to 125mm diameter as semi standard: TAGPAD-Y-125R\L-3C, TAGPAD-Y-125R\L-4C
- For set up procedure and user guide, see page 548
- **The tool types shown are currently unavailable in the USA, Canada, China, Japan and Korea.**

(1) Master insert identification

* Optional, should be ordered separately

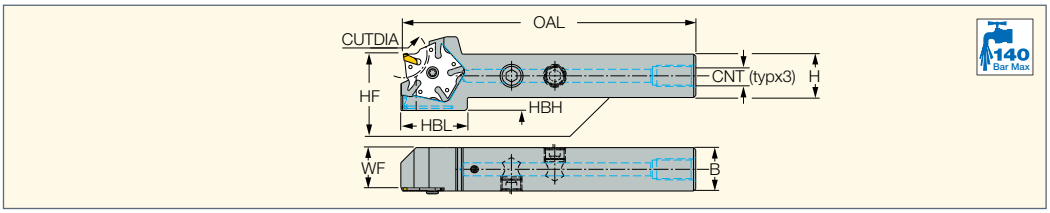
For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: ABC MAHDR-#-XL-JHP (782) • MAHPR/L-XL-JHP (561) • MAHR/L-MG-XL-JHP (501) • MAHR/L-MG-XL-JHP-MC (501) • TR45 MAHDR-#-XL-JHP (781) • V## MAHD#-#-XL-##-JHP (778) • V## MAHD-XL-JHP (779)

SLIMGRIP
NARROW INSERTS

THMPR/L D22-JHP

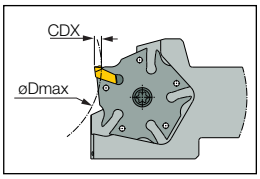
Holders with High-Pressure Coolant Channels for Pentagonal SLIM-GRIP Adapters



Designation	H	HF	HBH	B	WF	CUTDIA	OAL	HBL	CNT
THMPR/L 16-D22-JHP	16.0	16.1	10.0	16.0	14.60	22.0	135.00	29.6	UNF 5/16-24
THMPR/L 20-D22-JHP	20.0	20.1	6.0	20.0	18.60	22.0	135.00	29.6	G1/8

For tools, see pages: ADMP D22 (519)

THMPR/L...-D22-JHP CDX to øDmax								
CDX	≤2.0	≤3.0	≤4.0	≤5.0	≤6.0	≤7.0	≤8.0	≤11.0
øDmax	85	80	75	70	65	60	55	50



Spare Parts

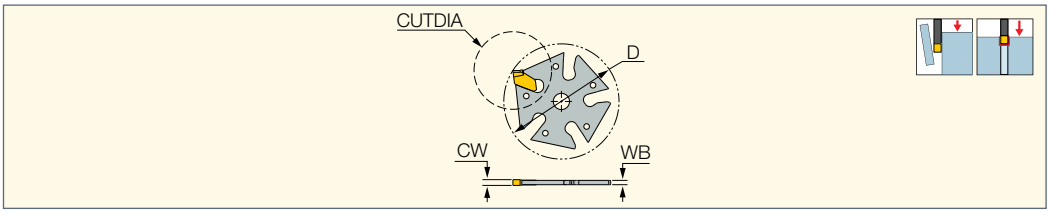
Designation				
THMPR/L 16-D22-JHP	SR 5/16UNF TL360	HW 5/32"	SR M4-39432	T-15/5
THMPR/L 20-D22-JHP	PLG G1/8 TL360	HW 5.0	SR M4-39432	T-15/5

SELF5GRIP
PARTING AND GROOVING

SLIMGRIP
NARROW INSERTS

ADMP D22

Parting and Grooving Adapters with 5 Pockets for SLIM-GRIP Inserts



Designation	CW	WB	D	CUTDIA	Insert
ADMP D22-1.2	1.20	1.06	32	22.0	GFT 1.2
ADMP D22-1.6	1.60	1.20	32	22.0	GFT 1.6

- For user guide, see pages 538-547

For inserts, see pages: GFT-C (520) • GFT-J (520)

For holders, see pages: THMPR/L D22-JHP (519)

Spare Parts

Designation	
ADMP D22	ESG-SLM*

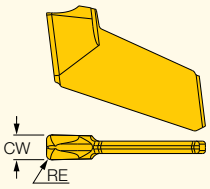
* Optional, should be ordered separately

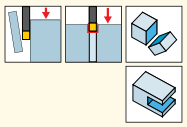
SLIMGRIP NARROW INSERTS

GFT-J

Thin Parting, Grooving and Slitting Single-Ended Inserts for Soft Materials







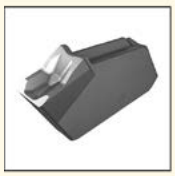
Designation	Dimensions CW	RE	Tough ↔ Hard IC1028	IC1008	Recommended Machining Data f groove (mm/rev)
GFT 0.6J-0.1	0.60	0.10	•	•	0.03-0.05
GFT 0.8J-0.1	0.80	0.10	•	•	0.03-0.07
GFT 1.0J-0.1	1.00	0.10	•	•	0.03-0.09
GFT 1.2J-0.14	1.20	0.14	•	•	0.03-0.10
GFT 1.6J-0.16	1.60	0.16	•	•	0.03-0.12

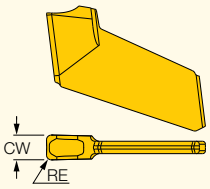
For tools, see pages: ADMP D22 (519) • SGAQ (376)

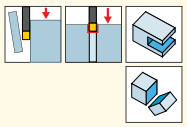
SLIMGRIP NARROW INSERTS

GFT-C

Thin Parting, Grooving & Slitting Single-Ended Inserts for Soft Materials







Designation	Dimensions CW	RE	Tough ↔ Hard IC1028	IC1008	Recommended Machining Data f groove (mm/rev)
GFT 1.6C-0.16	1.60	0.16	•	•	0.05-0.15

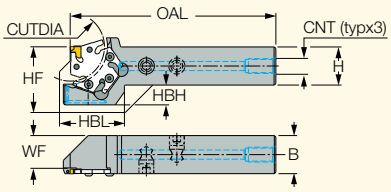
For tools, see pages: ADMP D22 (519)

TANG-GRIP PARTING LINE

TANG 5 GRIP PARTING AND GROOVING

THMPR/L D45-JHP

Holders with High-Pressure Coolant Channels for Pentagonal TANG-GRIP Adapters





Designation	H	HF	HBH	B	WF	CUTDIA	OAL	HBL	CNT
THMPR/L 20-D45-JHP	20.0	20.1	18.0	20.0	17.35	45.0	135.00	35.6	G1/8
THMPR/L 25-D45-JHP	25.0	25.1	13.0	25.0	22.35	45.0	135.00	35.6	G1/8

For tools, see pages: ADMP D45 (521)

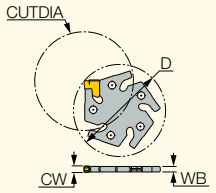
Spare Parts

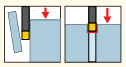
Designation				
THMPR/L D45-JHP	SR M3X8 ISO 14580 BLACK	T-10/5	PLG G1/8 TL360	HW 5.0

TANG 5 GRIP PARTING AND GROOVING

ADMP D45

Parting and Grooving Adapters with 5 Pockets for TANG-GRIP Tangentially Clamped Inserts





Designation	CWN(1)	CWX(2)	WB	D	CUTDIA	Insert
ADMP D45-2.0	1.80	2.40	1.60	42	45.0	TAG 2
ADMP D45-3.0	2.80	3.50	2.50	42	45.0	TAG 3

• For user guide, see pages 538-547

(1) Minimum cutting width

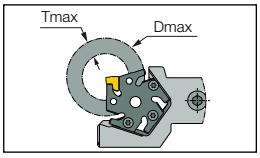
(2) Maximum cutting width

For inserts, see pages: TAG N-A (510) • TAG N-C/W/M (506) • TAG N-HF (506) • TAG N-J/JS/JT (508) • TAG N-LF (509) • TAG N-MF (507) • TAG N-UT (510) • TAG R/L-C (507) • TAG R/L-J/JS (509)

For holders, see pages: THMPR/L D45-JHP (520)

THMPR/L...-D45-JHP Tmax. to Dmax.

Tmax	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0	T≤22.5
Dmax	85	80	75	70	65	60	55	50	45



Spare Parts

Designation	
ADMP D45-2.0	ETG 2*
ADMP D45-3.0	ETG 3-4-SH*

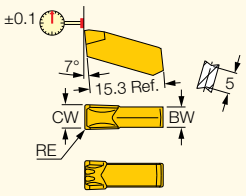
* Optional, should be ordered separately

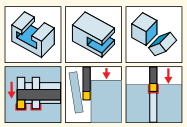
CUTGRIP

GIM-C

Parting and Grooving Single-Sided Inserts for Parting Bars, Hard Materials and Tough Applications







Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 3C	3.00	0.22	0.05	2.40	•	•	•	•	•	0.15-0.25
GIM 4C	4.00	0.25	0.05	3.40				•		0.15-0.25
GIM 5C	5.00	0.40	0.05	4.00	•	•	•	•	•	0.15-0.30
GIM 6C	6.00	0.40	0.05	4.80	•		•	•	•	0.15-0.30

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

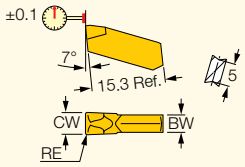
For tools, see pages: Anti-Vibration Blades (284) • C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

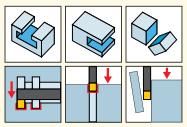
CUTGRIP

GIM-J

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Tubes
and Small Diameters







Designation	Dimensions CW	RE	CWTOL[1]	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.2J	2.20	0.17	0.05	1.70	●	●	●	●	●	0.06-0.13
GIM 3J	3.00	0.25	0.05	2.40	●	●	●	●	●	0.08-0.15
GIM 4J	4.00	0.25	0.05	3.20	●	●	●	●	●	0.08-0.18

• For cutting speed recommendations and user guide, see pages 538-547

[1] Cutting width tolerance (+/-)

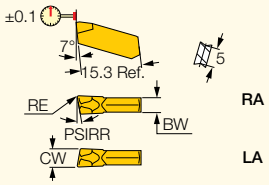
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

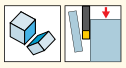
CUTGRIP

GIM-J-RA/LA

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Parting Tubes
and Small Diameters







Designation	Dimensions CW	RE	CWTOL[1]	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.2J-8LA	2.20	0.17	0.05	8.0	-	1.70		●		●	●	●	0.05-0.10
GIM 2.2J-8RA	2.20	0.17	0.05	-	8.0	1.70	●	●	●	●	●	●	0.05-0.10
GIM 2.2JS-15LA	2.20	0.02	0.05	15.0	-	1.70		●			●	●	0.05-0.10
GIM 2.2JS-15RA	2.20	0.02	0.05	-	15.0	1.70		●	●	●	●	●	0.05-0.10
GIM 3J-4LA	3.00	0.22	0.05	4.0	-	2.40				●		●	0.05-0.12
GIM 3J-4RA	3.00	0.25	0.05	-	4.0	2.40		●	●	●		●	0.05-0.12
GIM 3J-8LA	3.00	0.25	0.05	8.0	-	2.40		●		●	●	●	0.05-0.12
GIM 3J-8RA	3.00	0.25	0.05	-	8.0	2.40	●	●	●	●	●	●	0.05-0.12
GIM 3JS-15LA	3.00	0.02	0.05	15.0	-	2.40		●	●			●	0.05-0.12
GIM 3JS-15RA	3.00	0.02	0.05	-	15.0	2.40		●	●		●	●	0.05-0.12
GIM 4J-6LA	4.00	0.25	0.05	6.0	-	3.20						●	0.08-0.15
GIM 4J-6RA	4.00	0.25	0.05	-	6.0	3.20				●		●	0.08-0.15

• For cutting speed recommendations and user guide, see pages 538-547

[1] Cutting width tolerance (+/-)

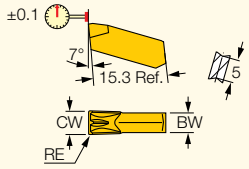
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

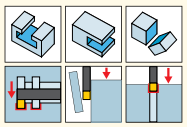
CUT-GRIP

GIM-W

Single-Sided Inserts with Central Ridged Chipformer and Reinforced Edge for Parting and Grooving Alloy Steel







Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.4	2.40	0.18	0.05	2.40			●	●	●	0.10-0.18
GIM 3	3.00	0.22	0.05	2.40	●	●	●	●	●	0.10-0.18
GIM 3.2	3.20	0.22	0.05	2.40	●	●	●	●	●	0.10-0.20
GIM 4	4.00	0.25	0.05	3.20	●	●	●	●	●	0.15-0.20

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

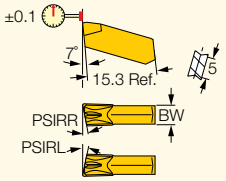
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

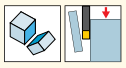
CUT-GRIP

GIM-W-RA/LA

Single-Sided Screw-Clamped Inserts with Central Ridged Chipformer for Parting Alloy Steel







Designation	Dimensions CW	RE	CWTOL(1)	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 3-4LA	3.00	0.20	0.05	4.0	-	2.40		●		●		●	0.08-0.16
GIM 3-8LA	3.00	0.20	0.05	8.0	-	2.40		●		●	●	●	0.08-0.16
GIM 3S-15RA	3.00	0.22	0.05	-	15.0	2.40		●					0.08-0.16
GIM 3-4RA	3.00	0.25	0.05	-	4.0	2.40	●	●	●	●	●	●	0.08-0.16
GIM 3-8RA	3.00	0.25	0.05	-	8.0	2.40	●	●	●	●	●	●	0.08-0.16
GIM 3.2-4LA	3.20	0.22	0.05	4.0	-	2.50				●			0.08-0.16
GIM 3.2-4RA	3.20	0.22	0.05	-	4.0	2.50		●		●		●	0.08-0.16
GIM 3.2-8LA	3.20	0.22	0.05	8.0	-	2.50				●			0.08-0.16
GIM 3.2-8RA	3.20	0.22	0.05	-	8.0	2.50		●		●	●	●	0.08-0.16
GIM 4-4LA	4.00	0.25	0.05	4.0	-	3.20				●		●	0.10-0.16
GIM 4-4RA	4.00	0.25	0.05	-	4.0	3.20	●			●	●	●	0.10-0.16
GIM 4-8LA	4.00	0.25	0.05	8.0	-	3.20				●			0.10-0.16
GIM 4-8RA	4.00	0.25	0.05	-	8.0	3.20		●		●	●	●	0.10-0.16

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

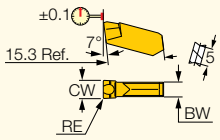
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

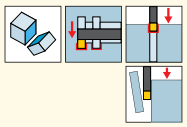
CUTGRIP

GIM-UT

Single-Ended Screw-Clamped Inserts for Parting and Grooving at Low Feeds on CrNi Alloys and Low Carbon Steel







Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC656	IC328	Recommended Machining Data f groove (mm/rev)
GIM 4.6UT	4.60	0.60	0.03	3.80	●	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

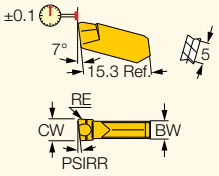
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

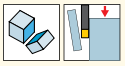
CUTGRIP

GIM-UT-RA/LA

Single-Ended Screw-Clamped Inserts for Parting at Low Feeds on CrNi Alloys and Low Carbon Steel







Designation	Dimensions CW	RE	CWTOL(1)	PSIRR	BW	IC328	Recommended Machining Data f groove (mm/rev)
GIM 3UT-1.5RA	3.12	0.25	0.03	1.5	2.50	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 538-547

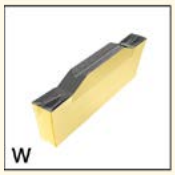
(1) Cutting width tolerance (+/-)

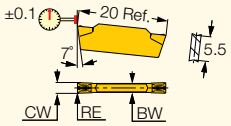
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273)

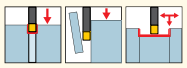
CUTGRIP

GDMW 2.4

Utility Double-Ended Inserts for External Turning, Grooving and Parting







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC808	IC908	IC20	IC20N	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMW 2.4	2.40	0.18	0.04	0.030	2.00	18.00	●	●	●	●	●	0.25-1.50	0.07-0.12	0.05-0.08

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

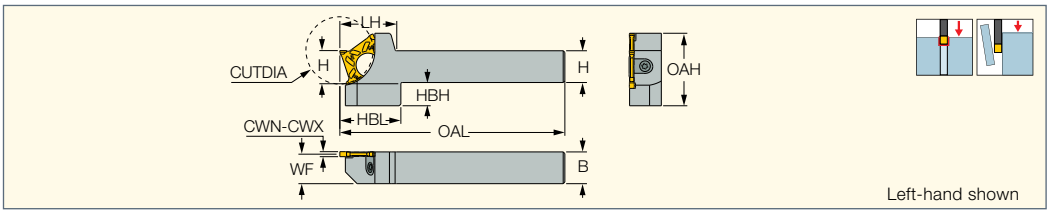
(3) Cutting depth maximum

For tools, see pages: PADR/L (306) • PHGR/L (305) • PHSR/L (373)

PENTA IQ GRIP PARTING LINE

PCHR/L-D-IQ

Grooving and Parting Tools Carrying Inserts with 5 Cutting Edges



Designation	H	B	CWN[1]	CWX[2]	WF	CUTDIA	OAL	LH	HBL	HBH	OAH
PCHR/L 12-D22-2-IQ	12.0	12.0	2.00	2.40	11.40	22.0	100.00	26.9	25.70	8.0	25.5
PCHR/L 16-D22-2-IQ	16.0	16.0	2.00	2.40	15.40	22.0	120.00	26.9	23.20	4.0	25.5
PCHR/L 20-D22-2-IQ	20.0	20.0	2.00	2.40	19.40	22.0	120.00	26.9	-	-	25.5
PCHR/L 12-D22-3-IQ	12.0	12.0	3.00	3.20	10.70	22.0	120.00	19.7	20.00	11.0	25.5
PCHR/L 16-D22-3-IQ	16.0	16.0	3.00	3.20	14.70	22.0	120.00	19.7	20.00	7.0	25.5
PCHR/L 20-D22-3-IQ	20.0	20.0	3.00	3.20	18.70	22.0	120.00	19.7	-	-	25.5
PCHR/L 12-D32-2-IQ	12.0	12.0	2.00	2.40	11.50	32.0	100.00	28.4	29.50	14.0	33.6
PCHR/L 16-D32-2-IQ	16.0	16.0	2.00	2.40	15.50	32.0	120.00	28.4	29.50	10.0	33.6
PCHR/L 20-D32-2-IQ	20.0	20.0	2.00	2.40	19.50	32.0	120.00	28.4	29.50	6.0	33.6
PCHR/L 25-D32-2-IQ	25.0	25.0	2.00	2.40	24.50	32.0	120.00	28.4	-	-	33.6
PCHR/L 12-D32-3-IQ	12.0	12.0	3.00	3.20	10.70	32.0	100.00	26.0	32.00	16.0	32.6
PCHR/L 16-D32-3-IQ	16.0	16.0	3.00	3.20	14.70	32.0	120.00	26.0	32.00	12.0	32.6
PCHR/L 20-D32-3-IQ	20.0	20.0	3.00	3.20	18.70	32.0	120.00	26.0	32.00	8.0	32.6
PCHR/L 25-D32-3-IQ	25.0	25.0	3.00	3.20	23.70	32.0	120.00	26.0	-	-	32.6
PCHR/L 16-D40-3-IQ	16.0	16.0	3.00	3.20	14.70	40.0	135.00	33.3	36.80	17.0	43.5
PCHR/L 20-D40-3-IQ	20.0	20.0	3.00	3.20	18.70	40.0	135.00	33.3	35.60	13.0	43.5
PCHR/L 25-D40-3-IQ	25.0	25.0	3.00	3.20	23.70	40.0	135.00	33.3	33.60	8.0	43.5
PCHR/L 32-D40-3-IQ	32.0	32.0	3.00	3.20	30.70	40.0	135.00	33.3	-	-	43.5

[1] Minimum cutting width

[2] Maximum cutting width

For inserts, see pages: PENTA D-N-C (527) • PENTA D-N-J (527) • PENTA D-N-PB (528) • PENTA D-R/L-C (528) • PENTA D-R/L-J (527) • PENTA D-R/L-PB (528)

Tmax as a Function of Dmax for PENTA D22

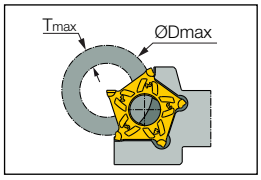
Tmax	T≤1.2	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤7.0	T≤9.0	T≤11.0
Dmax	N.L[1]	600	130	60	40	30	25	22

Tmax as a Function of Dmax for PENTA D32

Tmax	T≤1.2	T≤2	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤16.0
Dmax	N.L[1]	N.L[1]	250	130	80	60	50	45	40	32

Tmax as a Function of Dmax for PENTA D40

Tmax	T≤1.2	T≤2	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0	T≤11.0	T≤12.0	T≤13.0	T≤16.0	T≤20.0
Dmax	N.L[1]	N.L[1]	N.L[1]	350	200	140	105	85	75	65	60	55	50	45	40



[1] N.L = No Limit

Spare Parts

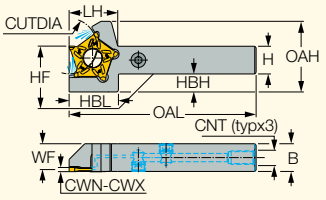
Designation				
PCHR/L 12-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 12-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHL 20-D22-3-IQ		LEVER PD22-3 INJ*		
PCHR/L 20-D22-3-IQ	SR M6-R-L		BLD T15/S7	SW6-SD
PCHR 20-D22-3-IQ		LEVER PD22-3 INJ		
PCHR/L 12-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 25-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHL 12-D32-3-IQ		LEVER PD32-3 INJ		
PCHR/L 12-D32-3-IQ	SR M6-R-L		BLD T15/S7	SW6-SD
PCHR 12-D32-3-IQ		LEVER PD32-3 INJ*		
PCHR/L 16-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 25-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 20-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 25-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 32-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD

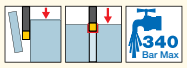
* Optional, should be ordered separately

PENTA IQ GRIP PARTING LINE
JETCUT

PCHR/L-D-JHP

Grooving and Parting Tools with Channels for High-Pressure Coolant Carrying Inserts with 5 Cutting Edges





Designation	H	HF	HBH	B	CWN(1)	CWX(2)	WF	CUTDIA	OAL	LH	HBL	OAH	CNT
PCHR/L 12-D22-2-JHP	12.0	0.0	8.0	12.0	2.00	2.40	11.00	22.0	101.50	29.0	29.50	32.0	UNF 5/16-24
PCHR/L 16-D22-2-JHP	16.0	0.0	4.0	16.0	2.00	2.40	15.00	22.0	121.50	29.0	29.50	32.0	UNF 5/16-24
PCHR/L 20-D22-2-JHP	20.0	0.0	-	20.0	2.00	2.40	19.00	22.0	121.50	29.0	29.50	32.0	G 1/8-28
PCHR/L 12-D32-2-JHP	12.0	12.1	14.5	12.0	2.00	2.40	11.15	32.0	100.00	30.5	31.00	41.0	UNF 5/16-24
PCHR/L 16-D32-2-JHP	16.0	16.1	10.0	16.0	2.00	2.40	15.21	32.0	120.00	25.9	27.00	41.0	UNF 5/16-24
PCHR/L 20-D32-2-JHP	20.0	20.1	6.5	20.0	2.00	2.40	18.40	32.0	120.00	30.5	31.00	41.0	G 1/8-28
PCHR/L 25-D32-2-JHP	25.0	25.1	1.5	25.0	2.00	2.40	23.40	32.0	120.00	29.0	29.50	41.0	G 1/8-28
PCHR/L 16-D40-3-JHP	16.0	16.0	17.0	16.0	3.00	3.20	14.60	40.0	135.00	36.3	36.80	51.0	UNF 5/16-24
PCHR/L 20-D40-3-JHP	20.0	20.0	13.0	20.0	3.00	3.20	18.60	40.0	135.00	35.1	35.60	51.0	G 1/8-28
PCHR/L 25-D40-3-JHP	25.0	25.0	8.0	25.0	3.00	3.20	23.60	40.0	135.00	33.1	33.60	51.0	G 1/8-28

(1) Minimum cutting width
(2) Maximum cutting width

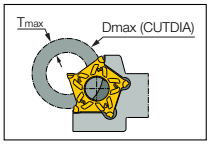
For inserts, see pages: PENTA D-N-C (527) • PENTA D-N-J (527) • PENTA D-N-PB (528) • PENTA D-R/L-C (528) • PENTA D-R/L-J (527) • PENTA D-R/L-PB (528)

PCHR/L D22-2...-JHP Dmax for Partting Off 22/T11

Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	89	64	48	40	34	31	28	27	24	21

PCHR/L D32-2...-JHP Dmax for Partting Off 32/T16

Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	150	125	100	78	65	57	51	46	43	40
Tmax	T≤11.0	T≤12.0	T≤13.0	T≤14.0	T≤15.0					
Dmax	39	37	35	34	33					



PCHR/L D40-3...-JHP Dmax for Partting Off 40/T20

Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	400	300	200	145	114	95	82	73	66	61
Tmax	T≤11.0	T≤12.0	T≤13.0	T≤14.0	T≤15.0	T≤16.0	T≤17.0	T≤18.0	T≤19.0	
Dmax	57	54	51	49	47	46	45	44	42	

Flow Rate vs. Pressure

Designation	70 bar Flow Rate (liters/min)	100 bar Flow Rate (liters/min)	140 bar Flow Rate (liters/min)
PCHR/L...-2JHP	2-4	4-6	6-8
PCHR/L...-3JHP	7-9	9-11	11-13

Spare Parts

Designation							
PCHR/L 12-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHL 20-D22-2-JHP		LEVER PD22-2 INJ*					
PCHR/L 20-D22-2-JHP	SR M6-R-L		BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR 20-D22-2-JHP		LEVER PD22-2 INJ					
PCHR/L 12-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 20-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 25-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 16-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 20-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 25-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	

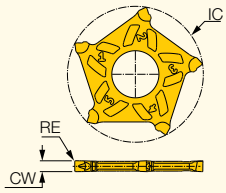
* Optional, should be ordered separately

PENTA IQ GRIP PARTING LINE

PENTA D-N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D22N200J020	2.00	0.20	0.02	0.030	22.00	●	0.04-0.12
PENTA D22N300J020	3.00	0.20	0.02	0.030	22.00	●	0.04-0.16

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

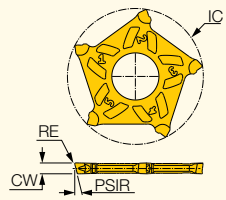
For tools, see pages: PCHR/L-D-IQ (525) • PCHR/L-D-JHP (526)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-J

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts





Right-hand shown

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D22L200J-6D	2.00	0.20	22.00	6.0	-	●	0.04-0.10
PENTA D22R200J-6D	2.00	0.20	22.00	-	6.0	●	0.04-0.10
PENTA D22L200J-15D	2.00	0.20	22.00	15.0	-	●	0.04-0.08
PENTA D22R200J-15D	2.00	0.20	22.00	-	15.0	●	0.04-0.08
PENTA D22L300J-6D	3.00	0.20	22.00	6.0	-	●	0.04-0.12
PENTA D22R300J-6D	3.00	0.20	22.00	-	6.0	●	0.04-0.12
PENTA D22L300J-15D	3.00	0.20	22.00	15.0	-	●	0.04-0.10
PENTA D22R300J-15D	3.00	0.20	22.00	-	15.0	●	0.04-0.10

• For cutting speed recommendations and user guide, see pages 538-547

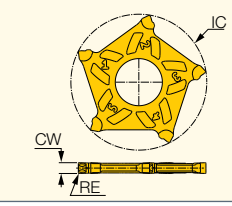
For tools, see pages: PCHR/L-D-IQ (525) • PCHR/L-D-JHP (526)

PENTA IQ GRIP PARTING LINE

PENTA D-N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications





Right-hand shown

Designation	Dimensions RE	CW	RETOL(1)	CWTOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D32N200C020	0.20	2.00	0.030	0.02	30.25	●	0.04-0.14
PENTA D32N300C020	0.20	3.00	0.030	0.02	30.25	●	0.06-0.22
PENTA D40N300C020	0.20	3.02	0.030	0.02	37.80	●	0.06-0.22

• For cutting speed recommendations and user guide, see pages 538-547

(1) Corner radius tolerance (+/-)

(2) Cutting width tolerance (+/-)

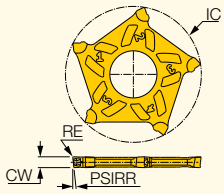
For tools, see pages: PCHR/L-D-IQ (525) • PCHR/L-D-JHP (526)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications







Right-hand shown

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D32L200C-6D	2.00	0.10	30.25	6.0	-	●	0.04-0.12
PENTA D32R200C-6D	2.00	0.10	30.25	-	6.0	●	0.04-0.12
PENTA D32L200C-15D	2.00	0.20	30.25	15.0	-	●	0.04-0.10
PENTA D32R200C-15D	2.00	0.20	30.25	-	15.0	●	0.04-0.10
PENTA D32L300C-6D	3.00	0.20	30.25	6.0	-	●	0.04-0.14
PENTA D32R300C-6D	3.00	0.20	30.25	-	6.0	●	0.04-0.14
PENTA D32L300C-15D	3.00	0.20	30.25	15.0	-	●	0.04-0.10
PENTA D32R300C-15D	3.00	0.20	30.25	-	15.0	●	0.04-0.10
PENTA D40L300C-6D	3.00	0.20	37.80	6.0	-	●	0.04-0.14
PENTA D40R300C-6D	3.00	0.20	37.80	-	6.0	●	0.04-0.14
PENTA D40L300C-15D	3.00	0.20	37.80	15.0	-	●	0.04-0.10
PENTA D40R300C-15D	3.00	0.20	37.80	-	15.0	●	0.04-0.10

• For cutting speed recommendations and user guide, see pages 538-547

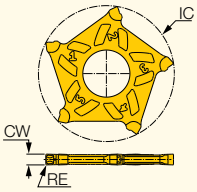
For tools, see pages: PCHR/L-D-IQ (525) • PCHR/L-D-JHP (526)

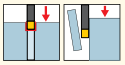
PENTA IQ GRIP PARTING LINE

PENTA D-N-PB

Pentagonal Inserts for Parting and Grooving Bearing Steel and Other Ductile Materials







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D40N300PB020	3.00	0.20	0.02	0.030	37.80	●	0.03-0.10

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

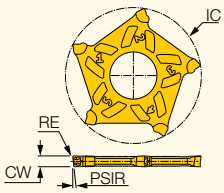
For tools, see pages: PCHR/L-D-IQ (525) • PCHR/L-D-JHP (526)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials







Right-hand shown

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D40L300PB-6D	3.00	0.20	37.80	6.0	-	●	0.03-0.08
PENTA D40R300PB-6D	3.00	0.20	37.80	-	6.0	●	0.03-0.08
PENTA D40L300PB-15D	3.00	0.10	37.80	15.0	-	●	0.03-0.06
PENTA D40R300PB-15D	3.00	0.10	37.80	-	15.0	●	0.03-0.06

• For cutting speed recommendations and user guide, see pages 538-547

For tools, see pages: PCHR/L-D-IQ (525) • PCHR/L-D-JHP (526)

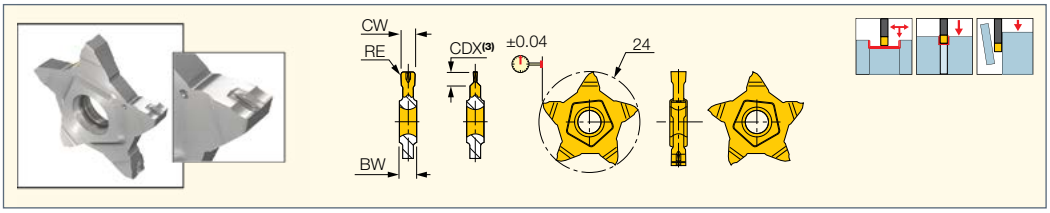
Identification System for Standard Inserts

PENTA	24	N	150	J	010
Family name	Circular circumference of the insert	Insert lead angle (K) N, R, L	Cutting edge width CW(mm) x100	Chipbreaker style J, Z	Corner radius RE (mm)x100 for neutral insert. (k=0) Or lead angle for right- or left-hand inserts.

PENTACUT PARTING & GROOVING LINE

PENTA 24N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC1010	IC1008	IC908	IC807G	Recommended Machining Data f groove (mm/rev)
PENTA 24N050J000	0.50	0.00	0.02	0.020	4.00	1.00			•		0.02-0.04
PENTA 24N050J004	0.50	0.04	0.02	0.020	4.00	2.50		•			0.02-0.05
PENTA 24N080J000	0.80	0.00	0.02	0.020	4.00	1.60			•		0.02-0.05
PENTA 24N100J004	1.00	0.04	0.02	0.020	4.00	3.50			•		0.03-0.07
PENTA 24N100J006	1.00	0.06	0.02	0.020	4.00	3.50		•		•	0.03-0.07
PENTA 24N104J000	1.04	0.00	0.02	0.020	4.00	2.00			•		0.02-0.07
PENTA 24N120J000	1.20	0.00	0.02	0.020	4.00	2.00			•	•	0.03-0.07
PENTA 24N125J010	1.25	0.10	0.02	0.020	4.00	2.00			•		0.03-0.07
PENTA 24N140J000	1.40	0.00	0.02	0.020	4.00	2.00			•		0.03-0.08
PENTA 24N147J000	1.47	0.00	0.02	0.020	4.00	2.50			•		0.03-0.08
PENTA 24N150J010	1.50	0.10	0.00	0.020	4.00	5.00	•	•	•	•	0.03-0.10
PENTA 24N157J015	1.57	0.15	0.02	0.030	4.00	3.00			•	•	0.00-0.12
PENTA 24N170J010	1.70	0.10	0.02	0.030	4.00	3.00			•	•	0.03-0.12
PENTA 24N178J018	1.78	0.18	0.02	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N185J015	1.85	0.15	0.02	0.030	4.00	3.00			•		0.04-0.12
PENTA 24N196J015	1.96	0.15	0.02	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N196J040	1.96	0.40	0.02	0.030	4.00	3.00			•		0.03-0.10
PENTA 24N200J020	2.00	0.20	0.02	0.030	4.00	6.00	•	•	•	•	0.04-0.12
PENTA 24N222J015	2.22	0.15	0.02	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N230J020	2.30	0.20	0.02	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N239J015	2.39	0.15	0.02	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N247J020	2.47	0.20	0.02	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N270J010	2.70	0.10	0.02	0.020	4.00	5.00			•		0.04-0.16
PENTA 24N287J020	2.87	0.20	0.02	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N300J000	3.00	0.00	0.02	0.020	4.00	6.50			•		0.04-0.10
PENTA 24N300J020	3.00	0.20	0.02	0.030	4.00	6.50	•		•	•	0.04-0.16
PENTA 24N300J040	3.00	0.40	0.02	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N315J015	3.15	0.15	0.02	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N318J020	3.18	0.20	0.02	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N330J010	3.30	0.10	0.02	0.030	5.00	6.40			•		0.04-0.16
PENTA 24N348J020	3.48	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N356J020	3.56	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N374J020	3.74	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N398J020	3.98	0.20	0.02	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N400J040	4.00	0.40	0.02	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N423J010	4.23	0.10	0.02	0.030	5.00	6.20			•		0.04-0.18

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

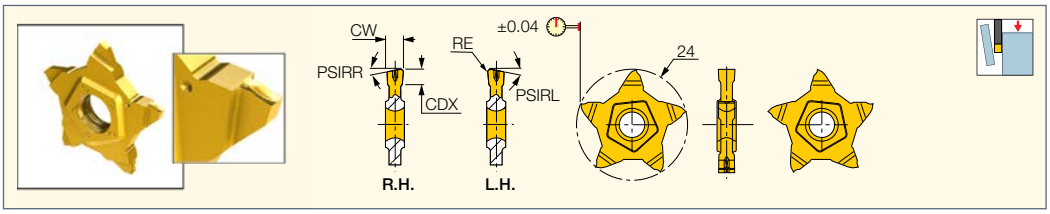
(3) For grooving and parting depth relative to part diameter, see page 532

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 24R/L-J

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	CDX(1)	RE	CWTOL(2)	PSIRL	PSIRR	CUTDIA(3)	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24L100J15D	1.00	3.50	0.06	0.02	15.0	-	7.0	●	0.02-0.06
PENTA 24R100J15D	1.00	3.50	0.06	0.02	-	15.0	7.0	●	0.02-0.06
PENTA 24L150J06D	1.50	5.00	0.10	0.02	6.0	-	10.0	●	0.03-0.09
PENTA 24L150J15D	1.50	5.00	0.06	0.02	15.0	-	10.0	●	0.03-0.08
PENTA 24R150J06D	1.50	5.00	0.06	0.02	-	6.0	10.0	●	0.03-0.09
PENTA 24R150J15D	1.50	5.00	0.06	0.02	-	15.0	10.0	●	0.03-0.08
PENTA 24L200J06D	2.00	6.00	0.10	0.02	6.0	-	12.0	●	0.04-0.10
PENTA 24L200J15D	2.00	6.00	0.10	0.02	15.0	-	12.0	●	0.04-0.09
PENTA 24R200J06D	2.00	6.00	0.10	0.02	-	6.0	12.0	●	0.04-0.10
PENTA 24R200J15D	2.00	6.00	0.10	0.02	-	15.0	12.0	●	0.04-0.09

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting depth maximum

(2) Cutting width tolerance (+/-)

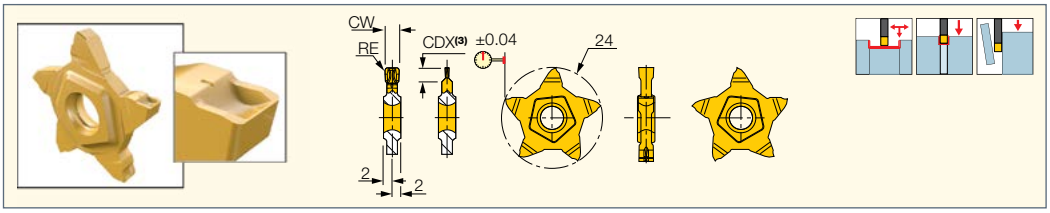
(3) For grooving and parting depths relative to part diameter, see page 533

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 24N-C

Inserts with 5 Cutting Edges for Parting and Grooving Bars, Hard Materials and Tough Applications



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150C010	1.50	0.10	0.02	0.050	5.00	●	0.05-0.11
PENTA 24N157C015	1.57	0.15	0.02	0.050	3.00	●	0.05-0.12
PENTA 24N170C010	1.70	0.10	0.02	0.050	3.00	●	0.05-0.13
PENTA 24N178C018	1.78	0.18	0.02	0.050	3.00	●	0.05-0.14
PENTA 24N196C015	1.96	0.15	0.02	0.050	3.00	●	0.05-0.15
PENTA 24N200C020	2.00	0.20	0.02	0.050	6.00	●	0.05-0.16
PENTA 24N222C015	2.22	0.15	0.02	0.050	3.50	●	0.05-0.16
PENTA 24N230C020	2.30	0.20	0.02	0.050	3.50	●	0.06-0.17
PENTA 24N239C015	2.39	0.15	0.02	0.050	5.00	●	0.07-0.18
PENTA 24N247C020	2.47	0.20	0.02	0.050	5.00	●	0.08-0.18
PENTA 24N270C010	2.70	0.10	0.02	0.050	6.20	●	0.09-0.18
PENTA 24N287C020	2.87	0.20	0.02	0.050	6.20	●	0.10-0.18
PENTA 24N300C020	3.00	0.20	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N300C040	3.00	0.40	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N318C020	3.18	0.20	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N478C055	4.78	0.55	0.02	0.050	6.20	●	0.10-0.25
PENTA 24N486C040	4.86	0.40	0.02	0.050	6.20	●	0.10-0.25
PENTA 24N500C040	5.00	0.40	0.02	0.050	6.20	●	0.10-0.25

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

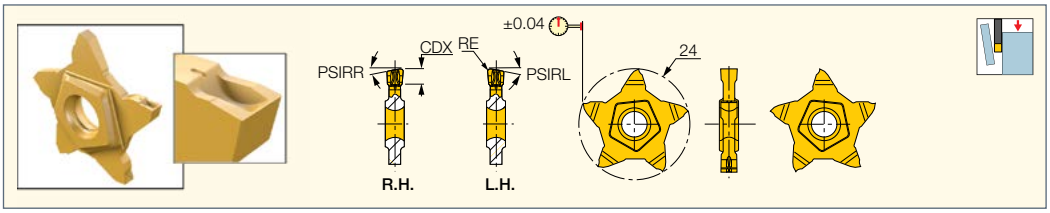
(3) For grooving and parting depths relative to part diameter, see page 532

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 24R-C

Inserts with 5 Cutting Edges for Parting Bars, Hard Materials and Tough Applications



Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24R150C06D	1.50	0.06	0.02	5.00	6.0	●	0.03-0.10
PENTA 24R200C06D	2.00	0.10	0.02	6.00	6.0	●	0.04-0.12

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

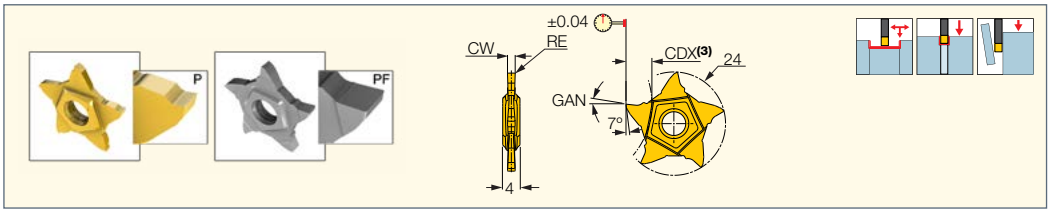
(2) Cutting depth maximum

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 24N-PF/P

Pentagonal Inserts with a High Positive Flat Rake for Parting and Precision Grooving



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	GAN	Tough ↔ Hard IC1008	IC908	IC30N	Recommended Machining Data f groove (mm/rev)
PENTA 24N050PF005	0.50	0.05	0.02	0.020	2.50	6.0			●	0.01-0.04
PENTA 24N075PF005	0.75	0.05	0.02	0.020	2.50	6.0			●	0.02-0.05
PENTA 24N095PF005	0.95	0.05	0.02	0.020	4.00	6.0			●	0.02-0.05
PENTA 24N100P005	1.00	0.05	0.02	0.020	3.50	12.0	●			0.02-0.05
PENTA 24N100PF010	1.00	0.10	0.02	0.020	4.00	6.0		●	●	0.03-0.06
PENTA 24N125PF020	1.25	0.20	0.02	0.020	5.00	6.0			●	0.03-0.06
PENTA 24N145PF020	1.45	0.20	0.02	0.020	6.20	6.0			●	0.03-0.06
PENTA 24N150P005	1.50	0.05	0.02	0.020	5.00	12.0	●			0.02-0.07
PENTA 24N150PF020	1.50	0.20	0.02	0.030	6.00	6.0		●	●	0.03-0.09
PENTA 24N175PF020	1.75	0.20	0.02	0.030	6.20	6.0			●	0.02-0.08
PENTA 24N185PF020	1.85	0.20	0.02	0.030	6.00	6.0			●	0.03-0.10
PENTA 24N200P005	2.00	0.05	0.02	0.020	6.00	12.0	●			0.02-0.08
PENTA 24N200PF020	2.00	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.10
PENTA 24N230PF020	2.30	0.20	0.02	0.030	6.20	6.0			●	0.04-0.14
PENTA 24N239PF015	2.39	0.15	0.02	0.030	6.50	6.0		●		0.04-0.14
PENTA 24N250PF020	2.50	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.14
PENTA 24N300PF020	3.00	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.14
PENTA 24N300PF030	3.00	0.30	0.02	0.030	6.20	6.0			●	0.04-0.15
PENTA 24N400PF020	4.00	0.20	0.02	0.030	6.50	6.0			●	0.04-0.16
PENTA 24N400PF040	4.00	0.40	0.02	0.030	6.20	6.0			●	0.04-0.16

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

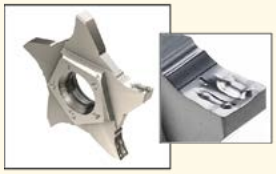
(3) For grooving and parting depths relative to part diameter, see page 532

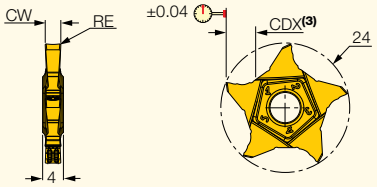
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 24N-Z

Inserts with 5 Cutting Edges for Grooving and Parting Tubes, Small and Thin-Walled Parts





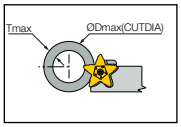
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150Z010	1.50	0.10	0.02	0.020	5.00	●	0.05-0.08
PENTA 24N200Z020	2.00	0.20	0.02	0.030	6.40	●	0.04-0.12
PENTA 24N300Z020	3.00	0.20	0.02	0.000	6.40	●	0.04-0.16

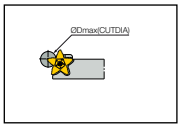
- Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters
- Suitable for machining soft materials and bearing steel at low to medium feeds
- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) For grooving and parting depths relative to part diameter, see page 532

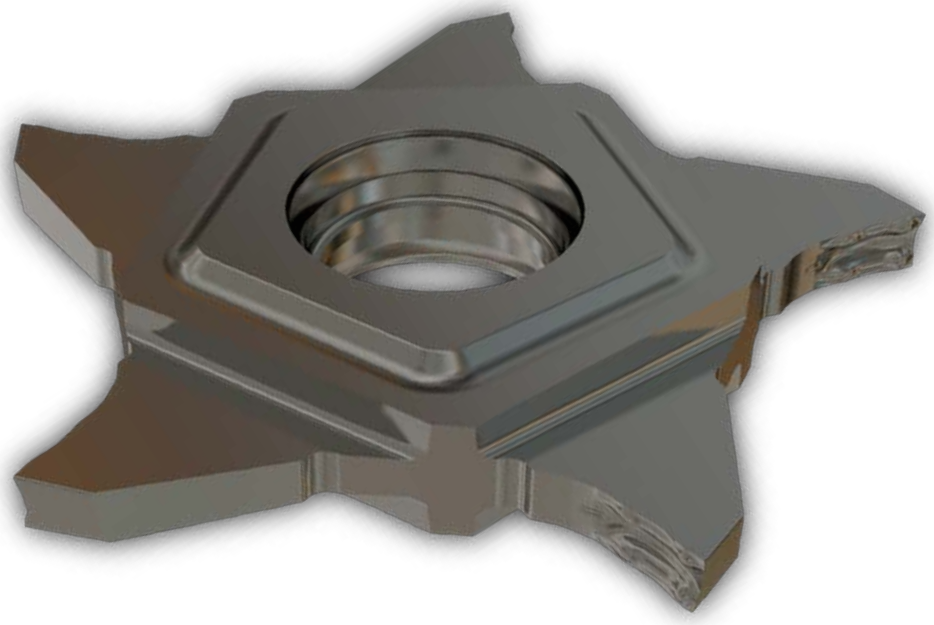
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts										
CW±0.02	CDX(3)	CDX / ØDmax	T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.5	T≤6.4
CW=0.50 (1)	1.0	1.0 / N.L.	-	-	-	-	-	-	-	-
CW=0.50 (2)	2.5			250						
CW=0.80	1.6	1.6 / N.L.	-	-	-	-	-	-	-	-
CW=1.00	3.5		N.L.	250	-	-	-	-	-	-
1.04≤CW≤1.40	2.0	2.0 / N.L.	-	-	-	-	-	-	-	-
CW=1.47	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-
CW=1.50	5.0		N.L.	470	210	70	30	-	-	-
1.57≤CW≤1.96	3.0		N.L.	-	-	-	-	-	-	-
CW=2.00	6.0(4)		N.L.	470	210	130	75	45	20	-
2.22≤CW≤2.30	3.5		N.L.	250	-	-	-	-	-	-
2.39≤CW≤2.50	5.0		N.L.	470	210	70	30	-	-	-
2.70≤CW≤3.18	6.4		N.L.	470	210	135	100	70	40	20





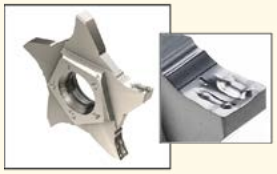
(1) Refers to PENTA 24N050J000 - a precision grooving insert (2) Refers to PENTA 24N050J004 - a parting insert (3) CUTDIA for parting = 2 x CDX
(4) For full radius insert, CDX = 3.0, ØDmax = No limit

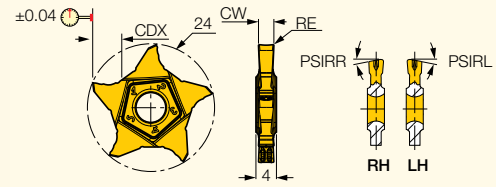


PENTACUT
PARTING & GROOVING LINE

PENTA 24R/L-Z

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts





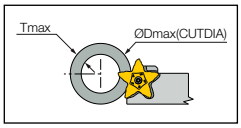
Designation	Dimensions						IC1008	Recommended Machining Data
	CW	PSIRL	PSIRR	RE	CUTDIA	CDX(1)		f groove (mm/rev)
PENTA 24L150Z06D	1.50	6.0	-	0.06	10.0	5.00	●	0.03-0.09
PENTA 24L150Z15D	1.50	15.0	-	0.06	10.0	5.00	●	0.03-0.08
PENTA 24R150Z06D	1.50	-	6.0	0.06	10.0	5.00	●	0.03-0.09
PENTA 24R150Z15D	1.50	-	15.0	0.06	10.0	5.00	●	0.03-0.08
PENTA 24L200Z06D	2.00	6.0	-	0.10	12.8	6.40	●	0.04-0.10
PENTA 24L200Z15D	2.00	15.0	-	0.10	12.8	6.40	●	0.04-0.09
PENTA 24R200Z06D	2.00	-	6.0	0.10	12.8	6.40	●	0.04-0.10
PENTA 24R200Z15D	2.00	-	15.0	0.10	12.8	6.40	●	0.04-0.09
PENTA 24L300Z06D	3.00	6.0	-	0.20	12.8	6.40	●	0.04-0.13
PENTA 24L300Z15D	3.00	15.0	-	0.20	12.8	6.40	●	0.04-0.12
PENTA 24R300Z06D	3.00	-	6.0	0.20	12.8	6.40	●	0.04-0.15
PENTA 24R300Z15D	3.00	-	15.0	0.20	12.8	6.40	●	0.04-0.14

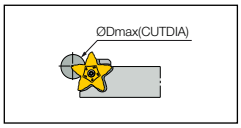
- Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters
- Suitable for machining soft materials and bearing steel at low to medium feeds
- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting depth maximum

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

W±0.02	Tmax(1)	Tmax / Dmax	Dmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts								
			T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0	T≤6.2	T≤6.4
W=0.50	1.0	1.0 / N.L.	-	-	-	-	-	-	-	-	-
W=0.50	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-	-
W=0.80	1.6	1.6 / N.L.	-	-	-	-	-	-	-	-	-
W=1.00	3.5		N.L.	250	-	-	-	-	-	-	-
1.04≤W≤1.40	2.0	2.0 / N.L.	-	-	-	-	-	-	-	-	-
W=1.47	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-	-
W=1.50	5.0		N.L.	470	210	70	30	-	-	-	-
1.57≤W≤1.96	3.0		N.L.	-	-	-	-	-	-	-	-
W=2.00	6.0(2)		N.L.	470	210	130	75	45	20	-	-
2.22≤W≤2.30	3.5		N.L.	250	-	-	-	-	-	-	-
2.39≤W≤2.50	5.0		N.L.	470	210	70	30	-	-	-	-
2.70≤W≤3.18	6.2		N.L.	470	210	135	100	70	40	20	-
3.19≤W≤3.74	6.4		N.L.	350	180	115	80	52	32	26	20
3.75≤W≤4.00	6.2		N.L.	350	180	115	80	62	32	18	-
4.01≤W≤4.23	6.2		N.L.	350	180	115	80	62	42	25	-





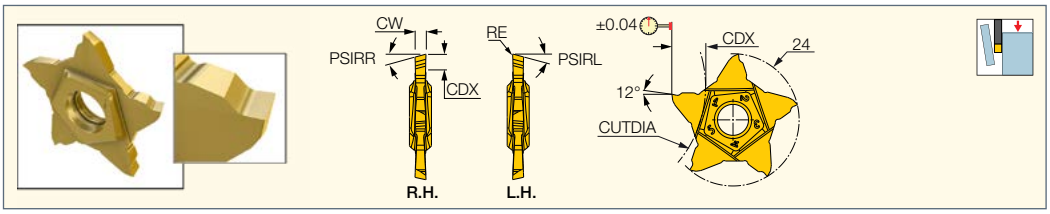
(1) Dmax for parting = 2 x Tmax

(2) For full radius insert , Tmax = 3.0, Dmax = No limit

PENTACUT PARTING & GROOVING LINE

PENTA 24R-P

Inserts with 5 Cutting Edges for Parting Soft Materials, Thin Walls and Miniature Parts



Designation	Dimensions CW	CDX(1)	RE	CWTOL(2)	CUTDIA(3)	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24R100P06D	1.00	3.50	0.05	0.02	7.2	6.0	●	0.02-0.04
PENTA 24R100P15D	1.00	3.50	0.05	0.02	7.2	15.0	●	0.02-0.03
PENTA 24R150P06D	1.50	5.00	0.05	0.02	11.0	6.0	●	0.02-0.05
PENTA 24R150P15D	1.50	5.00	0.05	0.02	11.0	15.0	●	0.02-0.04
PENTA 24R200P06D	2.00	6.00	0.05	0.02	12.6	6.0	●	0.02-0.07
PENTA 24R200P15D	2.00	6.00	0.05	0.02	12.6	15.0	●	0.02-0.05

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting depth maximum

(2) Cutting width tolerance (+/-)

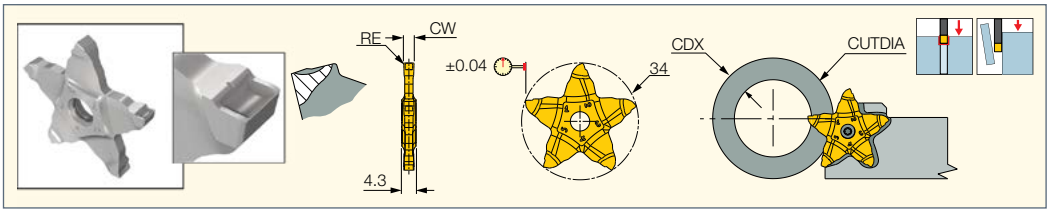
(3) For grooving and parting depths relative to part diameter, see page 533

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

PENTACUT PARTING & GROOVING LINE

PENTA 34N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150C015	1.50	0.15	0.02	0.030	8.00	●	0.03-0.07
PENTA 34N200C020	2.00	0.20	0.02	0.030	8.00	●	0.04-0.14
PENTA 34N200C100	2.00	1.00	0.02	0.050	8.00	●	0.05-0.16
PENTA 34N222C015	2.22	0.15	0.02	0.030	8.00	●	0.05-0.14
PENTA 34N230C020	2.30	0.20	0.02	0.030	8.00	●	0.05-0.14
PENTA 34N239C015	2.39	0.15	0.02	0.030	8.00	●	0.05-0.15
PENTA 34N239C120	2.39	1.20	0.02	0.050	8.00	●	0.05-0.18
PENTA 34N247C020	2.47	0.20	0.02	0.030	8.00	●	0.05-0.18
PENTA 34N250C020	2.50	0.20	0.02	0.030	8.00	●	0.05-0.18
PENTA 34N270C010	2.70	0.10	0.02	0.030	10.00	●	0.05-0.18
PENTA 34N287C020	2.87	0.20	0.02	0.030	10.00	●	0.05-0.18
PENTA 34N300C000	3.00	0.00	0.02	0.000	10.00	●	0.04-0.10
PENTA 34N300C020	3.00	0.20	0.02	0.030	10.00	●	0.06-0.22
PENTA 34N300C040	3.00	0.40	0.02	0.030	10.00	●	0.06-0.25
PENTA 34N300C150	3.00	1.50	0.02	0.050	10.00	●	0.06-0.20
PENTA 34N315C015	3.15	0.15	0.02	0.030	10.00	●	0.06-0.20
PENTA 34N318C020	3.18	0.20	0.02	0.030	10.00	●	0.06-0.22
PENTA 34N330C010	3.30	0.10	0.02	0.020	10.00	●	0.06-0.20
PENTA 34N348C020	3.48	0.20	0.02	0.030	10.00	●	0.06-0.25
PENTA 34N350C025	3.50	0.25	0.02	0.030	10.00	●	0.06-0.30
PENTA 34N398C020	3.98	0.20	0.02	0.030	10.00	●	0.06-0.30
PENTA 34N400C030	4.00	0.30	0.02	0.030	10.00	●	0.06-0.30

• For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

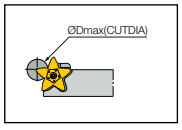
(3) For grooving and parting depths relative to part diameter, see page 534

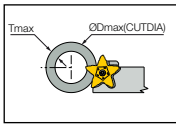
For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

	ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts						
CW±0.02	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤8.5	T≤9.0	T≤10.0
1.50 ≤ CW ≤ 2.69	N.L.	350	165	100	55	-	-
2.70 ≤ CW ≤ 4.00						55	20

CUTDIA for parting = 2 x CDX

N.L. = No Limit

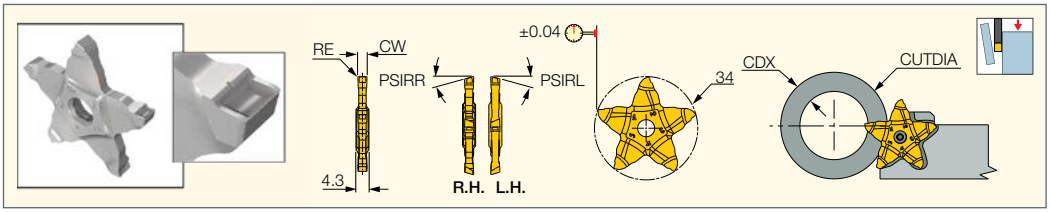




PENTACUT PARTING & GROOVING LINE

PENTA 34R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications



Designation	Dimensions CW	RE	CUTDIA(1)	CDX(2)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34L150C08D	1.50	0.07	18.0	8.00	8.0	-	●	0.03-0.08
PENTA 34R150C08D	1.50	0.07	18.0	8.00	-	8.0	●	0.03-0.08
PENTA 34L200C06D	2.00	0.10	18.0	8.00	6.0	-	●	0.04-0.12
PENTA 34R200C06D	2.00	0.10	18.0	8.00	-	6.0	●	0.04-0.12
PENTA 34L200C15D	2.00	0.10	18.0	8.00	15.0	-	●	0.04-0.10
PENTA 34R200C15D	2.00	0.10	18.0	8.00	-	15.0	●	0.04-0.10
PENTA 34L300C06D	3.00	0.20	20.0	10.00	6.0	-	●	0.04-0.14
PENTA 34R300C06D	3.00	0.20	20.0	10.00	-	6.0	●	0.06-0.14
PENTA 34L300C15D	3.00	0.20	20.0	10.00	15.0	-	●	0.04-0.10
PENTA 34R300C15D	3.00	0.20	20.0	10.00	-	15.0	●	0.06-0.12

• For cutting speed recommendations and user guide, see pages 538-547

(1) For grooving and parting depths relative to part diameter, see page 537

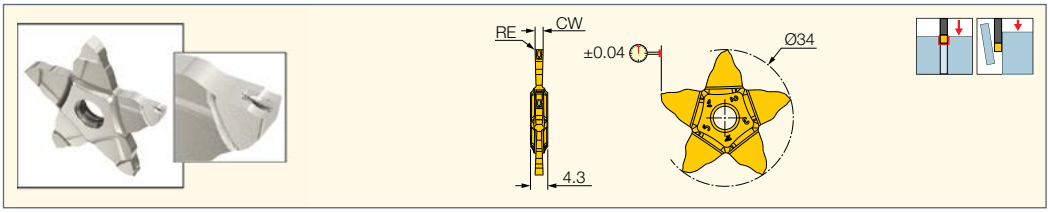
(2) Cutting depth maximum

For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

PENTACUT PARTING & GROOVING LINE

PENTA 34N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150J015	1.50	0.15	0.02	0.002	8.50	●	0.03-0.10
PENTA 34N200J020	2.00	0.20	0.02	0.002	8.50	●	0.04-0.12
PENTA 34N200J100	2.00	1.00	0.02	0.002	8.50	●	0.05-0.12
PENTA 34N239J015	2.39	0.15	0.02	0.002	8.50	●	0.04-0.16
PENTA 34N239J120	2.39	1.20	0.02	0.002	8.50	●	0.06-0.16
PENTA 34N250J020	2.50	0.20	0.02	0.002	8.50	●	0.04-0.16
PENTA 34N270J010	2.70	0.10	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J000	3.00	0.00	0.02	0.000	10.00	●	0.04-0.10
PENTA 34N300J020	3.00	0.20	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J040	3.00	0.40	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J150	3.00	1.50	0.02	0.002	10.00	●	0.06-0.20
PENTA 34N318J020	3.18	0.20	0.02	0.002	10.00	●	0.20-0.16

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

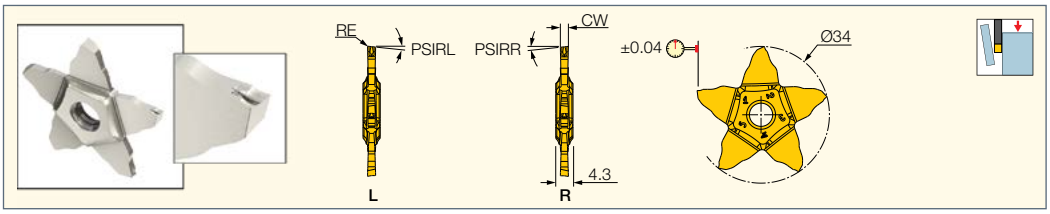
(3) For grooving and parting depths relative to part diameter, see page 534

For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

PENTACUT PARTING & GROOVING LINE

PENTA 34R/L-J

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	RE	CWTOL(1)	CUTDIA(2)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34L150J06D	1.50	0.07	0.02	18.0	6.0	-	●	0.03-0.09
PENTA 34L150J15D	1.50	0.07	0.02	18.0	15.0	-	●	0.03-0.08
PENTA 34R150J06D	1.50	0.07	0.02	18.0	-	6.0	●	0.03-0.09
PENTA 34R150J15D	1.50	0.07	0.02	18.0	-	15.0	●	0.03-0.08
PENTA 34L200J06D	2.00	0.10	0.02	18.0	6.0	-	●	0.04-0.10
PENTA 34L200J15D	2.00	0.10	0.02	18.0	15.0	-	●	0.04-0.09
PENTA 34R200J06D	2.00	0.10	0.02	18.0	-	6.0	●	0.04-0.10
PENTA 34R200J15D	2.00	0.10	0.02	18.0	-	15.0	●	0.04-0.09

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

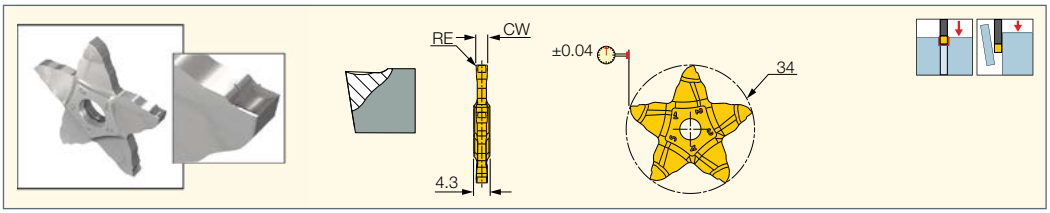
(2) For grooving and parting depths relative to part diameter, see page 537

For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

PENTACUT PARTING & GROOVING LINE

PENTA 34N-PB

Parting and Grooving Pentagonal Inserts for Parting Bearing Steel and Other Ductile Materials



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150PB015	1.50	0.15	0.02	0.030	8.50	●	0.03-0.06
PENTA 34N200PB020	2.00	0.20	0.02	0.030	8.50	●	0.03-0.08
PENTA 34N300PB020	3.00	0.20	0.02	0.030	9.50	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 538-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

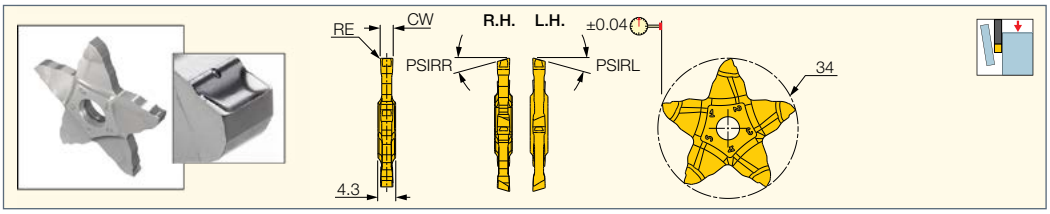
(3) For grooving and parting depths relative to part diameter, see page 534

For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

PENTACUT
PARTING & GROOVING LINE

PENTA 34R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials



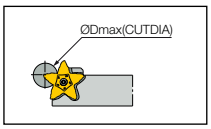
Designation	Dimensions CW	RE	CUTDIA	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34R150PB-6D	1.50	0.07	18.0	-	6.0	●	0.03-0.05
PENTA 34L150PB-6D	1.50	0.07	18.0	6.0	-	●	0.03-0.05
PENTA 34R200PB-6D	2.00	0.10	18.0	-	6.0	●	0.03-0.06
PENTA 34L200PB-6D	2.00	0.10	18.0	6.0	-	●	0.03-0.06
PENTA 34R300PB-6D	3.00	0.20	20.0	-	6.0	●	0.03-0.08
PENTA 34L300PB-6D	3.00	0.20	20.0	6.0	-	●	0.03-0.08

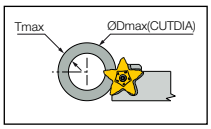
• For cutting speed recommendations and user guide, see pages 538-547

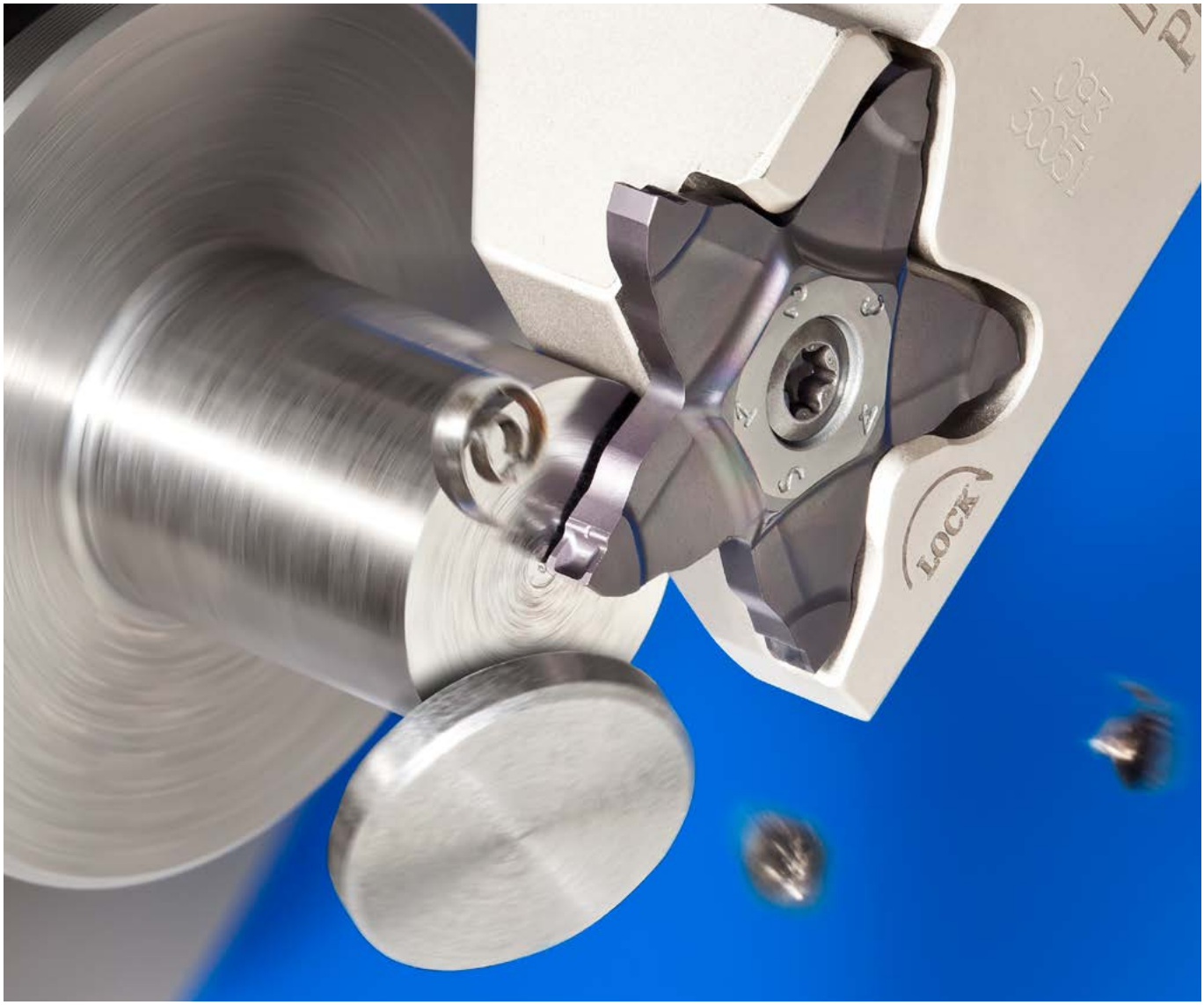
For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

$W^{\pm 0.02}$	Dmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤8.5	T≤9.0	T≤10.0
1.50 ≤ W ≤ 2.69	N.L.	350	165	100	55	-	-
2.70 ≤ W ≤ 4.00						55	20

Dmax for parting = 2 x Tmax
N.L. = No Limit







Parting and Grooving

Selection of Inserts

For a proper match of insert and cutting material to application, the following variables must be taken into consideration:

- Width of cut (width of insert)
- Chipformer style
- Lead angle
- Corner radius
- Carbide grade

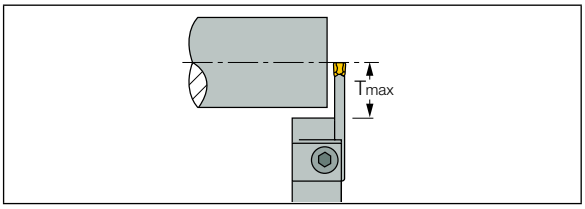
Width of Cut (W.O.C.) and Depth of Cut (D.O.C.)

In selecting **W.O.C.**, the main factor to consider is the required **D.O.C.** The ratio **D.O.C.**≈ 8x**W.O.C.** is of practical use on alloy steel of average machinability. For example, applying a 3 mm **W.O.C.** insert **TAG N3C** to cut-off a 48 mm solid bar.
Additional factors which affect **D.O.C.** capacity, relative to the ratio, are:

Holder or Blade Size

To minimize risk of vibration and deflection always choose:

- Blade or toolholder with smallest possible overhang.
- Toolholder with maximum shank dimension.
- Blade height (B) dimension which is larger than Tmax.
- Blade or holder with maximum blade width (largest possible insert seat size).
  Example:
- A **W.O.C.** 9.5 mm on blade TGFH 53K-9
- (B=52.6 mm) extends the ratio of **D.O.C.** to **W.O.C.** by some 50% to 120 mm.



Insert Support

A self-clamped tool is recommended for deep radial machining. A screw-clamp holder is recommended for axial and small **D.O.C.** machining.

90˚ Mounting

It is very important that the insert is mounted at 90º to the center line of the workpiece in order to obtain perpendicular surfaces and reduce the risk of vibration.

Workpiece Machinability

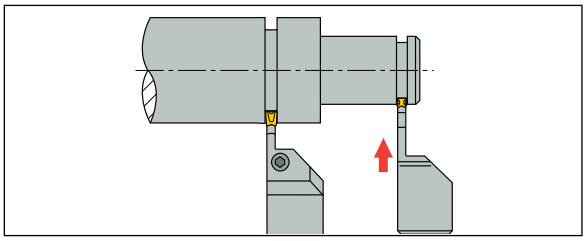
The workpiece material affects all of the above factors.

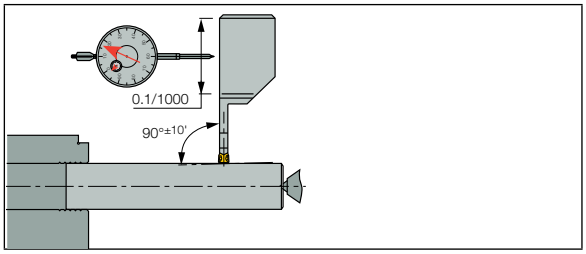
Machine Power and Setup Rigidity

Excessive **W.O.C.** on a light-duty machine will yield vibration and may even stop spindle rotation.

Expensive Workpiece Material

On costly metals the narrowest applicable **W.O.C.** should be used.



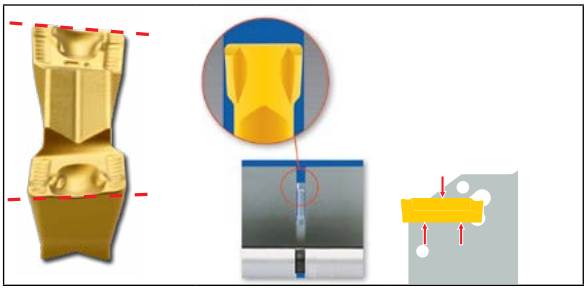


Insert Positioning

The Twisted Insert for Cut-Off and Grooving Applications

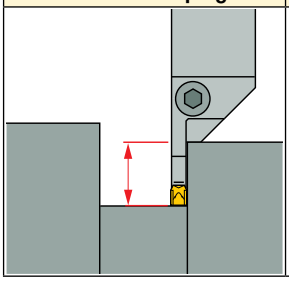
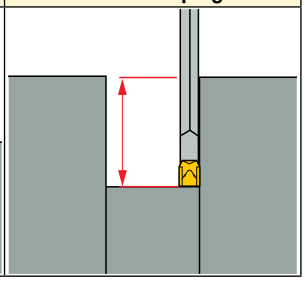
Machining depths longer than insert length is made possible with the double-ended, twisted insert body.

The rear edge is slanted in relation to the frontal edge so it does not come into contact with the machined groove surface when the tool penetrates deeply into the workpiece.



Clamping

Extended, prismatic surfaces guarantee reliable, foolproof clamping even in unstable machining conditions.

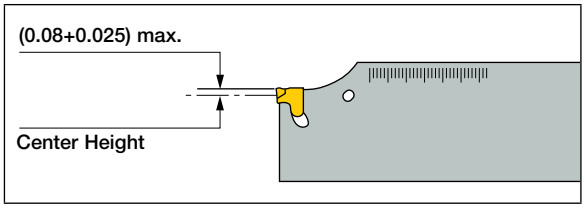
Screw-Clamping	Self-Clamping
	
Small diameters **(D.O.C.)** with screw-clamped Inserts	Large diameters **(D.O.C.)** with self-clamped Inserts

Setup

- The optimal cutting edge height above the center of **TANG-GRIP** tools is up to 0.08 mm + 0.025 mm **W.O.C.**, an advantage when cutting solid bar to center
- Cut-off as close to chuck as possible
- On new applications, first machine in the low or middle range of recommended speeds and feeds

Machining

- Consistency of speed and feed improves performance
- Apply coolant abundantly
- Secure inserts into clean pockets
- Cutting forces on soft workpiece materials may be insufficient to push insert well into pocket. Tap insert into place using a plastic hammer
- On a conventional lathe, lock the carriage to prevent axial motion during cut-off

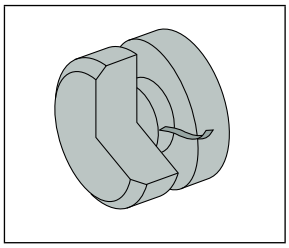


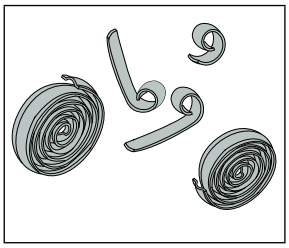
Usage

- Replace worn inserts promptly, the price of a new one is much less than the risk of damage from continuing with one that is worn out
- Replace blades that have worn or damaged pockets
- Never try to repair damaged pockets
- Chip curling is dependent on the chipformer type and the machining conditions

Chipformer Features

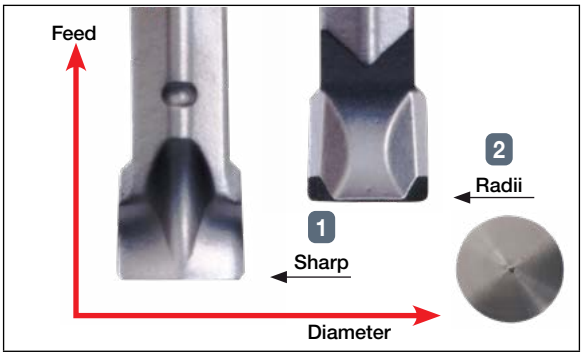
- Narrows the chip
- Eliminates friction with groove walls, prevents chip jam overload
- Permits higher feeds
- Produces unscratched surfaces, eliminating additional facing
- Curls the chips into compact spirals for easy disposal





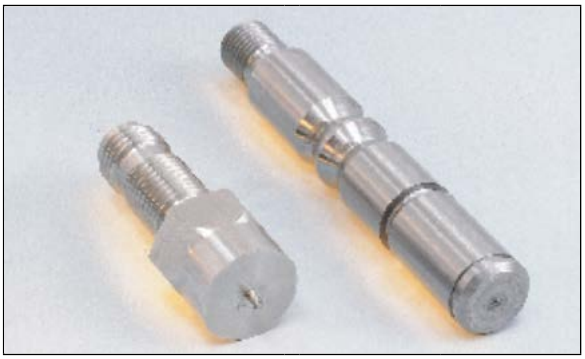
Selection of Corner Radius

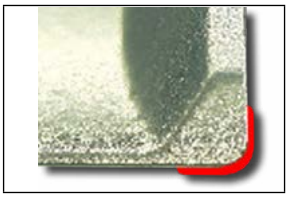
1 A smaller corner radius (r) will reduce the load on the workpiece and produce a smaller size burr
2 At the same time, a large corner radius allows for higher feeds and increased tool life

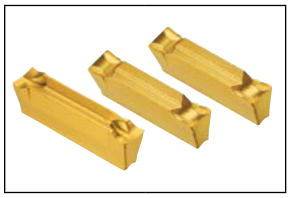


Standard Corner Radius

- Standard medium corner size
- For general applications and materials





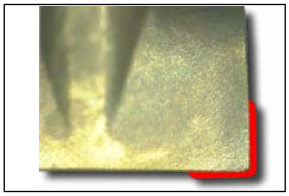


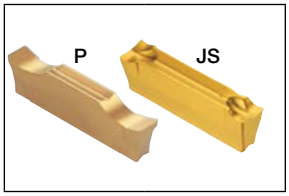
Medium (standard) corner radius

"S" Sharp Corners

- Cutting edge with positive rake and sharp corners
- When a minimum burr (pip) size is essential
- For small feeds
- For small diameters or thin walls
- For CNCs, multi-spindle and screw machines



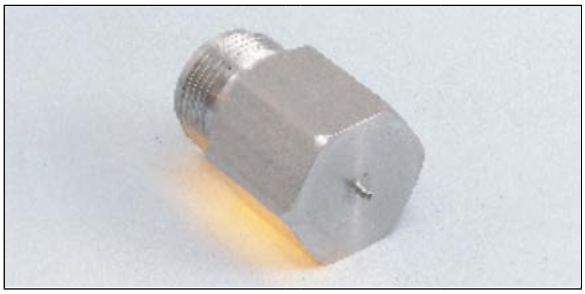


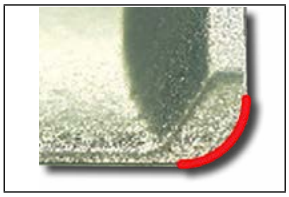


Sharp corner

"B" Large Corner Radius

- Reinforced corners with stronger cutting edge
- For tough applications and interrupted cuts



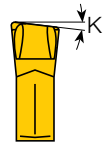
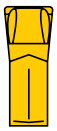
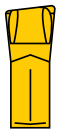


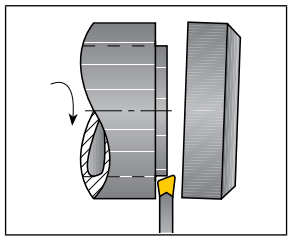


Large corner radius

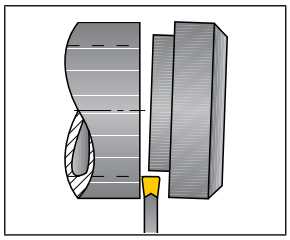
Lead Angle

Lead angle **(K)** on cut-off inserts reduces size of burr remaining on workpiece. Increasing the lead angle reduces the burr, but also reduces possible feed rates and tool life. Therefore, neutral inserts are recommended for parts on which a burr is tolerated.
Insert designations such as **TAG R... DGR (R.H.)** and **TAG L... DGL (L.H.)** comply with standard terms for turning direction. When looking toward the chuck from the workpiece, **R.H.**=counterclockwise **(C.C.)** rotation of workpiece and **L.H.**=clockwise **(C)** rotation of workpiece. **C.C.** requires right-hand inserts; C requires left-hand inserts. A neutral insert with 0° lead angle increases **D.O.C.** capacity.

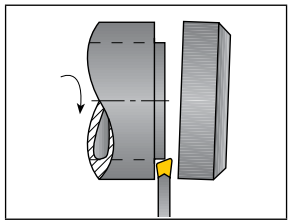
Left	Neutral	Right
TAG L/DGL	TAG N/DGN	TAG R/DGR
		



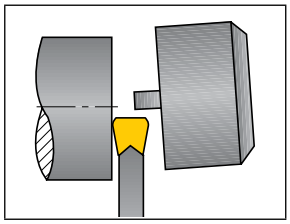
TAGR/GFR/DGR



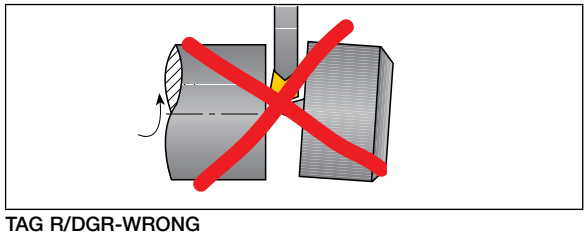
TAGR/GFN/DGN



TAG R/DGR



TAG N/DGN



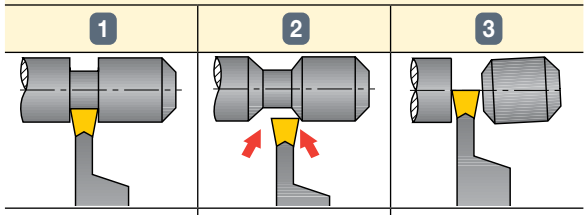
TAG R/DGR-WRONG

Neutral Insert vs. Lead Angle Type

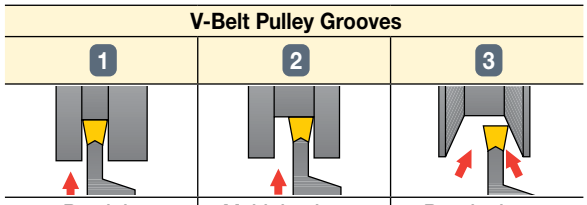
			
Lifetime		✔	
Chip Control		✔	
Burr Size			✔
Surface Finish		✔	
Part Straightness		✔	

General Rules for Specific Applications

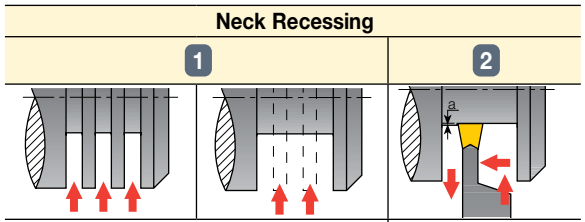
Chamfer and Cut-Off



V-Belt Pulley Grooves

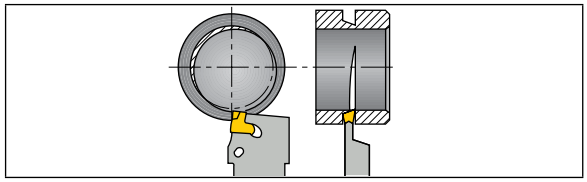


Neck Recessing



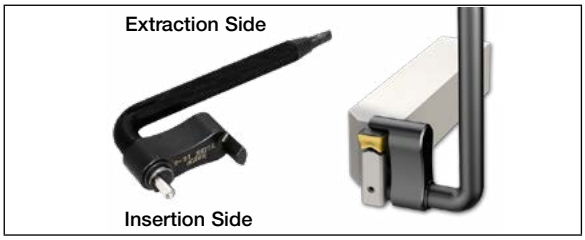
Cut-Off on Eccentric Tubes

Inserts with 4° lead angle are usually recommended for tubes. However, the combination of eccentric bore and machine resiliency may increase feed-snap on breakthrough and damage the cutting edge. Changing to 6° lead angle inserts will moderate breakthrough. Alternatively, inserts with an extra negative rake-land that strengthens the cutting edge are available on request.

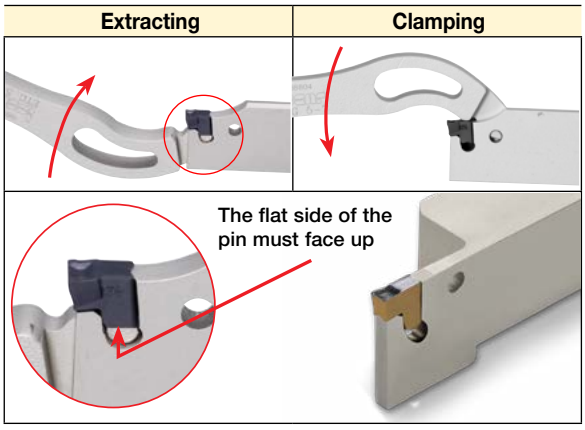


Clamping / Extraction Instructions

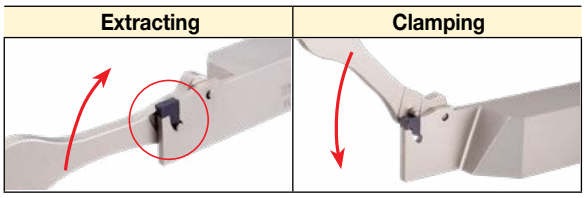
TANG-GRIP The tools are equipped with a user-friendly clamping and extraction device.



ETG 8-12 Extractor for 8 to 12.7 mm inserts



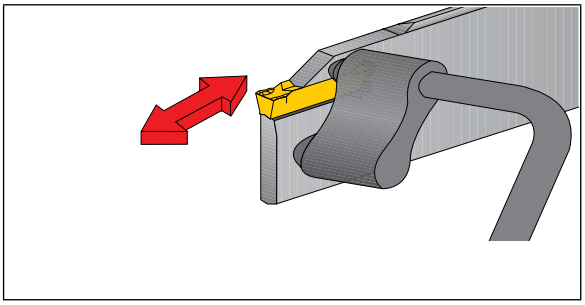
ETG 5-7 (for 5-7 mm tools)
ETG 2 (for 2 mm tools)
ETG 1.4 (for 1.4 mm tools)



ETG 3-4 (for 3 and 4 mm tools)

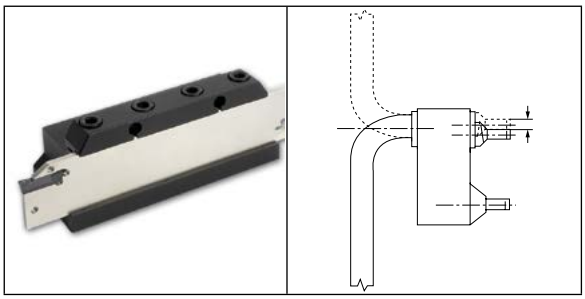
Clamping / Extraction Instructions

Extractor for DGN/R/L Double-Ended Inserts
Do-Grip Insert Clamping/Extracting

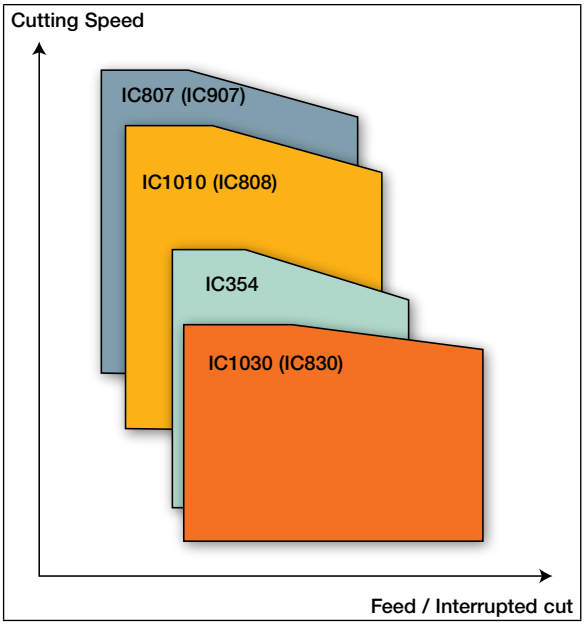


Extracting the insert

Eccentric Extractor for Insert Indexing
Simple to operate; controlled rotation requires low force; guarantees limited upper jaw movement and secures maximum load on blade.



Grade Application Range



Selection Guide for Parting Grades

Material groups		ISO P 1-11 Steel	ISO P 12-13 Stainless Steel Ferritic & Martensitic	ISO M 14 Stainless Steel Austenitic & Duplex (Ferritic - Austenitic)	ISO K 15-20 Cast Iron	ISO N 21-28 Non-ferrous	ISO S 31-37 High Temperature Alloys	ISO H 38-41 Hard Steel & Cast Iron
PARTING	Harder	IC807 (IC907)	IC807 (IC907)	IC807 (IC907)		**IC20**	**IC807 (IC907)**	**IC807 (IC907)**
			IC808	IC808	**IC807 (IC907)**		IC20	
		IC808	IC1010	IC1010	IC20		IC808	IC808
		IC1010	**IC5400**	**IC5400**	IC808		IC1010	IC1010
		IC830	IC830	IC830	IC1010		IC830	
	Tougher	IC1030	IC1030	IC1030			IC1030	

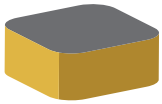
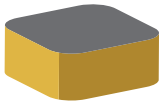
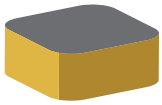
First choice

Machining Data and Parting Speed Recommendations

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quenched and tempered	850	250	3
		>= 0.55 %C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
	Stainless steel and cast steel		Ferritic/martensitic	680	200	12
			Martensitic	820	240	13
M	Stainless steel and cast steel		Austenitic, duplex	600	180	14
K	Grey cast iron (GG)		Ferritic/pearlitic		180	15
			Pearlitic/martensitic		260	16
	Cast iron nodular (GGG)		Ferritic		160	17
			Pearlitic		250	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum-wrought alloys		Not hardenable		60	21
			Hardenable		100	22
	Aluminum-cast alloys	<=12% Si	Not hardenable		75	23
			Hardenable		90	24
		>12% Si	High temperature		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics			29
			Hard rubber			30
S	High temp. alloys	Fe based	Annealed		200	31
			Hardened		280	32
		Ni or Co based	Annealed		250	33
			Hardened		350	34
			Cast		320	35
	Titanium alloys		Pure	RM 400		36
			Alpha+beta alloys hardened	RM 1050		37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron		Hardened		55 HRC	41

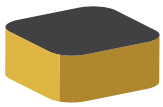
Material Group No.	IC907/807	IC30N	IC354	IC1010/ IC908/808/1008	IC5400	IC1030/ IC830/928/1028	IC328
1	160 - 240	130 - 190	115 - 170	135 - 200	110 - 160	100 - 150	95 - 140
2	150 - 205	120 - 160	105 - 145	125 - 170	100 - 135	95 - 125	85 - 120
3	115 - 170	90 - 135	80 - 120	95 - 140	75 - 110	70 - 105	65 - 100
4	125 - 190	100 - 150	90 - 135	105 - 160	85 - 130	80 - 120	75 - 110
5	100 - 160	80 - 130	70 - 115	85 - 135	70 - 110	65 - 100	60 - 95
6	125 - 190	100 - 150	90 - 135	105 - 160	85 - 130	80 - 120	75 - 110
7	100 - 170	80 - 135	70 - 120	85 - 140	70 - 110	65 - 105	60 - 100
8	100 - 160	80 - 130	70 - 115	85 - 135	70 - 110	65 - 100	60 - 95
9	90 - 150	70 - 120	65 - 105	75 - 125	60 - 100	55 - 95	50 - 85
10	150 - 205	120 - 160	105 - 145	125 - 170	100 - 135	95 - 125	85 - 120
11	90 - 150	70 - 120	65 - 105	75 - 125	60 - 100	55 - 95	50 - 85
	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
12	170 - 300	115 - 210	110 - 200	105 - 190	85 - 150	80 - 140	75 - 135
13	150 - 290	105 - 200	100 - 190	95 - 180	75 - 145	70 - 135	65 - 125
	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
14	140 - 260	95 - 175	90 - 170	85 - 160	70 - 130	65 - 120	60 - 110
	IC907/807	IC808	IC908	IC20			
15	170 - 305	145 - 270	140 - 255	70 - 125			
16	150 - 215	130 - 190	125 - 180	60 - 90			
17	160 - 265	140 - 230	135 - 220	65 - 110			
18	125 - 205	110 - 180	105 - 170	50 - 85			
19	190 - 320	170 - 280	160 - 265	80 - 130			
20	160 - 265	140 - 230	135 - 220	65 - 110			
	IC907/807	IC908/808	IC20				
21	360 - 1080	330 - 990	300 - 900				
22	270 - 900	250 - 825	225 - 750				
23	270 - 900	250 - 825	225 - 750				
24	180 - 540	165 - 495	150 - 450				
25	180 - 360	165 - 330	150 - 300				
26	180 - 360	165 - 330	150 - 300				
27	130 - 270	120 - 250	110 - 225				
28	90 - 180	80 - 165	75 - 150				
29	40 - 180	40 - 165	35 - 150				
	IC807	IC907	IC908	IC808	IC830/328/928/1028	IC20	
31	50 - 70	45 - 70	40 - 60	40 - 65	30 - 45	30 - 40	
32	35 - 55	35 - 50	30 - 45	30 - 45	20 - 35	20 - 30	
33	35 - 55	35 - 50	30 - 45	30 - 45	20 - 35	20 - 30	
34	30 - 50	30 - 45	25 - 40	25 - 40	20 - 30	15 - 30	
35	25 - 35	25 - 35	20 - 30	20 - 30	15 - 20	15 - 20	
36	115 - 190	110 - 185	95 - 160	100 - 170	70 - 120	65 - 110	
37	40 - 50	40 - 50	35 - 45	35 - 45	30 - 40	40 - 50	
	IC807	IC907	IC808	IC908			
38	35-45	30-40	30-40	25-35			
39	30-40	25-35	25-35	20-30			
40	45-65	40-60	40-60	30-50			
41	40-50	35-45	35-45	30-40			

ISCAR Parting Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC308	P15-P30 S15-S30 	A tough submicron grain size substrate with PVD coating. Suitable for steel, alloy steels and stainless steel at low to medium cutting speeds under stable conditions.	TiCN Base	
	IC328	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for a wide range of applications on steels and stainless steel at low to medium speeds and medium to high feeds. The grade is recommended for interrupted cuts and machining under unstable conditions.	TiCN Base	
	IC354	P20-P40 M20-M30 	A tough substrate with PVD coating, suitable for general use on a wide range of carbon steels, alloy steels and stainless steel at moderate speeds and feeds.	TiCN Base	
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC830	P30-P45 M25-M40 	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	IC907	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating, suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiAlN Base	
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	
	IC928	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade is recommended for interrupted cut and machining at unstable conditions.	AlTiCrN Base	

* For coated grades

ISCAR Parting Grades Chart

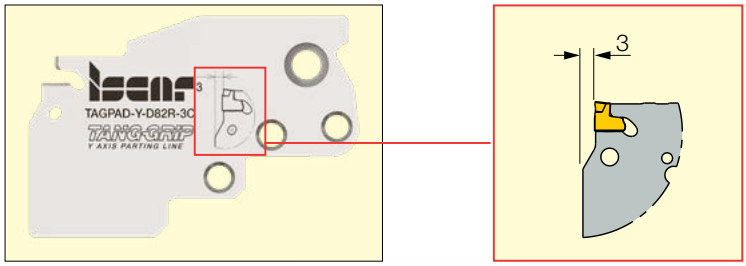
	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC1008	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds.	TiN TiAlN Base	
	IC1010	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and low to medium feeds. The grade features improved toughness and wear resistance which extends tool life.	TiN AlTiN Base	
	IC1028	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade is recommended for interrupted cuts and machining under unstable conditions.	TiN AlTiCrN Base	
	IC1030	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. Recommended for interrupted cuts and machining under unstable conditions. The grade features improved toughness and wear resistance which extends tool life.	TiN AlTiN Base	
CVD COATED	IC5400	P30-P45 M25-M45 	A tough substrate with MTCVD coating and a special SUMOTEC post coating treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds under stable and unstable machining conditions.	TiN Al_2O_3 TiCN Base	

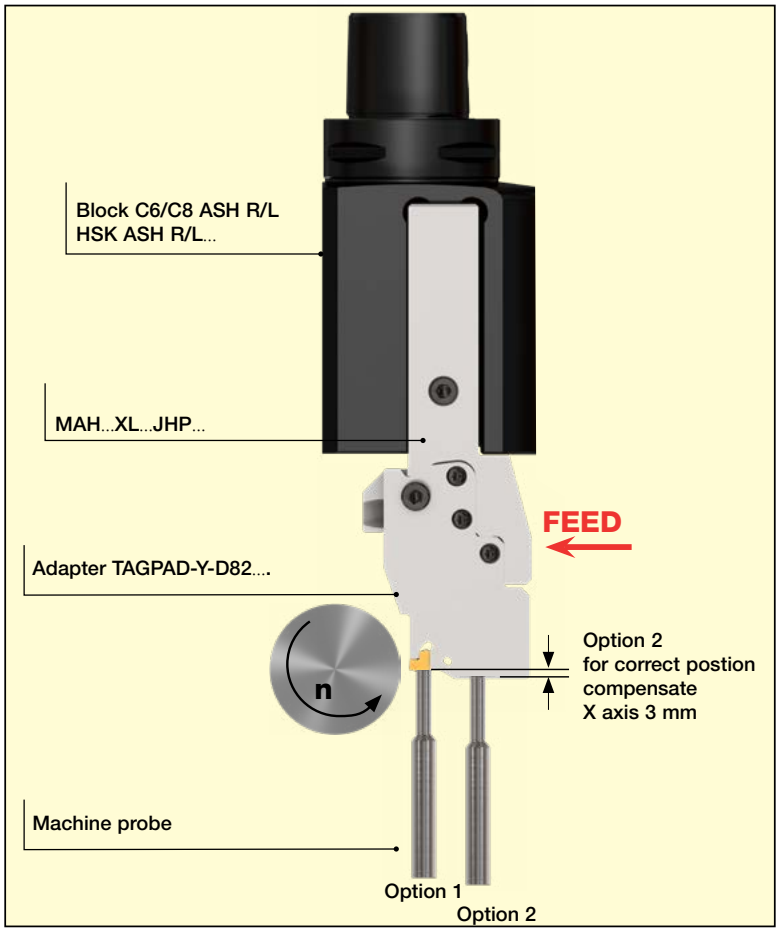
* For coated grades

	Grade	ISO	Grade Description	Uncoated Layers	Uncoated
CERMET	IC30N	P10-P30 M10-M20 	A tough cermet grade, suitable for machining, steels and stainless steel at medium to high cutting speeds and low feeds. Features excellent surface finish, very good wear resistance and prevents built-up edge.	Base	
UNCOATED	IC20	 K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	

Y Axis TAGPAD setup on Multi-Task and Turning Center Machines

For setup in X direction, use the dimensions marked on the adapter. Setup in Y Axis is not needed.





* Option 1 is preferable due to better accuracy

Setting in X Axis

Set the cutting edge on the center line:
Option 1 - Gauge the cutting edge
Option 2 - Gauge the blade and compensate 3mm

FACE GROOVING AND TURNING



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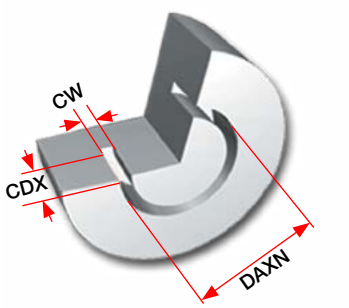
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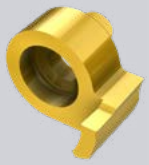
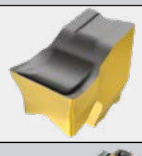
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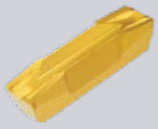
A Variety of Inserts for Face Machining Applications



Face Grooving DAXN 6–40 mm

		DAXN	DAXX	CWN	CWX	CDX	Page
Picco		6	-	1	3	30	541-543
MIFR/MEFL		8	-	1.5	3.5	15	545
GFQR		12	19	1	2.5	3	543
HGPL		12	∞	3	6	∞	560
GRIP		12	∞	3	6.35	∞	559-560
DGN		21	∞	4	6	∞	438-440
HFPR/L		12	∞	3	6	∞	558
TNF		30	700	3	6	∞	567
HFPN		27	130	2	2	14	557

Face Grooving DAXN 24–80 mm

		DAXN	DAXX	CWN	CWX	CDX	Page
PENTA 34F		22	∞	2.39	4	5	570-571
GDMY/N		50	∞	8	8	27	272-273, 564-565
GIF		80	∞	8	10	27	563
GIFG 8		50	∞	8	8	25	563
GIMM 8CC		80	∞	8	8	∞	565
GDMM CC		50	∞	7	8	∞	565
GIA-K		80	∞	8	8	25	282
GFF		25	55	2.1	6	35	260

HELIFACE

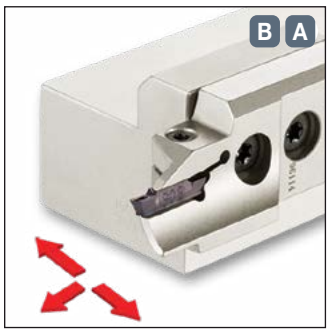
Small Diameter
Face Machining Systems



Tool: HGHR/L see page 558
Insert: GRIP... / HGPL...

CW = 3-6.35 mm
CDX = 6 mm
DAXN = 12 mm

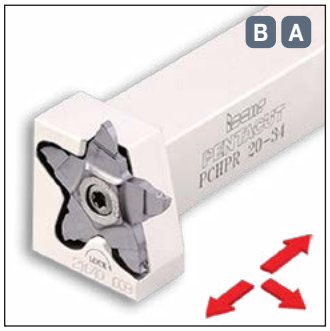
Integral shank toolholder with double-ended inserts.
Used for face grooving and face turning of small parts for 12 mm minimum groove diameter.



Tool: HGAER/L... (adapter) see page 565
Tool: HFAER/L... (adapter) see pages 565-566
Insert: HFPR/L...

CW = 3-6 mm
CDX = 32 mm
DAXN = 12 mm

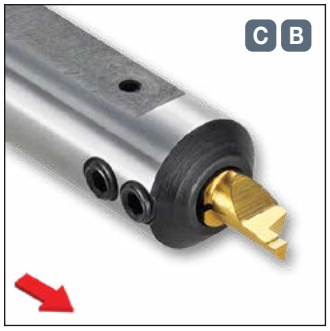
Exchangeable external adapters.
Used with **HELIFACE** and GRIP inserts for deep face machining.



Tool: PCHPR/L see page 316
Insert: PENTA 34F...

CW = 2.39-4 mm
CDX = 5 mm
DAXN = 22 mm

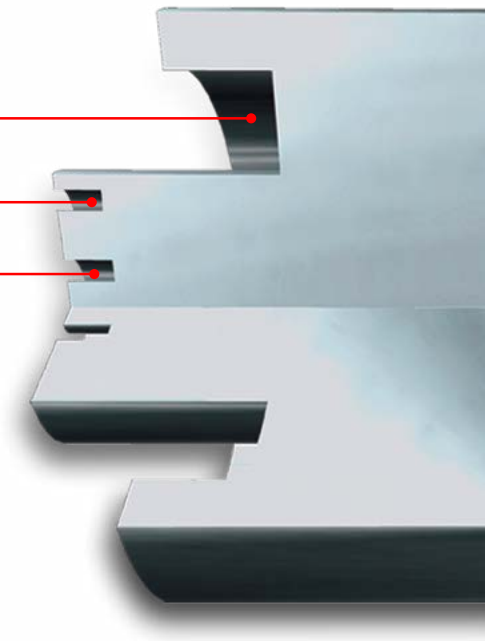
Pentagonal insert for face grooving and recessing up to 5 mm depth of cut at a minimum of 22 mm diameter.

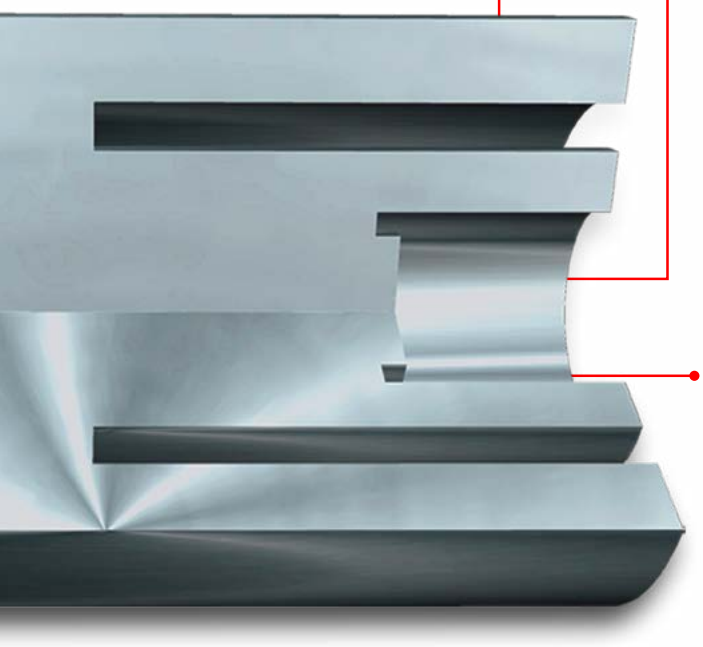


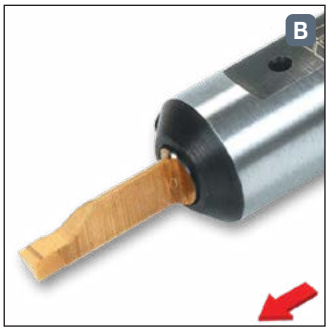
Tool: PICCO R010 see page 594

CW = 1-5 mm
CDX = 6 mm
DAXN = 6 mm

Small solid carbide bars for machining shallow grooves from 6 mm minimum diameter.







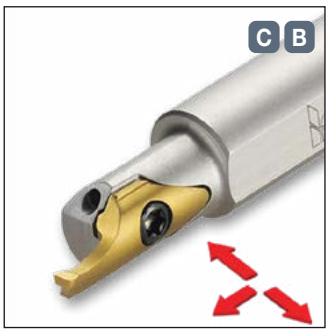
Tool: PICCO R015 see page 597

CW = 2.5-3 mm

CDX = 30 mm

DAXN = 8 mm

Small solid carbide bars for machining deep face grooves of up to 30 and 8 mm minimum diameter.



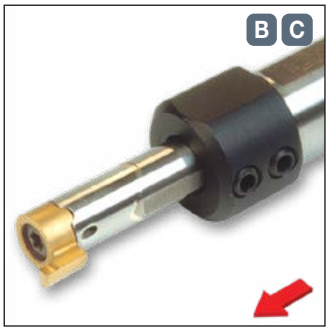
Tool: MIFHR ... see page 598
Insert: MIFR ...

CW = 1.5-3.5 mm

CDX = 5.5 mm

DAXN = 8 mm

MINCUT-A family of internal face grooving and face turning tools for machining small diameters ranging from 8-60 mm.
Strong and stable tangential pocket with internal coolant.



Tool: MGCH 09C see page 598
Insert: GFQR...

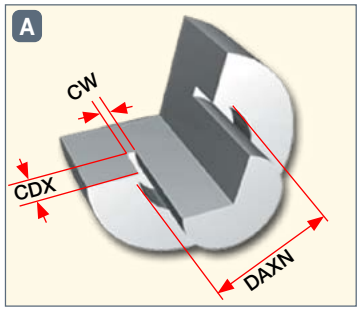
CW = 1-2.5 mm

CDX = 3 mm

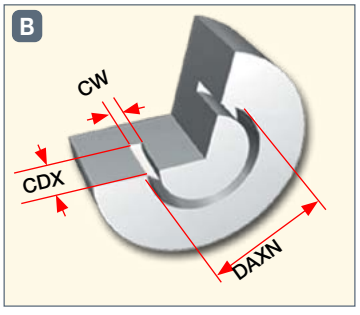
DAXN = 12 mm

A screw-clamped insert on an internal coolant solid carbide bar. Used for machining shallow grooves from 12 mm minimum diameter.

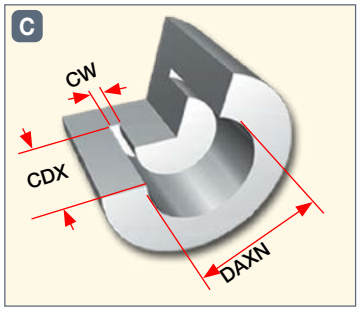
Main Applications



Grooving Next to a Shaft



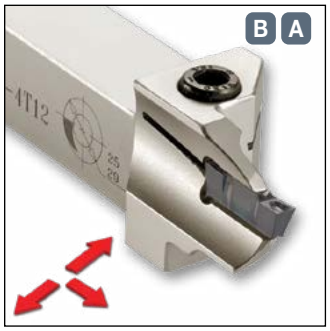
External Grooving



Internal Grooving

HELIFACE

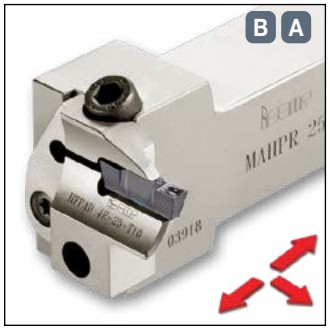
Medium Diameter
Face Machining Systems



Tool: HFHR/L... see pages 558-561
Insert: HFPR/L...

CW = 3-6 mm
CDX = 32 mm
DAXN = 25 mm

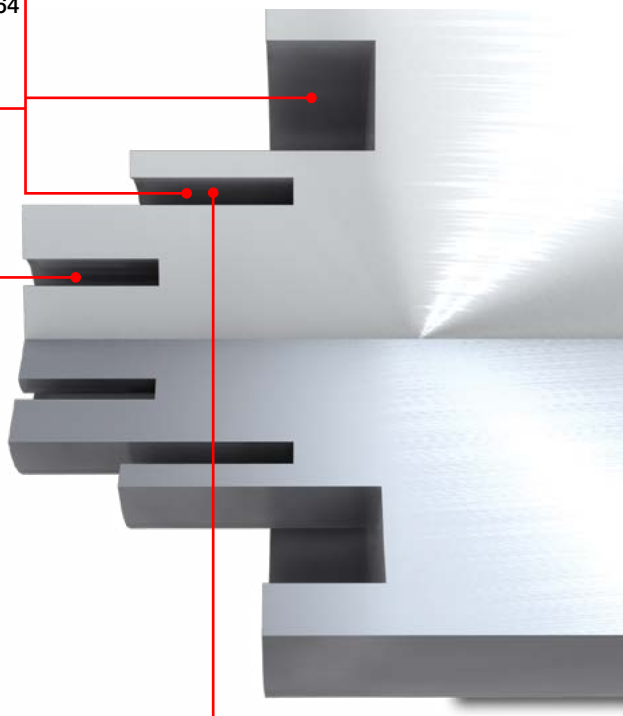
Integral shank toolholders carrying **HELIFACE** and GRIP inserts. For deep face grooving and side face turning.

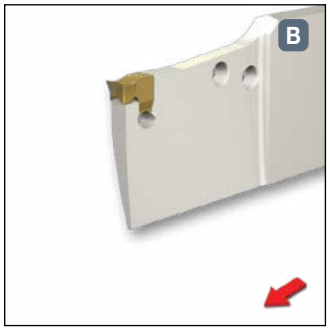


Tool: HFPAD... (adapter) see pages 562-564
Insert: HFPR/L...

CW = 3-6 mm
CDX = 20 mm
DAXN = 25 mm

Slanted, screw-clamped adapter carrying **HELIFACE** and GRIP inserts. A part of the **MODULAR-GRIP** system. Very rigid, for tough face operations.

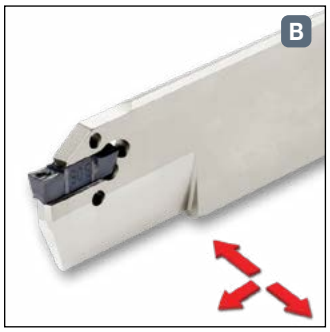




Tool: TNFFH see page 583
Insert: TNF 3-6C...

CW = 3-6 mm
CDX = 35 mm
DAXN = 30 mm

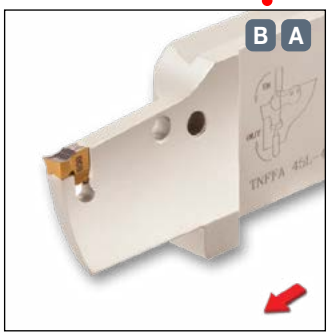
Adapter and blade toolholders carrying TNF 3-6C inserts. For deep face grooving.



Tool: HFFR/L... see page 564
Insert: HFPR/L...

CW = 4-6 mm
CDX = 38 mm
DAXN = 48 mm

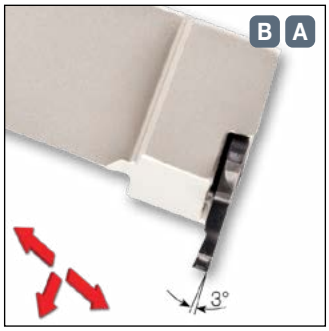
Economical, double-ended blades carrying **HELIFACE** and GRIP inserts. Recommended for deep face grooving and face turning to a maximum depth of 38 mm.



Tool: TNFFA see page 584
Insert: TNF 3-6C...

CW = 3-6 mm
CDX = 35 mm
DAXN = 30 mm

Reinforced blades carrying TNF 3-6C inserts. Recommended for face grooving only. Can machine along a shaft. Excellent chip evacuation.



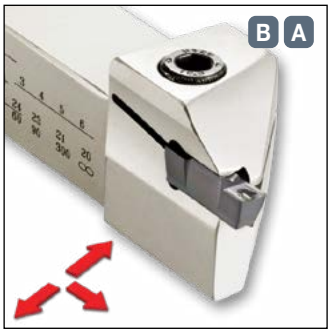
Tool: PCHPRS/LS see page 590
Insert: PENTA 34F-RS/LS...

CW = 2.39-4 mm

CDX = 5 mm

DAXN = 22 mm

Pentagonal insert for face grooving and recessing next to shoulders up to 5 mm depth of cut at a minimum of 22 mm diameter.



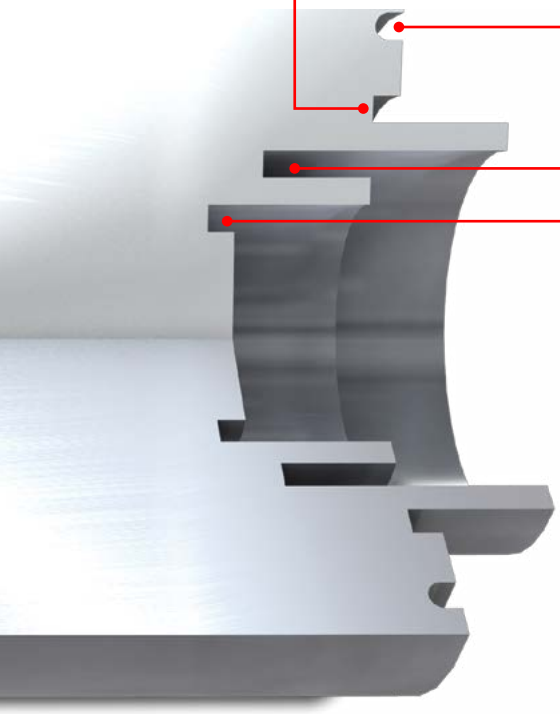
Tool: HFHR/L..-M see page 566
Insert: HFPR/L...

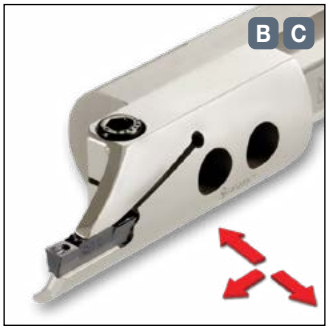
CW = 3-6 mm

CDX = 5.3 mm

DAXN = 20 mm

Integral toolholders carrying **HELIFACE** and GRIP inserts. For machining up to 5.3 mm depth of cut. 3-6 mm wide inserts can be mounted in the same pocket.





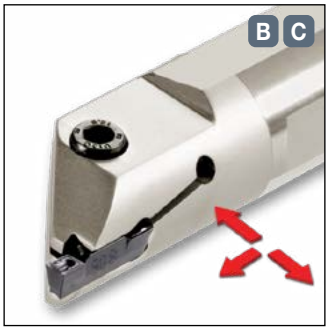
Tool: HFAIR/L...& HGAIR/L (adapter) see pages 568, 572
Insert: HFPR/L...

CW = 3-6 mm

CDX = 12 mm

DAXN = 32 mm

Exchangeable, internal coolant adapters carrying **HELIFACE** and GRIP inserts. Recommended for deep internal face machining.



Tool: HFIR/L..-MC see page 574
Insert: HFPR/L...

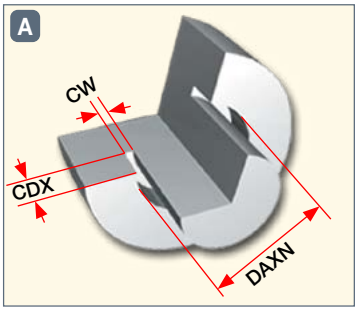
CW = 3-6 mm

CDX = 5 mm

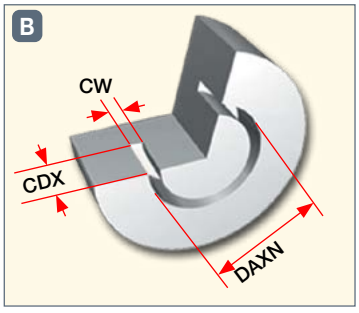
DAXN = 20 mm

Boring bars for shallow face machining of up to 5 mm depth carrying **HELIFACE** and GRIP inserts. Internal coolant. 3-6 mm width inserts can be mounted in the same pocket.

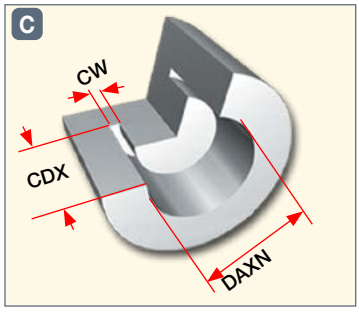
Main Applications



Grooving Next to a Shaft

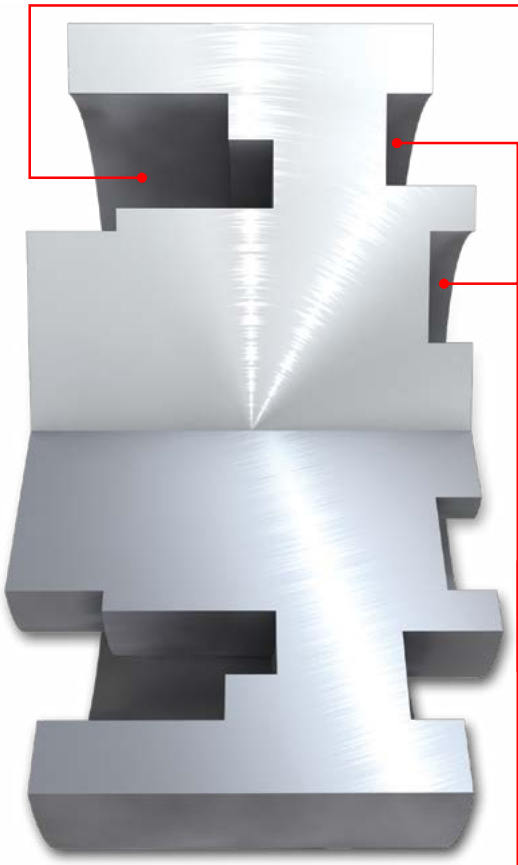


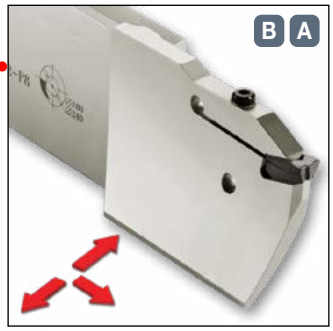
External Grooving



Internal Grooving

Large Diameter
Face Machining Systems

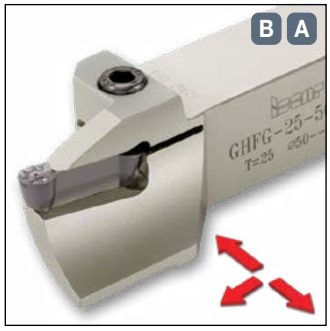




Tool: CGFG 51-..R/L-P8
see page 580
Insert: GIMY 8...

CW = 8 mm
CDX = 120 mm
DAXN = 180 mm

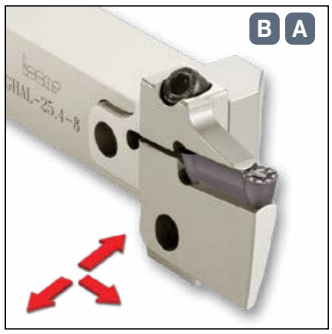
Blades carrying 8 mm single-ended **CUT-GRIP** inserts. Can machine up to 120 mm depth next to a shaft. Used for large diameters.



Tool: GHFG ..R/L-8 **see page 579**
Insert: GDMY 8..

CW = 8 mm
CDX = 25 mm
DAXN = 50 mm

Integral toolholders carrying 8 mm **CUT-GRIP** inserts. For heavy machining of medium and large parts. Can machine next to a shaft of up to 25 mm depth.

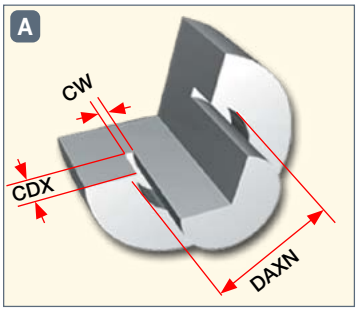


Tool: GAFG ..R/L-8 (adapter) **see page 580**
Insert: GDMM 8CC

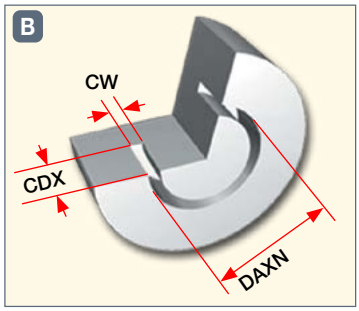
CW = 8 mm
CDX = 25 mm
DAXN = 80 mm

Exchangeable adapters carrying 8 mm **CUT-GRIP** inserts. Can machine up to 25 mm depth next to a shaft. For heavy machining of medium and large parts.

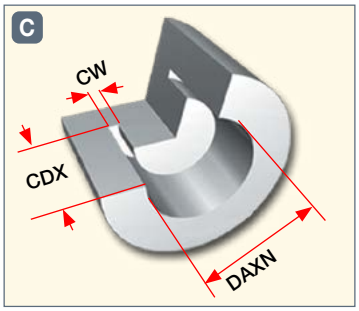
Main Applications



Grooving Next to a Shaft



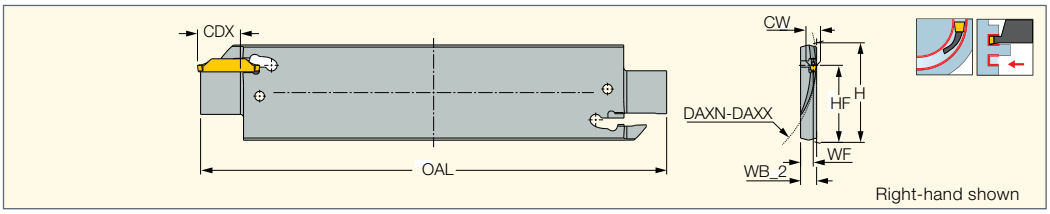
External Grooving



Internal Grooving

HELIFACE

HFFH
Face Grooving Blades



Designation	DAXN(1)	DAXX(2)	CW	CDX	WF	WB_2	HF	H	OAL	
HFFH 38R/L-2	38.0	45.0	2.00	14.00	4.50	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 45R/L-2	45.0	60.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 60R/L-2	60.0	80.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 80R/L-2	80.0	100.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 100R/L-2	100.0	130.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*

- H dimension links blades and blocks

(1) Minimum penetration diameter

(2) Maximum penetration diameter * Optional, should be ordered separately

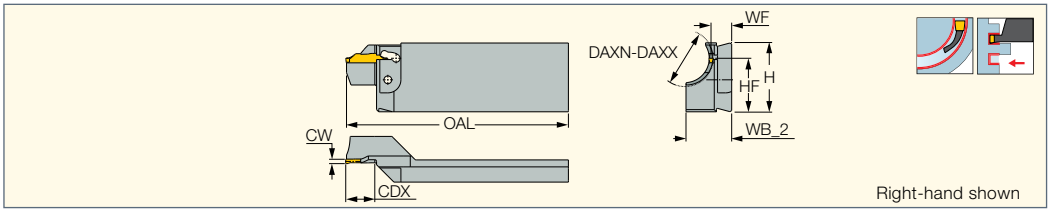
For inserts, see pages: HFPN (575)

For holders, see pages: C#-TBK-R/L (623) • HSK A-WH-TBK-R/L (632) • SGTBF (618) • SGTBK (617) • SGTBU/SGTBN (616) • UBHCR/L (618)



HELIFACE

HFFA
Reinforced Face Grooving Blades



Designation	CW	DAXN(1)	DAXX(2)	CDX	H	WF	HF	OAL	WB_2	
HFFA 27R/L-2	2.00	27.0	29.0	14.00	32.0	9.50	24.8	102.00	21.0	EDG 33B*
HFFA 29R/L-2	2.00	29.0	33.0	14.00	32.0	9.50	24.8	102.00	18.5	EDG 33B*
HFFA 33R/L-2	2.00	33.0	38.0	14.00	32.0	9.50	24.8	102.00	17.5	EDG 33B*
HFFA 38R/L-2	2.00	38.0	46.0	14.00	32.0	9.50	24.8	102.00	13.5	EDG 33B*
HFFA 46R/L-2	2.00	46.0	60.0	14.00	32.0	9.50	24.8	102.00	13.5	EDG 33B*
HFFA 60R/L-2	2.00	60.0	80.0	14.00	32.0	9.50	24.8	102.00	14.0	EDG 33B*
HFFA 80R/L-2	2.00	80.0	105.0	14.00	32.0	9.50	24.8	102.00	16.1	EDG 33B*

- For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

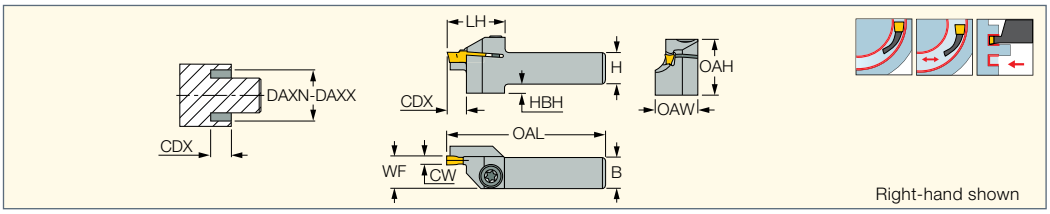
* Optional, should be ordered separately

For inserts, see pages: HFPN (575)

For holders, see pages: SGTBU/SGTBN (616) • UBHCR/L (618)

HELIFACE

HGHR/L-3
Integral Holders for Face Grooving and Turning



Designation	H	B	CW	CDX	HBH	WF	DAXN(1)	DAXX(2)	OAL	LH	OAH	OAW		
HGHR 1010-12-3T6	10.0	10.0	3.00	6.00	2.0	9.50	12.0	16.0	120.00	19.0	19.0	13.70	SR 76-1400	T-20/3
HGHR 1010-16-3T6	10.0	10.0	3.00	6.00	2.0	9.50	16.0	25.0	120.00	19.0	19.0	12.80	SR 76-1400	T-20/3
HGHR/L 1212-12-3T6	12.0	12.0	3.00	6.00	-	11.00	12.0	16.0	120.00	19.0	19.0	15.70	SR 76-1400	T-20/3
HGHR 1212-16-3T6	12.0	12.0	3.00	6.00	-	11.00	16.0	25.0	120.00	19.0	19.0	14.80	SR 76-1400	T-20/3
HGHR/L 1616-12-3T6	16.0	16.0	3.00	6.00	-	15.00	12.0	16.0	120.00	19.0	21.0	19.70	SR 76-1400	T-20/3
HGHR/L 1616-16-3T6	16.0	16.0	3.00	6.00	-	15.00	16.0	25.0	120.00	19.0	21.0	18.80	SR 76-1400	T-20/3
HGHR/L 2020-12-3T6	20.0	20.0	3.00	6.00	-	20.00	12.0	16.0	120.00	19.0	25.0	24.00	SR 76-1400	T-20/3
HGHR/L 2020-16-3T6	20.0	20.0	3.00	6.00	-	20.00	16.0	25.0	120.00	19.0	25.0	24.00	SR 76-1400	T-20/3
HGHR/L 2525-12-3T6	25.0	25.0	3.00	6.00	-	25.00	12.0	16.0	120.00	19.0	30.0	29.00	SR 76-1400	T-20/3
HGHR/L 2525-16-3T6	25.0	25.0	3.00	6.00	-	25.00	16.0	25.0	120.00	19.0	30.0	29.00	SR 76-1400	T-20/3

• HGN & GRIP inserts can be used only with right-hand toolholders, HGPL inserts only with left-hand toolholders • For user guide, see pages 604-613

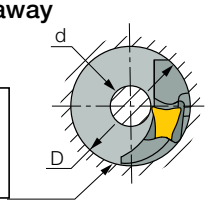
(1) Minimum penetration diameter

(2) Maximum penetration diameter

For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • HGN-C (489) • HGN-J (489) • HGN-UT (490) • HGPL (578)

No limitation for widening groove toward or away from center, except for the following tools:

Limitation of widening toward center depends on the major diameter (D) as per chart.

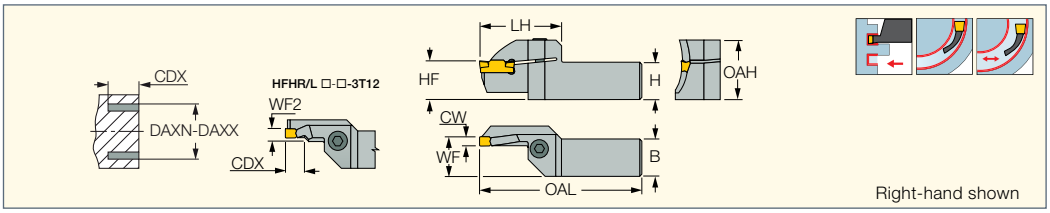


HGHR/L...-12-3T6

D	d
12.0	4.0
13.0	1.0
13.5	0

HELIFACE

HFHR/L-3T
Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF	WF2	DAXN(2)	DAXX(3)	LH	OAH		
HFHR/L 20-25-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	25.0	30.0	38.0	28.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-30-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	30.0	38.0	38.0	29.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-38-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	38.0	48.0	38.0	30.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-48-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	48.0	60.0	38.0	30.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-25-3T12	3.00	12.00	25.0	25.0	25.0	150.00	25.50	5.3	25.0	30.0	38.0	33.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-30-3T12	3.00	12.00	25.0	25.0	25.0	150.00	25.50	5.3	30.0	38.0	38.0	34.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-38-3T12	3.00	12.00	25.0	25.0	25.0	150.00	25.50	5.3	38.0	48.0	38.0	35.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-60-3T22 (1)	3.00	22.00	20.0	20.0	20.0	140.00	20.50	-	60.0	75.0	40.0	31.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-48-3T22 (1)	3.00	22.00	25.0	25.0	25.0	150.00	25.50	-	48.0	60.0	40.0	36.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-60-3T22 (1)	3.00	22.00	25.0	25.0	25.0	150.00	25.50	-	60.0	75.0	40.0	36.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-75-3T25 (1)	3.00	25.00	20.0	20.0	20.0	140.00	20.50	-	75.0	100.0	43.0	31.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-75-3T25 (1)	3.00	25.00	25.0	25.0	25.0	150.00	25.50	-	75.0	100.0	43.0	36.0	SR M6X16 DIN912	HW 5.0

• For user guide, see pages 604-613

(1) For deep face grooving only.

(2) Minimum penetration diameter

(3) Maximum penetration diameter

For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576)

No limitation for widening groove toward or away from center, except for the following tools:

HFHR/L-:-25-3T12

D	d
25	5
26	2
≥27	0

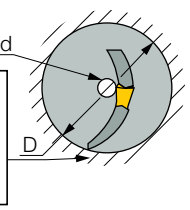
HFHR/L-:-25-4T12

D	d
25	1
≥26	0

HFHR/L-:-29-4T12

D	d
29	1
≥46	0

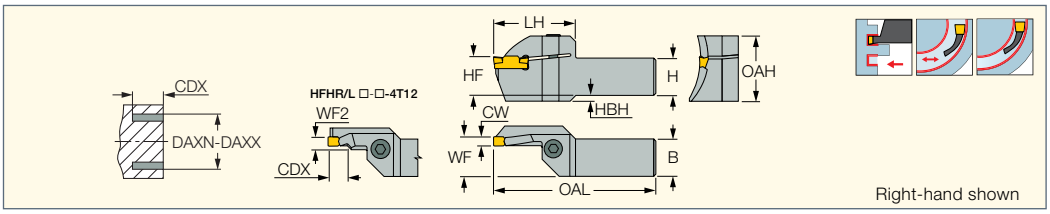
Limitation of widening toward center (d) depends on the major diameter (D) as per chart.



HELIFACE

HFHR/L-4T

Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF	WF2	DAXN(1)	DAXX(2)	LH	OAH	HBH		
HFHR/L 20-25-4T12	4.00	12.00	20.0	20.0	20.0	140.00	20.60	6.2	25.0	29.0	39.0	29.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-29-4T12	4.00	12.00	20.0	20.0	20.0	140.00	20.60	6.2	29.0	34.0	39.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-25-4T12	4.00	12.00	25.0	25.0	25.0	150.00	25.60	6.2	25.0	29.0	39.0	34.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-29-4T12	4.00	12.00	25.0	25.0	25.0	150.00	25.60	6.2	29.0	34.0	39.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-34-4T20	4.00	20.00	20.0	20.0	20.0	140.00	20.60	-	34.0	40.0	39.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-34-4T20	4.00	20.00	25.0	25.0	25.0	150.00	25.60	-	34.0	40.0	39.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-40-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	40.0	48.0	44.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-48-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	48.0	60.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-60-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	60.0	75.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-75-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	75.0	100.0	44.0	34.0	2.0	SR M6X16 DIN912	HW 5.0
HFHL 25-100-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	100.0	140.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-140-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.74	-	140.0	240.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-240-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	240.0	800.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-40-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	40.0	48.0	44.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-48-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	48.0	60.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-60-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	60.0	75.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-75-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	75.0	100.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR 25-100-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.74	-	100.0	140.0	44.0	37.0	-		
HFHR 25-140-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	140.0	240.0	44.0	37.0	-		
HFHR 25-75-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.80	-	75.0	100.0	44.0	37.0	-		

• DGN & GRIP 4 mm inserts can be used only with right-hand tools, HGPL 4 mm with left-hand tools • For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • HGPL (578)

Penetration Range

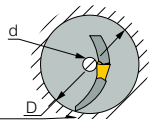
HFHR/L-:-25-4T12

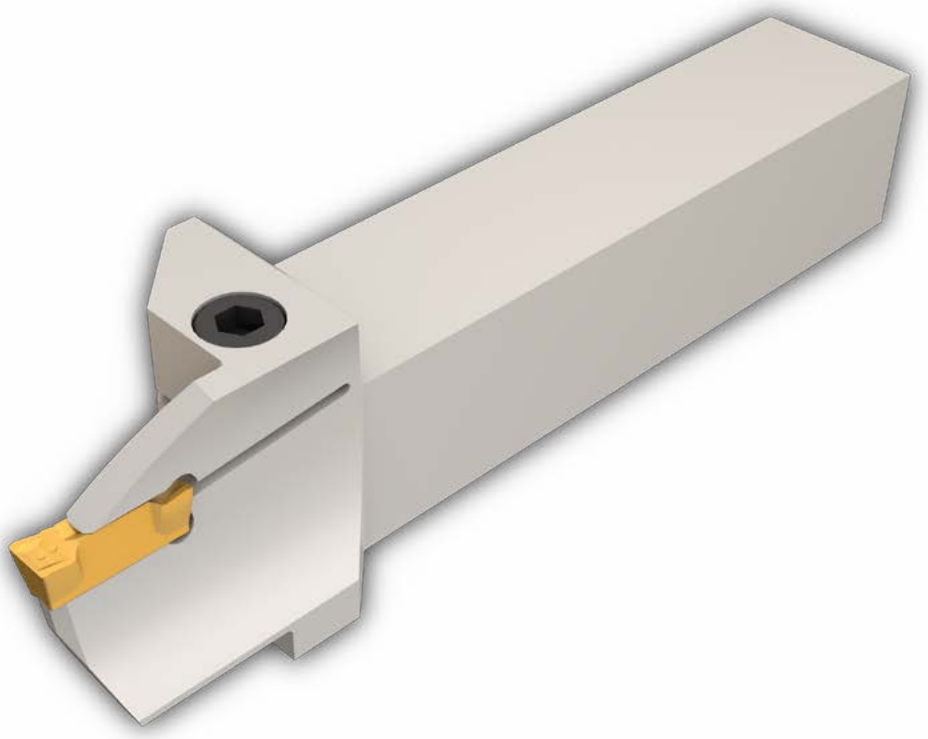
D	d
25	1
≥26	0

HFHR/L-:-29-4T12

D	d
29	1
≥46	0

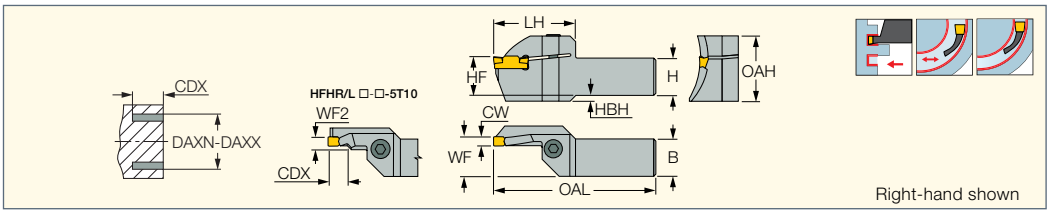
Limitation of widening toward center (d) depends on the major diameter (D) as per chart





HELIFACE

HFHR/L-5T
Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF2	WF	DAXN(1)	DAXX(2)	LH	OAH	HBH		
HFHR/L 20-25-5T10	5.00	10.00	20.0	20.0	20.0	140.00	7.1	21.00	25.0	30.0	38.0	28.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-25-5T10	5.00	10.00	25.0	25.0	25.0	150.00	7.1	26.00	25.0	30.0	38.0	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-110-5T14	5.00	14.00	25.0	25.0	25.0	150.00	-	23.50	110.0	200.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-52-5T14	5.00	14.00	25.0	25.0	25.0	150.00	-	23.50	52.0	75.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-75-5T14	5.00	14.00	25.0	25.0	25.0	150.00	-	23.50	75.0	110.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-28-5T15	5.00	17.00	20.0	20.0	20.0	140.00	-	21.00	28.0	31.0	34.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-31-5T15	5.00	17.00	20.0	20.0	20.0	140.00	-	21.00	31.0	35.0	34.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-28-5T15	5.00	17.00	25.0	25.0	25.0	150.00	-	26.00	28.0	31.0	34.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-31-5T15	5.00	17.00	25.0	25.0	25.0	150.00	-	26.00	31.0	35.0	34.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-35-5T20	5.00	20.00	20.0	20.0	20.0	140.00	-	21.00	35.0	40.0	39.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-40-5T20	5.00	20.00	20.0	20.0	20.0	140.00	-	21.00	40.0	45.0	39.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-200-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	23.50	200.0	800.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-35-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	26.00	35.0	40.0	39.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-40-5T20	5.00	20.00	25.0	25.0	25.0	140.00	-	26.00	40.0	45.0	39.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHR 25-200-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	26.00	200.0	800.0	32.5	33.0	-		
HFHR 25-40-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	26.00	40.0	45.0	39.0	36.0	-		
HFHR/L 20-45-5T25	5.00	25.00	20.0	20.0	20.0	140.00	-	21.00	45.0	55.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-55-5T25	5.00	25.00	20.0	20.0	20.0	140.00	-	21.00	55.0	70.0	44.0	35.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-45-5T25	5.00	25.00	25.0	25.0	25.0	150.00	-	26.00	45.0	55.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-55-5T25	5.00	25.00	25.0	25.0	25.0	150.00	-	26.00	55.0	70.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-70-5T28	5.00	28.00	20.0	20.0	20.0	140.00	-	21.00	70.0	95.0	47.0	35.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-130-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	130.0	180.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-180-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	180.0	800.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-70-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	70.0	95.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-95-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	95.0	130.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0

- DGN & GRIP 5.. inserts can be used only with right-hand tools, HGPL 5.. inserts with left-hand tools
- For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482) • HGPL (578)

No limitation for widening groove toward or away from center, except for the following tools:

HFHR/L- □ -31-5T15

D	d
31	15
32	10
33	7
34	4
35	2
≥36	0

HFHR/L- □ -30-6T10

D	d
30	7
31	4
32	1
≥33	0

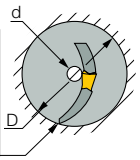
HFHR/L-□-25-5T10

D	d
25	4
26	1
≥27	0

HFHR/L- □ -28-5T15

D	d
28	13
29	8
30	5
31	3
32	1
≥33	0

Limitation of widening toward center (d) depends on the major diameter (D) as per chart

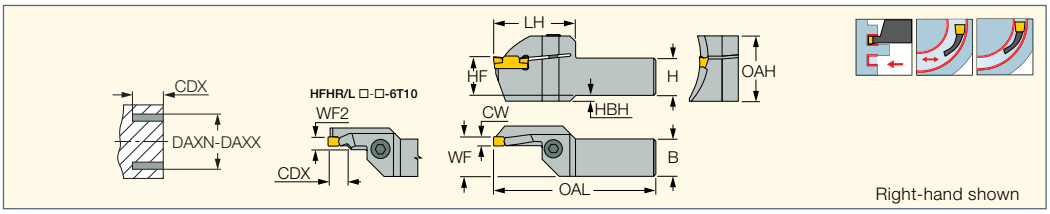




HELIFACE

HFHR/L-6T

Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF2	WF	DAXN(1)	DAXX(2)	LH	OAH	HBH		
HFHL 20-26-6T10	6.00	10.00	20.0	20.0	20.0	140.00	7.9	21.40	26.0	30.0	39.0	29.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-30-6T15	6.00	17.00	20.0	20.0	20.0	140.00	-	21.40	30.0	38.0	36.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-30-6T15	6.00	17.00	25.0	25.0	25.0	150.00	-	26.40	30.0	38.0	36.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-38-6T20	6.00	20.00	20.0	20.0	20.0	140.00	-	21.40	38.0	50.0	39.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-100-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	26.00	100.0	200.0	40.0	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-200-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	23.00	200.0	3000.0	37.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-38-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	26.40	38.0	50.0	39.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-50-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	23.00	50.0	65.0	37.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-65-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	23.00	65.0	100.0	37.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-50-6T25	6.00	25.00	20.0	20.0	20.0	140.00	-	21.40	50.0	70.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-50-6T25	6.00	25.00	25.0	25.0	25.0	150.00	-	26.40	50.0	70.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-100-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	100.0	180.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-180-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	180.0	400.0	51.0	40.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-400-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	400.0	3000.0	51.0	40.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-70-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	70.0	100.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0

• DGN & GRIP 6.. inserts can be used only with right-hand tools, HGPL 6.. inserts with left-hand tools • For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

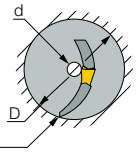
For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • HGPL (578)

No limitation for widening groove toward or away from center, except for the following tools:

HFHR/L- □ -30-6T10

D	d
30	7
31	4
32	1
≥33	0

Limitation of widening toward center (d) depends on the major diameter (D) as per chart

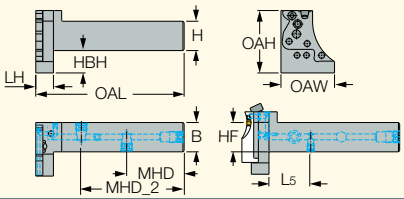


MODULAR-GRIP

JETCUT

MAHPR/L-XL-JHP

Holders with High Pressure Coolant Channels for MODULAR-GRIP Perpendicularly Mounted Adapters



Designation	H	B	LH	OAL	HBH	OAH	OAW	HF	L5	MHD	MHD_2
MAHPR/L-XL-20-JHP-MCG	20.0	20.0	23.0	120.00	24.0	53.00	45.00	20.0	29.00	50.00	85.00
MAHPR/L-XL-25-JHP-MCG	25.0	25.0	15.0	120.00	19.0	53.00	45.50	25.0	35.00	50.00	90.00

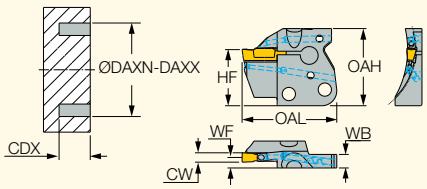
For tools, see pages: DGPAD-XL-JHP (480) • HFPAD-JHP (562) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TNFPAD-XL-JHP (569)

Spare Parts

Designation									
MAHPR/L-XL-20-JHP-MCG	SR M5-04451	T-20/5	SR M6X16 DIN912	HW 5.0	OR 5X1N	SR M4X4 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SUPPORT MG-XL-5113377
MAHPR/L-XL-25-JHP-MCG	SR M5-04451	T-20/5	SR M6X16 DIN912	HW 5.0	OR 5X1N	SR M4X4 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SUPPORT MG-XL-5113377

MODULAR GRIP

HFPAD-JHP
Adapters for Face Machining





Right-hand shown

Designation	CW	CDX	WF	WB	OAL	HF	OAH	DAXN(1)	DAXX(2)
HFPAD 3R/L-40-T10-JHP	3.00	10.00	4.80	5.80	39.50	24.0	33.00	40.0	65.0
HFPAD 3R/L-115-T18-JHP	3.00	18.00	4.80	5.80	43.50	24.0	33.00	115.0	400.0
HFPAD 3R/L-65-T18-JHP	3.00	18.00	4.80	5.80	43.50	24.0	33.00	65.0	115.0
HFPAD 4R/L-44-T14-JHP	4.00	14.00	4.80	5.80	40.50	24.0	33.00	44.0	58.0
HFPAD 4R/L-58-T14-JHP	4.00	14.00	4.80	5.80	40.50	24.0	33.00	58.0	88.0
HFPAD 4R/L-88-T14-JHP	4.00	14.00	4.50	5.80	40.50	24.0	33.00	88.0	175.0
HFPAD 4R/L-175-T20-JHP	4.00	20.00	4.80	6.50	45.50	24.0	33.00	175.0	800.0
HFPAD 5R/L-110-T14-JHP	5.00	14.00	4.50	6.30	45.50	24.0	33.00	110.0	200.0
HFPAD 5R/L-40-T14-JHP	5.00	14.00	4.50	6.30	40.50	24.0	33.00	40.0	50.0
HFPAD 5L-50-T14-JHP	5.00	14.00	4.50	6.30	40.50	24.0	33.00	50.0	75.0
HFPAD 5R/L-75-T14-JHP	5.00	14.00	4.50	6.30	40.50	24.0	33.00	75.0	110.0
HFPAD 5R/L-200-T20-JHP	5.00	20.00	4.50	6.60	45.50	24.0	33.00	200.0	800.0
HFPAD 6R/L-60-T14-JHP	6.00	14.00	4.50	6.80	40.50	24.0	33.00	60.0	100.0
HFPAD 6R/L-100-T20-JHP	6.00	20.00	4.50	6.80	45.50	24.0	33.00	100.0	200.0
HFPAD 6R/L-200-T20-JHP	6.00	20.00	4.50	7.10	45.50	24.0	33.00	200.0	3000.0

- WF(assembly)=WF(shank) + WF(adapter)
- HGN,GRIP,DGN inserts can be used only with right-hand adapters, HGPL inserts with left-hand adapters
- For user guide, see pages 604-613

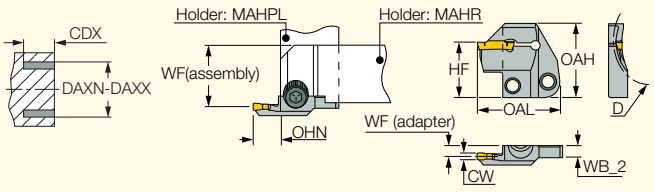
(1) Minimum axial grooving diameter
(2) Maximum axial grooving diameter

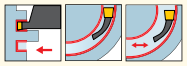
For inserts, see pages: DGN-MF (485) • DGN-W (482) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • GRIP (269) • GRIP (full radius) (270) • HFPR/L (576) • HFPR/L (full radius) (576) • HGN-C (489) • HGN-J (489) • HGN-UT (490) • HGPL (578)

For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • MAHPR/L-JHP (281) • MAHPR/L-XL-JHP (561) • MAHR/L-JHP (279) • MAHR/L-JHP-MC (280)

MODULAR GRIP

HFPAD-3
Adapters for Face Machining





Left-hand shown

Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 3R/L-25-T10	25.0	30.0	3.00	10.00	15.0	4.80	5.8	39.50	24.0	32.0
HFPAD 3R/L-30-T10	30.0	40.0	3.00	10.00	15.0	4.80	5.8	39.50	24.0	32.0
HFPAD 3R/L-40-T10	40.0	65.0	3.00	10.00	15.0	4.80	5.8	39.50	24.0	32.0
HFPAD 3R/L-65-T18	65.0	115.0	3.00	18.00	19.0	4.80	5.8	43.50	24.0	32.0
HFPAD 3R/L-115-T18	115.0	400.0	3.00	18.00	19.0	4.80	5.8	43.50	24.0	32.0

- WF(assembly)=WF(shank) + WF(adapter)
- HGN & GRIP 3.. inserts can be used only with right-hand adapters, HGPL 3.. inserts with left-hand adapters
- For user guide, see pages 604-613

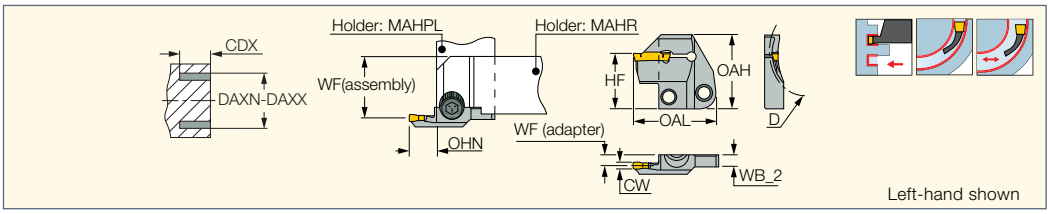
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)

For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • HGN-C (489) • HGN-J (489) • HGN-UT (490) • HGPL (578)

For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • IH-HFPAD (571) • MAHR/L-JHP-MC (280) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633)

MODULAR GRIP

HFPAD-4
Adapters for Face Machining



Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 4R/L-25-T10	25.0	31.0	4.00	10.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-31-T10	31.0	44.0	4.00	10.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-44-T14	44.0	58.0	4.00	14.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-58-T14	58.0	88.0	4.00	14.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-88-T14	88.0	175.0	4.00	14.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-175-T20	175.0	800.0	4.00	20.00	21.0	4.50	6.5	45.50	24.0	32.0

- WF(assembly)=WF(shank) + WF(adapter) • DGN & GRIP 4.. inserts can be used only with right-hand adapters, HGPL 4.. inserts with left-hand adapters
- For user guide, see pages 604-613

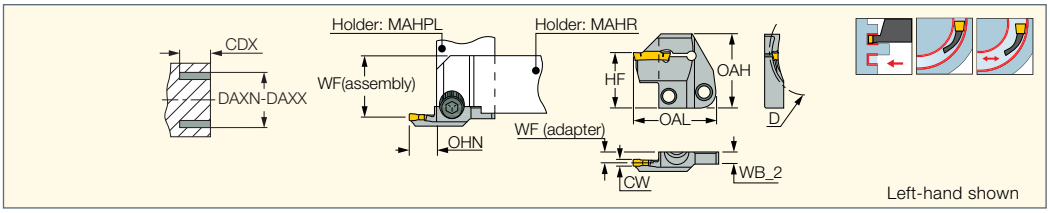
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)

For inserts, see pages: DGN-MF (485) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • GRIP (269) • GRIP (full radius) (270) • HFPR/L (576) • HFPR/L (full radius) (576) • HGPL (578)

For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • IH-HFPAD (571) • MAHR/L-JHP-MC (280) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633)

MODULAR GRIP

HFPAD-5
Adapters for Face Machining



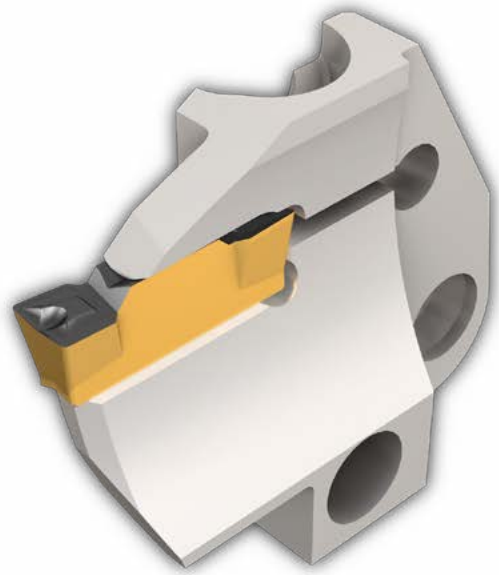
Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 5R/L-40-T14	40.0	50.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-50-T14	50.0	75.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-75-T14	75.0	110.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-110-T14	110.0	200.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-200-T20	200.0	800.0	5.00	20.00	21.0	4.50	6.6	45.50	24.0	32.0

- WF(assembly)=WF(shank) + WF(adapter) • DGN & GRIP 5.. inserts can be used only with right-hand adapters, HGPL 5.. inserts with left-hand adapters
- For user guide, see pages 604-613

(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)

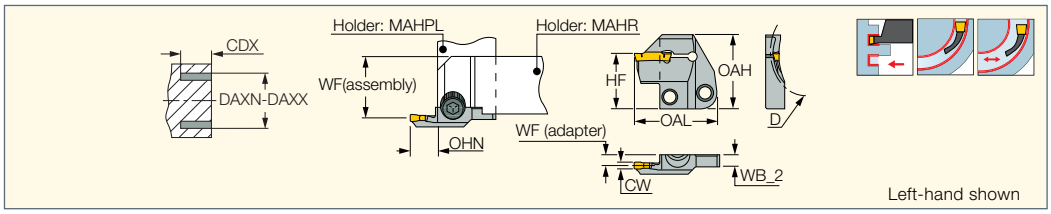
For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482) • HGPL (578)

For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • IH-HFPAD (571) • MAHR/L-JHP-MC (280) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHDOR (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633)



MODULAR-GRIP

HFPAD-6
Adapters for Face Machining



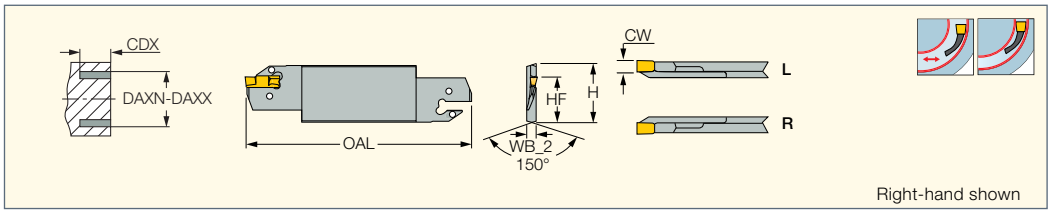
Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 6R/L-60-T14	60.0	100.0	6.00	14.00	16.0	4.50	6.8	40.50	24.0	32.0
HFPAD 6R/L-100-T20	100.0	200.0	6.00	20.00	21.0	4.50	6.8	45.50	24.0	32.0
HFPAD 6R/L-200-T20	200.0	3000.0	6.00	20.00	21.0	4.50	7.1	45.50	24.0	32.0

• WF(assembly)=WF(shank) + WF(adapter) • DGN & GRIP 6.. inserts can be used only with right-hand adapters, HGPL 6.. inserts with left-hand adapters
• For user guide, see pages 604-613
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)

For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • HGPL (578)
For holders, see pages: C#-MAHD-JHP (624) • C#-MAHPD-JHP (625) • IH-HFPAD (571) • MAHR/L-JHP-MC (280) • MAHPR/L-JHP (281) • MAHR/L-JHP (279) • MAHR/L (279) • MAHPR/L (280) • C#-MAHD (624) • C#-MAHPD (625) • C#-MAHDR-45 (623) • C#-MAHDOR (624) • HSK A63WH-MAHUR/L (632) • HSK A63WH-MAHDR-45 (631) • HSK A63WH-MAHDOR (631) • IM-MAHD (633) • IM-MAHPD (633)

HELIFACE

HFFR/L-T
Blades for Face Machining



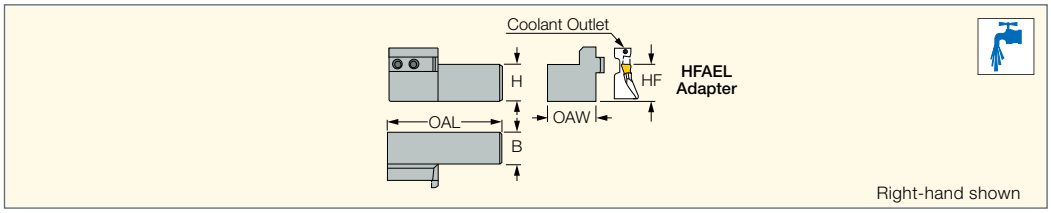
Designation	CW	DAXN(2)	DAXX(3)	CDX	OAL	HF	H	WB_2	
HFFR/L 48-4T25 (1)	4.00	48.0	60.0	25.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 60-4T25	4.00	60.0	75.0	25.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 75-4T30	4.00	75.0	140.0	30.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 140-4T30	4.00	140.0	1500.0	30.00	150.00	24.8	32.0	3.2	EDG 33B*
HFFR/L 70-5T32	5.00	70.0	95.0	32.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 95-5T35	5.00	95.0	130.0	35.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 130-5T38	5.00	130.0	180.0	38.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 180-5T38	5.00	180.0	1500.0	38.00	150.00	24.8	32.0	4.0	EDG 33B*
HFFR/L 90-6T32	6.00	90.0	180.0	32.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 180-6T38	6.00	180.0	400.0	38.00	150.00	24.8	32.0	5.2	EDG 33B*

• After initial groove, no limitation to widening groove outward or toward center.
• DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades
• For user guide, see pages 604-613
(1) HGPL 4...Y with LH blade
(2) Minimum penetration diameter
(3) Maximum penetration diameter
* Optional, should be ordered separately

For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482) • HGPL (578)
For holders, see pages: SGTBF (618) • SGTBU/SGTBN (616) • UBHCR/L (618)

HELIFACE

HAR/L
Face Machining Adapter Holders

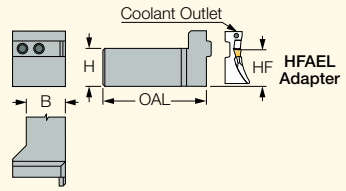


Designation	OAL	B	H	HF	OAW		
HAR/L 25C	110.00	25.0	25.0	25.0	39.00	SR 14-519	T-20/3
HAR/L 32C	130.00	32.0	32.0	32.0	46.00	SR 14-519	T-20/3

• Holders for adapters HFAER/L & HGAER/L, HFAIR/L & HGAIR/L
For tools, see pages: HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HGAER/L-3 (565) • HGAIR/L-3 (568)

HELIFACE

HAPR/L
Face Machining Perpendicular Holders for Adapters



Left-hand shown

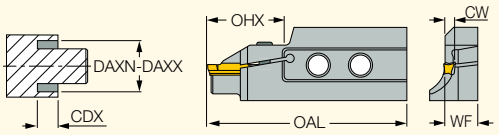
Designation	OAL	H	HF	B		
HAPR/L 25C	124.00	25.0	25.0	25.0	SR 14-519	T-20/3
HAPR/L 32C	139.00	32.0	32.0	32.0	SR 14-519	T-20/3

• Holders for adapters HFAER/L & HGAER/L, HFAIR/L & HGAIR/L.

For tools, see pages: HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HGAER/L-3 (565) • HGAIR/L-3 (568)

HELIFACE

HGAER/L-3
Adapters for External Facing Along Shafts



Right-hand shown

Designation	CDX	CW	DAXN(1)	DAXX(2)	OHX(3)	WF	OAL
HGAER/L 12-3M	2.00	3.00	12.0	500.0	21.0	10.2	55.00
HGAER/L 12-3T6	6.00	3.00	12.0	15.0	21.0	10.2	55.00
HGAER/L 14-3T7	7.00	3.00	14.0	17.0	21.0	10.2	55.00
HGAER/L 17-3T8	8.00	3.00	17.0	21.0	21.0	10.2	55.00
HGAER/L 21-3T9	9.00	3.00	21.0	25.0	21.0	10.2	55.00

• GRIP 3... inserts can be used with right-hand adapters only, HGPL 3 with left-hand adapters • For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Maximum overhang

For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • HGPL (578)

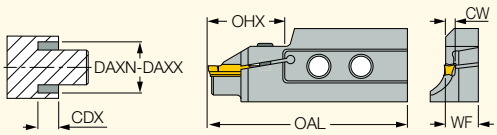
For holders, see pages: C#-HAD (627) • C#-HAPR/L (627) • HAPR/L (565) • HAR/L (564) • IM-HAD (634) • IM-HAPR/L (634)

Spare Parts

Designation		
HGAER/L-3	SR 16-236 P	T-15/3

HELIFACE

HFAER/L-4
Adapters for External Facing Along Shafts



Right-hand shown

Designation	CDX	CW	DAXN(1)	DAXX(2)	OAL	OHX(3)	WF		
HFAER/L 40-4T20	20.00	4.00	40.0	48.0	68.50	21.0	11.6	SR M5X16 DIN912	HW 4.0
HFAER/L 48-4T20	20.00	4.00	48.0	60.0	68.50	21.0	11.6	SR M5X16 DIN912	HW 4.0
HFAER/L 60-4T25	25.00	4.00	60.0	75.0	68.50	26.0	11.6	SR M5X16 DIN912	HW 4.0
HFAER/L 75-4T25	25.00	4.00	75.0	100.0	68.50	26.0	11.6	SR M5X16 DIN912	HW 4.0

• DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades • For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

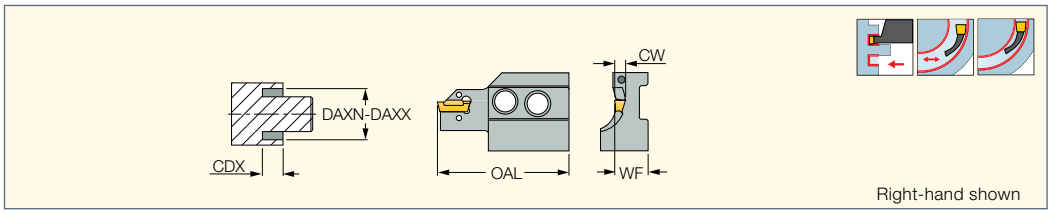
(3) Maximum overhang

For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • HGPL (578)

For holders, see pages: C#-HAD (627) • C#-HAPR/L (627) • HAPR/L (565) • HAR/L (564) • IM-HAD (634) • IM-HAPR/L (634)

HELIFACE

HFAER/L-5T, 6T
Adapters for External Facing Along Shafts



Designation	CW	CDX	DAXN(1)	DAXX(2)	OAL	WF	
HFAER/L 70C-5T25	5.00	25.00	70.0	95.0	66.00	12.2	EDG 33B*
HFAER/L 95C-5T25	5.00	25.00	95.0	130.0	66.00	12.2	EDG 33B*
HFAER/L 70C-6T28	6.00	28.00	70.0	100.0	69.00	12.3	EDG 33B*
HFAER/L 100C-6T32	6.00	32.00	100.0	180.0	73.00	12.3	EDG 33B*
HFAER/L 180C-6T32	6.00	32.00	180.0	400.0	73.00	12.3	EDG 33B*

- After initial groove, no limitation to widening groove outward from or toward center
- Adapters can be mounted on standard HAR/L, HAPR/L, HAI holders for external machining
- DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades • For user guide, see pages 604-613

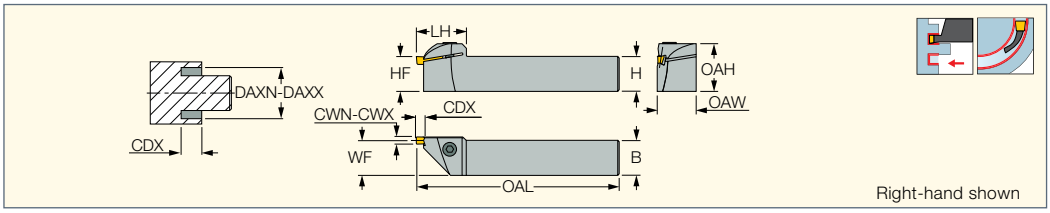
(1) Minimum penetration diameter
(2) Maximum penetration diameter * Optional, should be ordered separately

For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482) • HGPL (578)

For holders, see pages: C#-HAD (627) • C#-HAPR/L (627) • HAPR/L (565) • HAR/L (564) • IM-HAD (634) • IM-HAPR/L (634)

HELIFACE

HFHR/L-M
Toolholders for Shallow Face Grooving



Designation	CWN(1)	CWX(2)	CDX	WF	H	HF	B	OAL	DAXN(3)	DAXX(4)	OAH	OAW		
HFHR/L 20M	3.00	6.00	5.30	20.00	20.0	20.0	20.0	130.00	20.0	2000.0	29.0	22.50	SR M6X16 DIN912	HW 5.0
HFHR/L 25M	3.00	6.00	5.30	25.00	25.0	25.0	25.0	150.00	20.0	2000.0	34.0	27.50	SR M6X16 DIN912	HW 5.0

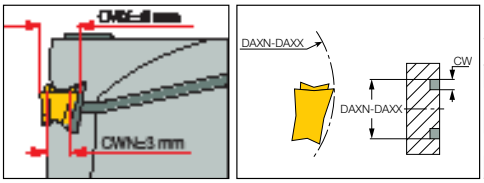
- DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools
- After initial groove, no limitation to widening groove outward or toward center
- For user guide, see pages 604-613

(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum penetration diameter
(4) Maximum penetration diameter

For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576)

HFHR/L- □ M & HFHPR/L- □ M
Integral Toolholders

For shallow machining up to max. 5 mm depth of groove. One toolholder can be mounted with inserts in 3-6 mm widths. The initial major diameter groove is limited by the insert's geometry of each size.
After the initial groove, face recessing outward or toward the center is not limited by the insert's geometry.

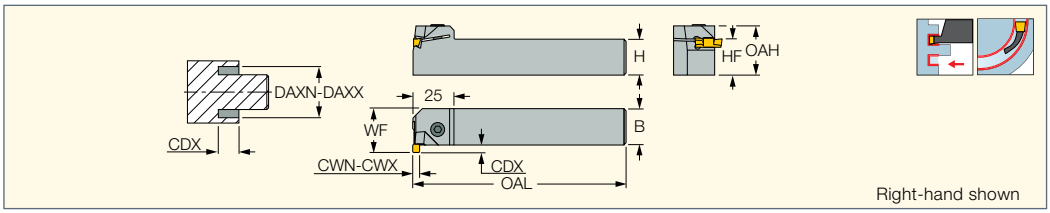


Insert initial face grooving range

DAXN-DAXX		
CW	DAXN	DAXX
3	25.6	51.5
4	24.1	73.7
5	22.1	170
6	20.8	∞

HELIFACE

HFHPR/L-M
Perpendicular Toolholders for Shallow Face Grooving



Designation	CWN(1)	CWX(2)	CDX	WF	H	B	OAL	DAXN(3)	DAXX(4)	OAH	HF		
HFHPR/L 20M	3.00	6.00	5.00	25.30	20.0	20.0	130.00	20.0	2000.0	29.0	20.0	SR M6X16 DIN912	HW 5.0
HFHPR/L 25M	3.00	6.00	5.00	30.30	25.0	25.0	150.00	20.0	2000.0	34.0	25.0	SR M6X16 DIN912	HW 5.0

- DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools
- After initial groove, no limitation to widening groove outward or toward center
- For user guide, see pages 604-613

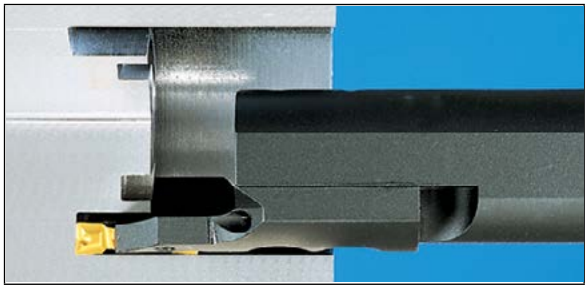
(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum penetration diameter
(4) Maximum penetration diameter

For inserts, see pages: HFPR/L (576) • HFPR/L (full radius) (576)

Boring Bars for Adapters

HGAIR/L & HFAIR/L Adapters and HAI Holders

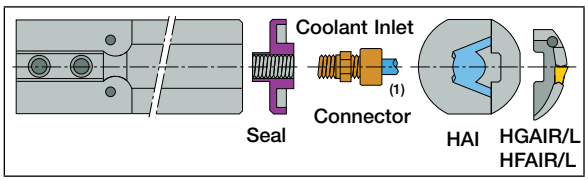
Adapter clamped on HAI round shank holders can machine deep internal boring and grooving applications. The tool can bore down to the bottom, and is supplied with internal coolant for better performance.

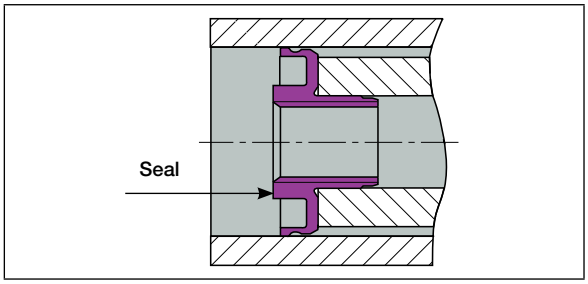


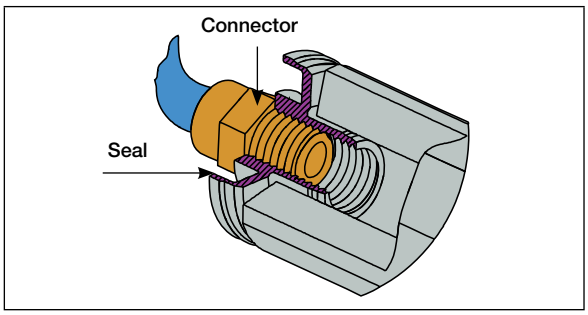
HFAIR/L & HGAIR/L	HAI Holders
	
Exchangeable adapters, see pages 568, 572	for adapters, see page 572

HFAIR/L HGAIR/L	- ☐	C	- ☐	T - ☐
HELIFACE Internal adapters right or left	Min. initial groove diameter	Internal coolant	Insert width	Max. depth of groove

Coolant System

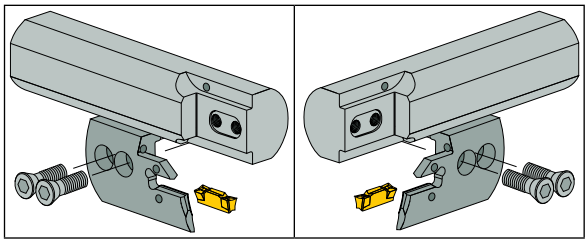






(1) Connector for coolant inlet BSP 1/8 thread. For PL-20, use M6 thread. Connector not supplied with tools.

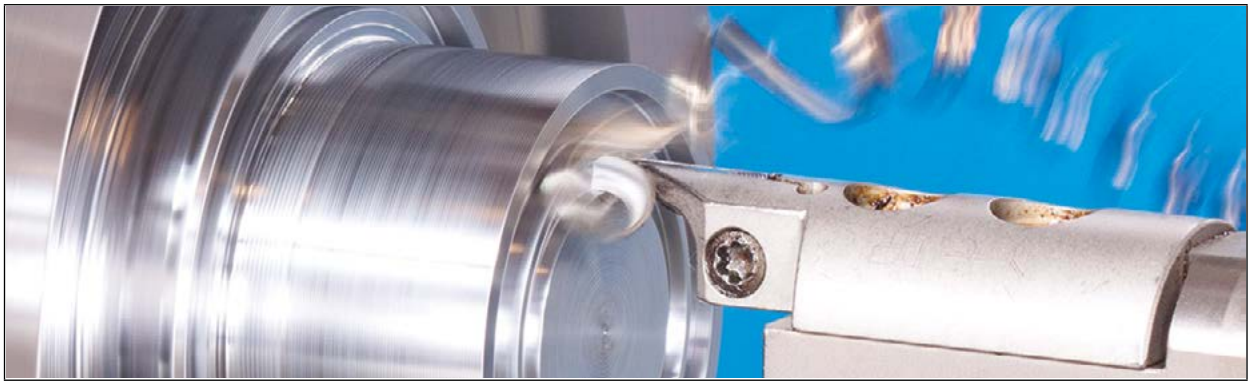
HAI Holder System Assembly



HFAIL & HGAIL
Left-hand Adapters

HFAIR & HGAIR
Right-hand Adapters

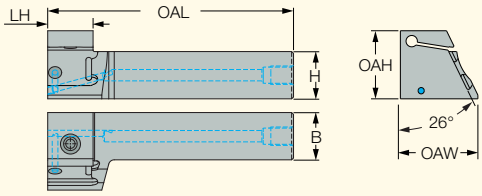
The same HAI boring bar can be used with right- and left-hand adapters in a wide range of face machining applications. The two screws and the central guiding slot on the adapter correspond to the key and holes on the holder ensuring strong, safe, and accurate clamping.



NEOFACE FACE GROOVING

BHSR/L-JHP

Holders for Double-Sided Face Grooving Blades with Inclined Clamping Position and JHP Cooling Hole



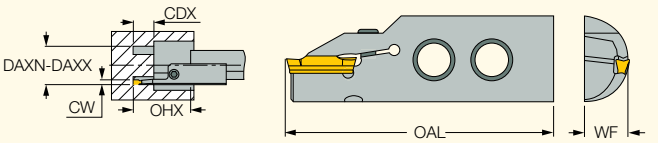
Left-hand shown

Designation	H	B	OAL	LH	OAH	OAW				
BHSL 25-26-B1-JHP	25.0	25.0	130.00	24.0	36.00	41.00	SR M6X18 DIN912	HW 5.0	OR 5X1N	SR M4X3 DIN913

HELIFACE

HGAIR/L-3

Adapters for Internal Face Grooving and Turning



Right-hand shown

Designation	CDX	DAXN(1)	DAXX(2)	CW	OAL	WF	OHX(3)		
HGAIR/L 12-3M	2.00	12.0	500.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 12-3T6	6.00	12.0	15.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 14-3T7	7.00	14.0	17.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 17-3T8	8.00	17.0	21.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 21-3T9	9.00	21.0	25.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 25-3T9	9.00	25.0	34.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 35-3T10	10.00	35.0	45.0	3.00	56.00	10.3	22.0	SR 16-236 P	T-15/3
HGAIR/L 45-3T10	10.00	45.0	65.0	3.00	56.00	10.3	22.0	SR 16-236 P	T-15/3
HGAIR/L 65-3T18	18.00	65.0	115.0	3.00	64.00	11.3	30.0	SR 16-236 P	T-15/3
HGAIR/L 115-3T18	18.00	115.0	400.0	3.00	64.00	11.3	30.0	SR 16-236 P	T-15/3

• HGN & GRIP 3.. inserts can be used only with right-hand adapters, HGPL 3.. inserts with left-hand adapters • For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Maximum overhang

For inserts, see pages: GRIP (269) • GRIP (full radius) (270) • HGN-C (489) • HGN-J (489) • HGN-UT (490) • HGPL (578)

For holders, see pages: C#-HAD (627) • C#-HAPR/L (627) • HAI-C (572) • HAPR/L (565) • HAR/L (564) • IH-HFAIR (569) • IM-HAD (634) • IM-HAPR/L (634)

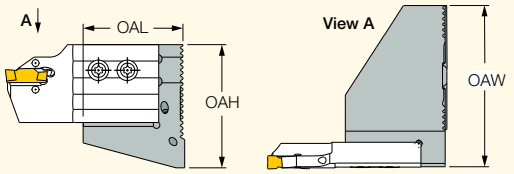


HELIFACE

TANG-GRIP FACE MACHINING LINE

IH-HFAIR

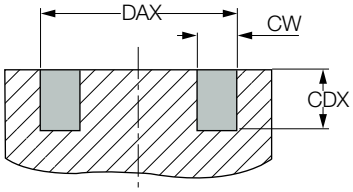
Intermediate Serrated Cartridge for Standard HELI-FACE HFAIR Adapters.

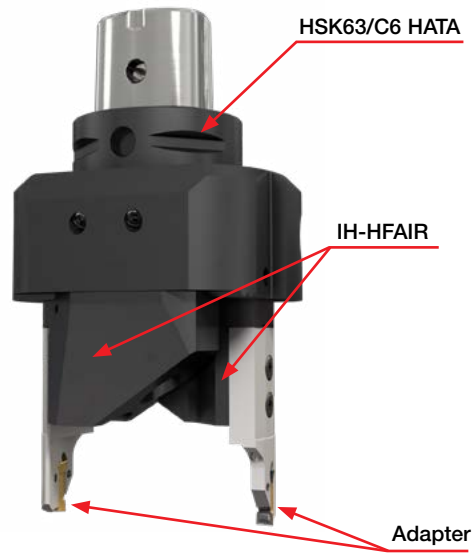


Designation	OAH	OAW	OAL
IH-HFAIR	55.40	72.50	44.90

For tools, see pages: HFAIR/L-DG (573) • HGAIR/L-3 (568)

HSK63 HATA+IH-HFAIR
C6 HATA+IH-HFAIR





Spare Parts

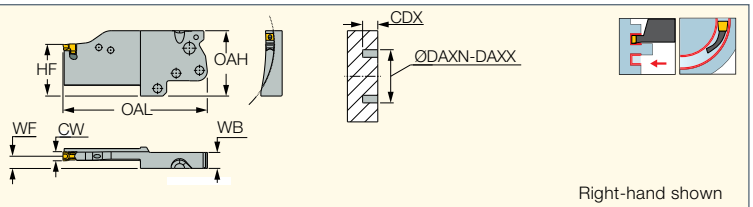
Designation				
IH-HFAIR	SR 14-519	T-20/3	O-RING 19X2 NBR	SR M6X20-XT

TANG-GRIP FACE MACHINING LINE

MODULAR-GRIP

TNFPAD-XL-JHP

Adapters for Face Machining



Designation	CW	CDX	WF	WB	OAL	HF	OAH	DAXN(1)	DAXX(2)
TNFPAD-XL 4L-35T20-JHP	4.00	20.00	8.00	9.50	65.00	34.0	43.00	35.0	53.0
TNFPAD-XL 4L-45T20-JHP	4.00	20.00	8.00	9.50	65.00	34.0	43.00	45.0	68.0
TNFPAD-XL 4R/L-35T35-JHP	4.00	35.00	8.00	9.50	80.00	34.0	43.00	35.0	53.0
TNFPAD-XL 4R/L-45T35-JHP	4.00	35.00	8.00	9.50	80.00	34.0	43.00	45.0	68.0
TNFPAD-XL 5L-60T20-JHP	5.00	20.00	8.00	10.00	65.00	34.0	43.00	60.0	90.0
TNFPAD-XL 5R/L-60T40-JHP	5.00	40.00	8.00	10.00	85.00	34.0	43.00	60.0	90.0
TNFPAD-XL 6L-110T20-JHP	6.00	20.00	8.00	10.50	65.00	34.0	43.00	110.0	312.0
TNFPAD-XL 6L-80T20-JHP	6.00	20.00	8.00	10.50	65.00	34.0	43.00	80.0	122.0
TNFPAD-XL 6L-80T45-JHP	6.00	45.00	8.00	10.50	90.00	34.0	43.00	80.0	122.0
TNFPAD-XL 6R/L-110T50-JHP	6.00	50.00	8.00	10.50	95.00	34.0	43.00	110.0	312.0

• WF(assembly)=WF(shank) + WF(adapter) • TNF 4..5..6 inserts can be used with left and right hand adapters. • For user guide, see pages 604-613

(1) Minimum axial grooving diameter

(2) Maximum axial grooving diameter

For inserts, see pages: TNF GN-IQ (585) • TNF-M-IQ (585) • TNF-P-IQ (585)

For holders, see pages: ABC MAHDR-#-XL-JHP (782) • IH-TNFPAD (570) • MAHPR/L-XL-JHP (561) • MAHR/L-MG-XL-JHP (501) • MAHR/L-MG-XL-JHP-MC (501) • V## MAHD#-#-XL-##-JHP (778) • V## MAHD-XL-JHP (779)

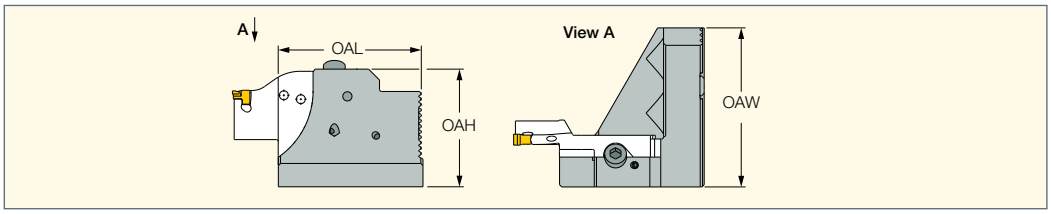
Spare Parts

Designation	
TNFPAD-XL-JHP	ETF 3-6

HELIFACE
TANG-GRIP FACE MACHINING LINE

IH-TNFPAD

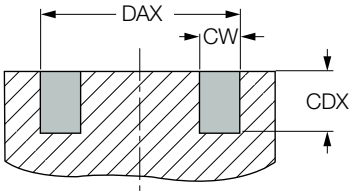
Intermediate Serrated Cartridge for standard TANG-FACE TNFPAD-XL R Adapters

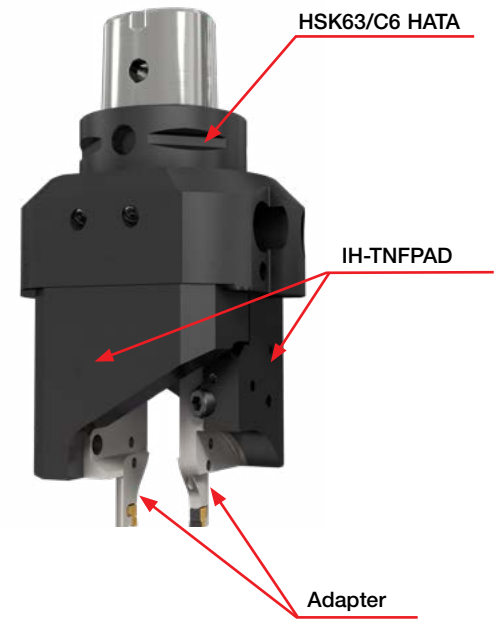


Designation	OAH	OAW	OAL
IH-TNFPAD	54.00	73.00	65.70

For tools, see pages: TNFPAD-XL-JHP (569)

HSK63 HATA + IH-TNFPAD
C6 HATA + IH-TNFPAD





Designation	CW (min)	CW (max)	CDX	DAX (min)	DAX (max)
TNFPAD-XL 4L-35T20-JHP	4.00	6.90	20.00	35.0	53.0
TNFPAD-XL 4L-45T20-JHP	4.00	6.90	20.00	45.0	68.0
TNFPAD-XL 4R/L-35T35-JHP	4.00	6.90	35.00	35.0	53.0
TNFPAD-XL 4R/L-45T35-JHP	4.00	6.90	35.00	45.0	68.0
TNFPAD-XL 5L-60T20-JHP	5.00	8.90	20.00	60.0	90.0
TNFPAD-XL 5R/L-60T40-JHP	5.00	8.90	40.00	60.0	90.0
TNFPAD-XL 6L-110T20-JHP	6.00	10.90	20.00	110.0	312.0
TNFPAD-XL 6L-80T20-JHP	6.00	10.90	20.00	80.0	122.0
TNFPAD-XL 6L-80T45-JHP	6.00	10.90	45.00	80.0	122.0
TNFPAD-XL 6R/L-110T50-JHP	6.00	10.90	50.00	110.0	312.0

Spare Parts

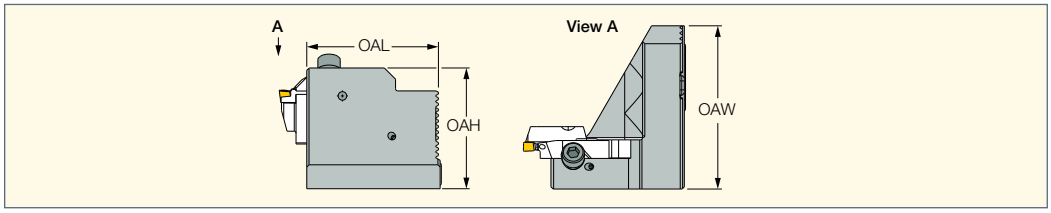
Designation							
IH-TNFPAD	SR M6X14-XT DIN 912	BLD T20/M7	SW6-SD	SR M5-04451	SR M6X20-XT	O-RING 19X2 NBR	OR 5X1N

HELIFACE

TANG-GRIP FACE MACHINING LINE

IH-HFPAD

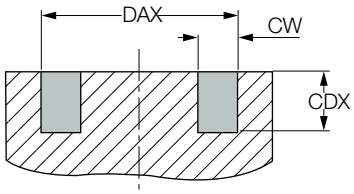
Intermediate Serrated Cartridge
For standard HFPAD R Adapters

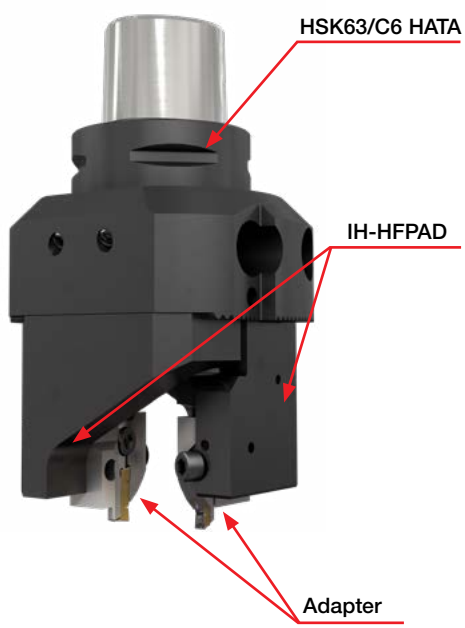


Designation	OAH	OAW	OAL
IH-HFPAD	54.00	73.00	58.90

For tools, see pages: HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564)

HSK63 HATA+IH-HFPAD
C6 HATA+IH-HFPAD





Adapters	CW (min)	CW (max)	CDX	DAX (min)	DAX (max)
HFPAD 3R-25-T10	3	5.1	10	25	30
HFPAD 3R-30-T10	3	5.1	10	30	40
HFPAD 3R-40-T10	3	5.1	10	40	65
HFPAD 3R-65-T18	3	5.1	18	65	99.2
HFPAD 4R-25-T10	4	6.9	10	25	31
HFPAD 4R-31-T10	4	6.9	10	31	44
HFPAD 4R-44-T14	4	6.9	14	44	58
HFPAD 4R-58-T14	4	6.9	14	58	88
HFPAD 4R-88-T14	4	6.9	14	88	100.8
HFPAD 5R-40-T14	5	8.1	14	40	50
HFPAD 5R-50-T14	5	8.1	14	50	75
HFPAD 5R-75-T14	5	8.1	14	75	101.8
HFPAD 6R-60-T14	6	10.1	14	60	100
HFPAD 6R-100-T20	6	10.1	20	100	102.8
HFPAD 3R-30-T10-JHP	3	5.1	10	30	40
HFPAD 3R-40-T10-JHP	3	5.1	10	40	65
HFPAD 3R-65-T18-JHP	3	5.1	18	65	99.2
HFPAD 4R-44-T14-JHP	4	6.9	14	44	58
HFPAD 4R-58-T14-JHP	4	6.9	14	58	88
HFPAD 4R-88-T14-JHP	4	6.9	14	88	100.8
HFPAD 5R-40-T14-JHP	5	8.1	14	40	50
HFPAD 5R-75-T14-JHP	5	8.1	14	75	101.8
HFPAD 6R-60-T14-JHP	6	10.1	14	60	100
HFPAD 6R-100-T20-JHP	6	10.1	20	100	102.8

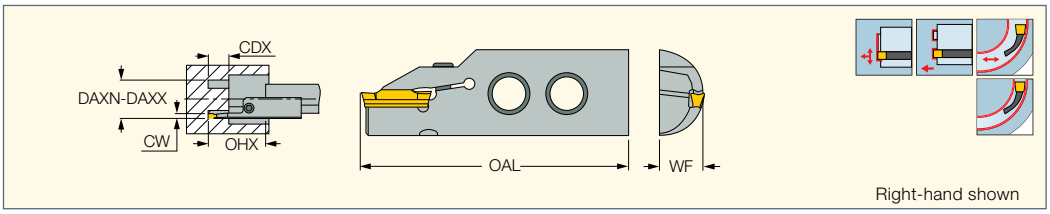
Spare Parts

Designation									
IH-HFPAD	SR M6X20-XT	SR M5-04451	SR M6X12DIN6912	HW 5.0	T-20/5	O-RING 19X2 NBR	OR 5X1N	BLD T20/M7	SW6-SD

HELIFACE

HFAIR/L-4

Adapters for Internal Face Grooving and Turning



Designation	CDX	CW	DAXN(1)	DAXX(2)	OAL	WF	OHX(3)		
HFAIR/L 34-4T18	18.00	4.00	34.0	40.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0
HFAIR/L 40-4T20	20.00	4.00	40.0	48.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0
HFAIR/L 48-4T20	20.00	4.00	48.0	60.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0
HFAIR/L 60-4T25	25.00	4.00	60.0	75.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0

• DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades • For user guide, see pages 604-613

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Maximum overhang

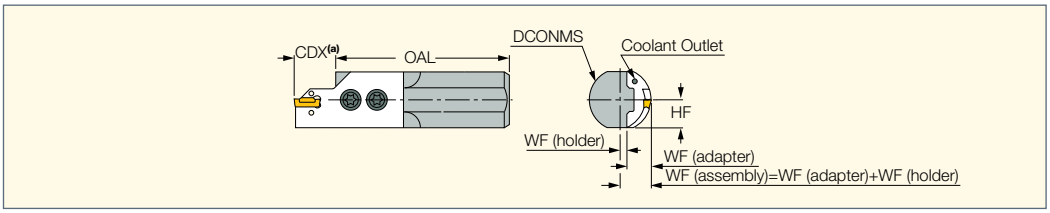
For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • HGPL (578)

For holders, see pages: C#-HAD (627) • C#-HAPR/L (627) • HAI-C (572) • HAPR/L (565) • HAR/L (564) • IM-HAD (634) • IM-HAPR/L (634)

HELIFACE

HAI-C

Boring Bars with Coolant Holes for Internal Grooving and Turning Adapters



Designation	DCONMS	OAL	HF	WF(1)	CSP(2)			
HAI 20	20.00	130.00	9.0	0.50	0	SR 14-519	T-20/3	
HAI 25C	25.00	150.00	11.5	3.00	1	SR 14-519	T-20/3	PL 25
HAI 32C	32.00	200.00	14.5	6.50	1	SR 14-519	T-20/3	PL 32
HAI 40C	40.00	250.00	18.0	10.50	1	SR 14-519	T-20/3	PL 40

• The HAI boring bars can be used with right and left-hand adapters • (a) CDX - see corresponding adapters

(1) Holder

(2) 0 - Without coolant supply, 1 - With coolant supply

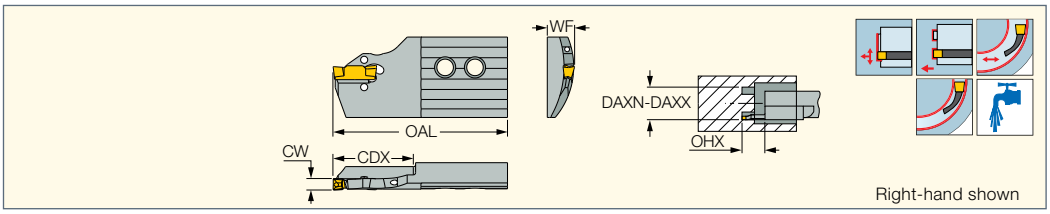
For tools, see pages: HFAIR/L-4 (572) • HFAIR/L-DG (573) • HGAIR/L-3 (568)



HELIFACE

HFAIR/L-DG

Adapters for Internal Face Grooving and Turning



Designation	CW	DAXN(1)	DAXX(2)	CDX	WF	OHX(3)	OAL	
HFAIR/L 75C-4T30DG	4.00	75.0	140.0	30.00	10.9	34.5	68.50	EDG 33B*
HFAIR/L 140C-4T30DG	4.00	140.0	-	30.00	10.9	34.5	68.50	EDG 33B*
HFAIR/L 55C-5T25DG	5.00	55.0	70.0	25.00	11.9	32.0	66.00	EDG 33B*
HFAIR/L 70C-5T25DG	5.00	70.0	95.0	25.00	11.9	32.0	66.00	EDG 33B*
HFAIR/L 95C-5T35DG	5.00	95.0	130.0	35.00	11.9	39.5	73.50	EDG 33B*
HFAIR/L 130C-5T38DG	5.00	130.0	180.0	38.00	11.9	42.5	76.50	EDG 33B*
HFAIR/L 180C-5T38DG	5.00	180.0	-	38.00	11.9	42.5	76.50	EDG 33B*
HFAIR/L 70C-6T28DG	6.00	70.0	100.0	28.00	12.0	35.0	69.00	EDG 33B*
HFAIR/L 100C-6T32DG	6.00	100.0	180.0	32.00	12.0	39.0	73.00	EDG 33B*
HFAIR/L 180C-6T38DG	6.00	180.0	-	38.00	12.4	42.5	76.50	EDG 33B*

• After initial groove, no limitation to widening groove outward or toward center • DGN inserts can be used on right- and left-hand tools, GRIP inserts only on right-hand tools, HFPR/L right-hand inserts on right-hand tools (same for left-hand), and HGPL inserts only on left-hand tools.

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Maximum overhang

* Optional, should be ordered separately

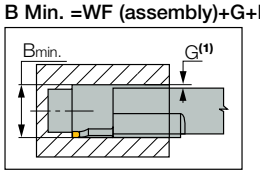
For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482) • HGPL (578)

For holders, see pages: C#-HAD (627) • C#-HAPR/L (627) • HAI-C (572) • HAPR/L (565) • HAR/L (564) • IH-HFAIR (569) • IM-HAD (634) • IM-HAPR/L (634)

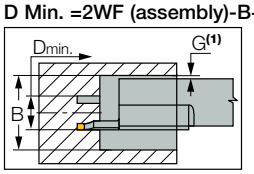
Adapters can be used for internal machining along bore. Adapters can be mounted on standard HAI boring bars for internal machining, and on HAR/L, HAPR/L holders for external machining.

Boring, Face Grooving and Face Recessing Capacity

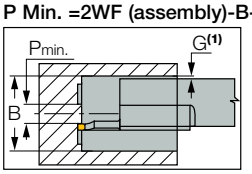
Boring
B Min. =WF (assembly)+G+DCONMS/2



Face Grooving
D Min. =2WF (assembly)-B+2G+DCONMS



Face Recessing
P Min. =2WF (assembly)-B-2CW+2G+DCONMS



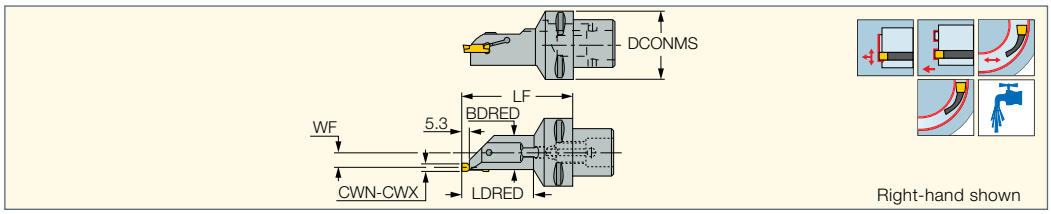
(1) The minimum recommended value for clearance (G) is 0.5 mm

* WF (assembly)=WF(adapter)+WF(holder)

CAMFIX

C#-HFIR/L-MC

Boring Bars for Internal Grooving and Turning with CAMFIX Exchangeable Shanks



Designation	CWN(1)	CWX(2)	DCONMS	WF	LDRED	LF	BDRED	CDI(3)			
C4 HFIR/L-MC	3.00	6.00	40.00	11.30	52.0	80.0	25.00	1	SR M5X16 DIN912	HW 4.0	EZ 83
C5 HFIR-MC	3.00	6.00	50.00	11.30	52.0	80.0	25.00	1	SR M5X16 DIN912	HW 4.0	EZ 83

• DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools • After initial groove, no limitation to widening groove outward or toward center • For user guide, see pages 604-613

(1) Minimum cutting width

(2) Maximum cutting width

(3) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482) • HGPL (578)

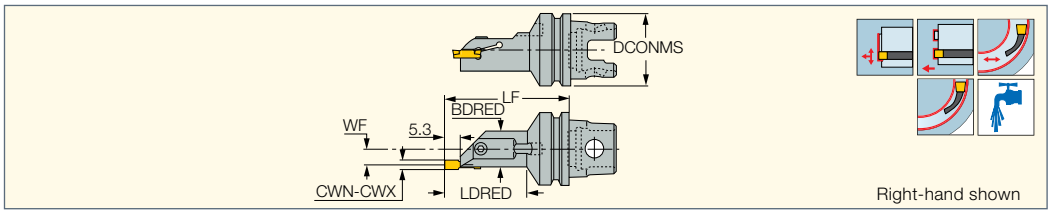
For holders, see pages: HSK-C# (735)

ISO 26622-1 XMZ

HELIFACE

IM-HFIR-MC

Tools for Internal Grooving and Turning with ISO 26622-1(*) Tapered Shank



Designation	DCONMS	LF	BDRED	WF	LDRED	CWN(1)	CWX(2)			
IM40 HFIR-MC	40.00	80.0	25.00	11.30	52.0	3.00	6.00	SR M5X16 DIN912	HW 4.0	EZ 83
IM50 HFIR-MC	50.00	80.0	25.00	11.30	52.0	3.00	6.00	SR M5X16 DIN912	HW 4.0	EZ 83

- (*) Tools with orientation holes in the flange groove can be supplied on request
- DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools
- After initial groove, no limitation to widening groove outward or toward center • For user guide, see pages 604-613

(1) Minimum cutting width

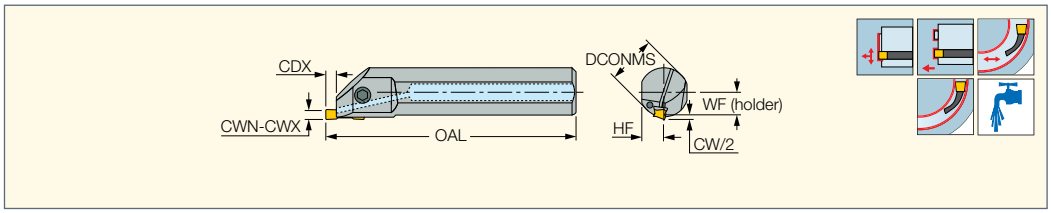
(2) Maximum cutting width

For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482)

HELIFACE

HFIR/L-MC

Boring Bars for Internal Grooving and Turning



Designation	DCONMS	CWN(1)	CWX(2)	CDX	OAL	WF	HF			
HFIR/L 16MC	16.00	3.00	6.00	5.00	150.00	11.14	7.5	SR M5X16 DIN912	HW 4.0	PL 16
HFIR/L 20MC	20.00	3.00	6.00	5.00	170.00	11.14	9.0	SR M5X16 DIN912	HW 4.0	PL 20
HFIR/L 25MC	25.00	3.00	6.00	5.00	200.00	11.14	11.5	SR M5X16 DIN912	HW 4.0	PL 25
HFIR/L 32MC	32.00	3.00	6.00	5.00	250.00	14.68	14.5	SR M6X20 DIN912	HW 5.0	PL 32
HFIR/L 40MC	40.00	3.00	6.00	5.00	300.00	18.70	18.0	SR M6X20 DIN912	HW 5.0	PL 40

- DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools
- After initial groove, no limitation to widening groove outward or toward center
- For user guide, see pages 604-613

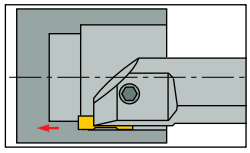
(1) Minimum cutting width

(2) Maximum cutting width

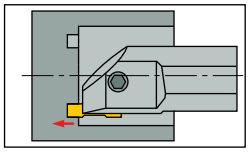
For inserts, see pages: DGN-MF (485) • DGN-W (482) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • GRIP (269) • GRIP (full radius) (270) • HFPR/L (576) • HFPR/L (full radius) (576) • HGPL (578)

For holders, see pages: DT30/2 ##L70WN (758) • DT30/2 ADR-##-20-55 (758)

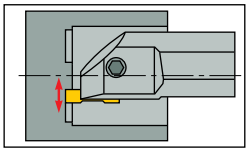
Boring



Internal Face Grooving

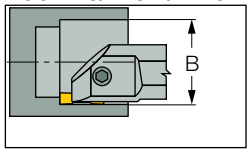


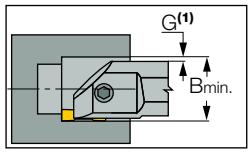
Internal Face Recessing



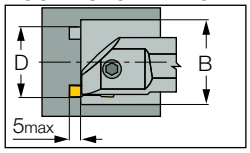
Boring, Face Grooving & Face Recessing Capacity

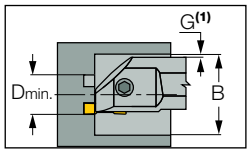
Boring
B Min. =WF(holder)+ DCONMS/2+CW/2+2G



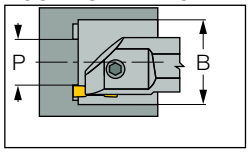


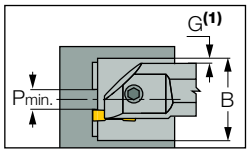
Face Grooving
D Min. =2WF (holder)+ DCONMS+CW-B+2G





Face Recessing
P Min. =2WF (holder)+ DCONMS-W-B+2G





(1) The minimum recommended value for clearance (G) is 0.5 mm

HFIR/L- ☐ MC Integral Boring Bars

For shallow, internal face machining to max. 5 mm depth of groove. One boring bar can be mounted with inserts in 4-6 mm widths.

The initial major diameter groove is limited by the insert's geometry of each size. After the initial groove, face recessing outward or toward center is not limited by the insert's geometry.

Insert Initial Face Grooving Range

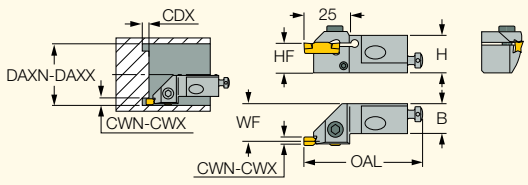
	D	
CW	Min.	Max.
4	23	90
5	21	300
6	20	∞

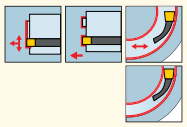
HELIFACE

CR HFIR-M

Cartridges for Face Grooving and Turning

CW	DAXN-DAXX	
	Min	Max
3	60	130
4,5,6	60	∞





Right-hand shown

Designation	CWN[1]	CWX[2]	HF	B	H	OAL	WF	CDX
CR HFIR-16M	3.00	6.00	16.0	16.0	20.0	67.00	20.00	5.00
CR HFIR-20M	3.00	6.00	20.0	20.0	24.0	72.00	24.00	5.00

- Used for shallow internal face machining to max. 5 mm depth of groove
- Inserts in 3-6 mm widths can be mounted on the cartridges
- Only DGN & GRIP 4.. - 6.. inserts can be used with the right-hand tools

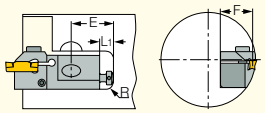
(1) Minimum cutting width

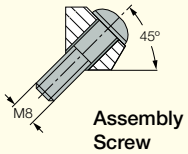
(2) Maximum cutting width

For inserts, see pages: DGN-MF (485) • HFPR/L (576) • HFPR/L (full radius) (576) • GRIP (269) • GRIP (full radius) (270) • DGN/DGNC/DGNM-C (481) • DGN/DGNM-J/JS/JT (483) • DGN-W (482)

CR-HFIR/L-M

Assembly Dimensions





Designation	E	L1[1]	F[2]	Rmax.	Assembly Screw[3]
CR HFIR/L-16M	25	8	20	6	M8X30
CR HFIR/L-20M	30	10	24	6	M8X30

(1) L adjustment$^{\pm 1}$

(2) F adjustment $^{+0.3}_{-0}$

(3) Assembly screws ISO 7380 are recommended

Spare Parts

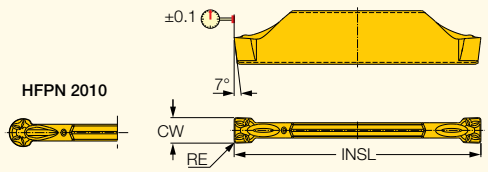
Designation					
CR HFIR-16M	SR M5X20DIN912	HW 4.0	SR 76-1401	SR M4X10 DIN916	HW 2.0
CR HFIR-20M	SR M5X20DIN912	HW 4.0	SR 76-1401	SR M4X10 DIN913	HW 2.0

HELIFACE

HFPN

Utility Double-Ended Face Machining Inserts







Designation	Dimensions					IC808	Recommended Machining Data
	CW	RE	CWTOL[1]	RETOL[2]	INSL		f groove (mm/rev)
HFPN 2002	2.00	0.20	0.04	0.030	19.40	●	0.03-0.10
HFPN 2010	2.00	1.00	0.04	0.030	19.40	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

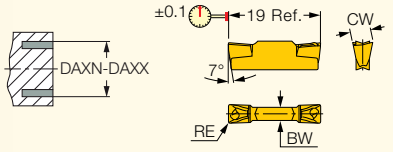
For tools, see pages: HFFA (557) • HFFH (557)

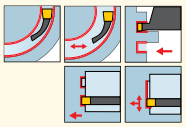
HELIFACE

HFPR/L

Utility Double-Ended Face Machining Inserts







No depth penetration limit

Designation	Dimensions							Tough ↔ Hard								Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	DAXX(4)	IC830	IC354	IC8250	IC808	IC9015	IC20	IC5010	IC806	a_p (mm)	f face-groove (mm/rev)	f face-turn (mm/rev)
HFPR/L 3003	3.00	0.30	0.05	0.050	2.10	25.6	51.5	●	●	●	●		●	●	●	0.30-1.50	0.08-0.20	0.10-0.20
HFPR/L 4004	4.00	0.40	0.05	0.050	2.80	24.1	73.7	●	●	●	●		●	●	●	0.40-2.00	0.10-0.24	0.15-0.25
HFPR/L 5004	5.00	0.40	0.05	0.050	3.40	22.1	170.0	●	●	●	●	●	●	●	●	0.50-2.50	0.12-0.24	0.15-0.35
HFPR/L 6004	6.00	0.40	0.05	0.050	4.00	20.8	-	●	●	●	●		●	●	●	0.40-3.00	0.12-0.28	0.15-0.40

- For cutting speed recommendations and user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

(4) Maximum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

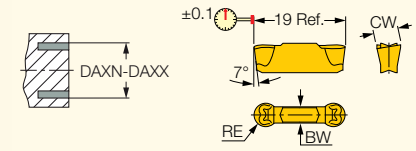
For tools, see pages: C#-HFIR/L-MC (573) • CR HFIR-M (575) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHPR/L-M (566) • HFHR/L-3T (558) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFHR/L-6T (561) • HFHR/L-M (566) • HFIR/L-MC (574) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • IM-HFIR-MC (574)

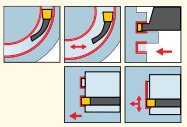
HELIFACE

HFPR/L (full radius)

Utility Double-Ended Full Radius Face Machining Inserts







No depth penetration limit.

Designation	Dimensions							Tough ↔ Hard								Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	DAXX(4)	IC830	IC354	IC8250	IC808	IC9015	IC20	IC5010	IC806	a_p (mm)	f face-groove (mm/rev)	f face-turn (mm/rev)
HFPR/L 3015	3.00	1.50	0.05	0.050	2.10	25.6	51.5	●	●	●	●		●	●	●	0.00-1.50	0.08-0.20	0.12-0.20
HFPR/L 4020	4.00	2.00	0.05	0.050	2.80	24.1	73.7	●	●	●	●		●	●	●	0.00-2.00	0.10-0.24	0.15-0.25
HFPL 5025	5.00	2.50	0.05	0.050	3.40	22.1	170.0	●	●	●	●		●	●	●	0.00-2.50	0.12-0.24	0.15-0.35
HFPR 5025	5.00	2.50	0.05	0.050	3.40	22.1	170.0	●	●		●	●	●	●	●	0.00-2.50	0.12-0.24	0.15-0.35
HFPR/L 6030	6.00	3.00	0.05	0.050	4.00	20.8	-	●	●	●	●		●	●	●	0.00-3.00	0.12-0.28	0.20-0.40

- For cutting speed recommendations and user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

(4) Maximum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

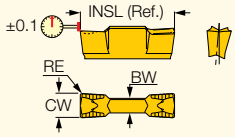
For tools, see pages: C#-HFIR/L-MC (573) • CR HFIR-M (575) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHPR/L-M (566) • HFHR/L-3T (558) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFHR/L-6T (561) • HFHR/L-M (566) • HFIR/L-MC (574) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • IM-HFIR-MC (574)

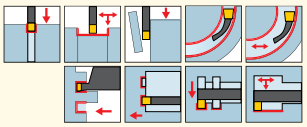
HELIGRIP

GRIP

Utility Double-Ended Inserts for External, Internal and Face Machining







No depth penetration limit

Designation	Dimensions						Tough ↔ Hard										Recommended Machining Data				
	CW	RE	CWTOL[1]	RETOL[2]	INSL	BW	IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIP 3002Y	3.00	0.20	0.05	0.050	15.80	2.30	●	●	●	●	●			●	●	●	0.25-1.80	0.14-0.18	0.07-0.11	0.08-0.20	0.10-0.20
GRIP 3003Y	3.00	0.30	0.05	0.050	15.80	2.30	●	●	●	●	●	●	●	●			0.40-1.80	0.15-0.19	0.07-0.11	0.08-0.20	0.10-0.20
GRIP 318-040Y	3.18	0.40	0.05	0.050	15.80	2.30	●			●	●	●		●			0.50-1.90	0.17-0.22	0.07-0.12	0.08-0.20	0.10-0.20
GRIP 4002Y	4.00	0.20	0.05	0.050	19.00	2.80	●	●	●	●	●			●	●		0.25-2.40	0.16-0.21	0.09-0.14	0.10-0.24	0.15-0.30
GRIP 4004Y	4.00	0.40	0.05	0.050	19.00	2.80	●	●	●	●	●	●	●	●	●	●	0.50-2.40	0.18-0.24	0.09-0.15	0.10-0.24	0.15-0.30
GRIP 476-080Y	4.76	0.80	0.05	0.050	19.00	3.10	●	●		●	●	●		●			1.00-2.80	0.21-0.33	0.10-0.20	0.10-0.24	0.15-0.30
GRIP 5005Y	5.00	0.50	0.05	0.050	19.00	3.30	●	●	●	●	●	●	●	●	●	●	0.60-3.00	0.20-0.30	0.11-0.20	0.12-0.24	0.15-0.35
GRIP 5008Y	5.00	0.80	0.05	0.050	19.00	3.40	●	●		●	●	●	●	●	●		1.00-3.00	0.23-0.35	0.11-0.21	0.12-0.24	0.15-0.35
GRIP 6005Y	6.00	0.50	0.05	0.050	19.00	4.20	●	●		●	●	●	●	●	●		0.60-3.60	0.22-0.36	0.13-0.23	0.12-0.28	0.15-0.40
GRIP 6008Y	6.00	0.80	0.05	0.050	19.00	4.20	●	●		●	●	●	●	●	●		1.00-3.60	0.24-0.42	0.13-0.25	0.12-0.28	0.15-0.40
GRIP 635-080Y	6.35	0.80	0.05	0.050	19.00	4.20		●		●	●	●		●			1.00-3.80	0.25-0.44	0.14-0.27	0.12-0.28	0.15-0.40

• For cutting speed recommendations and user guide, see pages 604-613

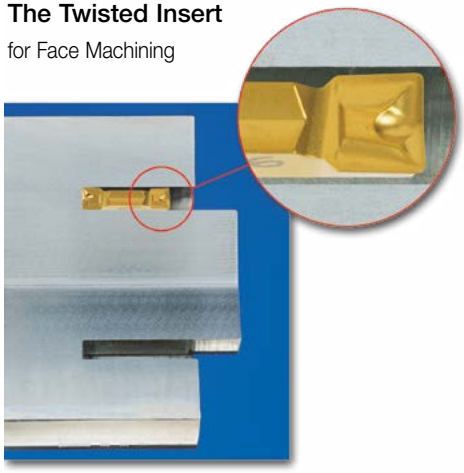
(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • DGFH (268) • DGFH-JHP (269) • DGFS (469) • DGTR/L (476) • HELIIR/L (355) • HELIR/L (266) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFIR/L-MC (574) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGAER/L-3 (565) • HGAIR/L-3 (568) • HGFH (268) • HGHR/L-3 (558) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574)

The Twisted Insert

for Face Machining



The double-ended, twisted insert body makes it possible to machine deeper than the insert's length.
A unique chipformer for controlled chip flow in axial and radial directions.
The rear angle is slanted in relation to the frontal edge so it does not come into contact with the machined groove surface as the tool penetrates deeply into the workpiece.

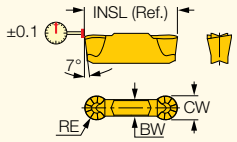


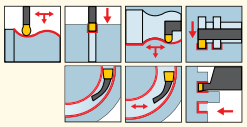
HELIGRIP

GRIP (full radius)

Utility Double-Ended Full Radius Inserts for External, Internal and Face Machining







No depth penetration limit

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIP 3015Y	3.00	1.50	0.05	0.050	15.80	2.10	●	●	●	●	●	●	●	●	●	●	0.00-1.50	0.18-0.26	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 318-159Y	3.18	1.59	0.05	0.050	15.80	2.30				●	●			●			0.00-1.50	0.19-0.28	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 4020Y	4.00	2.00	0.05	0.050	19.00	2.80	●	●	●	●	●	●	●	●	●	●	0.00-2.00	0.20-0.34	0.09-0.17	0.10-0.24	0.15-0.30
GRIP 476-238Y	4.76	2.38	0.05	0.050	19.00	3.20				●	●	●		●			0.00-2.30	0.21-0.40	0.10-0.20	0.10-0.24	0.15-0.30
GRIP 5025Y	5.00	2.50	0.05	0.050	19.00	3.40	●	●		●	●	●		●	●	●	0.00-2.50	0.23-0.42	0.11-0.21	0.12-0.24	0.15-0.35
GRIP 6030Y	6.00	3.00	0.05	0.050	19.00	4.20	●	●	●	●	●	●	●	●	●		0.00-3.00	0.24-0.50	0.13-0.25	0.12-0.28	0.15-0.40
GRIP 635-318Y	6.35	3.18	0.05	0.050	19.00	4.00				●	●			●			0.00-3.10	0.25-0.53	0.14-0.27	0.12-0.28	0.15-0.40

• For cutting speed recommendations and user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

For tools, see pages: C#-HELIR/L (265) • C#-HFIR/L-MC (573) • CR HFIR-M (575) • D/HGAD RE/LE-JHP (499) • DGAD/HGAD (479) • DGFH (268) • DGFH-JHP (269) • DGFS (469) • DGTR/L (476) • HELIIR/L (355) • HELIR/L (266) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFHR/L-6T (561) • HFIR/L-MC (574) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGAER/L-3 (565) • HGAIR/L-3 (568) • HGFH (268) • HGHR/L-3 (558) • HGPAD (267) • HGPAD-JHP (267) • IM-HFIR-MC (574)

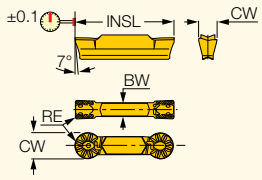
HELIGRIP

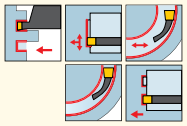
HGPL

Utility Double-Ended Inserts for Face Machining









Designation	Dimensions CW	BW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC354	IC08	IC808	IC908	IC806	Recommended Machining Data a_p (mm)	f face-groove (mm/rev)	f face-turn (mm/rev)
HGPL 3015Y	3.00	2.10	1.50	0.03	0.050	16.00				●	●		0.00-1.50	0.08-0.20	0.12-0.23
HGPL 3002Y	3.00	2.30	0.20	0.03	0.050	16.00		●	●	●	●		0.24-1.80	0.08-0.20	0.12-0.23
HGPL 3003Y	3.00	2.30	0.30	0.03	0.050	16.00	●	●	●	●	●		0.36-1.80	0.08-0.20	0.12-0.23
HGPL 4002Y	4.00	2.80	0.20	0.03	0.050	19.00		●	●	●	●		0.24-2.40	0.10-0.24	0.16-0.30
HGPL 4004Y	4.00	2.80	0.40	0.03	0.050	19.00		●	●	●	●		0.48-2.40	0.10-0.24	0.16-0.30
HGPL 4020Y	4.00	2.80	2.00	0.03	0.050	19.00			●	●	●		0.00-2.00	0.10-0.24	0.16-0.30
HGPL 5005Y	5.00	3.30	0.50	0.03	0.050	19.00		●		●	●		0.60-3.00	0.12-0.24	0.20-0.38
HGPL 5025Y	5.00	3.30	2.50	0.03	0.050	19.00			●	●	●		0.00-2.50	0.12-0.24	0.20-0.38
HGPL 6005Y	6.00	4.20	0.50	0.03	0.050	19.00		●		●	●	●	0.60-3.60	0.12-0.28	0.24-0.45
HGPL 6030Y	6.00	4.20	3.00	0.03	0.050	19.00			●	●	●		0.00-3.00	0.12-0.28	0.24-0.45

• No depth penetration limit • For cutting speed recommendations and user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

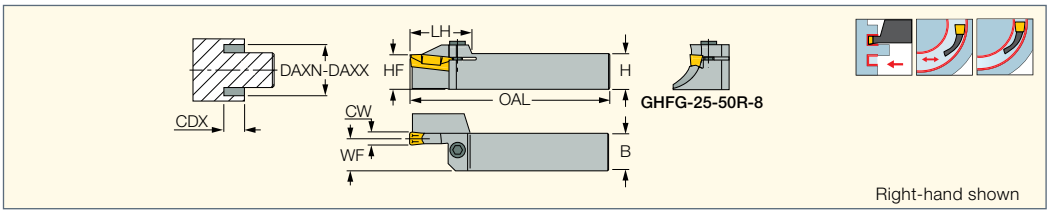
(2) Corner radius tolerance (+/-)

For tools, see pages: C#-HFIR/L-MC (573) • HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HFFR/L-T (564) • HFHR/L-4T (559) • HFHR/L-5T (560) • HFHR/L-6T (561) • HFIR/L-MC (574) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGAER/L-3 (565) • HGAIR/L-3 (568) • HGHR/L-3 (558)

CUTGRIP

GHFG-R/L-8

Holders for Face Grooving and Turning Along Shafts



Designation	CDX	DAXN(1)	DAXX(2)	H	HF	B	OAL	LH	WF		
GHFG 25-50R/L-8	25.00	50.0	64.0	25.0	25.0	25.0	150.00	41.0	22.00	SR M6X20 DIN912	HW 5.0
GHFG 25-63R/L-8	25.00	63.0	82.0	25.0	25.0	25.0	150.00	41.0	22.00	SR M6X20 DIN912	HW 5.0
GHFG 32-63R-8	25.00	63.0	82.0	32.0	32.0	32.0	170.00	41.0	30.00	SR M6X20 DIN912	HW 5.0

- For user guide, see pages 604-613

(1) Minimum penetration diameter

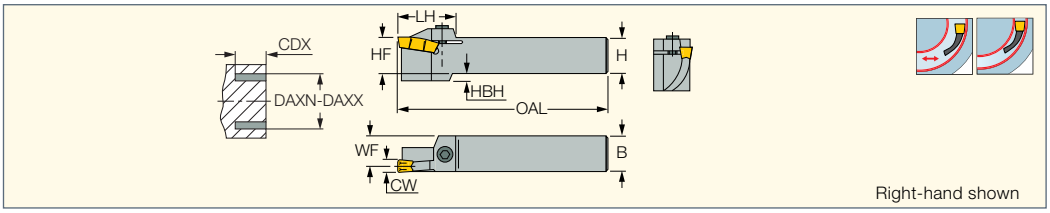
(2) Maximum penetration diameter

For inserts, see pages: GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GIA-K (long pocket) (299) • GIF (long pocket) (298) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIFG-E (W=8) (581)

CUTGRIP

GHFGR/L-8

Holders for Face Grooving and Turning



Designation	CDX	DAXN(1)	DAXX(2)	H	HF	B	OAL	LH	WF	HBH		
GHFGR/L 25-80-8	23.00	80.0	115.0	25.0	25.0	25.0	150.00	43.5	21.30	6.0	SR M6X20 DIN912	HW 5.0
GHFGR/L 32-80-8	23.00	80.0	115.0	32.0	32.0	32.0	170.00	43.5	28.30	-	SR M6X20 DIN912	HW 5.0
GHFGR/L 25-105-8	25.00	105.0	160.0	25.0	25.0	25.0	150.00	43.5	21.30	6.0	SR M6X20 DIN912	HW 5.0
GHFGR/L 32-105-8	25.00	105.0	160.0	32.0	32.0	32.0	170.00	43.5	28.30	-	SR M6X20 DIN912	HW 5.0
GHFGR/L 25-155-8	25.00	155.0	510.0	25.0	25.0	25.0	150.00	43.5	21.30	6.0	SR M6X20 DIN912	HW 5.0
GHFGR/L 32-155-8	25.00	155.0	510.0	32.0	32.0	32.0	170.00	43.5	28.30	-	SR M6X20 DIN912	HW 5.0

- No limitation to widening the groove either way after initial grooving • CDX depends on the penetration diameter and the insert
- For user guide, see pages 604-613

(1) Minimum penetration diameter

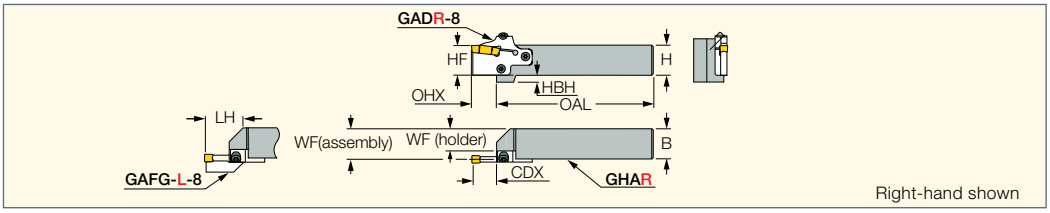
(2) Maximum penetration diameter

For inserts, see pages: GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GIA-K (long pocket) (299) • GIF (long pocket) (298) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIFG-E (W=8) (581) • GIPA/GIDA 8 (full radius) (302)

CDX for GHFGR/L (25/32)-80-8							
D	GIF 8...	GIFG 8...	GDMY 8...	GIPA 8...	GIDA 8...	GIA 8...	GDMM 8CC...
80	16	23	23	20	24	16	24
82	17	23	23	20	24	17	24
84	18	23	23	21	24	18	24
86	19	23	23	21	24	19	24
88	20	23	23	22	24	20	24
90	20	23	23	22	24	20	24
96	20	23	23	22	24	20	24
104	20	23	23	22	24	20	24
115	22	23	23	22	24	22	24
CDX for GHFGR/L (25/32)-105-8							
D	GIF 8...	GIFG 8...	GDMY 8...	GIPA 8...	GIDA 8...	GIA 8...	GDMM 8CC...
105	21	23	23	23	24	21	24
114	22	23	23	23	24	22	24
126	23	23	24	23	24	23	24
140-160	24	24	24	23	24	24	24
CDX for GHFGR/L (25/32)-155-8							
D	GIF 8...	GIFG 8...	GDMY 8...	GIPA 8...	GIDA 8...	GIA 8...	GDMM 8CC...
155	24	24	24	23	24	24	24
180	24	24	24	23	24	24	24
210-510	24	24	24	23	24	24	24

CUTGRIP

GHAR/L-8
External Holders for Grooving and Turning Adapters



Designation	H	HF	B	WF(1)	OAL	LH	OHX(2)	HBH	TGA(3)	CDX(4)	FG(5)				
GHAR/L 25-8	25.0	25.0	25.0	16.0	124.50	45.0	25.50	14.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0
GHAR/L 32-8	32.0	32.0	32.0	23.0	144.50	45.0	25.50	7.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0

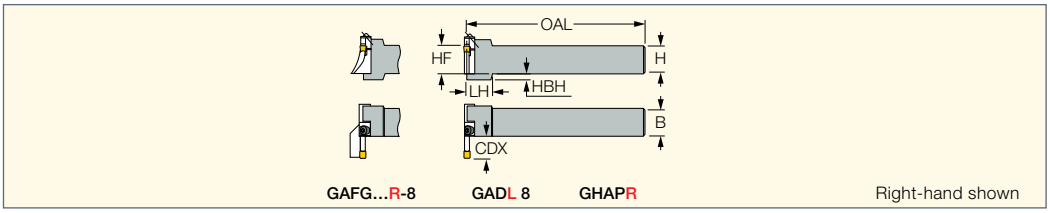
- Adapters GADR/L-8 for turning and grooving, GAFG-R/L-8 for face-grooving (to be ordered separately)

(1) WF(holder)
(2) Maximum overhang
(3) Adapter for Turning & Grooving
(4) See specific adapter dimensions
(5) Adapter for Face Grooving

For tools, see pages: GADR/L-8 (286) • GAFG-R/L-8 (580) • PCADR/L 34N-RE (318)

CUTGRIP

GHAPR/L-8
External Holders for Grooving and Turning Perpendicularly Oriented Adapters



Designation	H	HF	B	OAL	LH	HBH	TGA(1)	CDX(2)	FG(3)				
GHAPR/L 32-8	32.0	32.0	32.0	155.00	30.0	7.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0

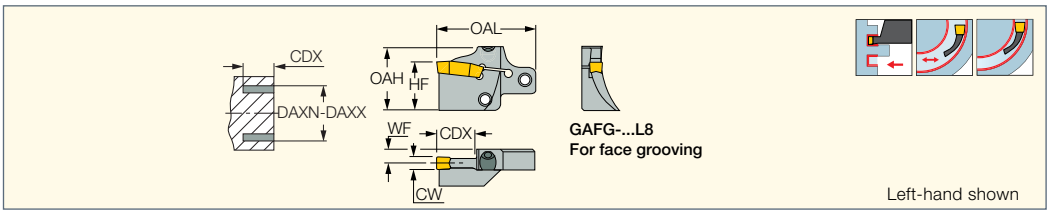
- Adapters GADR/L-8 for turning and grooving, GAFG-R/L-8 for face-grooving (to be ordered separately)

(1) Adapter for Turning & Grooving
(2) See specific adapter dimensions
(3) Adapter for Face Grooving

For tools, see pages: GADR/L-8 (286) • GAFG-R/L-8 (580) • PCADR/L 34N-RE (318)

CUTGRIP

GAFG-R/L-8
Adapters for Face Machining



Designation	CW	DAXN(1)	DAXX(2)	CDX(3)	WF	HF	OAH	OAL
GAFG 80R/L-8	8.00	80.0	115.0	23.00	9.00	32.0	42.0	63.50
GAFG 105R/L-8	8.00	105.0	160.0	25.00	9.00	32.0	42.0	63.50
GAFG 155R/L-8	8.00	155.0	510.0	25.00	9.00	32.0	42.0	63.50

- No limitation for widening the groove either way after initial grooving • For user guide, see pages 604-613

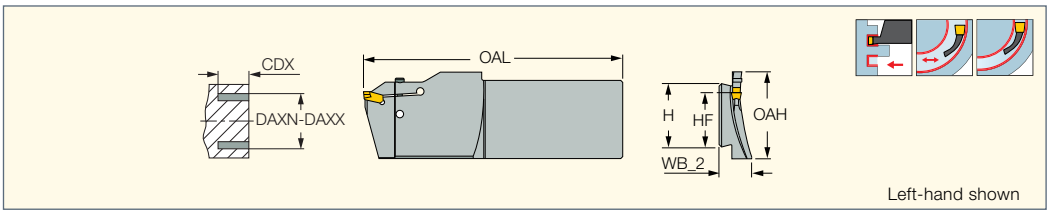
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) For GIFG-8 & GDMY-8 CDX=25 mm for DAX range

For inserts, see pages: GDMA (300) • GDMF (288) • GDMM-CC (583) • GDMN (289) • GDMU (290) • GDMY (289) • GDMY (full radius) (291) • GDMY-F (291) • GIA-K (long pocket) (299) • GIF (long pocket) (298) • GIF-E (W=8,10 full radius) (294) • GIF-E (W=8,10) (292) • GIFG-E (W=8) (581) • GIPA/GIDA 8 (full radius) (302)

For holders, see pages: C#-GHAD-8 (625) • C#-GHAPR/L-8 (626) • GHAPR/L-8 (286) • GHAR/L-8 (285) • IM-GHAD-8 (634)

CUTGRIP

CGFG 51-P8
Blades for Face Machining Carrying 8 mm Inserts



Designation	CW	DAXN(1)	DAXX(2)	CDX	H	HF	OAL	OAH	WB_2		
CGFG 51-180R/L-P8	8.00	180.0	240.0	70.00	52.6	45.0	200.00	60.0	27.5	SR M4-2052	HW 3.0
CGFG 51-240R/L-P8	8.00	240.0	320.0	80.00	52.6	45.0	210.00	70.0	26.0	SR M4-2052	HW 3.0
CGFG 51-320R/L-P8	8.00	320.0	440.0	90.00	52.6	45.0	220.00	80.0	24.5	SR M4-2052	HW 3.0
CGFG 51-440R/L-P8	8.00	440.0	700.0	100.00	52.6	45.0	230.00	90.0	22.5	SR M4-2052	HW 3.0
CGFG 51-700R/L-P8	8.00	700.0	1500.0	120.00	52.6	45.0	250.00	100.0	20.0	SR M4-2052	HW 3.0

- For user guide, see pages 604-613

(1) Minimum penetration diameter
(2) Maximum penetration diameter

For inserts, see pages: GIMF (288) • GIMM 8CC (583) • GIMY (288) • GIMY (full radius) (290) • GIMY-F (291) • GIPY (300)

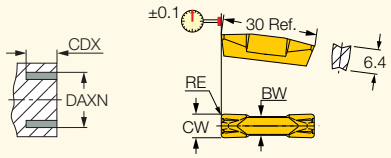
For holders, see pages: SGTBK (617) • SGTBU/SGTBN (616)

CUTGRIP

GIFG-E (W=8)

Inserts for Deep Face Grooving and Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DAXN(3)	CDX(4)	BW	Tough ↔ Hard IC635	IC20	Recommended Machining Data f face-groove (mm/rev)
GIFG 8.00E-0.80	8.00	0.80	0.02	0.050	50.0	25.00	6.00	●	●	0.15-0.25
GIFG 8.00E-1.20	8.00	1.20	0.02	0.050	50.0	25.00	6.00	●		0.15-0.25

• For cutting speed recommendations, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

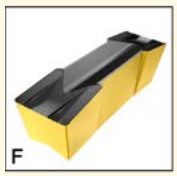
(4) Cutting depth maximum

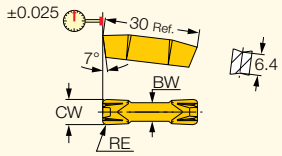
For tools, see pages: GAFG-R/L-8 (580) • GHFG-R/L-8 (579) • GHFGR/L-8 (579)

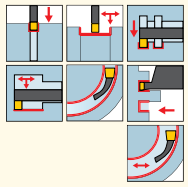
CUTGRIP

GIF-E (W=8,10)

Precision Double-Ended Inserts for Grooving and Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC806	IC807	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIF 8.00E-0.40	8.00	0.40	0.02	0.030	6.00	27.00		●	●	●						0.50-4.80	0.29-0.48	0.18-0.31
GIF 8.00E-0.80	8.00	0.80	0.02	0.050	6.00	27.00	●	●	●	●	●	●	●	●	●	1.00-4.80	0.32-0.56	0.18-0.34
GIF 8.00E-1.20	8.00	1.20	0.02	0.050	6.00	27.00	●	●	●	●	●	●	●			1.45-4.80	0.32-0.62	0.18-0.34
GIF 10.00E-0.80	10.00	0.80	0.02	0.050	8.00	27.00	●	●	●	●	●	●	●		●	1.00-6.00	0.35-0.65	0.22-0.40
GIF 10.00E-1.20	10.00	1.20	0.02	0.050	8.00	27.00	●	●	●	●	●			●		1.45-6.00	0.35-0.72	0.22-0.40

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

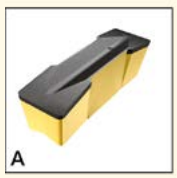
(3) Cutting depth maximum

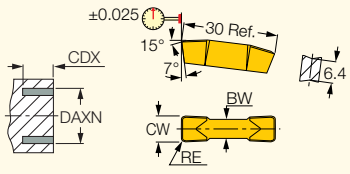
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

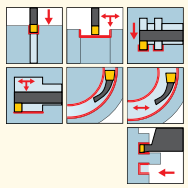
CUTGRIP

GIA-K (long pocket)

Flat Top Precision Double-Ended Inserts with T-Land for Machining Cast Iron







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	DAXN(4)	Tough ↔ Hard IC5010	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIA 8.00K-0.80	8.00	0.80	0.02	0.050	6.00	25.00	160.0	●	●	1.00-4.80	0.36-0.64	0.18-0.38
GIA 8.00K-1.20	8.00	1.20	0.02	0.050	6.00	25.00	160.0	●	●	1.45-4.80	0.36-0.70	0.18-0.38

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

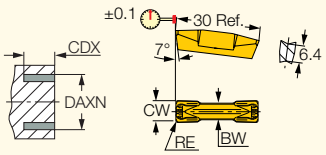
(4) Minimum axial grooving diameter

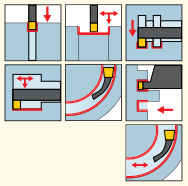
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

CUTGRIP

GDMY
Utility Double-Ended Inserts
for Grooving and Turning







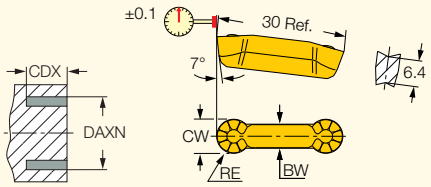
Designation	Dimensions							Tough ↔ Hard							Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	CDX(4)	IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 808	8.00	0.80	0.05	0.050	6.00	50.0	27.00	•	•	•	•	•	•	•	1.00-4.80	0.32-0.56	0.18-0.34

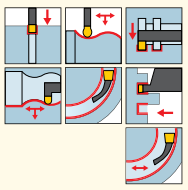
• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-613
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Cutting depth maximum
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

CUTGRIP

GDMY (full radius)
Utility Double-Ended Full Radius
Inserts for Grooving and Profiling







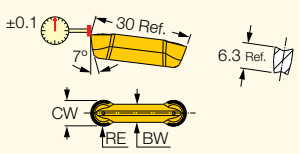
Designation	Dimensions							Tough ↔ Hard							Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	CDX	IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC806	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 840	8.00	4.00	0.05	0.050	5.60	50.0	25.00	•	•	•	•	•	•	•	•	0.00-4.00	0.32-0.67	0.18-0.34

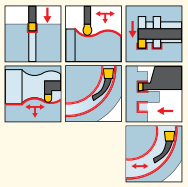
• Can cut arcs to 250° • DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-613
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDKR/L (446) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

CUTGRIP

GDMY-F
Utility Double-Ended Inserts
for Grooving and Profiling
Ductile Materials







Designation	Dimensions						Tough ↔ Hard		Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC808	IC908	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 840F	8.00	4.00	0.05	0.050	5.60	25.00	•	•	0.00-4.00	0.32-0.67	0.18-0.34

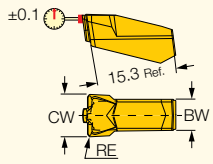
• DMIN for internal applications = 65 mm • For cutting speed recommendations and user guide, see pages 604-613
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum
For tools, see pages: C#-GHDR/L (274) • CGHN-8-10D (287) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

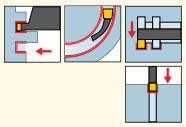
CUTGRIP

GIMM 8CC

Single-Ended Utility Insert with a Frontal Chip Splitter for External Rough Grooving and Side Turning







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC808	IC908	Recommended Machining Data f face-groove (mm/rev)
GIMM 8CC	8.00	0.80	0.05	0.050	5.80	•	•	0.30-0.45

- For cutting speed recommendations, see pages 604-613

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

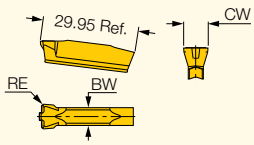
For tools, see pages: Anti-Vibration Blades (284) • CGFG 51-P8 (580) • CGHN-P8 (283) • CGHR/L-P8DG (284) • CGPAD (281) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278)

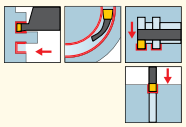
CUTGRIP

GDMM-CC

Single-Ended Utility Insert for External Rough Grooving and Side Turning with a Frontal Chip Splitter







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC354	IC808	IC907	Recommended Machining Data f face-groove (mm/rev)
GDMM 7CC	7.00	0.80	0.05	0.050	6.00		•			0.30-0.45
GDMM 8CC	8.00	0.80	0.05	0.050	5.60	•		•	•	0.30-0.45

- For cutting speed recommendations, see pages 604-613

(1) Cutting width tolerance (+/-)

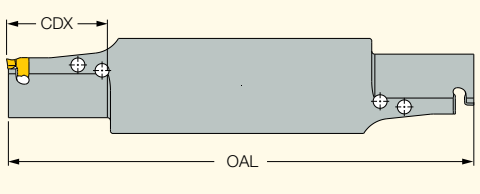
(2) Corner radius tolerance (+/-)

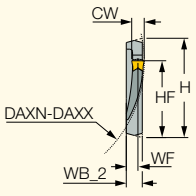
For tools, see pages: C#-GHDR/L (274) • GADR/L-8 (286) • GADR/L-JHP (287) • GAFG-R/L-8 (580) • GHDR/L (long pocket) (285) • GHDR/L-JHP (long pocket) (285) • GHFG-R/L-8 (579) • GHFGR/L-8 (579) • GHIR/L (W=7.0-8.3) (355)

TANG-GRIP FACE MACHINING LINE

TNFFH-IQ

Face Grooving Blades







Right-hand shown

Designation	CW	DAXN(1)	DAXX(2)	CDX	HF	H	WF	WB_2	OAL	Insert	
TNFFH 65R/L-3IQ	3.00	65.0	90.0	18.00	24.8	32.0	4.10	5.2	150.00	TNF 3...	ETF 3-6*
TNFFH 90R/L-3IQ	3.00	90.0	120.0	18.00	24.8	32.0	4.10	5.2	150.00	TNF 3...	ETF 3-6*
TNFFH 120R/L-3IQ	3.00	120.0	160.0	24.00	24.8	32.0	4.10	5.2	150.00	TNF 3...	ETF 3-6*
TNFFH 80R/L-4IQ	4.00	80.0	150.0	32.00	24.8	32.0	3.80	5.2	150.00	TNF 4...	ETF 3-6*
TNFFH 150R/L-4IQ	4.00	150.0	500.0	32.00	24.8	32.0	3.80	5.2	150.00	TNF 4...	ETF 3-6*
TNFFH 80R/L-5IQ	5.00	80.0	150.0	30.00	24.8	32.0	3.50	5.2	150.00	TNF 5...	ETF 3-6*
TNFFH 150R/L-5IQ	5.00	150.0	500.0	35.00	24.8	32.0	3.50	5.2	150.00	TNF 5...	ETF 3-6*
TNFFH 80R/L-6IQ	6.00	80.0	150.0	30.00	24.8	32.0	3.30	5.2	150.00	TNF 6...	ETF 3-6*
TNFFH 150R/L-6IQ	6.00	150.0	700.0	35.00	24.8	32.0	3.30	5.2	150.00	TNF 6...	ETF 3-6*

- H dimension links blades and blocks

(1) Minimum penetration diameter

(2) Maximum penetration diameter

* Optional, should be ordered separately

For inserts, see pages: TNF GN-IQ (585) • TNF-M-IQ (585) • TNF-P-IQ (585)

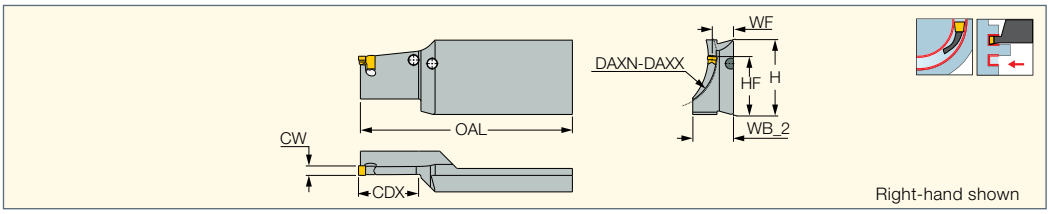


ETF 3-6 extractor (to be ordered separately)

TANG-GRIP FACE MACHINING LINE

TNFFA-IQ

Reinforced Face Grooving Blades



Designation	CW	DAXN[1]	DAXX[2]	CDX	H	WF	HF	OAL	WB_2	Insert
TNFFA 30R/L-3IQ	3.00	30.0	35.0	19.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 35R/L-3IQ	3.00	35.0	40.0	19.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 40R/L-3IQ	3.00	40.0	46.0	23.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 46R/L-3IQ	3.00	46.0	54.0	25.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 54R/L-3IQ	3.00	54.0	65.0	26.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 65R/L-3IQ	3.00	65.0	80.0	27.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 80R/L-3IQ	3.00	80.0	100.0	27.00	32.0	9.50	24.8	90.00	16.7	TNF 3...
TNFFA 35R/L-4IQ	4.00	35.0	45.0	25.00	32.0	9.00	24.8	90.00	18.1	TNF 4...
TNFFA 45R/L-4IQ	4.00	45.0	60.0	25.00	32.0	9.00	24.8	90.00	17.3	TNF 4...
TNFFA 60R/L-4IQ	4.00	60.0	80.0	27.00	32.0	9.00	24.8	90.00	18.0	TNF 4...
TNFFA 80R/L-4IQ	4.00	80.0	130.0	27.00	32.0	9.00	24.8	90.00	14.8	TNF 4...
TNFFA 40R/L-5IQ	5.00	40.0	50.0	25.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 50R/L-5IQ	5.00	50.0	70.0	28.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 70R/L-5IQ	5.00	70.0	100.0	30.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 100R/L-5IQ	5.00	100.0	180.0	35.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 45R/L-6IQ	6.00	45.0	60.0	25.00	32.0	10.20	24.8	90.00	18.0	TNF 6...
TNFFA 60R/L-6IQ	6.00	60.0	80.0	28.00	32.0	10.20	24.8	90.00	18.0	TNF 6...
TNFFA 80R/L-6IQ	6.00	80.0	110.0	30.00	32.0	10.20	24.8	90.00	18.0	TNF 6...
TNFFA 110R/L-6IQ	6.00	110.0	300.0	35.00	32.0	10.20	24.8	90.00	14.8	TNF 6...

- For user guide, see pages 604-613

[1] Minimum penetration diameter

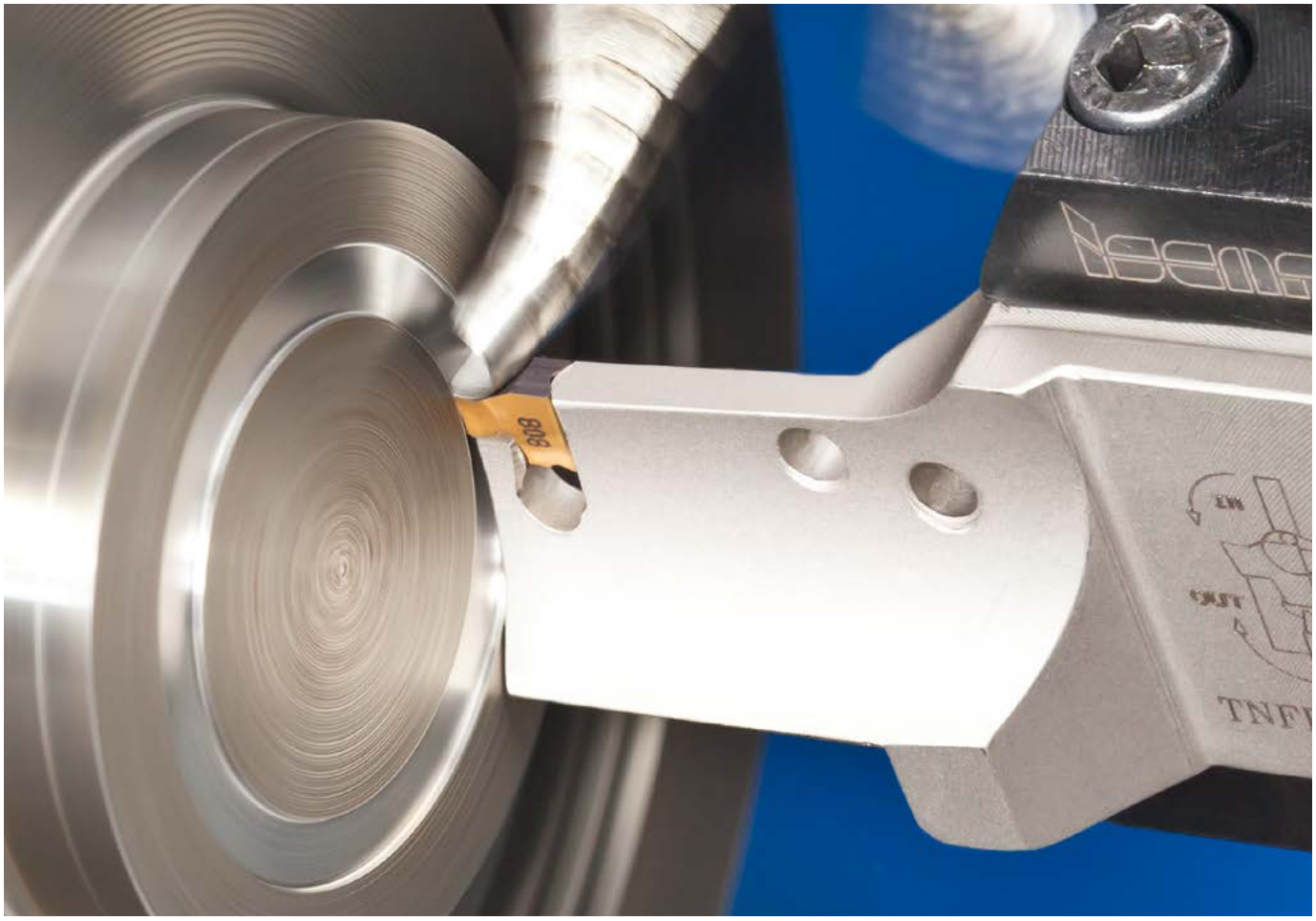
[2] Maximum penetration diameter

For inserts, see pages: TNF GN-IQ (585) • TNF-M-IQ (585) • TNF-P-IQ (585)

Spare Parts

Designation	
TNFFA-IQ	ETF 3-6*

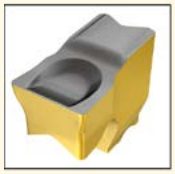
* Optional, should be ordered separately

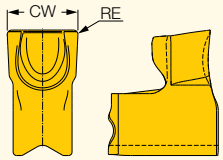


TANG-GRIP FACE MACHINING LINE

TNF-P-IQ

Face Grooving Single-Ended Inserts for Machining Steel





Designation	Dimensions CW	RE	CWTOL(1)	IC808	Recommended Machining Data f face-groove (mm/rev)
TNF 3P-IQ	3.00	0.30	0.05	●	0.10-0.15
TNF 4P-IQ	4.00	0.25	0.05	●	0.10-0.15
TNF 5P-IQ	5.00	0.35	0.05	●	0.12-0.20
TNF 6P-IQ	6.00	0.35	0.05	●	0.12-0.20

• For user guide, see pages 604-613

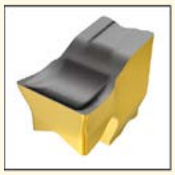
(1) Cutting width tolerance (+/-)

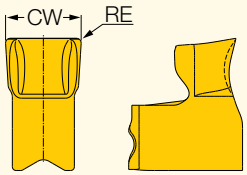
For tools, see pages: TNFFA-IQ (584) • TNFFH-IQ (583) • TNFPAD-XL-JHP (569)

TANG-GRIP FACE MACHINING LINE

TNF-M-IQ

Face Grooving Single-Ended Inserts for Machining Stainless Steel and High Temperature Alloys





Designation	Dimensions CW	RE	CWTOL(1)	IC808	Recommended Machining Data f face-groove (mm/rev)
TNF 3M-IQ	3.00	0.30	0.05	●	0.08-0.10
TNF 4M-IQ	4.00	0.25	0.05	●	0.08-0.12
TNF 5M-IQ	5.00	0.35	0.05	●	0.12-0.20
TNF 6M-IQ	6.00	0.35	0.05	●	0.12-0.20

• For user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

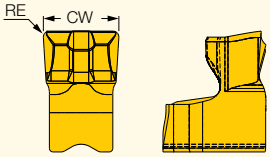
For tools, see pages: TNFFA-IQ (584) • TNFFH-IQ (583) • TNFPAD-XL-JHP (569)

TANG-GRIP FACE MACHINING LINE

TNF GN-IQ

Face Grooving Single-Ended Inserts for Machining Steel





Designation	Dimensions CW	RE	CWTOL(1)	IC808	Recommended Machining Data f face-groove (mm/rev)
TNF 3GN-IQ	3.00	0.30	0.05	●	0.06-0.10
TNF 4GN-IQ	4.00	0.25	0.05	●	0.06-0.12
TNF 5GN-IQ	5.00	0.35	0.05	●	0.08-0.16
TNF 6GN-IQ	6.00	0.35	0.05	●	0.08-0.20

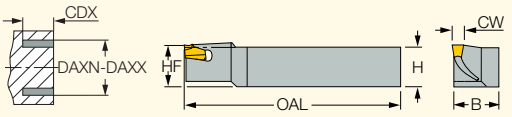
• For user guide, see pages 604-613

(1) Cutting width tolerance (+/-)

For tools, see pages: TNFFA-IQ (584) • TNFFH-IQ (583) • TNFPAD-XL-JHP (569)

SELFGRIP

SGFFR/L
Face Grooving Integral Shank Tools



Left-hand shown

Designation	CW	H	B	CDX	DAXN(1)	DAXX(2)	HF	OAL	Insert	
SGFFR/L 20-25-2	2.10	20.0	20.0	13.00	25.0	30.0	20.0	120.00	GFF 2R/L	ESG 0.5
SGFFR/L 20-30-2	2.10	20.0	20.0	14.00	29.0	36.0	20.0	120.00	GFF 2R/L	ESG 0.5
SGFFR/L 20-35-2	2.10	20.0	20.0	16.00	35.0	46.0	20.8	120.00	GFF 2N	ESG 0.5
SGFFR/L 20-45-2	2.10	20.0	20.0	20.00	45.0	61.0	20.8	120.00	GFF 2N	ESG 0.5
SGFFR/L 20-60-2	2.10	20.0	20.0	20.00	60.0	80.0	20.8	120.00	GFF 2N	ESG 0.5
SGFFR/L 25-35-2	2.10	25.0	25.0	16.00	35.0	46.0	25.8	130.00	GFF 2N	ESG 0.5
SGFFR/L 25-45-2	2.10	25.0	25.0	20.00	45.0	61.0	25.8	130.00	GFF 2N	ESG 0.5
SGFFR/L 25-60-2	2.10	25.0	25.0	20.00	60.0	80.0	25.8	130.00	GFF 2N	ESG 0.5
SGFFR 25-25-2	2.10	25.0	25.0	13.00	25.0	30.0	25.0	130.00	GFF 2N	ESG 0.5
SGFFR 25-30-2	2.10	25.0	25.0	14.00	29.0	36.0	25.0	130.00	GFF 2N	ESG 0.5
SGFFR/L 20-30-3	3.00	20.0	20.0	16.00	30.0	35.0	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-35-3	3.00	20.0	20.0	18.00	34.4	40.6	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-40-3	3.00	20.0	20.0	20.00	40.0	47.0	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-46-3	3.00	20.0	20.0	22.00	46.0	55.0	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-55-3	3.00	20.0	20.0	22.00	54.0	65.0	21.2	120.00	GFF 3N	SET ESG 1
SGFFR 20-65-3	3.00	20.0	20.0	23.00	64.0	80.0	21.0	120.00	GFF 3N	SET ESG 1
SGFFR 20-80-3	3.00	20.0	20.0	24.00	79.0	100.0	20.7	120.00	GFF 3N	SET ESG 1
SGFFR/L 25-40-3	3.00	25.0	25.0	20.00	40.0	47.0	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR/L 25-55-3	3.00	25.0	25.0	24.00	54.0	65.0	26.2	130.00	GFF 3N	SET ESG 1
SGFFR 25-30-3	3.00	25.0	25.0	16.00	30.0	35.0	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR 25-35-3	3.00	25.0	25.0	18.00	34.4	40.6	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR 25-46-3	3.00	25.0	25.0	22.00	46.0	55.0	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR 25-65-3	3.00	25.0	25.0	25.00	64.0	80.0	26.0	130.00	GFF 3N	SET ESG 1
SGFFR 25-80-3	3.00	25.0	25.0	26.00	79.0	100.0	25.7	130.00	GFF 3N	SET ESG 1
SGFFR/L 20-35-4	4.00	20.0	20.0	20.00	35.0	45.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR 20-45-4	4.00	20.0	20.0	25.00	44.0	58.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR 20-60-4	4.00	20.0	20.0	25.00	57.0	80.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR 20-80-4	4.00	20.0	20.0	25.00	79.0	130.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR/L 25-45-4	4.00	25.0	25.0	25.00	44.0	58.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR/L 25-60-4	4.00	25.0	25.0	26.00	57.0	80.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR/L 25-80-4	4.00	25.0	25.0	26.00	79.0	130.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR 25-35-4	4.00	25.0	25.0	20.00	35.0	45.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR/L 20-50-5	5.00	20.0	20.0	25.00	50.0	75.0	20.0	120.00	GFF 5N	SET ESG 1
SGFFR 20-75-5	5.00	20.0	20.0	26.00	74.0	130.0	20.0	120.00	GFF 5N	SET ESG 1
SGFFR/L 25-100-5	5.00	25.0	25.0	30.00	100.0	180.0	25.0	150.00	GFF 5N	SET ESG 1
SGFFR 25-50-5	5.00	25.0	25.0	26.00	50.0	71.0	25.0	150.00	GFF 5N	SET ESG 1
SGFFR 25-70-5	5.00	25.0	25.0	28.00	69.0	102.0	25.0	150.00	GFF 5N	SET ESG 1
SGFFR 20-60-6	6.00	20.0	20.0	25.00	57.0	60.0	20.0	120.00	GFF 6N	SET ESG 1
SGFFR/L 25-100-6	6.00	25.0	25.0	30.00	100.0	180.0	25.0	150.00	GFF 6N	SET ESG 1
SGFFR/L 25-60-6	6.00	25.0	25.0	30.00	57.0	77.0	25.0	150.00	GFF 6N	SET ESG 1
SGFFR/L 25-75-6	6.00	25.0	25.0	30.00	75.0	102.0	25.0	150.00	GFF 6N	SET ESG 1

• Important: Apply R.H. insert on R.H. tool and L.H. insert on L.H. tool. Neutral insert only as indicated

(1) Minimum penetration diameter

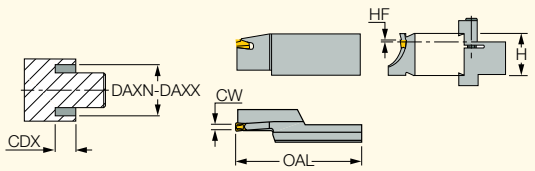
(2) Maximum penetration diameter

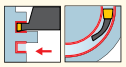
For inserts, see pages: GFF-N (589) • GFF-R/L (589)

SELF-GRIP

SGFFA

Reinforced Face Grooving Blades
for Standard Tool Blocks





Right-hand shown

Designation	CW	CDX	DAXN(1)	DAXX(2)	H	HF	OAL	
SGFFA 25-R/L-2	2.10	13.00	25.0	30.0	32.0	0.0	80.00	ESG 0.5
SGFFA 30-L-2	2.10	14.00	29.0	36.0	32.0	0.0	80.00	ESG 0.5
SGFFA 35-L-2	2.10	16.00	35.0	46.0	32.0	0.8	80.00	ESG 0.5
SGFFA 45-L-2	2.10	20.00	45.0	61.0	32.0	0.8	80.00	ESG 0.5
SGFFA 60-L-2	2.10	20.00	60.0	80.0	32.0	0.8	80.00	ESG 0.5
SGFFA 80-L-2	2.10	20.00	79.0	102.0	32.0	0.8	80.00	ESG 0.5
SGFFA 35-L-3	3.00	20.00	34.4	40.6	32.0	0.0	90.00	SET ESG 1
SGFFA 40-L-3	3.00	22.00	40.0	47.0	32.0	0.0	90.00	SET ESG 1
SGFFA 46-L-3	3.00	24.00	46.0	55.0	32.0	0.0	90.00	SET ESG 1
SGFFA 55-L-3	3.00	25.00	54.0	65.0	32.0	1.2	90.00	SET ESG 1
SGFFA 65-L-3	3.00	26.00	64.0	80.0	32.0	1.0	90.00	SET ESG 1
SGFFA 80-L-3	3.00	28.00	79.0	100.0	32.0	0.7	95.00	SET ESG 1
SGFFA 35-L-4	4.00	25.00	35.0	45.0	32.0	0.0	90.00	SET ESG 1
SGFFA 45-R/L-4	4.00	25.00	44.0	58.0	32.0	0.0	90.00	SET ESG 1
SGFFA 40-R/L-5	5.00	25.00	40.0	52.0	32.0	0.0	90.00	SET ESG 1
SGFFA 50-R/L-5	5.00	28.00	50.0	71.0	32.0	0.0	95.00	SET ESG 1
SGFFA 70-L-5	5.00	30.00	69.0	102.0	32.0	0.0	95.00	SET ESG 1
SGFFA 100-L-5	5.00	35.00	100.0	180.0	32.0	0.0	100.00	SET ESG 1
SGFFA 45-R/L-6	6.00	25.00	44.0	58.0	32.0	0.0	90.00	SET ESG 1
SGFFA 60-L-6	6.00	30.00	57.0	77.0	32.0	0.0	95.00	SET ESG 1
SGFFA 75-R/L-6	6.00	35.00	75.0	102.0	32.0	0.0	100.00	SET ESG 1

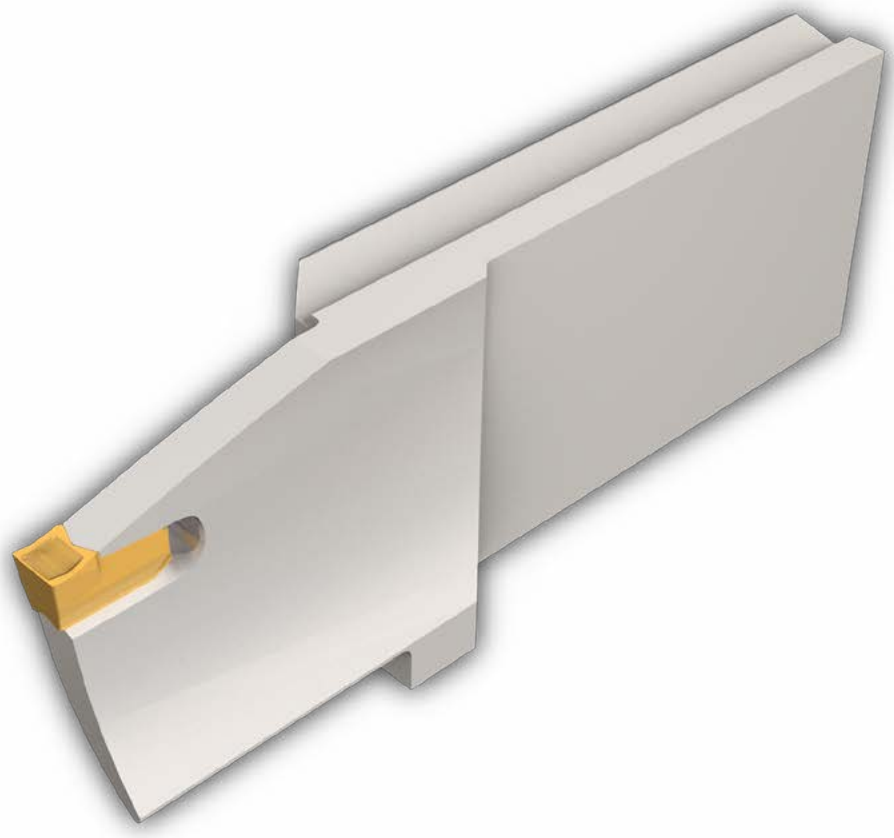
• Important: Apply R.H. insert on R.H. tool and L.H. insert on L.H. tool. Neutral insert only as indicated • H dimension links blades and blocks

(1) Minimum penetration diameter

(2) Maximum penetration diameter

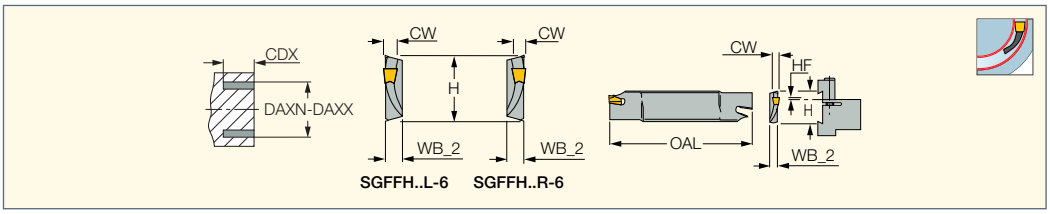
For inserts, see pages: GFF-N (589) • GFF-R/L (589)

For holders, see pages: SGTBF (618) • SGTBU/SGTBN (616) • UBHCR/L (618)



SELFGRIP

SGFFH
Face Grooving Blades



Designation	CW	CDX	DAXN(1)	DAXX(2)	HF	H	WB_2	OAL
SGFFH 35-R/L-2	2.10	20.00	35.0	46.0	0.8	32.0	5.2	150.00
SGFFH 45-R/L-2	2.10	20.00	45.0	61.0	0.8	32.0	5.2	150.00
SGFFH 60-R-2	2.10	20.00	60.0	80.0	0.8	32.0	5.2	150.00
SGFFH 80-R/L-2	2.10	20.00	79.0	102.0	0.8	32.0	4.0	150.00
SGFFH 100-R/L-2	2.10	20.00	101.0	132.0	0.0	32.0	4.0	150.00
SGFFH 75-R/L-3	3.00	20.00	65.0	92.0	1.0	32.0	5.2	150.00
SGFFH 90-R/L-3	3.00	20.00	90.0	122.0	0.2	32.0	5.2	150.00
SGFFH 120-R/L-3	3.00	25.00	120.0	160.0	0.0	32.0	5.2	150.00
SGFFH 80-R/L-4	4.00	30.00	80.0	155.0	2.5	32.0	5.2	150.00
SGFFH 150-R/L-4	4.00	30.00	150.0	500.0	2.5	32.0	5.2	150.00
SGFFH 80-R/L-5	5.00	32.00	80.0	162.0	0.0	32.0	5.2	150.00
SGFFH 150-R/L-5	5.00	35.00	150.0	600.0	0.0	32.0	5.2	150.00
SGFFH 90-R/L-6	6.00	32.00	90.0	150.0	0.0	32.0	8.0	150.00
SGFFH 150-R/L-6	6.00	35.00	148.0	700.0	0.0	32.0	5.2	150.00

• Important: Apply R.H. insert on R.H. tool and L.H. insert on L.H. tool. Neutral insert only as indicated • H dimension links blades and blocks

(1) Minimum penetration diameter

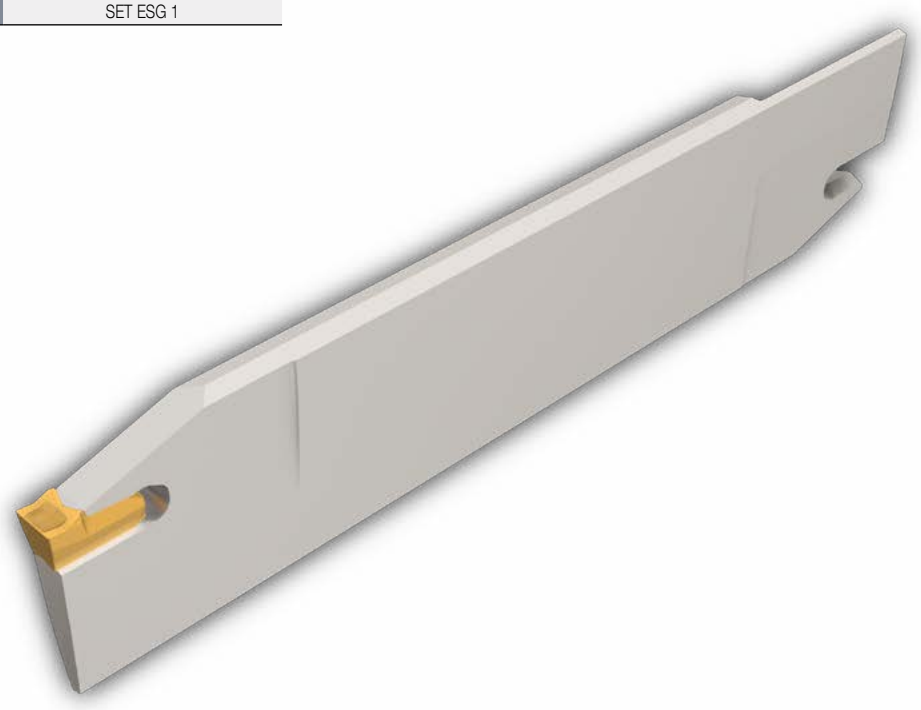
(2) Maximum penetration diameter

For inserts, see pages: GFF-N (589)

For holders, see pages: SGTBF (618) • SGTBK (617) • SGTBU/SGTBN (616) • UBHCR/L (618)

Spare Parts

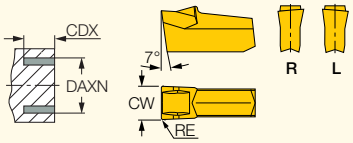
Designation	
SGFFH 35-L-2	SET ESG 0.5
SGFFH 35-R-2	ESG 0.5
SGFFH 45-L-2	SET ESG 0.5
SGFFH 45-R-2	ESG 0.5
SGFFH 60-R-2	ESG 0.5
SGFFH 80-R/L-2	ESG 0.5
SGFFH 100-R/L-2	ESG 0.5
SGFFH 75-R/L-3	SET ESG 1
SGFFH 90-R/L-3	SET ESG 1
SGFFH 120-R/L-3	SET ESG 1
SGFFH 80-R/L-4	SET ESG 1
SGFFH 150-R/L-4	SET ESG 1
SGFFH 80-R/L-5	SET ESG 1
SGFFH 150-R/L-5	SET ESG 1
SGFFH 90-R/L-6	SET ESG 1
SGFFH 150-R/L-6	SET ESG 1

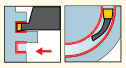


SELF-GRIP

GFF-R/L
Face Grooving Inserts







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DAXN(3)	DAXX(4)	Tough ↔ Hard IC354	IC20	Recommended Machining Data f face-groove (mm/rev)
GFF 2R	2.10	0.20	0.10	0.050	25.0	36.0	●	●	0.03-0.13
GFF 3L	3.00	0.30	0.10	0.050	30.0	55.0		●	0.03-0.15
GFF 3R	3.00	0.30	0.10	0.050	30.0	55.0	●	●	0.03-0.15

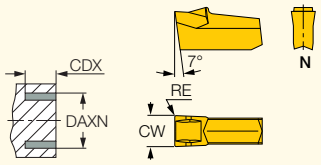
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter

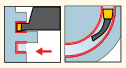
For tools, see pages: SGFFA (587) • SGFFR/L (586)

SELF-GRIP

GFF-N
Face Grooving Inserts







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DAXN(3)	Tough ↔ Hard IC354	IC20	Recommended Machining Data f face-groove (mm/rev)
GFF 2N	2.10	0.20	0.10	0.050	35.0	●	●	0.03-0.13
GFF 3N	3.00	0.30	0.10	0.050	54.0	●	●	0.03-0.15
GFF 4N	4.00	0.25	0.10	0.050	35.0	●	●	0.04-0.18
GFF 5N	5.00	0.25	0.10	0.050	40.0	●	●	0.05-0.18
GFF 6N	6.00	0.25	0.10	0.050	44.0	●	●	0.05-0.20

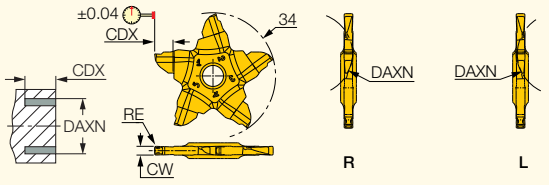
• Grooving depth is limited only by the tool being used
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter

For tools, see pages: SGFFA (587) • SGFFH (588) • SGFFR/L (586)

PENTACUT
PARTING & GROOVING LINE

PENTA 34F-R/L
Pentagonal Inserts for Face Grooving and Recessing







Designation	Dimensions CW	RE	RETOL(1)	CDX	DAXN(2)	IC908	Recommended Machining Data f face-groove (mm/rev)
PENTA 34F239-0.15-22R/L	2.39	0.15	0.020	5.00	22.0	●	0.08-0.12
PENTA 34F247-0.20-22R/L	2.47	0.20	0.020	5.00	22.0	●	0.08-0.12
PENTA 34F300-0.40-22R/L	3.00	0.40	0.020	5.00	22.0	●	0.08-0.15
PENTA 34F400-0.40-22R/L	4.00	0.40	0.020	5.00	22.0	●	0.08-0.15

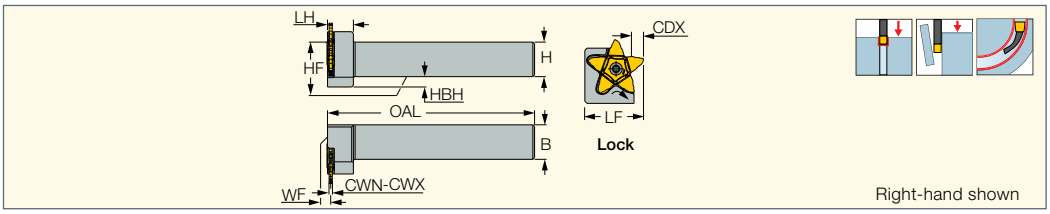
• For cutting speed recommendations, see pages 604-613
(1) Corner radius tolerance (+/-)
(2) Minimum axial grooving diameter

For tools, see pages: PCADR/L (316) • PCADR/L 34N-RE (318) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-34 (315) • PCHR/L-34-JHP (315)

PENTACUT PARTING & GROOVING LINE

PCHPR/L

Perpendicular Holders Carrying Inserts with 5 Cutting Edges for Facing, Grooving, Parting and Recessing



Designation	H	B	CWN(1)	CWX(2)	CDX(3)	HF	WF	LF	OAL	LH	HBH
PCHPR/L 16-24	16.0	16.0	0.50	3.20 (4)	6.50	16.0	1.50 (5)	23.5	120.00	11.5	-
PCHPR/L 20-24	20.0	20.0	0.50	3.20 (4)	6.50	20.0	1.50 (5)	28.0	120.00	11.5	-
PCHPR/L 25-24	25.0	25.0	0.50	3.20 (4)	6.50	25.0	1.50 (5)	33.0	135.00	11.5	-
PCHPR/L 20-34	20.0	20.0	1.40	4.00	10.00	20.0	1.90	34.0	120.00	15.0	6.0
PCHPR/L 25-34	25.0	25.0	1.40	4.00	10.00	25.0	1.90	34.0	135.00	15.0	-

(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data
(4) Up to 6.2 mm width may be ordered on request
(5) Valid for inserts with CW<3.2 mm

For inserts, see pages: PENTA 24-BSPT (674) • PENTA 24-ISO (657) • PENTA 24-MT (646) • PENTA 24-NPT (670) • PENTA 24-UN (664) • PENTA 24-W (668) • PENTA 24-WT (641) • PENTA 24N-C (320) • PENTA 24N-C (full radius) (321) • PENTA 24N-J (319) • PENTA 24N-J (full radius) (320) • PENTA 24N-PF (full radius) (322) • PENTA 24N-PF/P (321) • PENTA 24N-Z (322) • PENTA 24R-C (531) • PENTA 24R-P (534) • PENTA 24R/L-J (530) • PENTA 24R/L-Z (533) • PENTA 34F-R/L (589) • PENTA 34N-C (324) • PENTA 34N-J (325) • PENTA 34N-PB (324) • PENTA 34R/L-C (535) • PENTA 34R/L-J (536) • PENTA 34R/L-PB (537)

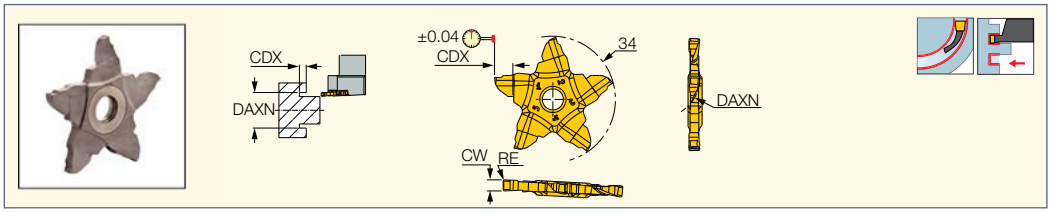
Spare Parts

Designation		
PCHPL 16-24	SR 16-212-01397	T-20/5
PCHPR 16-24	SR 16-212-01397L	T-20/5
PCHPL 20-24	SR 16-212-01397	T-20/5
PCHPR 20-24	SR 16-212-01397L	T-20/5
PCHPL 25-24	SR 16-212-01397	T-20/5
PCHPR 25-24	SR 16-212-01397L	T-20/5
PCHPR/L 20-34	SR 16-212-01397	T-20/5
PCHPR/L 25-34	SR 16-212-01397	T-20/5

PENTACUT PARTING & GROOVING LINE

PENTA 34F-RS/LS

Pentagonal Inserts for Face Grooving and Recessing Along Shafts up to 5 mm Depth of Cut at a Minimum of 22 mm Diameter



Designation	Dimensions CW	RE	CDX	DAXN(1)	IC908	Recommended Machining Data f face-groove (mm/rev)
PENTA 34F239-0.15-22R/LS	2.39	0.15	5.00	22.0	•	0.08-0.12
PENTA 34F247-0.20-22R/LS	2.47	0.20	5.00	22.0	•	0.08-0.12
PENTA 34F300-0.40-22R/LS	3.00	0.40	5.00	22.0	•	0.08-0.15
PENTA 34F400-0.40-22R/LS	4.00	0.40	5.00	22.0	•	0.08-0.15

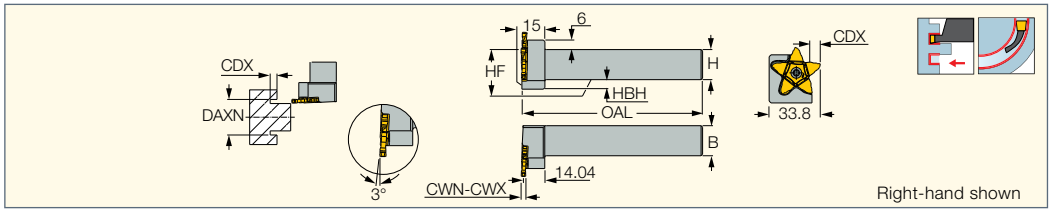
• For cutting speed recommendations, see pages 604-613
(1) Minimum axial grooving diameter

For tools, see pages: PCHPRS/LS (590)

PENTACUT PARTING & GROOVING LINE

PCHPRS/LS

Perpendicular Shank Tools Carrying Pentagonal Inserts for Machining Next to Long Central Shafts



Designation	H	B	CWN(1)	CWX(2)	OAL	HBH	CDX(3)	HF		
PCHPR/LS 20-34	20.0	20.0	2.39	4.00	120.00	6.0	5.00	20.0	SR 16-212-01397RS	T-20/5
PCHPR/LS 25-34	25.0	25.0	2.39	4.00	135.00	-	5.00	25.0	SR 16-212-01397RS	T-20/5

(1) Minimum cutting width
(2) Maximum cutting width
(3) Insert limit

For inserts, see pages: PENTA 34F-RS/LS (590)

FACE TOOLS FOR MINIATURE PARTS

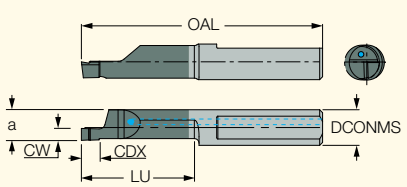


JETCUT PICCOCUT

PICCO-010/610-N
(Face Grooving)

Inserts with Internal Coolant Channel for Face Grooving





Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	a	LU	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1006-10N	6.0	1.00	1.50	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R 010.1506-10N	6.0	1.50	2.00	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R 010.1008-10N	8.0	1.00	1.50	7.05	5.90	9.0	32.00	●	0.01-0.04
PICCO R 010.1008-20N	8.0	1.00	1.50	7.05	5.90	19.0	41.00	●	0.01-0.04
PICCO R 010.1008-30N	8.0	1.00	1.50	7.05	5.90	29.0	51.00	●	0.01-0.04
PICCO R 610.1008-10N	8.0	1.00	1.50	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R/L 010.1508-20N	8.0	1.50	2.50	7.05	5.90	19.0	41.00	●	0.01-0.04
PICCO R 010.1508-10N	8.0	1.50	2.50	7.05	5.90	9.0	32.00	●	0.01-0.04
PICCO R 010.1508-30N	8.0	1.50	2.50	7.05	5.90	29.0	51.00	●	0.01-0.04
PICCO R 610.1508-10N	8.0	1.50	2.50	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R 610.1508-20N	8.0	1.50	2.50	6.05	5.20	19.0	41.00	●	0.01-0.04
PICCO R/L 010.2008-30N	8.0	2.00	3.00	7.05	5.90	29.0	51.00	●	0.02-0.05
PICCO R 010.2008-10N	8.0	2.00	3.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.2008-20N	8.0	2.00	3.00	7.05	5.90	19.0	41.00	●	0.02-0.05
PICCO R 610.2008-10N	8.0	2.00	3.00	6.05	5.20	9.0	32.00	●	0.02-0.05
PICCO R 610.2008-20N	8.0	2.00	3.00	6.05	5.20	19.0	41.00	●	0.02-0.05
PICCO R 010.2508-10N	8.0	2.50	3.50	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.2508-20N	8.0	2.50	3.50	7.05	5.90	19.0	41.00	●	0.02-0.05
PICCO R 610.2508-10N	8.0	2.50	3.50	6.05	5.20	9.0	32.00	●	0.02-0.05
PICCO R 010.3008-10N	8.0	3.00	3.50	7.05	5.90	9.0	32.00	●	0.02-0.06
PICCO R 010.3008-20N	8.0	3.00	3.50	7.05	5.90	19.0	41.00	●	0.02-0.06
PICCO R 010.3008-30N	8.0	3.00	3.50	7.05	5.90	29.0	51.00	●	0.02-0.06
PICCO R 610.3008-10N	8.0	3.00	3.50	6.05	5.20	9.0	32.00	●	0.02-0.06
PICCO R 610.3008-20N	8.0	3.00	3.50	6.05	5.20	19.0	41.00	●	0.02-0.06

- Only right-hand inserts are available as standard
- All inserts are with sharp corners
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

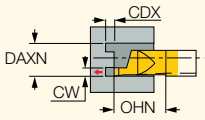
(1) Minimum axial grooving diameter

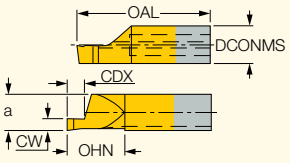


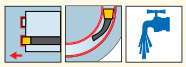
PICCOCUT

PICCO-010/610
(Face Grooving)
Inserts for Face Grooving









Right-hand shown

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	a	OHN(2)	OAL	IC228	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1006-10	6.0	1.00	1.50	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 010.1506-10	6.0	1.50	2.00	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 010.1008-10	8.0	1.00	1.50	7.00	5.90	11.0	26.00	●	0.01-0.04
PICCO R 010.1008-20	8.0	1.00	1.50	7.00	5.90	21.0	35.00	●	0.01-0.04
PICCO R 010.1008-30	8.0	1.00	1.50	7.00	5.90	30.0	45.00	●	0.01-0.04
PICCO R 610.1008-10	8.0	1.00	1.50	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 610.1008-20	8.0	1.00	1.50	6.00	5.20	20.0	35.00	●	0.01-0.04
PICCO R/L 010.1508-20	8.0	1.50	2.50	7.00	5.90	21.0	35.00	●	0.01-0.04
PICCO R/L 010.1508-30	8.0	1.50	2.50	7.00	5.90	30.0	45.00	●	0.01-0.04
PICCO R 010.1508-10	8.0	1.50	2.50	7.00	5.90	11.0	26.00	●	0.01-0.04
PICCO R 610.1508-10	8.0	1.50	2.50	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 610.1508-20	8.0	1.50	2.50	6.00	5.20	20.0	35.00	●	0.01-0.04
PICCO R/L 010.2008-30	8.0	2.00	3.00	7.00	5.90	30.0	45.00	●	0.02-0.05
PICCO R 010.2008-10	8.0	2.00	3.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2008-20	8.0	2.00	3.00	7.00	5.90	21.0	35.00	●	0.02-0.05
PICCO R 610.2008-10	8.0	2.00	3.00	6.00	5.20	11.0	26.00	●	0.02-0.05
PICCO R 610.2008-20	8.0	2.00	3.00	6.00	5.20	20.0	35.00	●	0.02-0.05
PICCO R 010.2508-10	8.0	2.50	3.50	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2508-20	8.0	2.50	3.50	7.00	5.90	21.0	35.00	●	0.02-0.05
PICCO R 010.2508-30	8.0	2.50	3.50	7.00	5.90	30.0	45.00	●	0.02-0.05
PICCO R 610.2508-10	8.0	2.50	3.50	6.00	5.20	11.0	26.00	●	0.02-0.05
PICCO R 610.2508-20	8.0	2.50	3.50	6.00	5.20	20.0	35.00	●	0.02-0.05
PICCO R 010.3008-10	8.0	3.00	3.50	7.00	5.90	11.0	26.00	●	0.02-0.06
PICCO R 010.3008-20	8.0	3.00	3.50	7.00	5.90	21.0	35.00	●	0.02-0.06
PICCO R 010.3008-30	8.0	3.00	3.50	7.00	5.90	30.0	45.00	●	0.02-0.06
PICCO R 610.3008-10	8.0	3.00	3.50	6.00	5.20	11.0	26.00	●	0.02-0.06
PICCO R 610.3008-20	8.0	3.00	3.50	6.00	5.20	20.0	35.00	●	0.02-0.06

• Only right-hand inserts are available as standard • All inserts are with sharp corners • For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

(2) Minimum overhang

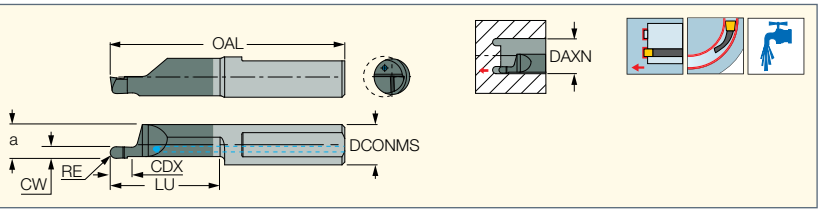


JETCUT PICCOCUT

PICCO-010-N (Full Radius for Face Grooving)

Inserts with Internal Coolant Channel for Round Profile Face Grooving

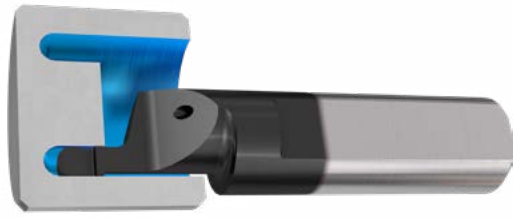




Designation	Dimensions DAXN(1)	CW	RE	CDX	DCONMS	a	LU	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1005-10N	8.0	1.00	0.50	2.00	7.05	5.90	9.0	32.00	●	0.01-0.04
PICCO R 010.1005-20N	8.0	1.00	0.50	2.00	7.05	5.90	19.0	41.00	●	0.01-0.04
PICCO R 010.1608-10N	8.0	1.60	0.80	3.00	7.05	5.90	9.0	32.00	●	0.01-0.05
PICCO R 010.1608-20N	8.0	1.60	0.80	3.00	7.05	5.90	19.0	41.00	●	0.01-0.05
PICCO R 010.2010-10N	8.0	2.00	1.00	4.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.2010-20N	8.0	2.00	1.00	4.00	7.05	5.90	19.0	41.00	●	0.02-0.05
PICCO R 010.2512-10N	8.0	2.50	1.25	5.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.3015-10N	8.0	3.00	1.50	6.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.3015-20N	8.0	3.00	1.50	6.00	7.05	5.90	19.0	41.00	●	0.02-0.05

- Only right-hand inserts are available as standard, left-hand inserts on request
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

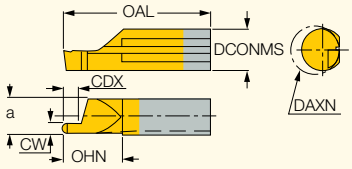


PICCOCUT

PICCO-010 (Round Face Groove)

Inserts for Round Profile Face Grooving







Right-hand shown

Designation	Dimensions DAXN(1)	CW	RE	CDX	DCONMS	a	OHN(2)	OAL	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1005-10	8.0	1.00	0.50	2.00	7.00	5.90	11.0	26.00	●	0.01-0.04
PICCO R 010.1005-20	8.0	1.00	0.50	2.00	7.00	5.90	20.0	35.00	●	0.01-0.04
PICCO R 010.1608-10	8.0	1.60	0.80	3.00	7.00	5.90	11.0	26.00	●	0.01-0.05
PICCO R 010.1608-20	8.0	1.60	0.80	3.00	7.00	5.90	20.0	35.00	●	0.01-0.05
PICCO R 010.2010-10	8.0	2.00	1.00	4.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2010-20	8.0	2.00	1.00	4.00	7.00	5.90	20.0	35.00	●	0.02-0.05
PICCO R 010.2512-10	8.0	2.50	1.25	5.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2512-20	8.0	2.50	1.25	5.00	7.00	5.90	20.0	35.00	●	0.02-0.05
PICCO R 010.3015-10	8.0	3.00	1.50	6.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.3015-20	8.0	3.00	1.50	6.00	7.00	5.90	20.0	35.00	●	0.02-0.05

- Only right-hand inserts are available as standard, left-hand inserts on request
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

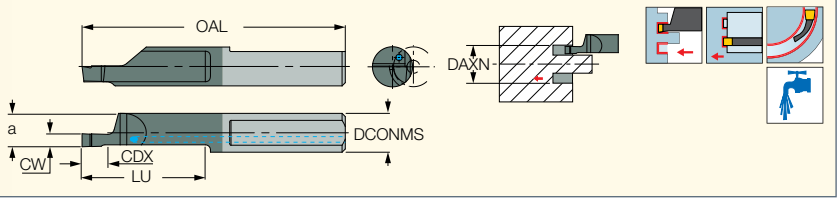
(2) Minimum overhang

JETCUT PICCOCUT

PICCO-620-N (Face Grooving along Shaft)

Inserts with Internal Coolant Channel for Grooving along Shaft Dmin 6 mm





Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	a	LU	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 620.1006-20N	6.0	1.00	2.00	6.05	5.20	19.0	41.00	●	0.01-0.04
PICCO R 620.1506-20N	6.0	1.50	3.00	6.05	5.20	19.0	41.00	●	0.01-0.05
PICCO R 620.2006-20N	6.0	2.00	4.00	6.05	5.20	19.0	41.00	●	0.02-0.06
PICCO R 620.2506-20N	6.0	2.50	5.00	6.05	5.20	19.0	41.00	●	0.02-0.06
PICCO R 620.3006-20N	6.0	3.00	6.00	6.05	5.20	19.0	41.00	●	0.02-0.06

- Only right-hand inserts are available as standard, left-hand inserts on request
- All carbide inserts are with sharp corners
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

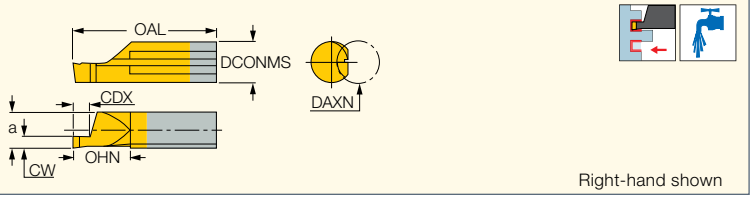


PICCOCUT

PICCO-620 (Groove Along Shaft)

Inserts for Grooving Along a Shaft Dmin 6 mm





Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	a	OHN(2)	OAL	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 620.1006-20	6.0	1.00	2.00	6.00	5.20	20.0	35.00	●	0.01-0.04
PICCO R 620.1506-20	6.0	1.50	3.00	6.00	5.20	20.0	35.00	●	0.01-0.05
PICCO R 620.2006-20	6.0	2.00	4.00	6.00	5.20	20.0	35.00	●	0.02-0.06
PICCO R 620.2506-20	6.0	2.50	5.00	6.00	5.20	20.0	35.00	●	0.02-0.06
PICCO R 620.3006-20	6.0	3.00	6.00	6.00	5.20	20.0	35.00	●	0.02-0.06

- Only right-hand inserts are available as standard, left-hand inserts on request
- All carbide inserts are with sharp corners
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

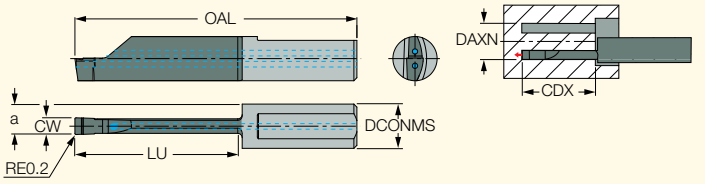
(2) Minimum overhang

PICCOCUT JETCUT

PICCO-016/020-N (Face Grooving)

Inserts with Internal Coolant Channel for Deep Face Grooving

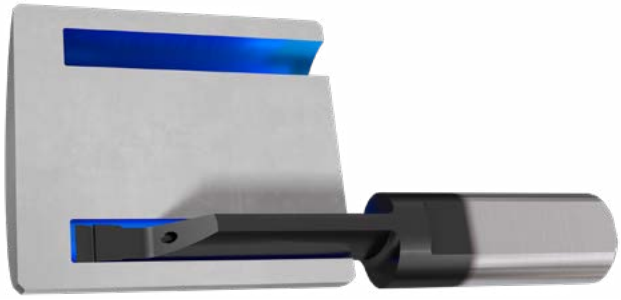




Designation	Dimensions DAXN(1)	CW	LU	CDX	DCONMS	a	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R016.0300-10N	16.0	3.00	9.00	9.00	8.00	5.50	32.00	●	0.01-0.05
PICCO R016.0300-20N	16.0	3.00	19.00	19.00	8.00	5.50	41.00	●	0.01-0.05
PICCO R016.0400-20N	16.0	4.00	19.00	19.00	8.00	6.00	41.00	●	0.01-0.05
PICCO R020.0300-25N	20.0	3.00	24.00	24.00	8.00	5.50	46.00	●	0.01-0.05
PICCO R020.0300-30N	20.0	3.00	29.00	29.00	8.00	5.50	51.00	●	0.01-0.04
PICCO R020.0300-40N	20.0	3.00	39.00	39.00	8.00	5.50	61.00	●	0.01-0.04
PICCO R020.0400-25N	20.0	4.00	24.00	24.00	8.00	6.00	46.00	●	0.01-0.06
PICCO R020.0400-30N	20.0	4.00	29.00	29.00	8.00	6.00	51.00	●	0.01-0.06
PICCO R020.0400-40N	20.0	4.00	39.00	39.00	8.00	6.00	61.00	●	0.01-0.05
PICCO R020.0500-25N	20.0	5.00	24.00	24.00	8.00	6.50	46.00	●	0.02-0.06
PICCO R020.0500-30N	20.0	5.00	29.00	29.00	8.00	6.50	51.00	●	0.02-0.06
PICCO R020.0500-35N	20.0	5.00	34.00	34.00	8.00	6.50	56.00	●	0.02-0.05
PICCO R020.0500-40N	20.0	5.00	39.00	39.00	8.00	6.50	61.00	●	0.02-0.05

- All inserts have two coolant holes which may be used with coolant pressure up to 100 bars
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

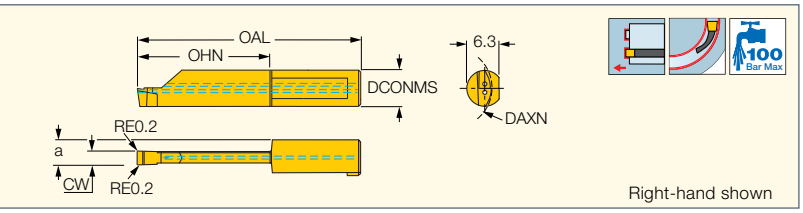


PICCOCUT

PICCO-016/020 (Face Grooving)

Inserts with Coolant Holes for Deep Face Grooving





Designation	Dimensions DAXN(1)	CW	OHN(2)	DCONMS	a	OAL	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 016.0300-10	16.0	3.00	10.00	8.00	5.50	30.00	●	0.01-0.05
PICCO R 016.0300-20	16.0	3.00	20.00	8.00	5.50	40.00	●	0.01-0.05
PICCO R 016.0400-10	16.0	4.00	10.00	8.00	6.00	30.00	●	0.01-0.05
PICCO R 016.0400-20	16.0	4.00	20.00	8.00	6.00	40.00	●	0.01-0.05
PICCO R 020.0300-25	20.0	3.00	25.00	8.00	5.50	45.00	●	0.01-0.05
PICCO R 020.0300-30	20.0	3.00	30.00	8.00	5.50	50.00	●	0.01-0.04
PICCO R 020.0300-35	20.0	3.00	35.00	8.00	5.50	55.00	●	0.01-0.04
PICCO R 020.0300-40	20.0	3.00	40.00	8.00	5.50	60.00	●	0.01-0.04
PICCO R 020.0400-25	20.0	4.00	25.00	8.00	6.00	45.00	●	0.01-0.06
PICCO R 020.0400-30	20.0	4.00	30.00	8.00	6.00	50.00	●	0.01-0.06
PICCO R 020.0400-35	20.0	4.00	35.00	8.00	6.00	55.00	●	0.01-0.05
PICCO R 020.0400-40	20.0	4.00	40.00	8.00	6.00	60.00	●	0.01-0.05
PICCO R 020.0500-20	20.0	5.00	20.00	8.00	6.50	40.00	●	0.02-0.06
PICCO R 020.0500-25	20.0	5.00	25.00	8.00	6.50	45.00	●	0.02-0.06
PICCO R 020.0500-30	20.0	5.00	30.00	8.00	6.50	50.00	●	0.02-0.06
PICCO R 020.0500-35	20.0	5.00	35.00	8.00	6.50	55.00	●	0.02-0.05
PICCO R 020.0500-40	20.0	5.00	40.00	8.00	6.50	60.00	●	0.02-0.05

- All inserts have two coolant holes which may be used with coolant pressure up to 100 bars
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

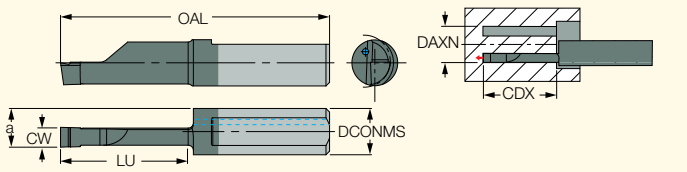
(2) Minimum overhang

JETCUT PICCOCUT

PICCO-015-N (Face Grooving)

Inserts with Internal Coolant Channel for Deep Face Grooving

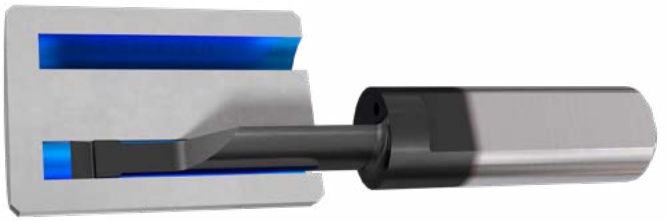




Designation	Dimensions DAXN(1)	CW	LU	DCONMS	a	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 015.2515-20N	8.0	2.50	19.00	7.05	5.90	41.00	●	0.01-0.04
PICCO R 015.3015-20N	8.0	3.00	19.00	7.05	5.90	41.00	●	0.02-0.05
PICCO R 015.3015-30N	8.0	3.00	29.00	7.05	5.90	51.00	●	0.01-0.04

- Only right-hand inserts are available as standard, left-hand inserts on request
- All inserts are with sharp corners
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

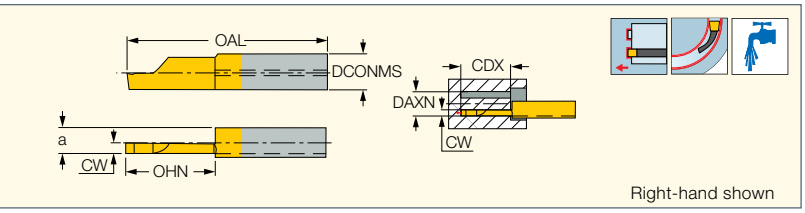


PICCOCUT

PICCO-015 (Face Grooving)

Inserts for Deep Face Grooving





Designation	Dimensions DAXN(1)	CW	OHN(2)	DCONMS	a	OAL	CDX	IC228	Recommended Machining Data f face-groove (mm/rev)
PICCO R 015.2515-20	8.0	2.50	20.00	7.00	5.90	35.00	20.00	●	0.01-0.04
PICCO R/L 015.3015-20	8.0	3.00	20.00	7.00	5.90	35.00	20.00	●	0.02-0.05
PICCO R 015.3015-30	8.0	3.00	30.00	7.00	5.90	45.00	30.00	●	0.01-0.04

- Only right-hand inserts are available as standard, left-hand inserts on request
- All inserts are with sharp corners
- For detailed cutting data, see page 604

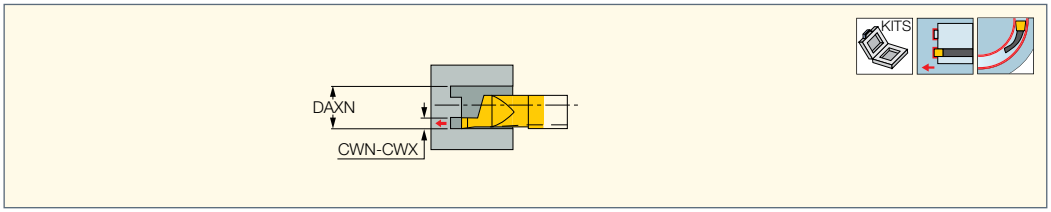
(1) Minimum axial grooving diameter

(2) Minimum overhang

PICCOCUT

KIT PICCO Face

Contains One Toolholder and a Set of Solid Carbide Miniature Face Turning and Grooving Boring Bars



Designation	DAXN(1)	CWN(2)	CWX(3)
KIT PICCO SET-4R	8.0	1.00	3.00

(1) Minimum axial grooving diameter

(2) Minimum cutting width

(3) Maximum cutting width

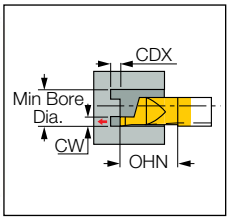
PICCO

Face Grooving PICCO Mini-Bar Tool Set - 4R

Designation	Mini Bore Dia.	OHN	CDX	CW	Pcs.	Designation
PICCO 16.D6					1x	Holder
PICCO R/L 010.1008-10	8.0	11	1.5	1.0	1x	Mini Carbide Bar
PICCO R/L 010.1508-10	8.0	11	2.5	1.5	1x	Mini Carbide Bar
PICCO R/L 010.2008-10	8.0	11	3.0	2.0	1x	Mini Carbide Bar
PICCO R/L 010.2508-20	8.0	21	3.5	2.5	1x	Mini Carbide Bar
PICCO R/L 010.3008-20	8.0	21	3.5	3.0	1x	Mini Carbide Bar

Available grade: IC228

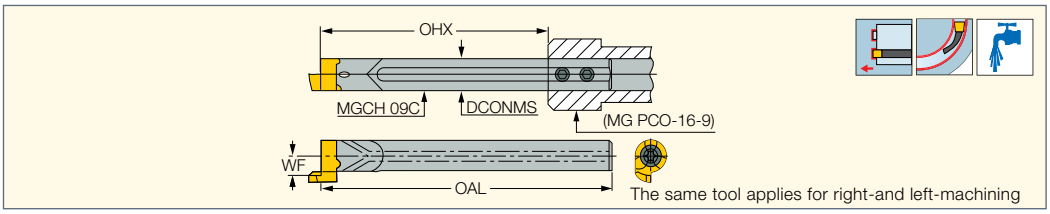




CHAMGROOVE

MGCH-C (face)

Face Machining Tools Carrying GFQR Inserts for Dmin 12 - Dmax 19 mm Penetration Range



Designation	DCONMS	OAL	OHX(1)	WF		
MGCH 09C	9.00	83.50	65.0	5.50	SR 76-2145	T-15/5

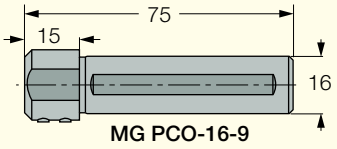
(1) Maximum overhang

For inserts, see pages: GFQR (598)

For holders, see pages: PICCO/MG PCO (Holder) (399)

MG PCO

Holder Bar for Adjustable Shank

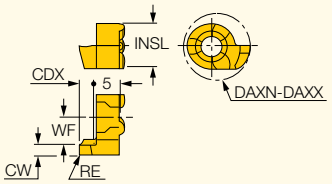


CHAMGROOVE

GFQR

Face Grooving Inserts





Designation	Dimensions							IC528	Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)		f face-groove (mm/rev)
GFQR 12-1.00-0.05	1.00	0.05	0.02	0.030	1.50	12.0	16.0	•	0.01-0.04
GFQR 12-1.50-0.20	1.50	0.20	0.02	0.030	2.50	12.0	17.0	•	0.01-0.04
GFQR 12-2.00-0.20	2.00	0.20	0.02	0.030	3.00	12.4	18.0	•	0.02-0.05
GFQR 12-2.50-0.20	2.50	0.20	0.02	0.030	3.00	13.0	19.0	•	0.02-0.05

• For detailed cutting data, see page 604

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

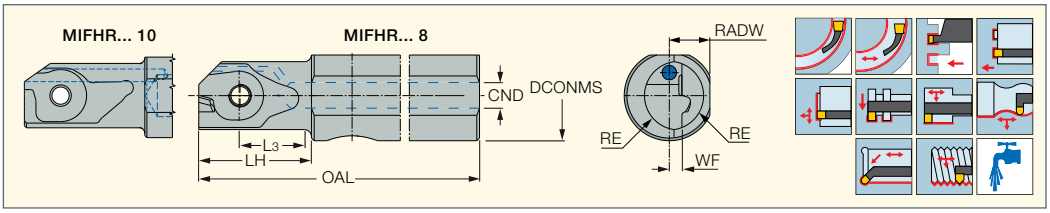
(3) Minimum penetration diameter

(4) Maximum penetration diameter

MINI CUT FACE LINE

MIFHR

Bars for Face and Internal Grooving, Undercutting and Threading Inserts



Designation	DCONMS	CND	WF	RADW	OAL	L3	LH	RE	Insert			
MIFHR 8SC-8-SRK (1)	8.00	1.2	1.4	3.70	75.00	7.40	11.7	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 10C-8	10.00	5.0	1.4	4.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-8	12.00	5.0	1.4	5.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-10 (2)	12.00	6.0	2.4	5.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-10 (2)	16.00	6.0	2.4	7.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-15	16.00	8.0	2.7	7.50	100.00	12.50	19.0	10.30	MI.R 15	SR 34-506/L	T-9/5	PL 16
MIFHR 20C-15	20.00	8.5	4.7	9.00	100.00	12.50	19.0	11.30	MI.R 15	SR 34-506/L	T-9/5	PL 20

(1) Solid carbide shank

(2) Only face grooving inserts are available for this tool

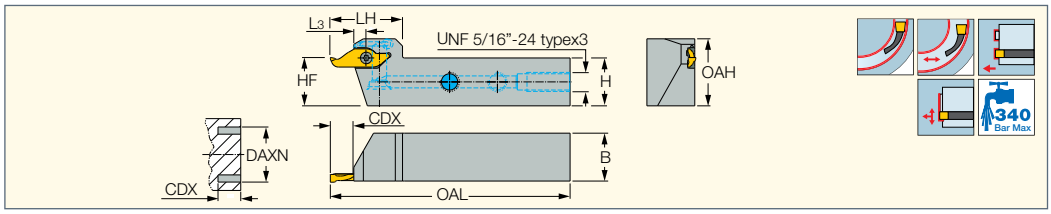
For inserts, see pages: MEFL (600) • MIFR (600) • MIGR 8 (413) • MITR 8-MT (650) • MIUR 8 (413)

For holders, see pages: PICCO/MG PCO (Holder) (399)

MINCUT MINI FACE LINE

MFHR-JHP

Square Shank Tools for MIFR 10 Face Grooving Inserts



Designation	H	B	OAL	LH	L3	CDX	DAXN(1)	OAH	HF	Insert			
MFHR 12C-10-JHP	12.0	12.0	100.00	27.0	5.20	9.00	10.0	20.0	12.0	MI.R 10	SR 34-506	T-9/5	SR 5/16UNF TL360
MFHR 16C-10-JHP	16.0	16.0	100.00	27.0	5.20	9.00	10.0	24.0	16.0	MI.R 10	SR 34-506	T-9/5	SR 5/16UNF TL360
MFHR 20C-10-JHP	20.0	20.0	100.00	30.0	5.20	9.00	10.0	28.0	20.0	MI.R 10	SR 34-506	T-9/5	SR 5/16UNF TL360

• For DAXN, refer to insert data • For user guide and accessories, see pages 604-613

(1) Minimum axial grooving diameter

For inserts, see pages: MEFL (600) • MIFR (600)

Flow Rate vs. Pressure

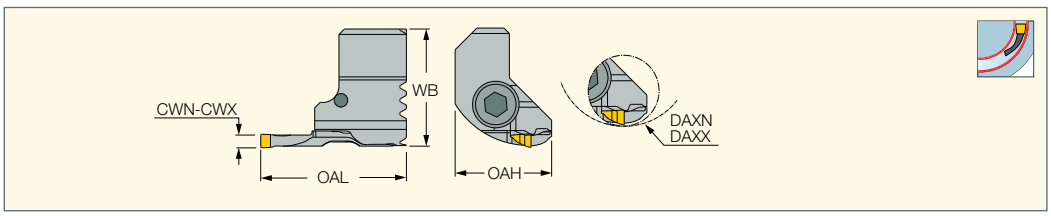
Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
MFHR 12C-10-JHP	3	5-9	9-11
MFHR 16C-10-JHP	3	7-9	9-11



MINCUT MINI FACE LINE

IHSR-MIFR

Trepanning Cartridges Carrying MINCUT Inserts Mounted on the BHR MB32-32X63 Boring Head



Designation	DAXN(1)	DAXX(2)	CWN(3)	CWX(4)	OAL	WB	OAH	Insert		
IHSR 8-21 MIFR8	8.0	21.0	1.50	2.20	32.00	23.00	17.50	MI.R 8	SR 14-297	T-8/5
IHSR 19-34 MIFR10	19.0	34.0	2.00	3.00	27.00	22.00	17.80	MI.R 10	SR 34-506	T-9/5

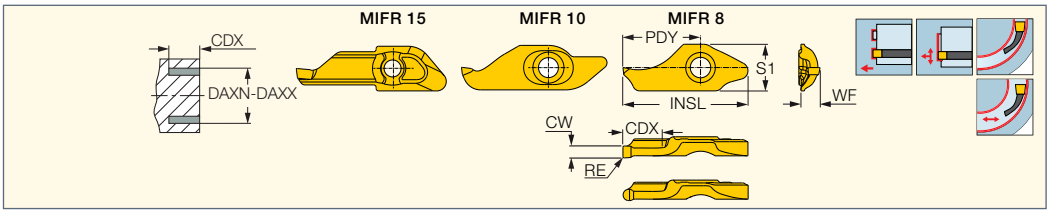
(1) Minimum axial grooving diameter
(2) Maximum axial grooving diameter
(3) Minimum cutting width
(4) Maximum cutting width

For inserts, see pages: MIFR (600)

MIN CUT MINI FACE LINE

MIFR

Screw-Clamped Inserts for Internal Face Grooving and Turning



Designation	Dimensions											IC908	Recommended Machining Data	
	INSL	CW	CWTOL[1]	RE	RETOL[2]	WF	S1	DAXN[3]	DAXX[4]	CDX	PDY		f face-groove (mm/rev)	f face-turn (mm/rev)
MIFR 8-1.50-0.20	17.70	1.50	0.02	0.20	0.020	2.60	6.5	8.0	11.5	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 8-1.60-0.80	17.70	1.60	0.02	0.80	0.020	2.60	6.5	8.0	12.1	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 8-2.00-0.20	17.70	2.00	0.02	0.20	0.020	2.80	6.5	8.0	16.0	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 8-2.20-0.20	17.70	2.20	0.02	0.20	0.020	2.90	6.5	8.0	21.0	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 10-2.00-0.20	25.10	2.00	0.02	0.20	0.020	3.00	7.6	10.0	-	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-2.00-1.00	25.10	2.00	0.02	1.00	0.020	3.00	7.6	10.0	-	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-2.50-0.20	25.10	2.50	0.02	0.20	0.020	3.10	7.6	10.0	30.0	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-2.50-1.25	25.10	2.50	0.02	1.25	0.020	3.30	7.6	10.0	-	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-3.00-0.20	25.10	3.00	0.02	0.20	0.020	3.40	7.6	10.0	30.0	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-3.00-1.50	25.10	3.00	0.02	1.50	0.020	3.30	7.6	10.0	34.0	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 15-2.50-0.20	30.00	2.50	0.02	0.20	0.020	5.55	9.0	15.0	60.0	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-2.50-1.25	30.00	2.50	0.02	1.25	0.020	5.55	9.0	12.0	47.0	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-3.00-0.20	30.00	3.00	0.02	0.20	0.020	5.85	9.0	15.0	60.0	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-3.00-1.50	30.00	3.00	0.02	1.50	0.020	5.85	9.0	10.0	-	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-3.50-0.20	30.00	3.50	0.02	0.20	0.020	6.00	9.0	10.0	-	15.00	19.30	●	0.03-0.05	0.03-0.04

- Recommended cutting speeds and feeds can increased by 20-30% for aluminum, and reduced by 20-30% for titanium and Inconel
- For cutting speed recommendations, see page 600

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter

For tools, see pages: IHSR-MIFR (599) • MFHR-JHP (599) • MIFHR (413)





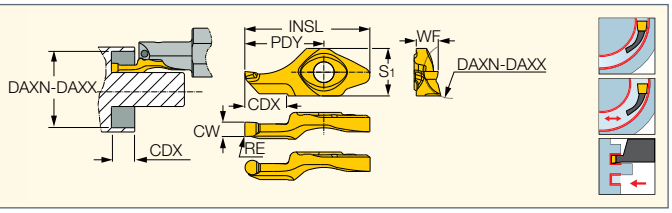


MIN CUT MINI FACE LINE

MEFL

Screw-Clamped Inserts for External Face Grooving and Turning Next to Shafts





Designation	Dimensions											IC908	Recommended Machining Data	
	CW	RE	CWTOL[1]	RETOL[2]	WF	S1	CDX	PDY	INSL	DAXN[3]	DAXX[4]		f face-groove (mm/rev)	f face-turn (mm/rev)
MEFL 8-1.50-0.20	1.50	0.20	0.02	0.020	2.60	6.6	5.50	11.00	17.40	8.0	15.0	●	0.02-0.10	0.02-0.06
MEFL 8-1.60-0.80	1.60	0.80	0.02	0.020	2.70	6.6	5.50	11.00	17.40	7.0	12.1	●	0.02-0.10	0.02-0.06
MEFL 8-2.00-0.20	2.00	0.20	0.02	0.020	3.10	6.6	5.50	11.00	17.40	7.0	20.0	●	0.02-0.10	0.02-0.06
MEFL 8-2.00-1.00	2.00	1.00	0.02	0.020	2.90	6.6	5.50	11.00	17.40	7.0	14.0	●	0.02-0.10	0.02-0.06
MEFL 8-2.20-0.20	2.20	0.20	0.02	0.020	3.10	6.6	5.50	11.00	17.40	7.0	20.0	●	0.02-0.10	0.02-0.06
MEFL 10-2.50-0.20	2.50	0.20	0.02	0.020	3.15	7.6	9.00	14.85	24.50	10.0	45.0	●	0.02-0.06	0.02-0.05
MEFL 10-2.50-1.25	2.50	1.25	0.02	0.020	3.15	7.6	9.00	14.85	24.50	10.0	45.0	●	0.02-0.06	0.02-0.05
MEFL 10-3.00-0.20	3.00	0.20	0.02	0.020	3.60	7.6	9.00	14.85	24.50	10.0	100.0	●	0.02-0.06	0.02-0.05
MEFL 10-3.00-1.50	3.00	1.50	0.02	0.020	3.40	7.6	9.00	14.85	24.50	10.0	100.0	●	0.02-0.06	0.02-0.05

- For cutting speed recommendations, see pages

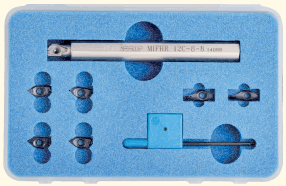
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter

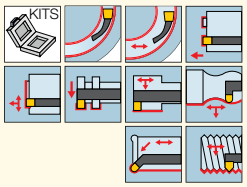
For tools, see pages: MFHR-JHP (599) • MIFHR (413)

MIN CUT
MINI FACE LINE

MINCUT KIT

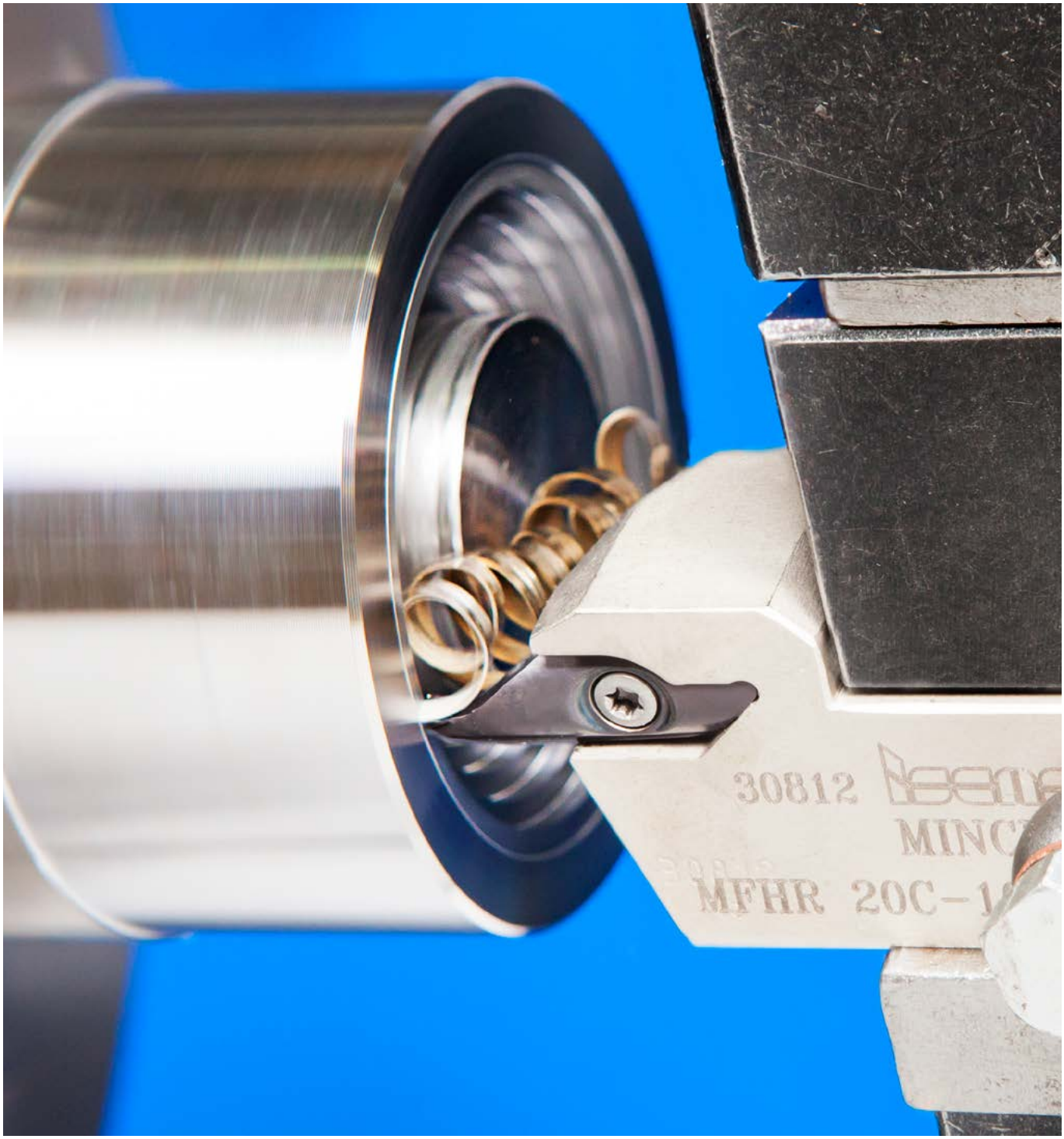
Contains One Toolholder and a Set of 6 Different Inserts for Internal Face Grooving and Turning Applications





Designation	Qty
KIT MINCUT	7

Catalog No	Designation	Quantity
2801523	MIFHR 12C-8	1
6404029	MIGR 8-1.60-0.80	1
6404045	MIFR 8-2.20-0.20	1
6404049	MIFR 8-1.60-0.80	1
6405165	MITR 8-MT1-0.05	1
6405188	MIUR 8-1.00-0.50	1
6405194	MIGR 8-2.00-0.10	1



Machining Data for Face Machining

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quenched and tempered	850	250	3
		>= 0.55 %C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
	Stainless steel and cast steel		Ferritic/martensitic	680	200	12
			Martensitic	820	240	13
M	Stainless steel and cast steel		Austenitic	600	180	14
K	Cast iron nodular (GG)		Ferritic/pearlitic		180	15
			Pearlitic/ Martensitic		260	16
	Grey cast iron (GGG)		Ferritic		160	17
			Pearlitic		250	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum-wrought alloys		Not cureable		60	21
			Cured		100	22
	Aluminum-cast-alloys	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temperature		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics			29
			Hard rubber			30
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
		Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium Ti alloys			RM 400		36
			Alpha+beta alloys cured	RM 1050		37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron		Hardened		55 HRC	41

Material No.	IC228/528	IC830	IC354	IC908	IC808	IC8250
1	85 - 125	90 - 135	95 - 145	120 - 180	125 - 190	180 - 270
2	75 - 110	80 - 115	90 - 125	110 - 155	115 - 165	165 - 230
3	60 - 85	65 - 95	70 - 100	85 - 125	90 - 130	125 - 185
4	65 - 100	70 - 110	75 - 115	95 - 145	100 - 150	140 - 215
5	50 - 85	55 - 90	60 - 95	75 - 120	80 - 125	110 - 180
6	65 - 100	70 - 110	75 - 115	95 - 145	100 - 150	140 - 215
7	50 - 85	55 - 95	60 - 100	75 - 125	80 - 130	110 - 185
8	50 - 85	55 - 90	60 - 95	75 - 120	80 - 125	110 - 180
9	50 - 75	50 - 80	55 - 90	70 - 110	75 - 115	105 - 165
10	75 - 110	80 - 115	90 - 125	110 - 155	115 - 165	165 - 230
11	50 - 75	50 - 80	55 - 90	70 - 110	75 - 115	105 - 165

	IC806	IC808	IC354	IC830	IC20	
12	110 - 200	100 - 180	80 - 145	75 - 135	50 - 90	
13	100 - 185	90 - 170	70 - 135	65 - 125	45 - 85	

	IC806	IC808	IC354	IC830	IC20	
14	90 - 170	80 - 155	65 - 125	60 - 115	40 - 75	

	IC5010	IC428	IC8250	IC808	IC20	
15	135 - 255	125 - 230	110 - 205	85 - 160	60 - 115	
16	120 - 180	110 - 160	100 - 145	75 - 110	55 - 80	
17	130 - 215	120 - 195	110 - 175	85 - 135	60 - 95	
18	105 - 170	95 - 155	85 - 140	65 - 110	45 - 75	
19	160 - 265	145 - 240	130 - 215	100 - 170	70 - 120	
20	130 - 215	120 - 195	110 - 175	85 - 135	60 - 95	

	IC808	IC20				
21	330 - 990	300 - 900				
22	250 - 825	225 - 750				
23	250 - 825	225 - 750				
24	165 - 495	150 - 450				
25	165 - 330	150 - 300				
26	165 - 330	150 - 300				
27	120 - 250	110 - 225				
28	80 - 165	75 - 150				
29	40 - 165	35 - 150				
30						

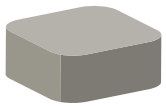
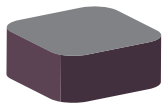
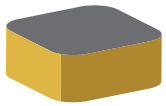
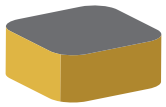
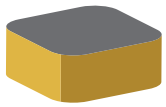
	IC806	IC908	IC808	IC830	IC20	
31	45 - 70	35 - 55	35 - 60	25 - 40	25 - 40	
32	30 - 50	25 - 40	25 - 40	20 - 30	15 - 30	
33	30 - 50	25 - 40	25 - 40	20 - 30	15 - 30	
34	25 - 45	20 - 35	20 - 35	15 - 25	15 - 25	
35	20 - 30	15 - 25	15 - 25	10 - 20	10 - 15	
36	105 - 180	85 - 145	90 - 150	65 - 110	60 - 100	
37	40 - 50	30 - 40	30 - 40	25 - 35	35 - 45	

	IC808	IC20				
38	25-30	20-30				
39	20-30	15-25				
40	30-45	30-40				
41	25-30	25-30				

Machining Data for Face Machining

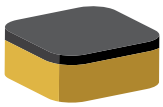
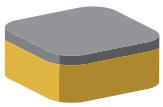
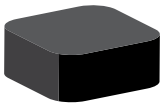
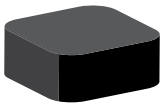
ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.	Cutting Speed (m/min)	GFQR IC528 Feed (mm/rev)	PICCO IC228 Feed (mm/rev)	MIFR/ MEFL 8 IC908 Feed (mm/rev)	MIFR 10 IC908 Feed (mm/rev)	MIFR 15 IC908 Feed (mm/rev)
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1	80-180	0.02-0.08	0.015-0.05	0.015-0.08	0.03-0.10	0.03-0.08
		>= 0.25 %C	Annealed	650	190	2						
		< 0.55 %C	Quenched and tempered	850	250	3	80-130	0.02-0.06	0.015-0.04			
		>= 0.55 %C	Annealed	750	220	4						
			Quenched and tempered	1000	300	5	80-120	0.02-0.06	0.015-0.04			
	Low alloy and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	80-140	0.02-0.08	0.015-0.04			
			Quenched and tempered	930	275	7	80-140	0.02-0.08	0.015-0.04			
				1000	300	8	80-120	0.02-0.06	0.015-0.03			
				1200	350	9	80-120	0.02-0.05	0.015-0.03			
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10	80-140	0.02-0.08	0.015-0.04			
			Quenched and tempered	1100	325	11	80-120	0.02-0.08	0.015-0.03			
	Stainless steel and cast steel		Ferritic/ martensitic	680	200	12	40-120	0.02-0.08	0.015-0.04	0.015-0.07	0.03-0.08	0.02-0.05
			Martensitic	820	240	13	40-120	0.02-0.07	0.015-0.04	0.015-0.07	0.03-0.08	0.02-0.05
M	Stainless steel and cast steel		Austenitic	600	180	14	40-100	0.02-0.06	0.015-0.03	0.015-0.07	0.03-0.08	0.02-0.05
K	Cast iron nodular (GG)		Ferritic/ pearlitic		180	15	80-140	0.02-0.08	0.015-0.05	0.02-0.10	0.05-0.12	0.04-0.10
			Pearlitic/ Martensitic		260	16	80-120	0.02-0.07	0.015-0.04			
	Grey cast iron (GGG)		Ferritic		160	17	80-140	0.02-0.08	0.015-0.04			
			Pearlitic		250	18	80-120	0.02-0.07	0.015-0.04			
	Malleable cast iron		Ferritic		130	19	80-140	0.02-0.06	0.015-0.04			
			Pearlitic		230	20	80-120	0.02-0.07	0.015-0.04			
N	Aluminum-wrought alloys		Not cureable		60	21	150-320	0.02-0.08	0.015-005	0.02-0.10	0.05-0.15	0.05-0.12
			Cured		100	22	100-250	0.02-0.08	0.015-005			
	Aluminum-cast-alloys	<=12% Si	Not cureable		75	23	150-300	0.02-0.08	0.015-005			
			Cured		90	24	150-300	0.02-0.08	0.015-005			
		>12% Si	High temperature		130	25	100-150	0.02-0.08	0.015-005			
	Copper alloys	>1% Pb	Free cutting		110	26	80-230	0.02-0.08	0.015-005			
			Brass		90	27	70-200	0.02-0.08	0.015-005			
			Electrolitic copper		100	28	50-180	0.02-0.08	0.015-005			
	Non-metallic		Duroplastics, fiber plastics			29						
			Hard rubber			30						
S	High temp. alloys	Fe based	Annealed		200	31	20-40	0.02-0.06	0.015-0.04	0.015-0.7	0.02-0.08	0.02-0.05
			Cured		280	32	15-30	0.02-0.06	0.015-0.04			
		Ni or Co based	Annealed		250	33	15-20	0.02-0.06	0.015-0.04			
			Cured		350	34	15-20	0.02-0.06	0.015-0.04			
			Cast		320	35	15-20	0.02-0.06	0.015-0.04			
	Titanium Ti alloys			RM 400		36	40-120	0.02-0.06	0.015-0.04			
			Alpha+beta alloys cured	RM 1050		37	20-50	0.02-0.06	0.015-0.04			
H	Hardened steel		Hardened		55 HRC	38						
			Hardened		60 HRC	39						
	Chilled cast iron		Cast		400	40						
	Cast iron		Hardened		55 HRC	41						

ISCAR Face Gooving Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC354	P20-P40 M20-M30	A tough substrate with PVD coating, suitable for general use on a wide range of carbon steels, alloy steels and stainless steel at moderate speeds and feeds.	TiCN Base	
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC830	P30-P45 M25-M40 S20-S30	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	

* For coated grades

ISCAR Face Gooving Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
CVD COATED	IC5010	K10-K20	A hard substrate with MTCVD coating with a special SUMOTEC surface treatment. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds, provides very good resistance to chipping.	TiN Al_2O_3 TiCN Base	
	IC8250	P15-P35 M15-M25	A tough substrate with a cobalt enriched layer and MTCVD coating with a special SUMOTEC surface treatment. Recommended for general use machining of steels, alloy steels and martensitic stainless steel in a wide range of conditions. Features high toughness and good wear resistance.	TiN Al_2O_3 TiCN Base	
	IC418	K10-K25	A tough substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at medium to high cutting speeds. Can be used for interrupted cuts and under heavy machining conditions.	Al_2O_3 Tic Base	
	IC428	K05-K20 H15-H25	A hard substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds.	Al_2O_3 Tic Base	
	IC9015	P10-P25 K10-K15	A hard substrate with a cobalt enriched layer and MTCVD coating. Recommended for high speed machining of steels, alloy steels and martensitic stainless steel with moderate feeds at stable conditions.	TiN Al_2O_3 TiCN Base	

* For coated grades

	Grade	ISO	Grade Description	Coating Layers	Uncoated
UNCOATED	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base	
	IC20	K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	

Clamping the Insert

Clamping an insert correctly into the holder is necessary for stable machining.

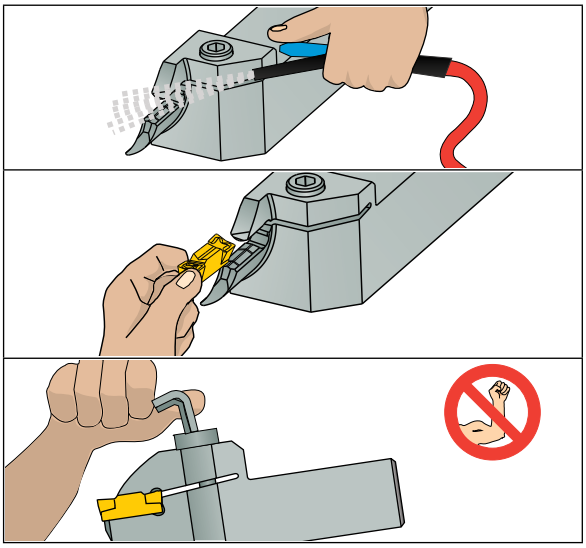
- Be sure that the seat is clean of dirt and swarf.
- In the first stage of clamping, ease the insert gently into place. Make sure that the prismatic surfaces match.

Screw Clamping Torque

Insert Width	Nxm
3	4-5
4	5-6
5	6-7
6/8	7-9
CGFG 51...	4-6



The unique chipformer is designed for deep grooving and face turning both toward and away from the center with excellent chip formation.

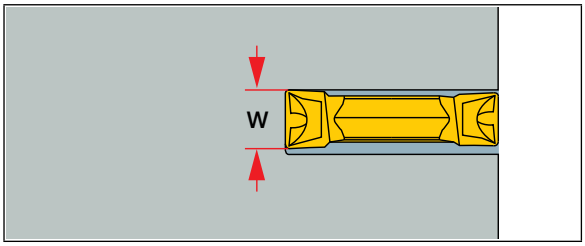


HELI-FACE HFPR/L & HGPL Type	HELI-GRIP GRIP...Y Type
	
For general use in turning & grooving on all types of materials. Use for deep grooving in low-to-medium feeds 0.04-0.15 mm/rev. Min grooving dia. 12 mm.	The "all in one" insert for parting, external grooving and turning, internal grooving and turning, face grooving and turning.

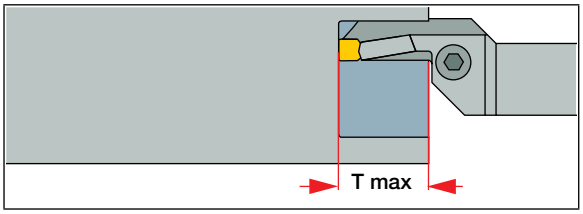
DO-GRIP DGN...C Type	DO-GRIP DGN...J Type
	
For grooving operations only. Strong cutting edge for hard materials and tough applications in feeds 0.1-0.2 mm/rev.	For grooving operations only. Positive rake, for soft materials in low-to-medium feeds 0.05-0.15 mm/rev.

Face Machining Guide

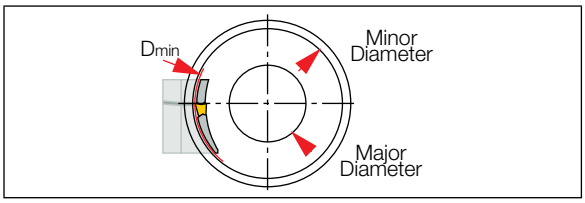
Tool Selection - Follow these recommendations to choose the right tool for high peformance.



Choose the widest possible insert and tool, according to the cutting width and geometry to be machined.



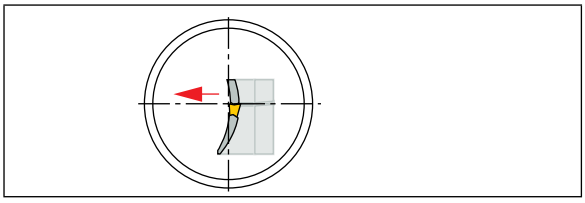
Choose the shortest tool blade overhang, according to the maximum depth required.



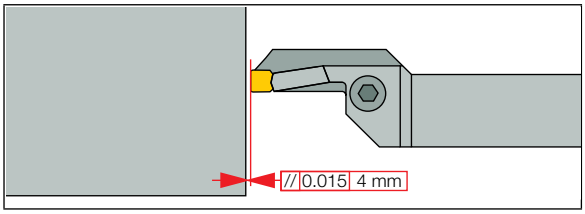
Choose the tool range with the largest diameter, depending on the initial grooving diameter required in the application.

Remark: On integral shank tools the given range refers to the holder capacity.

Tool Adjustment - Prior to machining, check and adjust the following tool positions.



Check the cutting edge height at center line, machine in light turning down to center and check for burr.

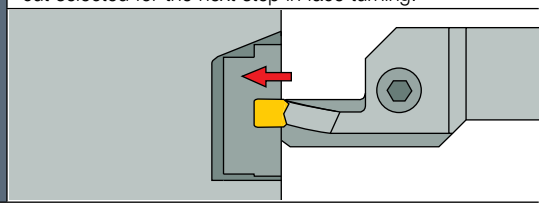


Check parallelism of the cutting edge and machined surface. Correct position can guarantee good surface quality when face turning in both directions.

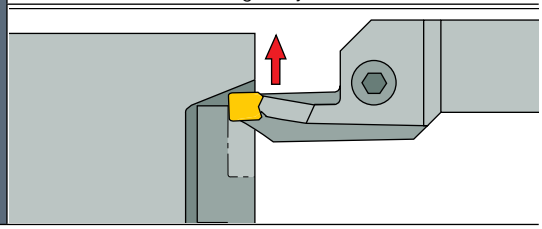
Face Machining Guide

Recommended machining sequence in roughing operation using multifunction HELI-FACE tools.

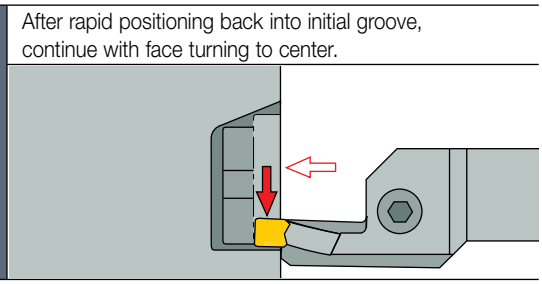
1 Groove at the initial diameter up to the depth of cut selected for the next step in face turning.



2 Continue with face turning away from the center.



3 After rapid positioning back into initial groove, continue with face turning to center.

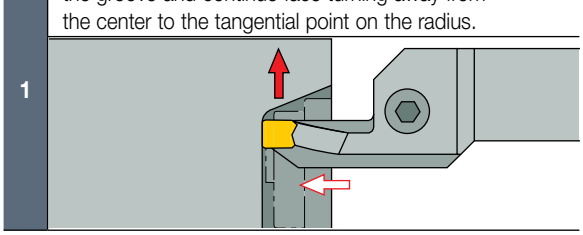


Note: When face grooving, reduce the speed by 40% in relation to that used in face turning.

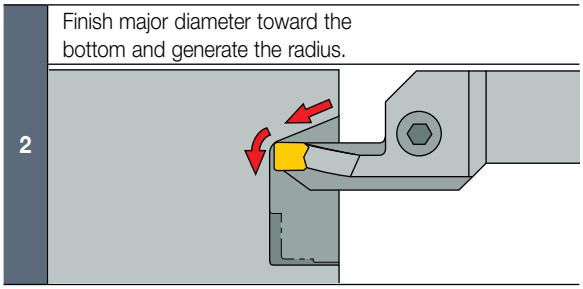
Optimizing the Machining Sequence

Recommended machining sequence using multifunction tools.

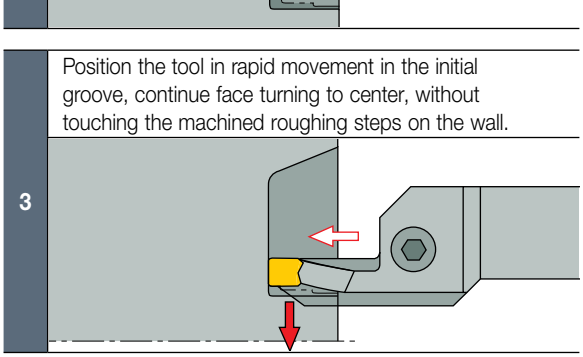
1 Groove at the initial diameter to the final depth of the groove and continue face turning away from the center to the tangential point on the radius.



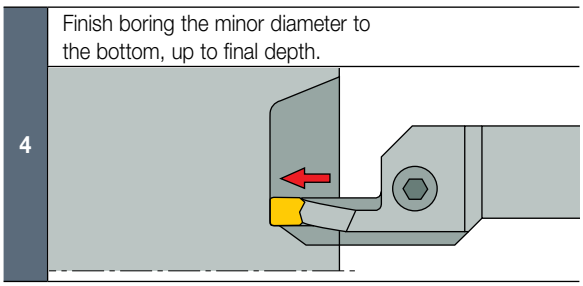
2 Finish major diameter toward the bottom and generate the radius.



3 Position the tool in rapid movement in the initial groove, continue face turning to center, without touching the machined roughing steps on the wall.



4 Finish boring the minor diameter to the bottom, up to final depth.

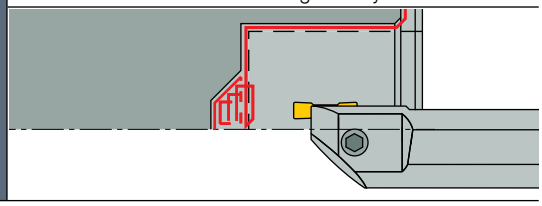


Note: When face grooving, reduce the speed by 40% in relation to that used in face turning.

The Multifunction Advantage

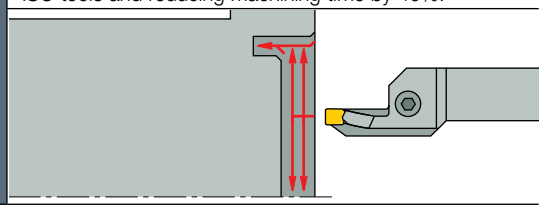
1

The **HELI-FACE** internal boring bar HFIR/L MC typewith internal coolant can replace the three different ISO tools and shorten machining time by 20%.



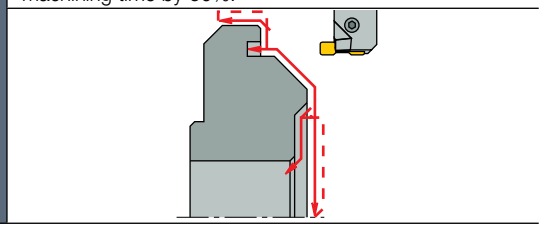
2

A single multifunction tool machines the whole part: grooving, face turning and chamfering, replacing three ISO tools and reducing machining time by 40%.



3

A single integral **HELI-FACE** tool HFHPL-M replaces three ISO tools and reduces machining time by 50%.



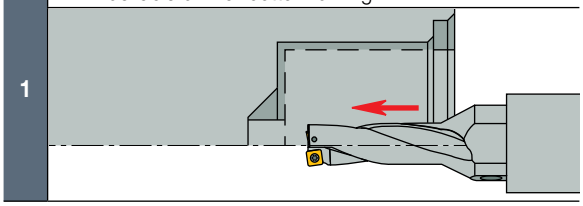
Note: When face grooving, reduce the speed by 40% in relation to that used in face turning.

The Multifunction Advantage

This workpiece was machined using three different conventional tools.

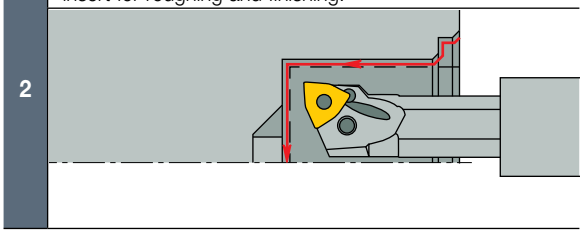
1

An indexable drill for bottom drilling.



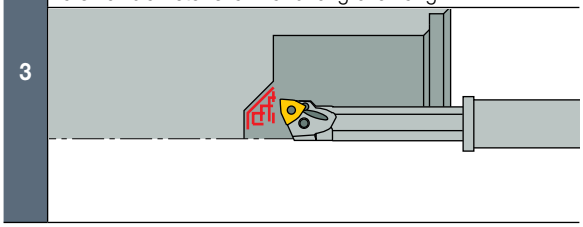
2

A standard internal boring bar with a trigon insert for roughing and finishing.



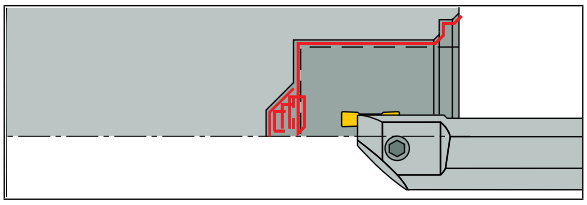
3

A standard internal boring bar with a trigon insert for bottom machining. This operation requires a small diameter shank and long overhang.



The HELI-FACE Solution

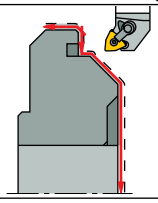
The **HELI-FACE** internal boring bar HFIR/L MC type with internal coolant can replace the three different ISO tools and shorten machining time by 20%.



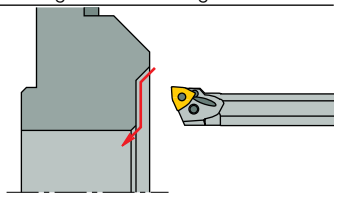
The Multifunction Advantage

This part was machined using three different conventional tools.

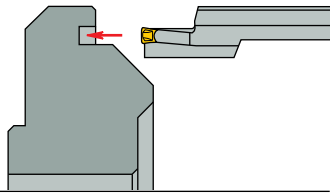
1 A standad ISO tool for external turning.



2 A boring bar for face turning and chamfering.

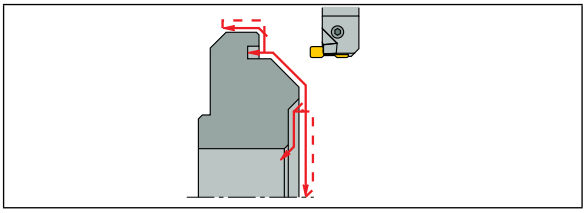


3 A face grooving tool for grooving, recessing and chamfering.



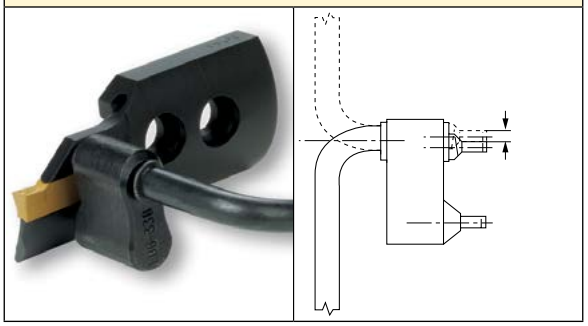
The HELI-FACE Solution

A single integral **HELI-FACE** tool HFHPL-M replaces three ISO tools and reduces machining time by 50%.



Insert Replacement

EDG 33B



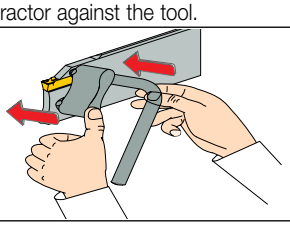
Eccentric Extractor

Simple to operate; controlled rotation requires low force; guarantees limited upper jaw movement and secures maximum load on blade.
Two extractor pins are placed in the two holes in the holder blades.

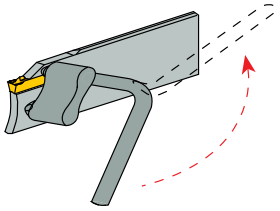
Indexing

Place the EDG extractor in the holes

1 Hold the extractor against the tool.

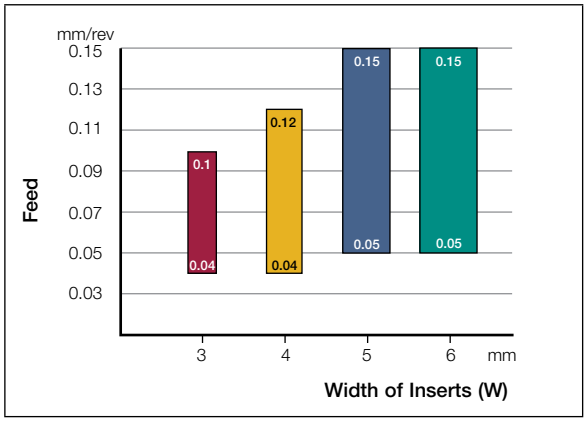


2 Rotate the eccentric handle to lift the upper jaw.

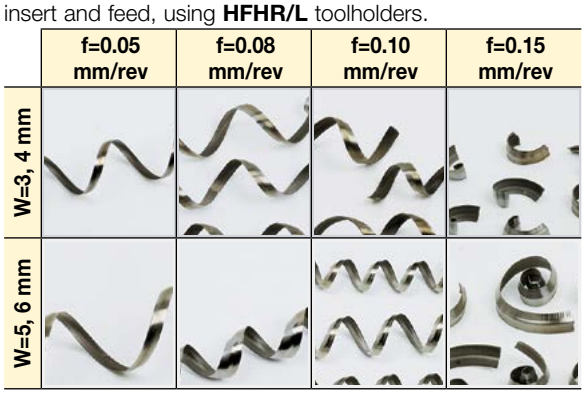


Machining Conditions in Face Grooving

Recommended feed range for grooving with **HFPR/L** inserts in various widths.

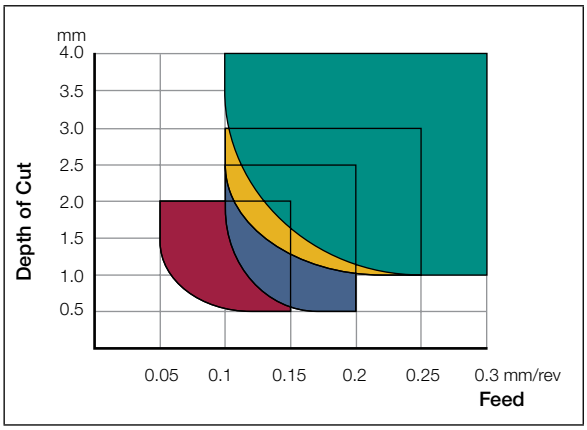


Chip shapes for grooving, according to width of insert and feed, using **HFHR/L** toolholders.

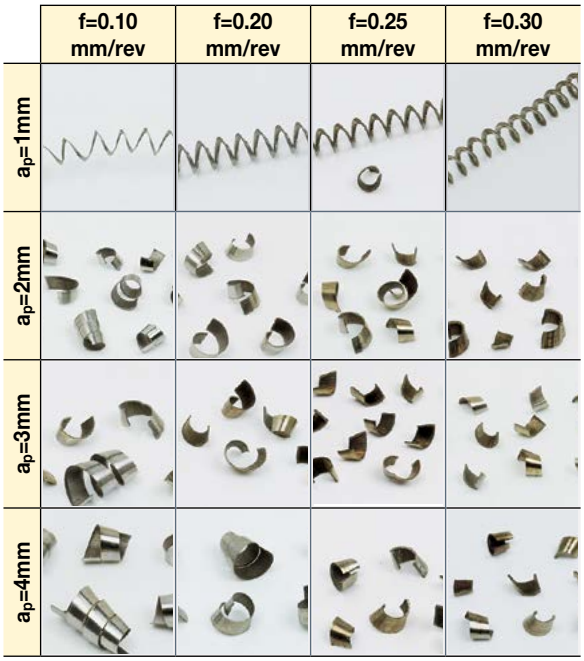


Note: In face grooving, narrowed and deformed chips are preferred. Curled and long chips can flow out more easily from deep grooves.

Recommended depth of cut and feed range for face turning using **HFHR/L** toolholders carrying **HFPR/L** inserts in various widths.



Chip shapes in face turning with inserts HFPR/L-5004 & **HFPR/L** 6004 and **HFHR/L** toolholders.



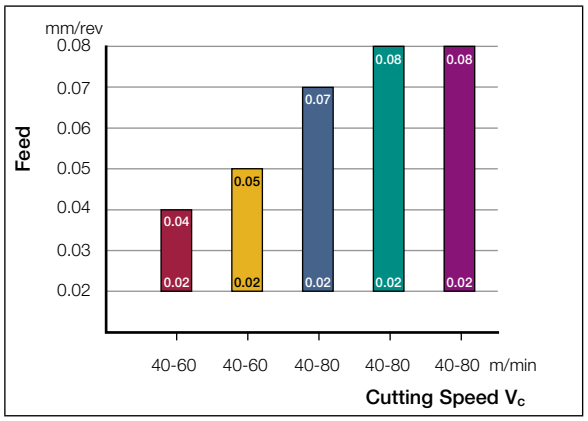
Note: In roughing, increase feed at small depth of cut and reduce feed at large depth of cut.

- **HFPR/L 3003 GRIP/HGPL 300Y**
- **HFPR/L 4004 GRIP/HGPL 400Y**
- **HFPR/L 5004 GRIP/HGPL 500Y**
- **HFPR/L 6004 GRIP/HGPL 600Y**

Face Grooving and Turning Recommendations

Using Adapters for 3 mm Inserts

Recommended feed range for grooving with Grip 3... and **HGPL 3...** inserts and **HGAIR/L** and **HGAER/L** adapters. Feed range changes according to adapter type.



HGAIR/L 12-3T6
HGAER/L 12-3T6

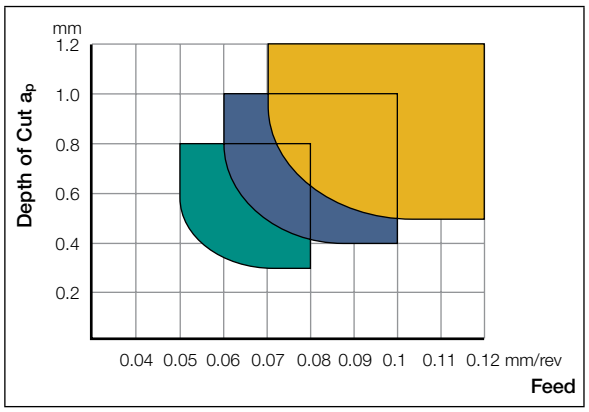
HGAIR/L 14-3T7
HGAER/L 14-3T7

HGAIR/L 17-3T8
HGAER/L 17-3T8

HGAIR/L 21-3T9
HGAER/L 21-3T9

HGAIR/L 25-3T9

Recommended depth of cut and feed range for turning with **HGPL 3...** inserts with **HGAIR/L** and **HGAER/L** adapters. Feed range changes according to adapter type.



HGAIR/L 21-3T9
HGAER/L 21-3T9
HGAIR/L 25-3T9

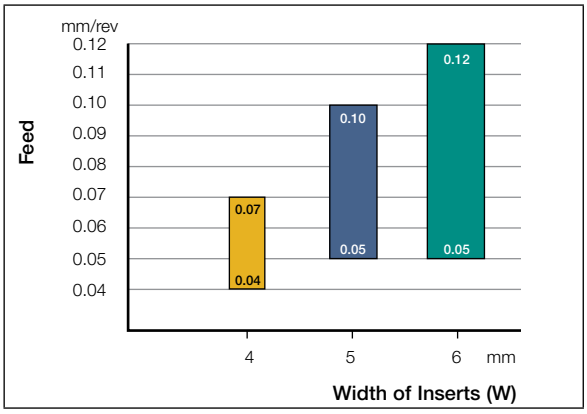
HGAIR/L 14-3T7
HGAER/L 14-3T7
HGAIR/L 17-3T8
HGAER/L 17-3T8

HGAIR/L 12-3T6
HGAER/L 12-3T6

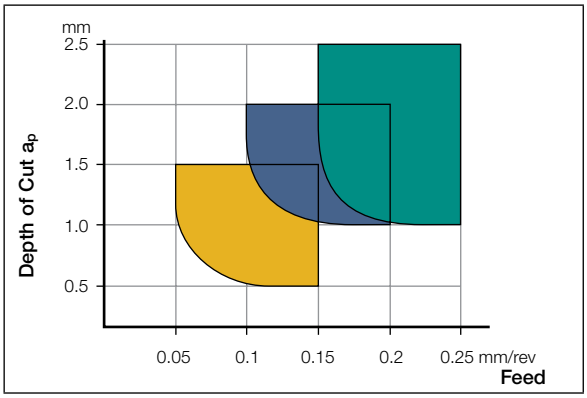
Note: In roughing, increase feed at small depth of cut, and reduce feed at large depth of cut.

Using Adapters for 4-6 mm Inserts

Recommended feed range in grooving with **HFPR/L** inserts and **HFAIR/L** & **HFAER/L** adapters.



Recommended depth of cut and feed range in turning with **HFPR/L** inserts and **HFAIR/L** & **HFAER/L** adapters. Feed range changes according to adapter type.



HFAIR/L- ...4
HFAER/L- ...4

HFAIR/L- ...5
HFAER/L- ...5

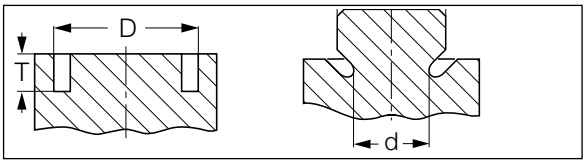
HFAIR/L- ...6
HFAER/L- ...6

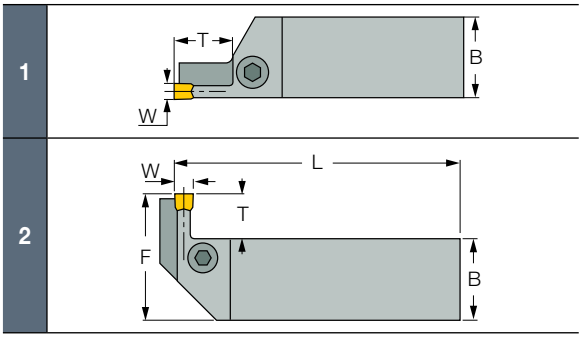
Note: In roughing, reduce feed when depth of cut is increased, ad increase feed at small depth of cut.

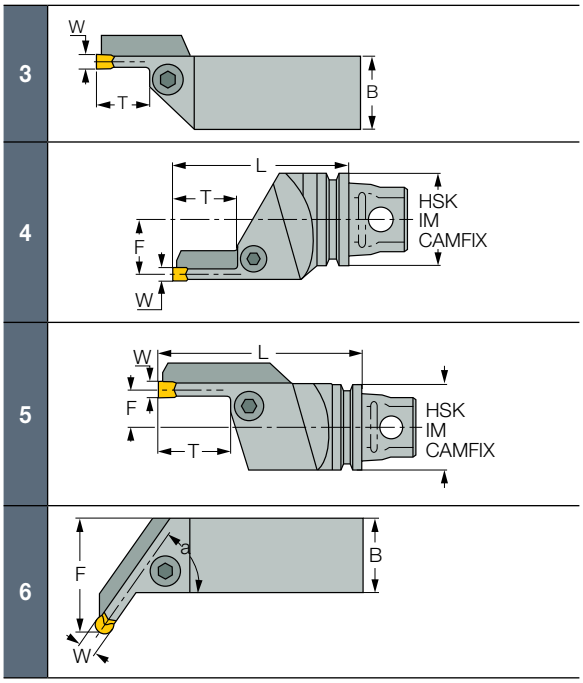
Specially Tailored

Semi-Standard Face Grooving and Undercutting Tools

The following drawings show typical semi-standard face grooving tools that can be ordered. Please specify all relevant dimensions and attach workpiece material geometric details.







Grade Selection for Facing Applications

Material groups		ISO P		ISO M	ISO K	ISO N	ISO S	ISO H
		1-11	12-13	14	15-20	21-28	31-37	38-41
		Steel	Stainless Steel Ferritic & Martensitic	Stainless Steel Austenitic & Duplex (Ferritic-Austenitic)	Cast Iron	Non-ferrous	High Temperature Alloys	Hard Steel & Cast Iron
FACING	Harder	IC808	IC808	IC808	IC5010			IC808
		IC8250	IC8250	IC8250		IC20	IC20	
		IC830	IC830			IC08		IC908
	Tougher				IC428		IC808	

■ First choice



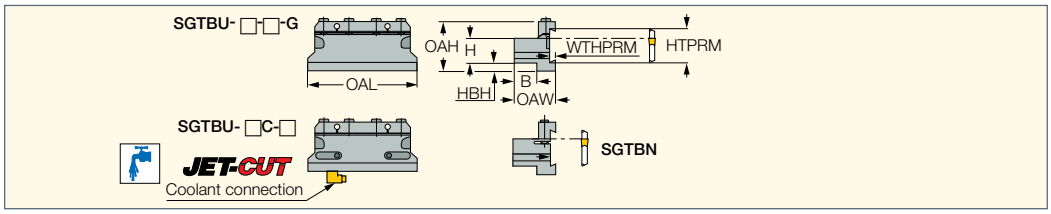
TOOL BLOCKS



TOOL BLOCKS

SGTBU/SGTBN

Blocks for Various Parting and Grooving Blades



Designation	H	B	HTPRM	OAW	OAH	HBH	WTHPRM	OAL
SGTBN 16-2	16.0	16.0	19.0	26.00	30.0	4.0	2.00	76.00
SGTBU 16-5G	16.0	17.0	26.0	34.00	43.0	13.0	4.10	86.00
SGTBU 20-5G	20.0	21.0	26.0	38.00	43.0	9.0	4.10	86.00
SGTBU 20-6G	20.0	19.1	32.0	38.20	50.0	12.9	5.30	100.00
SGTBU 25-5G	25.0	26.1	26.0	43.10	45.0	5.0	4.10	110.00
SGTBU 25-6G	25.0	23.0	32.0	42.20	50.0	7.8	5.30	110.00
SGTBU 25-8M	25.0	23.0	45.0	42.20	70.0	27.0	5.30	110.00
SGTBU 25C-6 (1)	25.0	23.0	32.0	42.20	50.0	7.8	5.30	110.00
SGTBU 32-25-6G	32.0	25.1	32.0	44.15	54.0	4.8	5.30	110.00
SGTBU 32-6G	32.0	29.1	32.0	28.20	54.0	4.8	5.30	110.00
SGTBU 32-8M	32.0	29.0	45.0	48.20	70.0	20.0	5.30	110.00
SGTBU 32C-14 (1)	32.0	28.0	52.6	63.00	99.8	41.7	12.60	140.00
SGTBU 40-6G	40.0	-	32.0	60.00	57.0	-	5.30	114.00
SGTBU 40-9	40.0	41.0	52.6	66.00	81.0	22.0	8.00	130.00
SGTBU 40C-14 (1)	40.0	28.0	52.6	63.00	99.8	33.8	12.60	140.00
SGTBU 50-9	50.0	41.0	52.6	66.00	83.0	14.0	8.00	135.00
SGTBU 50C-14 (1)	50.0	28.0	52.6	63.00	99.8	23.8	12.60	140.00
SGTBU 100-9-12 (2)	50.0	49.0	100.0	106.00	155.0	73.5	15.00	225.00
SGTBU 150-9-12 (2)	50.0	49.0	150.0	106.00	209.0	127.5	15.00	306.00

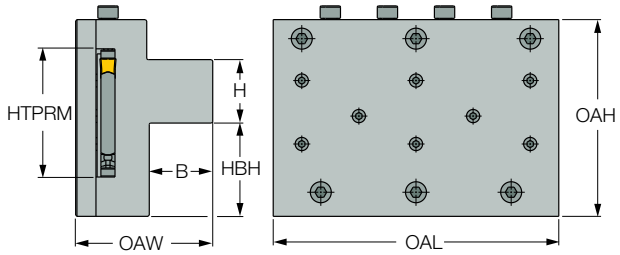
- Choose blade by HTPRM and WTHPRM dimensions

(1) Elbow-style connector unit supplied with each JET-CUT tool block

(2) See more detailed information below

For tools, see pages: Anti-Vibration Blades (284) • CGFG 51-P8 (580) • CGHN-8-10D (287) • CGHN-D (283) • CGHN-DG (283) • CGHN-P8 (283) • CGHR/L-12-14D (333) • CGHR/L-P8DG (284) • DGFH (268) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • HFFA (557) • HFFH (557) • HFFR/L-T (564) • HGFH (268) • PCHBR/L (318) • SGFFA (587) • SGFFH (588) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGHN-D (271) • TNFFA-IQ (584) • TNFFH-IQ (583)

SGTBU 100/150-9-12





Spare Parts

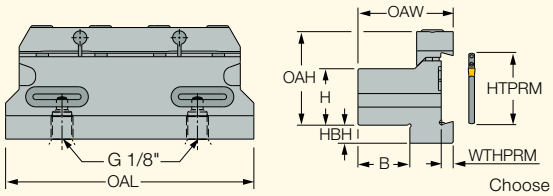
Designation										
SGTBN 16-2		SR M5X20DIN912		HW 4.0						
SGTBU 16-5G	BKU 86	SR M6X16 DIN912		HW 5.0						
SGTBU 20-5G	BKU 86	SR M6X16 DIN912		HW 5.0						
SGTBU 20-6G	BKU 100	SR M6X16 DIN912		HW 5.0						
SGTBU 25-5G	BKU 105	SR M6X16 DIN912		HW 5.0						
SGTBU 25-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 25-8M	BKU 110	SR M6X16 DIN912	SR M6X30 DIN912	HW 5.0						
SGTBU 25C-6	BKU 110	SR M6X16 DIN912		HW 5.0			SGCU-344*	CF 343*	CGF 343*	CGM 343*
SGTBU 32-25-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 32-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 32-8M	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 32C-14	BKU 32-14	SR M10X30 DIN912		HW 8.0	JHP ELBOW 90-G1/8-7/16UNF	OR 34X2.5N				
SGTBU 40-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 40-9	BK 509	SR M8X25DIN912		HW 6.0						
SGTBU 40C-14	BKU 32-14	SR M10X30 DIN912		HW 8.0	JHP ELBOW 90-G1/8-7/16UNF	OR 34X2.5N				
SGTBU 50-9	BK 509	SR M8X25DIN912		HW 6.0						
SGTBU 50C-14	BKU 32-14	SR M10X30 DIN912		HW 8.0	JHP ELBOW 90-G1/8-7/16UNF	OR 34X2.5N				
SGTBU 100-9-12		SR M10X25 DIN912		HW 8.0						
SGTBU 150-9-12		SR M10X25 DIN912		HW 8.0						

* Optional, should be ordered separately

JETCUT

TGTBU-JHP

Tool Blocks for Parting and Grooving Blades for High Pressure Coolant



Choose blade by prism height dimension

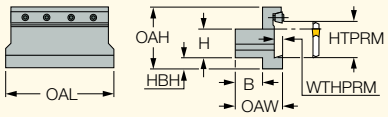
Designation	H	B	HTPRM	OAW	OAH	HBH	WTHPRM	OAL				
TGTBU 16-5G-JHP	16.0	16.9	26.0	35.60	29.9	13.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-5G-JHP	20.0	20.9	26.0	39.60	33.9	9.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-35-JHP	20.0	19.0	35.0	38.00	32.3	23.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-6G-JHP	20.0	19.0	32.0	39.20	36.4	15.0	5.30	100.00	BKU 100	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-5G-JHP	25.0	26.1	26.0	44.10	39.0	5.5	4.10	110.00	BKU 105	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-6G-JHP	25.0	23.0	32.0	43.20	41.4	8.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-35-JHP	25.0	23.0	35.0	42.00	37.3	18.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-6G-JHP	32.0	29.0	32.0	49.20	48.4	5.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-35-JHP	32.0	29.0	35.0	48.00	44.3	11.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N

For tools, see pages: DGFH-JHP (269) • DGFHR/L-BC-JHP (469) • TGFH-JHP (494) • TGFHR/L-JHP (495)

TOOL BLOCKS

SGTBK

Blocks for Heavy Duty Parting and Grooving Blades



Designation	H	B	WTHPRM	HTPRM	OAW	OAH	HBH	OAL			
SGTBK 32-9	32.0	28.0	8.50	32.0	48.00	62.0	3.0	120.00	BK 32-9 WEDG	SR M6X16 DIN912	HW 5.0
SGTBK 38-9	38.0	35.0	8.50	52.6	60.00	90.0	25.0	135.00	BK 40-9	SR M6X20 DIN912	HW 5.0
SGTBK 40-9	40.0	35.0	8.50	52.6	60.00	90.0	23.0	135.00	BK 40-9	SR M6X20 DIN912	HW 5.0
SGTBK 50-9	50.0	40.0	8.50	52.6	65.00	90.0	15.0	135.00	BK 40-9	SR M6X20 DIN912	HW 5.0

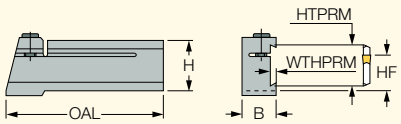
• Choose blade by HTPRM dimension

For tools, see pages: Anti-Vibration Blades (284) • CGFG 51-P8 (580) • CGHN-8-10D (287) • CGHN-P8 (283) • CGHR/L-12-14D (333) • CGHR/L-P8DG (284) • DGFH (268) • HFFH (557) • PCHBR/L (318) • SGFFH (588) • TGFH/R/L (332) • TGFHR/L (495) • TNFFH-IQ (583)

TOOL BLOCKS

SGTBR/L

Blocks for Parting and Grooving Blades for Conventional Lathes



Right-hand shown

Designation	H	HF	HTPRM	B	OAL	WTHPRM		
SGTBR 19-2	25.0	19.0	19.0	19.0	100.00	2.00	SR M6X25 DIN912	HW 5.0
SGTBL 25-6	32.0	25.0	26.0	20.0	121.50	5.00	SR M6X25 DIN912	HW 5.0
SGTBR 25-6	32.0	25.0	26.0	20.0	120.00	5.00	SR M6X30 DIN912	HW 5.0

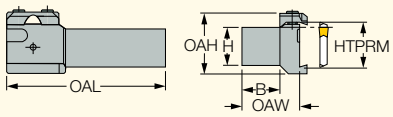
• Choose blade by HTPRM dimension

For tools, see pages: DGFH (268) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • HGFH (268) • PCHBR/L (318) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495)

TOOL BLOCKS

UBHCR/L

Holders for Grooving, Turning and Parting Blades



Right-hand shown

Designation	H	HTPRM	B	OAH	OAW	OAL				
UBHCR/L 20-26	20.0	26.0	20.0	42.0	35.60	100.00	BKU 176 307	SR M6X16 DIN912	HW 5.0	SPRING PLUNGER M6X14X3.5
UBHCR/L 25-32	25.0	32.0	25.0	46.0	40.00	130.00	BKU 176 307	SR M6X16 DIN912	HW 5.0	SPRING PLUNGER M6X14X3.5
UBHCR/L 32-32	32.0	32.0	32.0	46.0	47.00	130.00	BKU 176 307	SR M6X16 DIN912	HW 5.0	SPRING PLUNGER M6X14X3.5

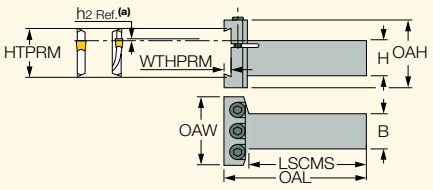
- Choose blade by HTPRM dimension

For tools, see pages: CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGHR/L-P8DG (284) • DGFH (268) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • HFFA (557) • HFFH (557) • HFFR/L-T (564) • HGFH (268) • SGFFA (587) • SGFFH (588) • TGFH/R/L (332) • TGFHL-TR (505) • TGFHR/L (495) • TGHN-D (271) • TGHN-S (271) • TNFFA-IQ (584) • TNFFH-IQ (583)

TOOL BLOCKS

SGTBF

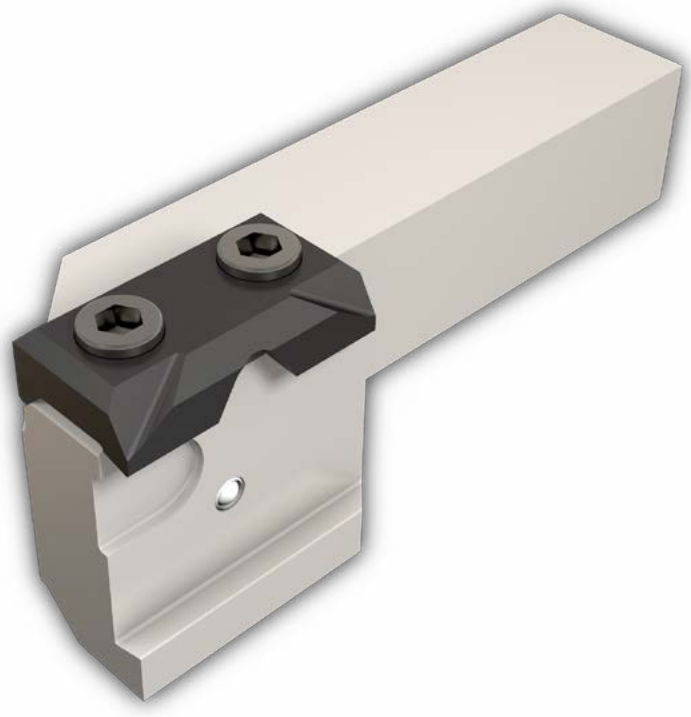
Perpendicular Blocks for Parting and Grooving Blades



Designation	H	B	HTPRM	OAL	LSCMS	OAW	OAH	WTHPRM		
SGTBF 25-A	25.0	25.0	32.0	102.00	80.00	48.00	48.0	5.50	SR M6X40 DIN912	HW 5.0
SGTBF 32-A	32.0	32.0	32.0	116.00	100.00	48.00	48.0	5.50	SR M6X40 DIN912	HW 5.0

- (a) h2 Ref. as defined for SELF-GRIP face grooving blades • Choose blade by HTPRM dimension

For tools, see pages: DGFH (268) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • HFFH (557) • HFFR/L-T (564) • HGFH (268) • SGFFA (587) • SGFFH (588) • TGFH/R/L (332) • TGFHR/L (495) • TNFFA-IQ (584) • TNFFH-IQ (583)

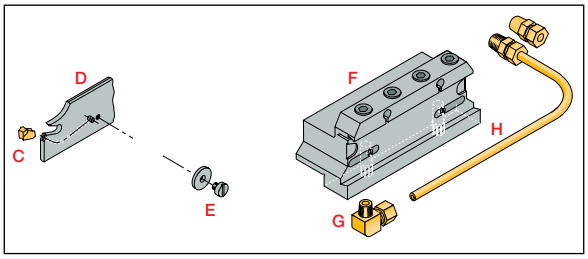


JETCUT Assembly

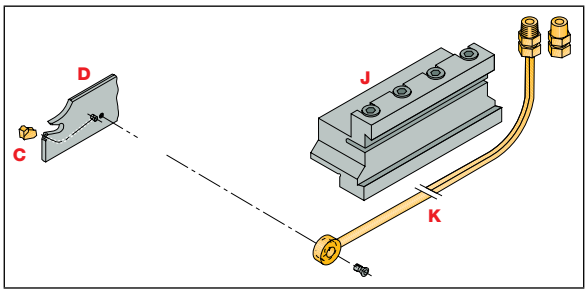
SELF-GRIP

C Insert **GF**☐
D Blade **SGFH**☐**K-**☐
E Cap **SGC 340** supplied with a blade; to be used with Option 1 only.
F Tool block **SGTBU**☐**C-**☐
G Elbow-style connector unit supplied with each tool block
H **SGCU-344 H 3/16”** copper Tube 343 (length 250 mm)
J Standard current tool blocks **SGTBN, SGTBU, SGTBF**
K Coolant connection unit **SGCU**-341
M Integral shank holder **SGTFR/L**☐**K-**☐

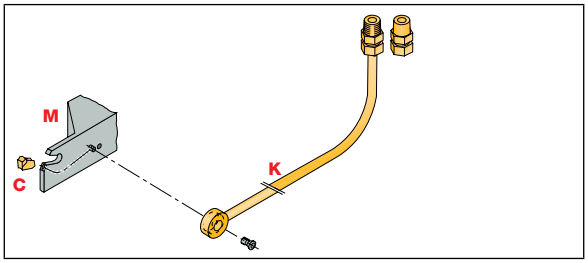
Option 1:
Coolant supplied through the tool block.



Option 2:
Coolant supplied directly to the blade.



Option 3:
Coolant supplied directly to the integral shank tool.



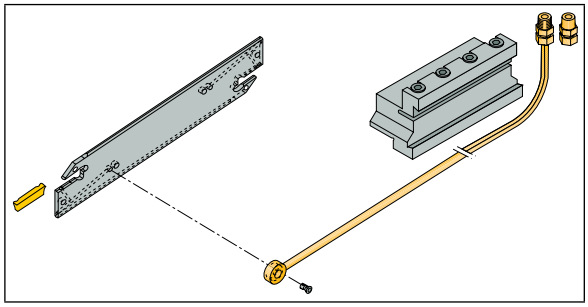
DO-GRIP 500 STRAIGHT LINE

The coolant supply tube can be used with the following options:

- DGTR...C integral tool
- DGFH-C blades used on regular blocks by connecting directly to the blade
- SGTBU-C blocks with coolant passages and connecting ports

The Right Connection for Your Application

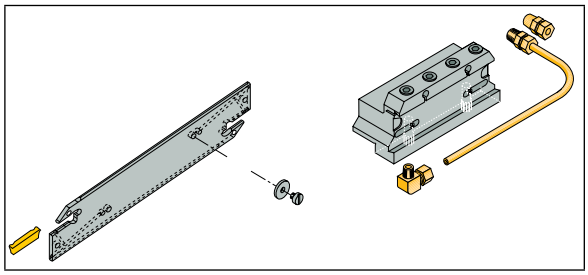
Option 1:
Coolant supplied directly to the blade.



SGCU 341 Coolant connection unit

Connectors:
CGM 343 (G1/8 external thread)
CGF 343 (G1/8 internal thread)
CF 343 (NPT1/8 internal thread)

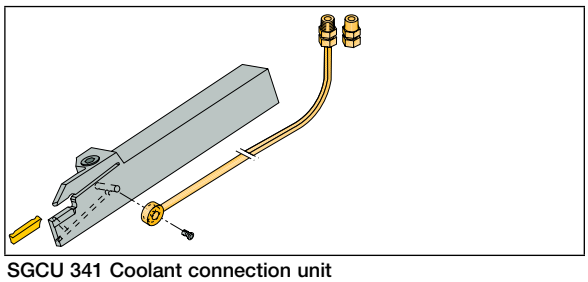
Option 2:
Coolant supplied through the tool block.



SGCU 344 Elbow connector

TUBE 343
3/16” copper tube (length 250 mm)
(G1/8 external thread) (G1/8 internal thread)
(NPT1/8 external thread) (NPT1/8 internal thread)

Option 3:
Coolant supplied directly to the tool.



SGCU 341 Coolant connection unit

Connectors:
CGM 343 (G1/8 external thread)
CGF 343 (G1/8 internal thread)
CF 343 (NPT1/8 internal thread)



EXCHANGEABLE HEADS HOLDERS



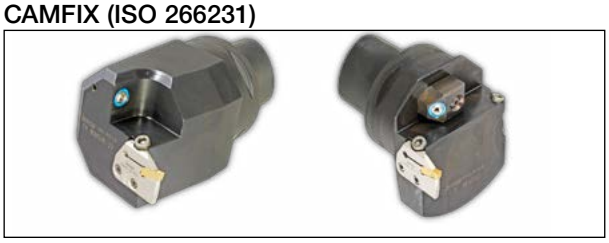
TABLE OF CONTENTS

CAMFIX (ISO 26623-1) 622
HSK-T (ISO 12164-3 T Type and ICTM Standard) 631
IM (ISO 26622-1 and Mazak XMZ Standard).....633

ISCAR offers a wide range of tools for three types of Quick Change systems:

1 **CAMFIX** (ISO 26623-1)
2 **HSK**-T (ISO 12164-3 T Type and ICTM Standards)
3 IM (ISO 26622-1 and **Mazak** XMZ Standards)

CAMFIX (ISO 266231)



Quick Change tools are expensive compared to standard shank tools. **ISCAR** offers economical solutions by using adapters, blades or regular tools and boring bars on the Quick Change adaptations.

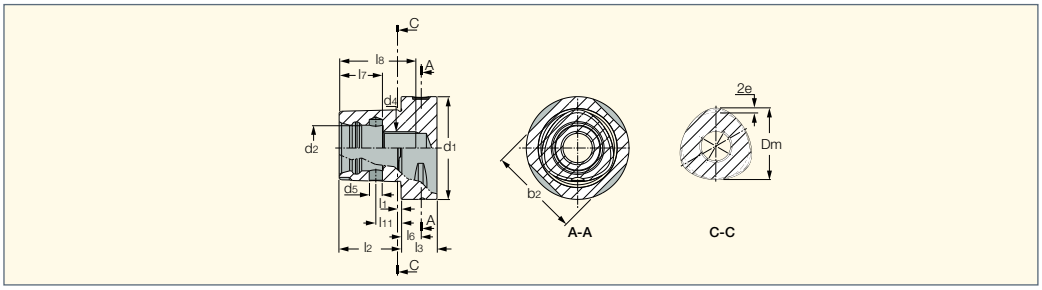
HSK-T (ISO 1264-3 T Type and ICTM Standard)





CAMFIX

CAMFIX ISO 26623-1
Toolholder Standard



CAMFIX	b2	d1 ±0.1	d2	d4	d5 ±0.1	Dm	e	l1	l2 ±0.1	l3 min	l6 ±0.15	l7 ±0.15	l8 min	l11 ±0.1
C3	28,3	32	15	M12x1.5	3,6	22	0,7	2,5	19	15	6	13	25	8
C4	35,3	40	18	M14x1.5	4,6	28	0,9	2,5	24	20	8	15	30	11,5
C5	44,4	50	21	M16x1.5	6,1	35	1,12	3	30	20	10	20	37	14
C6	55,8	63	28	M20x2	8,1	44	1,4	3	38	22	12	27	47	15,5
C8	71,1	80	32	M20x2	9,1	55	2	3	48	30	12	28	48	25
C8X	88,7	100	32	M20x2	9,1	55	2	3	48	32	16	28	48	25
C10	88,3	100	43	M24x2	12	72	2,8	3	60	36	16	40	70	26,5

CAMFIX - ISO 26623-1 Standard Quick Change Shanks

Features

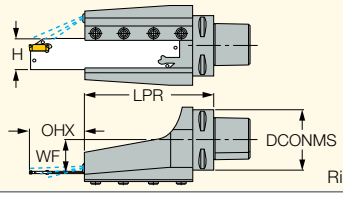
- Symmetrical design: Due to the symmetrical design, the torque load is distributed on the polygon, providing a self-centering effect.
- Rigidity: The **CAMFIX** clamping mechanism is extremely rigid against bending forces.
- Accuracy: The taper and face contact ensure high repeatability within 2 microns when operated with an automatic tool changer.



TOOL BLOCKS
CAMFIX

C#-TBK-R/L

Blocks with CAMFIX Exchangeable Shanks for Parting and Grooving Blades



Right-hand shown • OHX = See specific blade dimensions

Designation	DCONMS	WF	LPR	H	CP(1)	CDI(2)					
C6 TBK-32R/L	63.00	32.0	138.00	32.0	100	1	BK 32-9 WEDG	SR M6X16 DIN912	HW 5.0	EZ 125	SR M8X6 DIN913
C8 TBK-52R	80.00	40.5	161.00	52.0	100	1	BK 40-9	SR M6X16 DIN912	HW 5.0	EZ 125	SR M8X6 DIN913

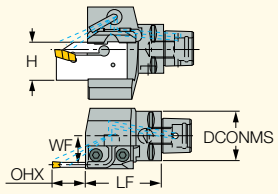
(1) Coolant pressure (Bar)
(2) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGHN-DG (283) • CGHR/L-P8DG (284) • DGFH (268) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • HFFH (557) • HGFH (268) • PCHBR/L (318) • TGFH/R/L (332) • TGFHR/L (495) • TNFFH-IQ (583)

TOOL BLOCKS
CAMFIX

C#-TBU

Blocks with CAMFIX Exchangeable Tapered Shanks for Parting and Grooving Blades



Right-hand shown • OHX= See specific blade dimensions

Designation	DCONMS	WF	LF	H	CDI(1)					
C4 TBU-32R/L	40.00	21.0	60.00	32.0	1	BKU 176 307	SR M6X25 DIN912	HW 5.0	SR M6X8 DIN916	EZP 5	EZ 125
C5 TBU-32R	50.00	30.0	64.00	32.0	1	BKU 176 307	SR M6X25 DIN912	HW 5.0	SR M6X8 DIN916	EZP 5	EZ 125

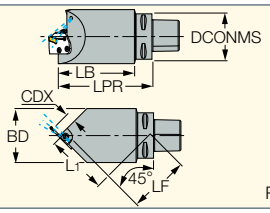
(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGHN-S (282) • TGHN-S (271)

MODULAR-GRIP
CAMFIX

C#-MAHDR-45

Holders with CAMFIX Exchangeable Shanks for Parting, Grooving, Turning and Facing Adapters



Right-hand shown • CDX = See specific adapter dimensions

Designation	DCONMS	LPR	L1	LB	LF	BD	CP(1)	CDI(2)
C6 MAHDR-45	63.00	130.00	91.9	105.78	89.0	75.00	100	1
C8 MAHDR-45	80.00	130.00	91.9	-	89.0	80.00	100	1

- For mill-turn machines

(1) Coolant pressure (Bar)
(2) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)


DO-GRIP


PENTACUT


CUT-GRIP


HELI-GRIP

Spare Parts

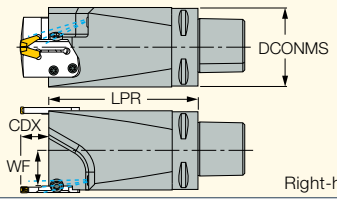
Designation								
C6 MAHDR-45	SR M5-04451	T-20/5	SR 14-519(a)	SR M6X20DIN7984	HW 4.0	SR M6X6DIN551 14H/22H(c)	SR M5X4 DIN913	EZ 83
C8 MAHDR-45	SR M5-04451	T-20/5	SR 14-519(a)	SR M6X20-XT(b)	HW 5.0	SR M6X6DIN551 14H/22H(c)	SR M5X6 DIN913	EZ 83

(a) For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag
(b) For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools
(c) Used to prevent chips from entering the upper locking screw hole

MODULAR-GRIP
CAMFIX

C#-MAHDOR

Holders with CAMFIX Exchangeable Shanks for Parting, Grooving, Turning and Facing Adapters



Right-hand shown • CDX = See specific adapter dimensions

Designation	DCONMS	WF	LPR	CDI[1]							
C6 MAHDOR	63.00	29.0	130.00	1	SR M5-04451	T-20/5	SR 14-519[a]	SR M6X20-XT[b]	HW 5.0	SR M6X6DIN551 14H/22H[c]	EZ 125
C8 MAHDOR	80.00	37.5	130.00	1	SR M5-04451	T-20/5	SR 14-519[a]	SR M6X20-XT[b]	HW 5.0	SR M6X6DIN551 14H/22H[c]	EZ 125

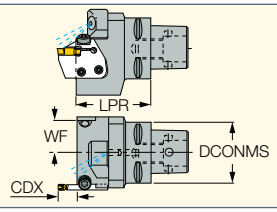
[1] 1 - Hole for data chip, 0 - Without hole for data chip
[a] For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag
[b] For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools
[c] Used to prevent chips from entering the upper locking screw hole

For tools, see pages: DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73)

MODULAR-GRIP
CAMFIX

C#-MAHD

Holders with CAMFIX Exchangeable Shanks for Parting, Grooving, Turning and Facing Adapters



Right-hand shown • CDX = See specific adapter dimensions

Designation	DCONMS	LPR	WF	CP[1]	CDI[2]
C3 MAHD	32.00	50.00	18.5	100	0
C4 MAHD	40.00	46.50	22.1	100	1
C5 MAHD	50.00	47.00	23.0	100	1
C6 MAHD	63.00	50.00	29.0	100	1
C8 MAHD	80.00	60.00	37.5	100	1

[1] Coolant pressure (Bar)
[2] 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)

Spare Parts

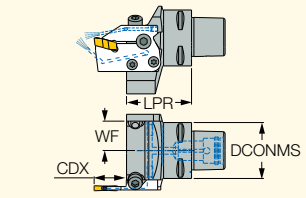
Designation									
C#-MAHD	SR M5-04451	T-20/5	SR 14-519[a]	SR M6X20-XT[b]	HW 5.0	SR M6X6DIN551 14H/22H[c]	EZ 125	EZA 125	SR 76-1022

[a] For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag
[b] For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools
[c] Used to prevent chips from entering the upper locking screw hole

MODULAR-GRIP
JETCUT CAMFIX

C#-MAHD-JHP

Holders with CAMFIX Exchangeable Shanks and High Pressure Coolant Channels for MODULAR-GRIP Adapters



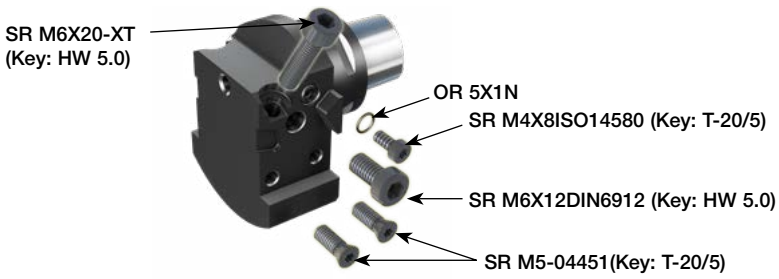
340 Bar Max

Right-hand shown
• CDX = See specific adapter dimensions
• WF=WF(shank)+WF(adapter)

Designation	DCONMS	LPR	WF	CDI[1]							
C3 MAHD-JHP	32.00	45.00	18.5	0	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK
C4 MAHD-JHP	40.00	46.50	21.0	1	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK
C5 MAHD-JHP	50.00	47.00	26.0	1	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK
C6 MAHD-JHP	63.00	50.00	32.5	1	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK

• For user guide and accessories, see pages 78, 622
[1] 1 - Hole for data chip, 0 - Without hole for data chip

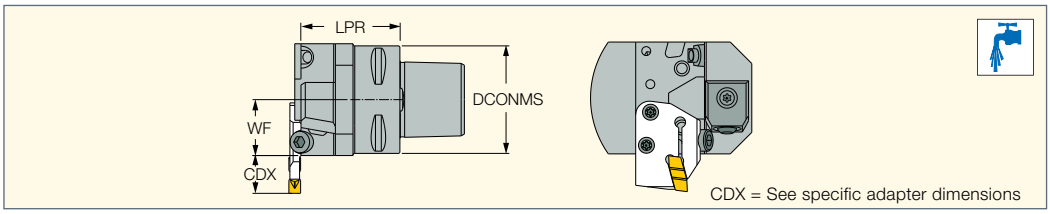
For tools, see pages: CGPAD (281) • CGPAD-JHP (282) • DGAD-B-D (479) • DGAD/HGAD (479) • DGPAD-JHP (480) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGPAD (267) • HGPAD-JHP (267) • PCADR/L (316) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TAGPAD-JHP (500) • TGAD (498) • TGPAD (270) • TGPAD-JHP (271)



MODULAR GRIP
CAMFIX

C#-MAHPD

Perpendicular Holders with CAMFIX Exchangeable Shanks Carrying Adapters for Parting, Grooving, Turning and Facing



Designation	DCONMS	LPR	WF	CP(1)	CDI(2)
C4 MAHPD	40.00	46.00	25.00	100	1
C5 MAHPD	50.00	46.00	26.00	100	1
C6 MAHPD	63.00	47.00	33.00	100	1
C8 MAHPD	80.00	56.00	42.00	100	1

(1) Coolant pressure (Bar)
(2) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)

Spare Parts

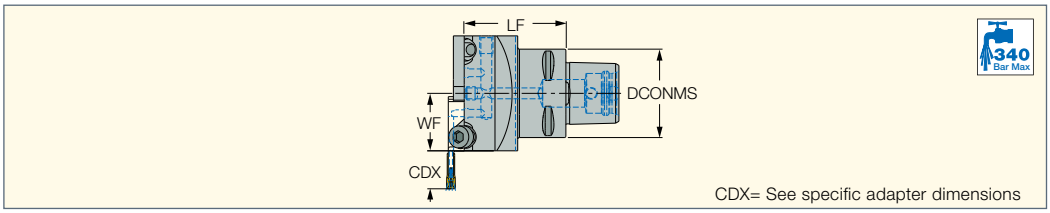
Designation									
C#-MAHPD	SR M5-04451	T-20/5	SR 14-519(a)	SR M6X20-XT(b)	HW 5.0	SR M6X6DIN551 14H/22H(c)	EZ 125	SR 76-1022	EZA-21414

(a) For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag
(b) For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools
(c) Used to prevent chips from entering the upper locking screw hole

MODULAR GRIP
JETCUT CAMFIX

C#-MAHPD-JHP

Perpendicular Holders with CAMFIX Exchangeable Shanks for Parting, Grooving, Turning and Facing Adapters



Designation	DCONMS	LF	WF	CDI(1)							
C3 MAHPD-JHP	32.00	40.00	26.00	0	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK
C4 MAHPD-JHP	40.00	46.00	26.00	1	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK
C5 MAHPD-JHP	50.00	46.00	26.00	1	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK
C6 MAHPD-JHP	63.00	46.00	33.00	1	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	OR 5X1N	SR M4X8ISO14580 BLACK

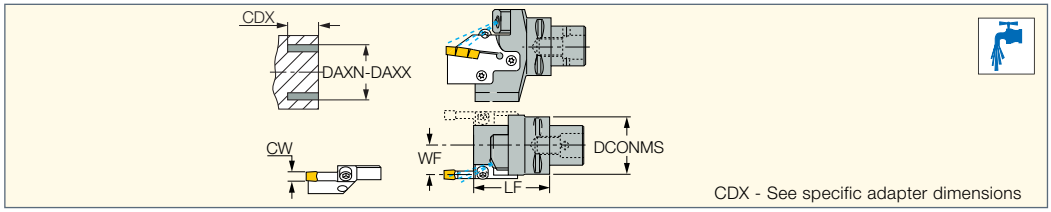
• For user guide and accessories, see pages 78, 622
(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGPAD (281) • CGPAD-JHP (282) • DGAD-B-D (479) • DGAD/HGAD (479) • DGPAD-JHP (480) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HFPAD-JHP (562) • HGPAD (267) • HGPAD-JHP (267) • PCADR/L (316) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TAGPAD-JHP (500) • TGAD (498) • TGPAD (270) • TGPAD-JHP (271)

CUTGRIP CAMFIX

C#-GHAD-8

Holders with CAMFIX Exchangeable Shanks for Grooving, Turning and Facing Adapters



Designation	DCONMS	LF	WF	CW	DAXN(1)	DAXX(2)	CDX(3)	CP(4)	CDI(5)
C5 GHAD-8	50.00	65.00	26.00	8.00	80.0	510.0	25.00	100	1
C6 GHAD-8	63.00	65.00	32.50	8.00	80.0	510.0	25.00	100	1

• For user guide and accessories see page 622
(1) Minimum axial grooving diameter
(2) Maximum axial grooving diameter
(3) Cutting depth maximum
(4) Coolant pressure (Bar)
(5) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: GADR/L-8 (286) • GAFG-R/L-8 (580) • PCADR/L 34N-RE (318)

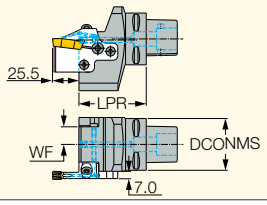
Spare Parts

Designation							
C#-GHAD-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0	SR 76-1022	EZA 125	EZ 125

CUTGRIP JETCUT
CAMFIX

C#-GHAD-JHP

Holders with High Pressure Coolant Channels and CAMFIX Exchangeable Shanks for Grooving and Turning

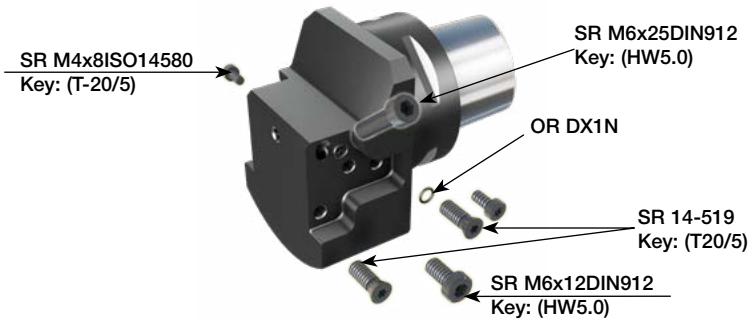


Designation	DCONMS	LPR	WF	CDI(1)
C5 GHAD-8-JHP	50.00	65.00	17.00	1
C6 GHAD-8-JHP	63.00	65.00	23.50	1
C8 GHAD-8-JHP	80.00	74.00	38.50	1

- For user guide and accessories see pages 78, 622

(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: GADR/L-JHP (287)



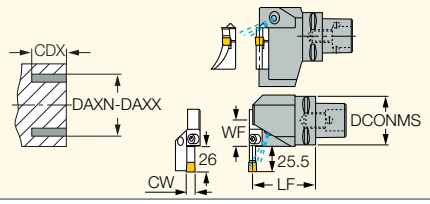
Spare Parts

Designation							
C5 GHAD-8-JHP	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0	SR M6X12DIN6912	OR 5X1N	SR M4X8ISO14580 BLACK
C6 GHAD-8-JHP	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0X120 MM	SR M6X12DIN6912	OR 5X1N	SR M4X8ISO14580 BLACK
C8 GHAD-8-JHP	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0X120 MM	SR M6X12DIN6912	OR 5X1N	SR M4X8ISO14580 BLACK

CAMFIX

C#-GHAPR/L-8

Perpendicular Holders with CAMFIX Exchangeable Shanks for Grooving, Turning and Facing Adapters



Right-hand shown
- CDX - See specific adapter dimensions

Designation	DCONMS	LF	WF	CW	DAXN(1)	DAXX(2)	CDX(3)	CP(4)	CDI(5)
C5 GHAPR/L-8	50.00	64.00	26.00	8.00	80.0	510.0	25.00	100	1
C6 GHAPR/L-8	63.00	75.00	33.00	8.00	80.0	510.0	25.00	100	1

- For user guide and accessories see page 622

(1) Minimum axial grooving diameter

(2) Maximum axial grooving diameter

(3) Cutting depth maximum

(4) Coolant pressure (Bar)

(5) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: GADR/L-8 (286) • GAFG-R/L-8 (580) • PCADR/L 34N-RE (318)

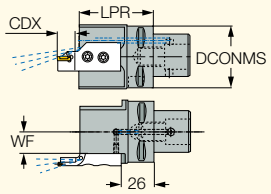
Spare Parts

Designation					
C5 GHAPR/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0	EZ 125
C6 GHAPL-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0	EZ 125
C6 GHAPR-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0	

CAMFIX

C#-HAD

Holders with CAMFIX Exchangeable Tapered Shanks for Internal Facing Adapters



CDX - See specific adapter dimensions

Designation	DCONMS	LPR	WF	CDI(1)				
C4 HAD	40.00	60.00	18.0	1	SR 14-519	T-20/3	SR M4X6DIN912	HW 3.0
C5 HAD	50.00	60.00	18.0	1	SR 14-519	T-20/3	SR M4X6DIN912	HW 3.0
C6 HAD	63.00	60.00	22.0	1	SR 14-519	T-20/3	SR M4X6DIN912	HW 3.0

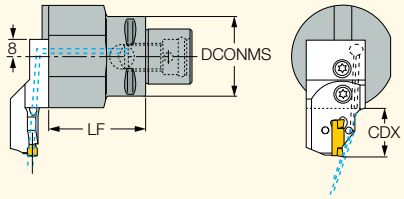
(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HGAER/L-3 (565) • HGAIR/L-3 (568)

CAMFIX

C#-HAPR/L

Perpendicular Holders with CAMFIX Exchangeable Shanks for Internal Facing Adapters



Right-hand shown
- CDX - See specific adapter dimensions

Designation	DCONMS	LF	CDI(1)		
C4 HAPR/L	40.00	50.00	1	SR 14-519	T-20/3
C6 HAPR/L	63.00	50.00	1	SR 14-519	T-20/3

(1) 1 - Hole for data chip, 0 - Without hole for data chip

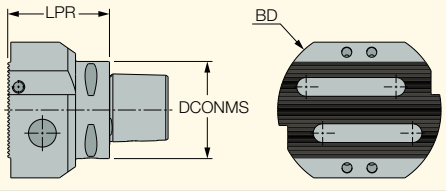
For tools, see pages: HFAER/L-4 (565) • HFAER/L-5T, 6T (566) • HFAIR/L-4 (572) • HFAIR/L-DG (573) • HGAER/L-3 (565) • HGAIR/L-3 (568)

HELIFACE

TANG-GRIP FACE MACHINING LINE

C#-HATA

CAMFIX Toolholder with a Serrated Connection Adaptation



Designation	DCONMS	BD	LPR	CDI(1)
C6 HATA	63.00	106.00	66.00	1

(1) 1 - Hole for data chip, 0 - Without hole for data chip

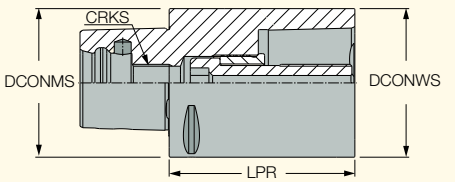
Spare Parts

Designation								
C6 HATA	SR M8X45 DIN 913	SR M8X25 DIN913	HW 4.0	SR M6X6 DIN913 TL360	HW 3.0	BH NUT BHR MB80	SR M12X35DIN912	HW 10.0

CAMFIX

EX C# (CAMFIX extension)

CAMFIX Extension Adapters



Designation	DCONMS	DCONWS	LPR	CRKS	CDI(1)	kg
C3 EX C3X060	32.00	32.00	60.00	M12	0	0.40
C3 EX C3X080	32.00	32.00	80.00	M12	0	0.50
C4 EX C4X060	40.00	40.00	60.00	M14	0	0.50
C4 EX C4X080	40.00	40.00	80.00	M14	0	0.70
C5 EX C5X080	50.00	50.00	80.00	M16	0	1.13
C5 EX C5X100	50.00	50.00	100.00	M16	0	1.42
C6 EX C6X100	63.00	63.00	100.00	M20	0	2.23
C6 EX C6X140	63.00	63.00	140.00	M20	0	3.13
C8 EX C8X100	80.00	80.00	100.00	M20	0	3.65
C8 EX C8X125	80.00	80.00	125.00	M20	0	4.60

(1) 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

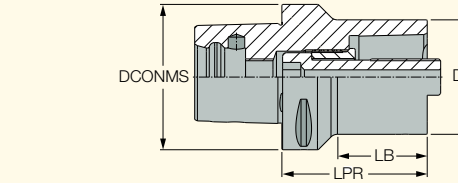
Designation						
C3 EX C3X060	SR M12X50 C3	HW 7.0*	MT RING M18X15XC3	COOLING TUBE C3*	WRENCH COOL TUBE C3*	WRENCH C3 DRW NUT*
C3 EX C3X080	SR M12X50 C3	HW 7.0*	MT RING M18X15XC3	COOLING TUBE C3*	WRENCH COOL TUBE C3*	WRENCH C3 DRW NUT*
C4 EX C4X060	SR M14X58 C4	HW 8.0*	MT RING M22X17XC4	COOLING TUBE C4*	WRENCH COOL TUBE C4*	WRENCH C4 DRW NUT*
C4 EX C4X080	SR M14X58 C4	HW 8.0*	MT RING M22X17XC4	COOLING TUBE C4*	WRENCH COOL TUBE C4*	WRENCH C4 DRW NUT*
C5 EX C5X080	SR M16X70 C5	HW 10.0*	MT RING M25X20XC5	COOLING TUBE C5*	WRENCH COOL TUBE C5*	WRENCH C5 DRW NUT*
C5 EX C5X100	SR M16X70 C5	HW 10.0*	MT RING M25X20XC5	COOLING TUBE C5*	WRENCH COOL TUBE C5*	WRENCH C5 DRW NUT*
C6 EX C6X100	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH C6-8 DRW NUT*
C6 EX C6X140	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH C6-8 DRW NUT*
C8 EX C8X100	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE C8*	WRENCH COOL TUBE C8*	WRENCH C6-8 DRW NUT*
C8 EX C8X125	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE C8*	WRENCH COOL TUBE C8*	WRENCH C6-8 DRW NUT*

* Optional, should be ordered separately

CAMFIX

RE-C#

CAMFIX Reduction Adapters



Designation	DCONMS	DCONWS	LPR	LB	CDI(1)	kg
C6 RE C3X070	63.00	32.00	70.00	39.00	0	1.10
C8 RE C3X060	80.00	32.00	60.00	29.30	0	1.70
C6 RE C4X080	63.00	40.00	80.00	51.40	0	1.20
C8 RE C4X070	80.00	40.00	70.00	36.50	0	1.90
C6 RE C5X080	63.00	50.00	80.00	51.50	0	1.50
C8 RE C5X080	80.00	50.00	80.00	49.30	0	2.20
C8 RE C6X080	80.00	63.00	80.00	53.10	0	2.50
C8 RE C6X120	80.00	63.00	120.00	12.00	0	4.00

(1) 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

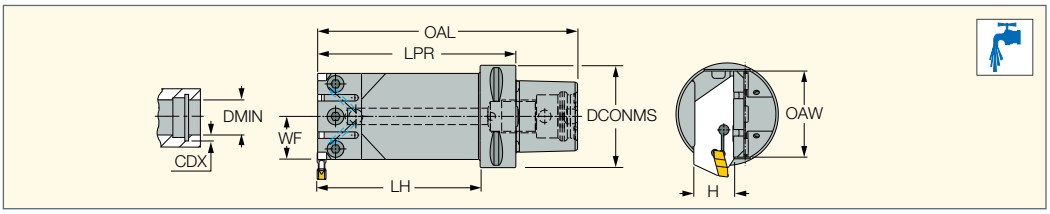
Designation						
C6 RE C3X070	SR M12X50 C3	HW 7.0*	MT RING M18X15XC3	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH C3 DRW NUT*
C8 RE C3X060	SR M12X50 C3	HW 7.0*	MT RING M18X15XC3	COOLING TUBE C8*	WRENCH COOL TUBE C8*	WRENCH C3 DRW NUT*
C6 RE C4X080	SR M14X58 C4	HW 8.0*	MT RING M22X17XC4	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH C4 DRW NUT*
C8 RE C4X070	SR M14X58 C4	HW 8.0*	MT RING M22X17XC4	COOLING TUBE C8*	WRENCH COOL TUBE C8*	WRENCH C4 DRW NUT*
C6 RE C5X080	SR M16X70 C5	HW 10.0*	MT RING M25X20XC5	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH C5 DRW NUT*
C8 RE C5X080	SR M16X70 C5	HW 10.0*	MT RING M25X20XC5	COOLING TUBE C8*	WRENCH COOL TUBE C8*	WRENCH C5 DRW NUT*
C8 RE C6X080	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE C8*	WRENCH COOL TUBE C8*	WRENCH C6-8 DRW NUT*
C8 RE C6X120	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE C8*	WRENCH COOL TUBE C8*	WRENCH C6-8 DRW NUT*

* Optional, should be ordered separately

MODULAR GRIP
CAMFIX

C#-GHIC

CUT-GRIP holders with CAMFIX Exchangeable Shanks for Internal Grooving and Turning Blades



Designation	DCONMS	LPR	H	OAW	WF	OAL	LH	CDI[1]			
C5 GHIC-70	50.00	120.00	26.0	53.00	26.50	150.00	100.0	1	SR M8X6 DIN913	SR M6X16 DIN912	SR M3X4 DIN913
C6 GHIC-70	63.00	122.00	26.0	53.00	26.50	160.00	100.0	1	SR M8X6 DIN913	SR M6X16 DIN912	SR M3X4 DIN913

- Data for DMIN and CDX parameters presents in CGHN 26-M, SGFH 26-M, TGHN 26-M adapters

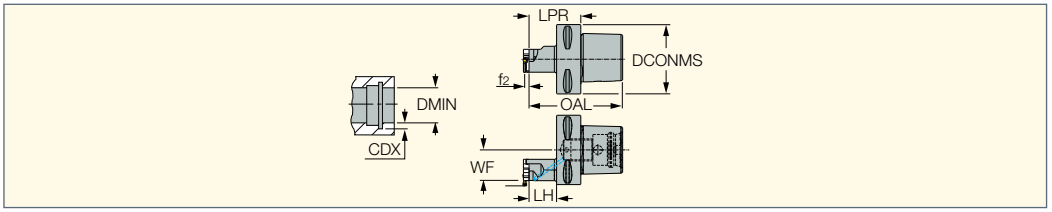
(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGHN 26-M (356) • TGHN 26-M (354)

MODULAR GRIP
CAMFIX

C#-GHAIR/L

Boring Bars with CAMFIX Exchangeable Shanks for Internal Grooving and Turning



Designation	DCONMS	LH	LPR	WF	Adapter	OAL	CDI[1]
C3 GHAIL-20	32.00	20.0	35.00	16.00	GEAIL-20	54.00	0
C3 GHAIR-20	32.00	20.0	35.00	16.00	GEAIR-20	54.00	0
C4 GHAIL-20	40.00	20.0	40.00	20.00	GEAIL-20	64.00	1
C4 GHAIR-20	40.00	20.0	40.00	20.00	GEAIR-20	64.00	1
C4 GHAIL-25	40.00	25.0	45.00	20.00	GEAIL-25	69.00	1
C4 GHAIR-25	40.00	25.0	45.00	20.00	GEAIR-25	71.40	1
C4 GHAIL-32	40.00	32.0	52.00	20.00	GAIL-32	76.00	1
C4 GHAIR-32	40.00	32.0	52.00	20.00	GAIR-32	76.00	1
C5 GHAIL-20	50.00	20.0	40.00	25.00	GEAIL-20	70.00	1
C5 GHAIR-20	50.00	20.0	40.00	25.00	GEAIR-20	70.00	1
C5 GHAIL-25	50.00	25.0	45.00	25.00	GEAIL-25	75.00	1
C5 GHAIR-25	50.00	25.0	45.00	25.00	GEAIR-25	75.00	1
C5 GHAIL-40	50.00	40.0	60.00	25.00	GEAIL-40	90.00	1
C5 GHAIR-40	50.00	40.0	60.00	25.00	GEAIR-40	90.00	1
C6 GHAIL-25	63.00	25.0	47.00	31.50	GEAIL-25	85.00	1
C6 GHAIR-25	63.00	25.0	47.00	31.50	GEAIR-25	85.00	1
C6 GHAIL-40	63.00	40.0	62.00	31.50	GAIL-40	100.00	1
C6 GHAIR-40	63.00	40.0	62.00	31.50	GAIR-40	100.00	1

- DMIN, CDX, f2 data present in GAIR, GEAIR adapters

(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: GAIR/L (346) • GEAIR/L (340)

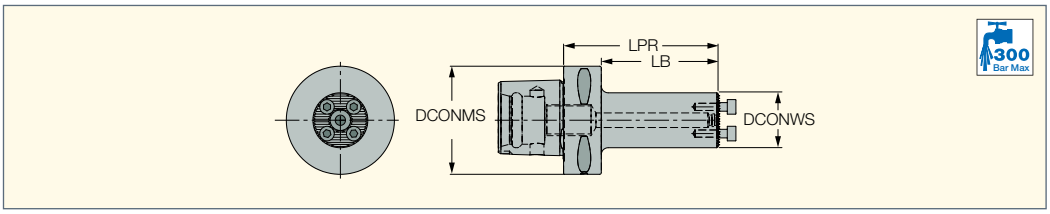
Spare Parts

Designation		
C3 GHAIR-20	SR 76-2057	T-8/5
C4 GHAIR-20	SR 76-2057	T-8/5
C4 GHAIR-25	SR 16-236 P	T-15/5
C4 GHAIR/L-32	SR 16-236 P	T-15/5
C5 GHAIR-20	SR 76-2057	T-8/5
C5 GHAIR-25	SR 16-236 P	T-15/5
C5 GHAIR/L-40	SR 16-212	T-20/5
C6 GHAIR-25	SR 16-236 P	T-15/5
C6 GHAIR/L-40	SR 16-212	T-20/5

CAMFIX

C#-SH-JHP

Serrated Connection Shanks with a CAMFIX Exchangeable Adaptation



Designation	DCONMS	DCONWS	LPR	LB	CRKS	kg	CDI(1)
C4-SH-D16-2.5D-JHP	40.00	16.00	40.00	20.00	M14	0.31	1
C4-SH-D20-2.5D-JHP	40.00	20.00	50.00	30.00	M14	0.35	1
C4-SH-D25-2.5D-JHP	40.00	25.00	55.00	35.00	M14	0.41	1
C4-SH-D32-2.5D-JHP	40.00	32.00	75.00	55.00	M14	0.63	1
C4-SH-D40-3D-JHP	40.00	40.00	80.00	80.00	M14	0.88	1
C5-SH-D16-2.5D-JHP	50.00	16.00	40.00	20.00	M16	0.50	1
C5-SH-D20-2.5D-JHP	50.00	20.00	50.00	30.00	M16	0.54	1
C5-SH-D25-2.5D-JHP	50.00	25.00	55.00	35.00	M16	0.61	1
C5-SH-D32-2.5D-JHP	50.00	32.00	75.00	55.00	M16	0.00	1
C5-SH-D40-3D-JHP	50.00	40.00	100.00	80.00	M16	1.26	1
C6-SH-D16-2.5D-JHP	63.00	16.00	40.00	18.00	M20	0.83	1
C6-SH-D20-2.5D-JHP	63.00	20.00	50.00	28.00	M20	0.87	1
C6-SH-D25-2.5D-JHP	63.00	25.00	65.00	43.00	M20	0.00	1
C6-SH-D32-3D-JHP	63.00	32.00	90.00	68.00	M20	1.26	1
C6-SH-D32-4D-JHP	63.00	32.00	125.00	103.00	M20	0.00	1
C6-SH-D40-3D-JHP	63.00	40.00	100.00	78.00	M20	1.61	1
C6-SH-D40-4D-JHP	63.00	40.00	140.00	118.00	M20	1.99	1

(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: AVC-D-SIR/L (707) • AVC-DDUNR/L (97) • AVC-DVUNR/L (97) • AVC-GAIR/L (347) • AVC-GEAIR/L (346) • AVC-PCLNR/L (96) • AVC-PCLXR/L (96) • AVC-SCLCR/L (95) • AVC-SDJCN-Y (76) • AVC-SDUCR/L (95) • AVC-SRDCN-Y (77) • AVC-SVLCR/L (96) • AVC-SVUCR/L (95)

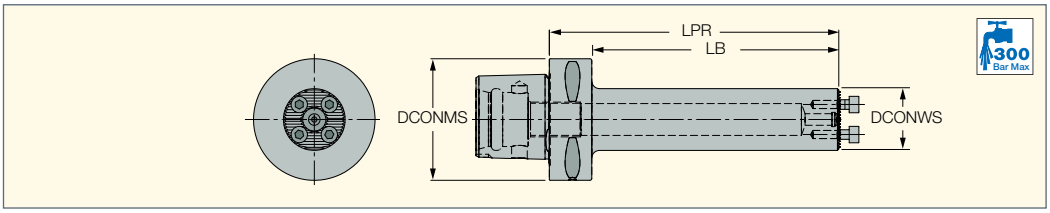
Spare Parts

Designation		
C4-SH-D16-2.5D-JHP	SR M3X10DIN912	HW 2.5
C4-SH-D20-2.5D-JHP	SR M3.5XL10-D5.5	HW 2.5
C5-SH-D16-2.5D-JHP	SR M3X10DIN912	HW 2.5
C5-SH-D20-2.5D-JHP	SR M3.5XL10-D5.5	HW 2.5
C6-SH-D16-2.5D-JHP	SR M3X10DIN912	HW 2.5
C6-SH-D20-2.5D-JHP	SR M3.5XL10-D5.5	HW 2.5

CAMFIX

C#-SH-E-JHP

Serrated Connection Shanks with Carbide Core and a CAMFIX Exchangeable Adaptation



Designation	DCONMS	DCONWS	LPR	LB	CRKS	kg	CDI(1)
C6-SH-D16-5D-E-JHP	63.00	16.00	80.00	58.00	M20	0.93	1
C6-SH-D20-5D-E-JHP	63.00	20.00	100.00	78.00	M20	1.06	1
C6-SH-D25-5D-E-JHP	63.00	25.00	115.00	93.00	M20	1.29	1
C6-SH-D32-5D-E-JHP	63.00	32.00	150.00	128.00	M20	0.00	1
C6-SH-D40-5D-E-JHP	63.00	40.00	185.00	163.00	M20	2.68	1

(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: AVC-D-SIR/L (707) • AVC-DDUNR/L (97) • AVC-DVUNR/L (97) • AVC-GAIR/L (347) • AVC-GEAIR/L (346) • AVC-PCLNR/L (96) • AVC-PCLXR/L (96) • AVC-SCLCR/L (95) • AVC-SDJCN-Y (76) • AVC-SDUCR/L (95) • AVC-SRDCN-Y (77) • AVC-SVLCR/L (96) • AVC-SVUCR/L (95)

Spare Parts

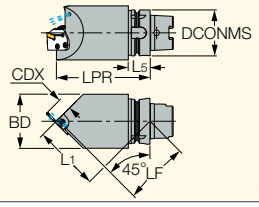
Designation		
C6-SH-D16-5D-E-JHP	HW 2.5	SR M3X10DIN912
C6-SH-D20-5D-E-JHP	HW 2.5	SR M3.5XL10-D5.5

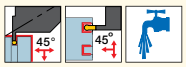
MODULAR-GRIP

HSK

HSK A63WH-MAHDR-45

Holders with HSK Tapered Shanks for MODULAR-GRIP, Parting, Grooving and Facing Adapters





CDX = See specific adapter dimensions • Right-handshown

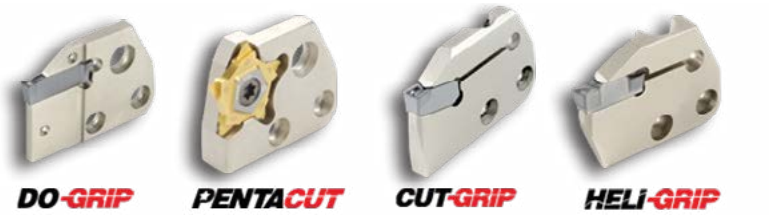
Designation	DCONMS	LPR	L1	L5	LF	BD	CP[1]	CDI[2]
HSK A63WH MAHDR 45	63.00	130.00	91.9	30.00	89.0	75.00	100	1

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately) • Complies with ICTM standard (ISO 12164-3)

[1] Coolant pressure (Bar)

[2] 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)



Spare Parts

Designation							
HSK A63WH MAHDR 45	SR M5-04451	T-20/5	SR 14-519[a]	SR M6X20-XT	HW 5.0	SR M6X6DIN551 14H/22H[b]	SATZ-M8X1-M3

[a] For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag

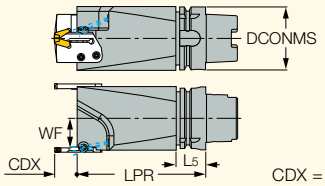
[b] Used to prevent chips from entering the upper locking screw hole when it is not used for the adaptation; supplied in the attached plastic bag

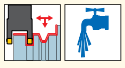
MODULAR-GRIP

HSK

HSK A63WH-MAHDOR

Holders with HSK Exchangeable Shanks for Parting, Grooving, Turning and Facing Adapters





CDX = See specific adapter dimensions • Right-hand shown

Designation	DCONMS	WF	LPR	L5	CDI[1]							
HSK A63WH MAHDOR	63.00	29.0	130.00	30.00	1	SR M5-04451	T-20/5	SR 14-519[a]	SR M6X20-XT[b]	HW 5.0	SR M6X6DIN551 14H/22H[c]	EZ 125

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately) • Complies with ICTM standard (ISO 12164-3)

[1] 1 - Hole for data chip, 0 - Without hole for data chip

[a] For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag

[b] For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools

[c] Used to prevent chips from entering the upper locking screw hole when it is not used for the adaptation; supplied in the attached plastic bag

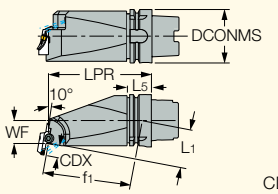
For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)

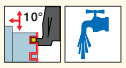
MODULAR GRIP

HSK

HSK A63WH-MAHUR/L

Holders with HSK-T Shanks for 10° Mounting on Mill-Turn Machines for Parting, Grooving, Turning and Facing Adapters





CDX = See specific adapter dimensions • Right-handshown

Designation	DCONMS	f1	WF	LPR	L1	L5	CP(1)	CDI(2)
HSK A63WH MAHUR/L 10	63.00	113.1	29.00	130.00	49.4	30.00	100	1

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately) • Complies with ICTM standard (ISO 12164-3)

(1) Coolant pressure (Bar)

(2) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: CGPAD (265) • DGAD-B-D (436) • DGAD/HGAD (436) • HFPAD-3 (549) • HFPAD-4 (549) • HFPAD-5 (550) • HFPAD-6 (550) • HGPAD (251) • PCADR/L (300) • SCLCR-PAD (50) • SDJCR-PAD (54) • SVJCR-PAD (60) • SWAPR-PAD (66) • TGAD (455) • TGPAD (256) • TTADR/L-JHP (651)

Spare Parts

Designation							
HSK A63WH MAHUR/L 10	SR M5-04451	T-20/5	SR 14-519(a)	SR M6X20-XT(b)	HW 5.0	SR M6X6DIN551 14H/22H(c)	EZ 125

(a) For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag

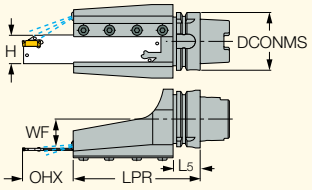
(b) For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools

(c) Used to prevent chips from entering the upper locking screw hole when it is not used for the adaptation; supplied in the attached plastic bag

TOOL BLOCKS HSK

HSK A-WH-TBK-R/L

Blocks with HSK Exchangeable Tapered Shanks for Parting and Grooving Blades





OHX = See specific blade dimensions
• Right-hand shown

Designation	DCONMS	LPR	L5	WF	H(1)	CP(2)	CDI(3)				
HSK A63WH TBK 32R/L	63.00	138.00	30.00	32.0	32.0	100	1	BK 32-9 WEDG	SR M6X16 DIN912	HW 5.0	EZ 125

• Complies with ICTM standard (ISO 12164-3) • Not suitable for ATC for some Multi-Tasking Machine models, please consult your MTB

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

(1) Blade size H has to fit this dimension

(2) Coolant pressure (Bar)

(3) 1 - Hole for data chip, 0 - Without hole for data chip

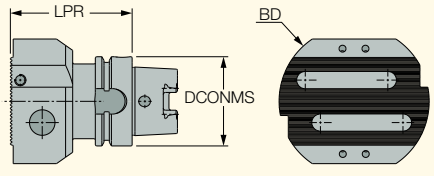
For tools, see pages: CGHN-DG (283) • CGHR/L-P8DG (284) • DGFH (268) • DGFHR/L (468) • DGFHR/L-B-D..(R/L) (470) • HFFH (557) • HGFH (268) • PCHBR/L (318) • TGFH/R/L (332) • TGFHR/L (495) • TNFFH-IQ (583)

HELIFACE

TANG GRIP
FACE MACHINING LINE

HSK 63 HATA

HSK Toolholder with a Serrated Connection Adaptation



Designation	DCONMS	BD	LPR
HSK63 HATA	63.00	106.00	86.00

Spare Parts

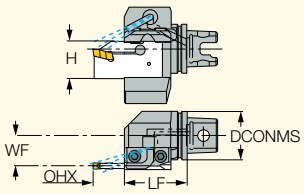
Designation									
HSK63 HATA	SR M6X6 DIN913	SR M8X25 DIN913	HW 4.0	SR M6X6 DIN913 TL360	HW 3.0	BH NUT BHR MB80	SR M12X35DIN912	HW 10.0	SR M8X45 DIN 913

ISO 26622-1 XMZ

ISCAR GRIP

IM-TBU

Blocks with an ISO 26622-1(*) Tapered Shank for Parting and Grooving Blades



OHX - See specific blade dimensions
• Right-hand shown

Designation	DCONMS	H	LF	WF	CDI(1)						
IM40 TBU-32R	40.00	32.0	51.00	23.0	0	BKU 176 307	SR M6X25 DIN912	HW 5.0	SR M6X6 DIN913	EZP 5	EZ 125
IM50 TBU-32R	50.00	32.0	61.00	30.0	0	BKU 176 307	SR M6X25 DIN912	HW 5.0	SR M6X6 DIN913	EZP 5	EZ 125
IM63 TBU-32L	63.00	32.0	63.00	38.0	0	BKU 176 307	SR M6X25 DIN912	HW 5.0	SR M6X6 DIN913	EZP 5	EZ 125

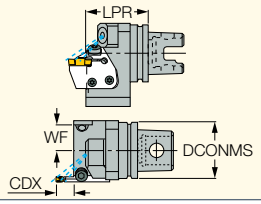
• (*) Tools with orientation holes in the flange groove can be supplied on request
(1) 1 - Hole for data chip, 0 - Without hole for data chip
For tools, see pages: CGHN-S (282) • TGHN-S (271)

MODULAR GRIP

ISO 26622-1 XMZ

IM-MAHD

Holders with an ISO 26622-1(*) Tapered Shank for Parting, Grooving, Turning and Facing Adapters



CDX = See specific adapter dimensions
• Right-handshown

Designation	DCONMS	LPR	WF	CDI(1)
IM40 MAHD	40.00	43.00	18.0	0
IM50 MAHD	50.00	47.00	23.0	0
IM63 MAHD	63.00	52.00	29.0	0

• (*) Tools with orientation holes in the flange groove can be supplied on request
(1) 1 - Hole for data chip, 0 - Without hole for data chip
For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)

Spare Parts

Designation									
IM-MAHD	SR M5-04451	T-20/5	SR 14-519(a)	SR M6X20-XT(b)	HW 5.0	SR M6X6DIN551 14H/22H(c)	SR 76-1022	EZA 125	EZ 125

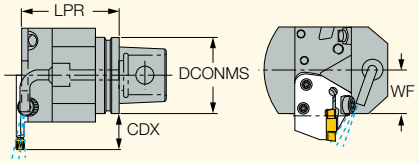
(a) For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag
(b) For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools
(c) Used to prevent chips from entering the upper locking screw hole when it is not used for the adaptation; supplied in the attached plastic bag

MODULAR GRIP

ISO 26622-1 XMZ

IM-MAHPD

Perpendicular Holders with an ISO 26622-1(*) Tapered Shank for Parting, Grooving, Turning and Facing Adapters



CDX = See specific adapter dimensions
• Right-hand shown

Designation	DCONMS	LPR	WF	CDI(1)
IM40 MAHPD	40.00	44.00	25.00	0
IM50 MAHPD	50.00	45.00	26.00	0
IM63 MAHPD	63.00	45.00	33.00	0

• (*) Tools with orientation holes in the flange groove can be supplied on request
(1) 1 - Hole for data chip, 0 - Without hole for data chip
For tools, see pages: CGPAD (281) • DGAD-B-D (479) • DGAD/HGAD (479) • HFPAD-3 (562) • HFPAD-4 (563) • HFPAD-5 (563) • HFPAD-6 (564) • HGPAD (267) • PCADR/L (316) • SCLCR-PAD (55) • SDJCR-PAD (59) • SVJCR-PAD (67) • SWAPR-PAD (73) • TGAD (498) • TGPAD (270)

Spare Parts

Designation								
IM-MAHPD	SR M5-04451	T-20/5	SR 14-519(a)	SR M6X20-XT(b)	HW 5.0	SR M6X6DIN551 14H/22H(c)	EZP 5	EZ 125

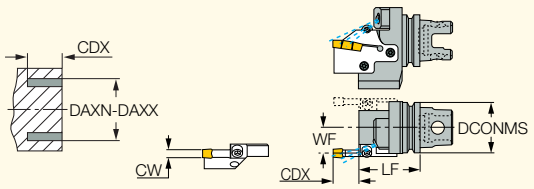
(a) For DGAD, HGAD and PCADR/L adapters; supplied in the attached plastic bag
(b) For CGPAD, HGPAD, TGPAD and HFPAD adapters; supplied with the tools
(c) Used to prevent chips from entering the upper locking screw hole when it is not used for the adaptation; supplied in the attached plastic bag

ISO 26622-1 XMZ

ISCAR GRIP

IM-GHAD-8

Holders with an ISO 26622-1(*) Tapered Shank for Grooving, Turning and Facing Adapters



CDX - See specific adapter dimensions

Designation	DCONMS	CW	LF	WF	DAXN(1)	DAXX(2)	CDX(3)	CDI(4)
IM50 GHAD-8	50.00	8.00	60.00	26.00	80.0	510.0	25.00	0
IM63 GHAD-8	63.00	8.00	65.00	32.50	80.0	510.0	25.00	0

- (*) Tools with orientation holes in the flange groove can be supplied on request

(1) Minimum axial grooving diameter

(2) Maximum axial grooving diameter

(3) Cutting depth maximum

(4) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: GADR/L-8 (269) • GAFG-R/L-8 (562) • PCADR/L 34N-RE (301)

Spare Parts

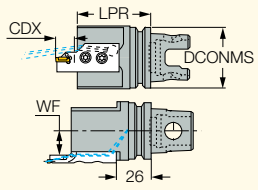
Designation							
IM-GHAD-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0	SR 76-1022	EZA 125	EZ 125

ISO 26622-1 XMZ

ISCAR GRIP

IM-HAD

Holders with an ISO 26622-1(*) Tapered Shank for Internal Facing Adapters



CDX - See specific adapter dimensions

Designation	DCONMS	LPR	WF	CDI(1)				
IM40 HAD	40.00	60.00	18.0	0	SR 14-519	T-20/3	HW 3.0	SR M4X6DIN912
IM50 HAD	50.00	60.00	18.0	0	SR 14-519	T-20/3	HW 3.0	SR M4X6DIN912

- (*) Tools with orientation holes in the flange groove can be supplied on request

(1) 1 - Hole for data chip, 0 - Without hole for data chip

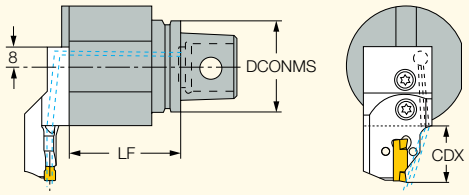
For tools, see pages: HFAER/L-4 (551) • HFAER/L-5T, 6T (552) • HFAIR/L-4 (554) • HFAIR/L-DG (555) • HGAER/L-3 (551) • HGAIR/L-3 (554)

ISO 26622-1 XMZ

ISCAR GRIP

IM-HAPR/L

Perpendicular Holders with an ISO 26622-1 (*) Tapered Shank for Internal Facing Adapters



CDX - See specific adapter dimensions
- Right-hand shown

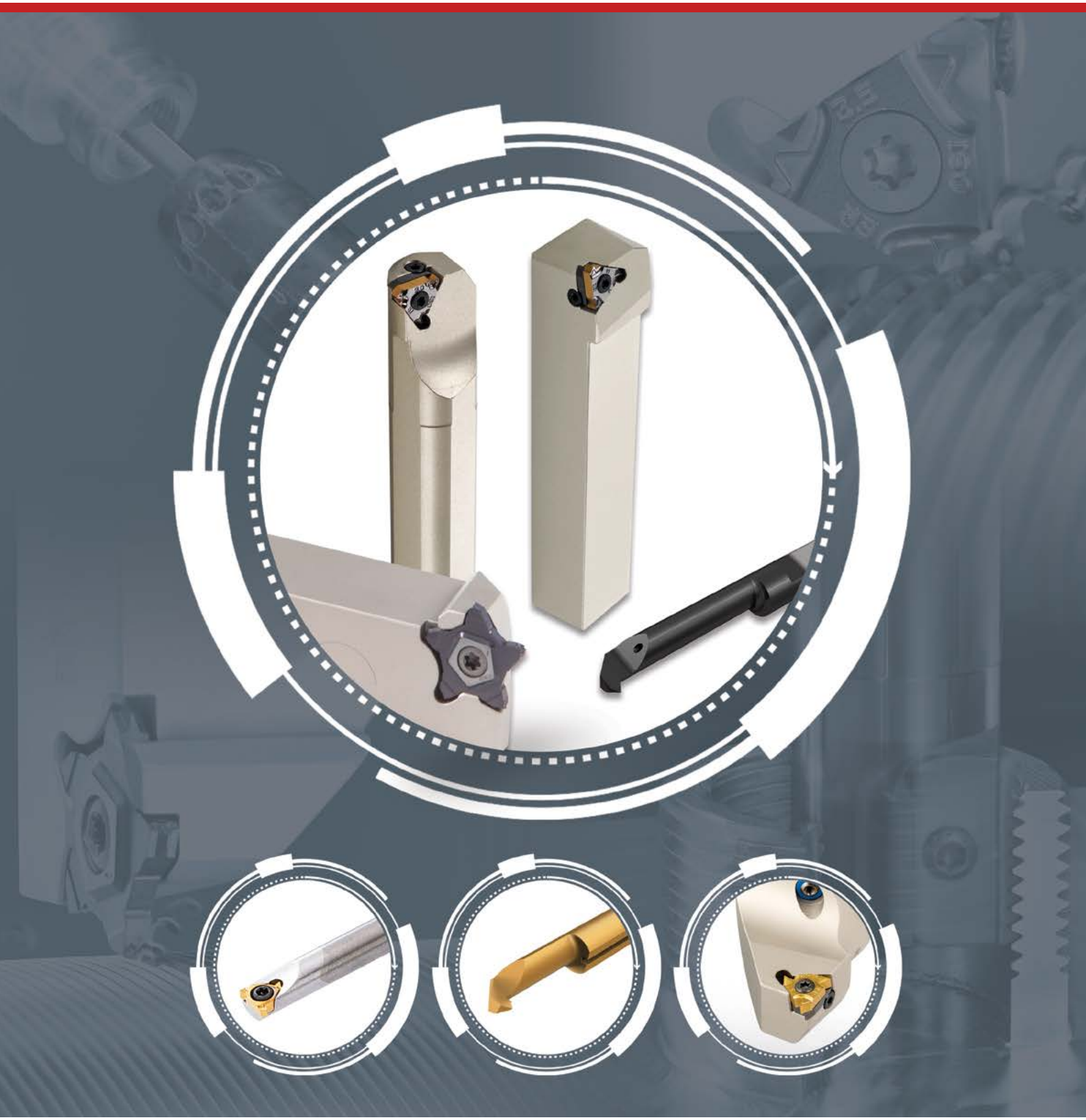
Designation	DCONMS	LF	CDI(1)		
IM40 HAPR/L	40.00	50.00	0	SR 14-519	T-20/3
IM50 HAPR	50.00	50.00	0	SR 14-519	T-20/3

- (*) Tools with orientation holes in the flange groove can be supplied on request

(1) 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: HFAER/L-4 (551) • HFAER/L-5T, 6T (552) • HFAIR/L-4 (554) • HFAIR/L-DG (555) • HGAER/L-3 (551) • HGAIR/L-3 (554)

THREADING TOOLS & INSERTS



Member IMC Group

ISCAR

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BSPT 673
STUB ACME 675
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API Oil Threads 688
Round DIN 405 694

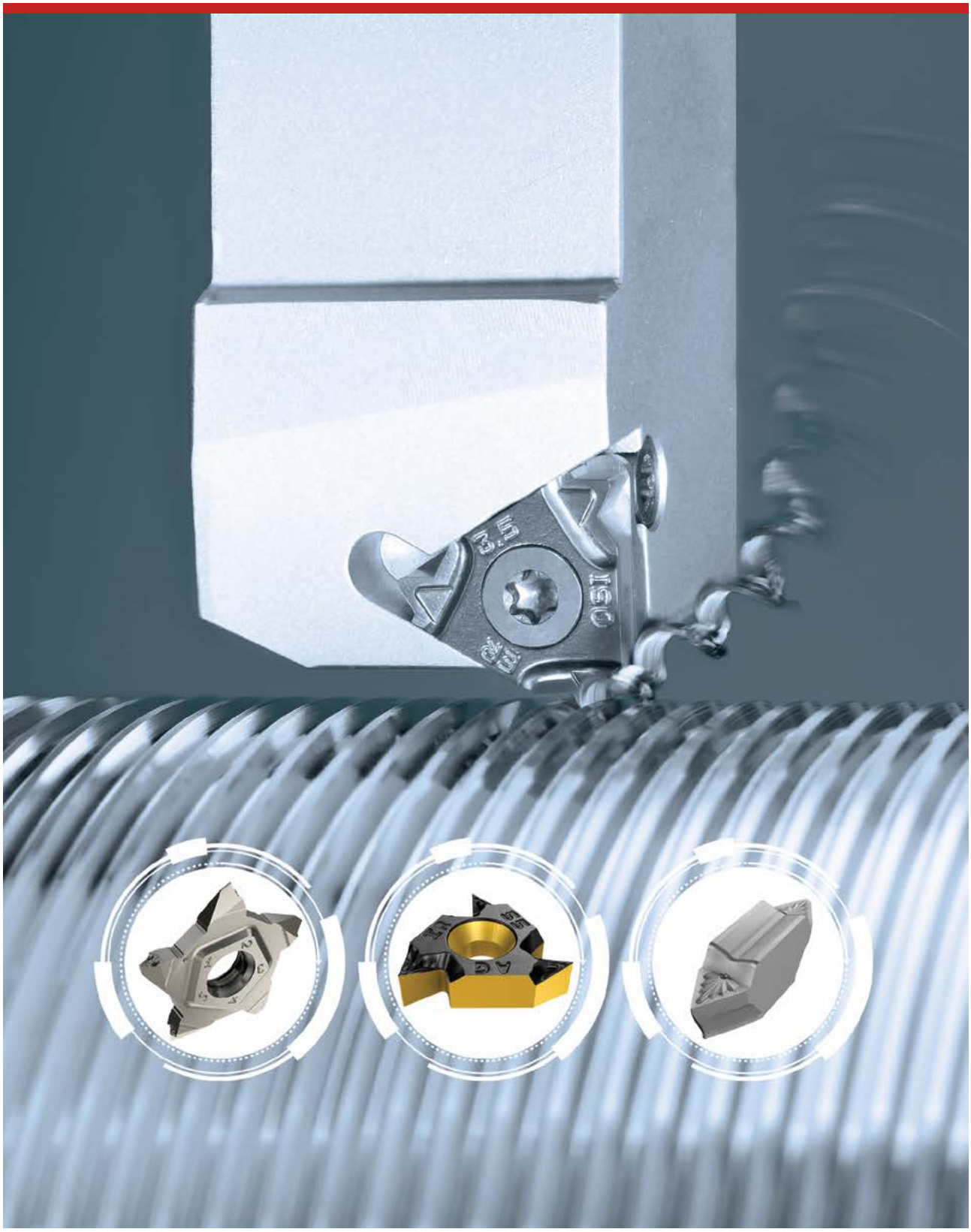
Threading Tools 697

Toolholder Identification System 698
External Holders 700
Threading Bars 703

User Guide 711

Cutting Speed Recommendations 711
Threading Grades Chart 712

THREADING INSERTS



Main Types of Laydown Inserts

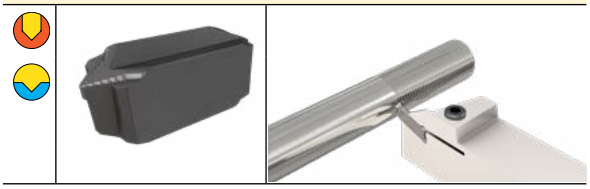
B/M-TYPE	U-TYPE	REGULAR TYPE	MULTI-TOOTH
			



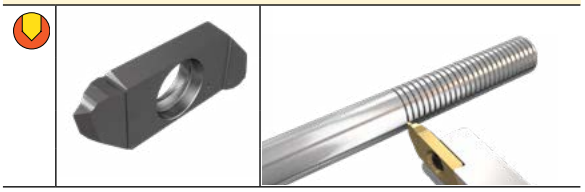
Additional Threading Systems

External

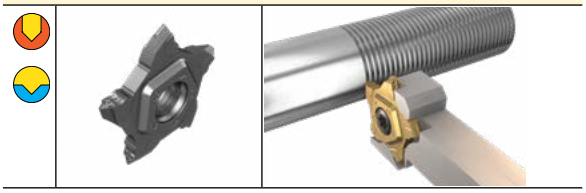
CUT-GRIP External



SWISSCUT External



PENTACUT External

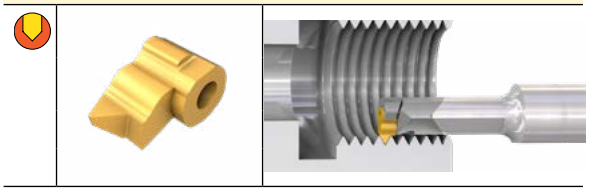


 Partial profile

 Full profile

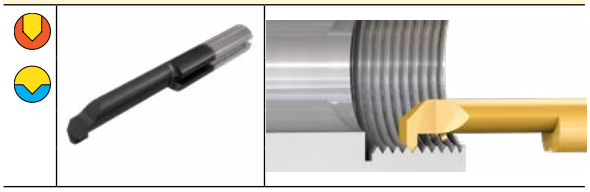
Internal

MINICHAM Internal



Minimum bore dia. 4 mm

PICCOCUT Mini-Bar



Minimum bore dia. 2.4 mm

CHAMGROOVE Internal



Minimum bore dia. 8.0 mm

CUT-GRIP Internal



Minimum bore dia. 12.5 mm



Minimum bore dia. 20 mm



 Partial profile

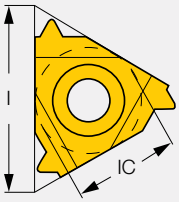
 Full profile

Insert Identification System

16	E	R	M	1.50	ISO	2M	IC808
1	2	3	4	5	6	7	8

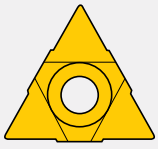
1. Insert Size

l (mm)	IC
06	5/32"
08	3/16"
11	1/4"
16	3/8"
22	1/2"
27	5/8"



2. Application

E	External
I	Internal
UE	U-type, External
UI	U-type, Internal
UEI	U-type, External and Internal



U-type



Regular Type

3. Hand of Tool

R	Right-hand
L	Left-hand
RL	Right- and Left-hand

4. Type

B	Peripherally ground & chipformer
M	Press to size with a chipformer
□	No indication regular type

5. Pitch

Full Profile (value by number)

0.35-9.0 mm

72-2 TPI

Partial Profile (range by letter)

	mm	TPI
A	0.5-1.5	48-16
AG	0.5-3.0	48-8
G	1.75-3.0	14-8
N	3.5-5.0	7-5
Q	5.5-6.0	4.5-4
U	5.5-9.0	4.5-2.75

6. Thread Standard

60	Partial Profile 60º
55	Partial Profile 55º
ISO	ISO Metric
UN	American UN
W	Whitworth
BSPT	British BSPT
RND	Round DIN 405
TR	Trapeze DIN 103
ACME	ACME
STACME	Stub ACME
ABUT	American Buttress
UNJ	UNJ
NPT	NPT
API RD	API Round
BUT	API Buttress Casing
API	API
H90	H-90
EL	Extreme Line Casing
MJ	ISO 5855

7. No. of Teeth (Optional)

2M	2 teeth
3M	3 teeth

8. Grade

IC1007
IC908
IC808
IC508
IC250
IC228
IC50M
IC806

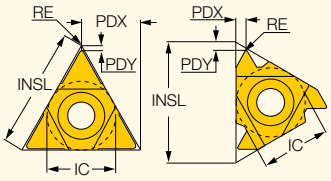
Partial Profle 55° (Whitworth)

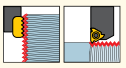
ISCARTHREAD

ER/L-55°

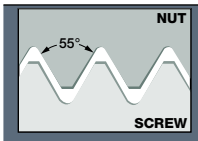
External Laydown Threading Inserts with a 55° Partial Profile for General Industry







External right-hand shown



Designation	Dimensions IC	TPN[2]	TPX[3]	TPIX[4]	TPIN[5]	INSL	RE	PDY	PDX	Tough ↔ Hard IC228	IC50M	IC250	IC808	IC908	IC1007
11ER A 55	6.35	0.500	1.500	48.00	16.00	11.00	0.05	0.8	0.9			●		●	
16EL A 55	9.52	0.500	1.500	48.00	16.00	16.49	0.05	0.8	0.9		●	●			
16ER A 55	9.52	0.500	1.500	48.00	16.00	16.49	0.05	0.8	0.9		●	●		●	
16EL AG 55	9.52	0.500	3.000	48.00	8.00	16.49	0.07	1.2	1.7			●		●	
16ER AG 55	9.52	0.500	3.000	48.00	8.00	16.49	0.07	1.2	1.7	●		●		●	●
16ERB AG 55 [1]	9.52	0.500	3.000	48.00	8.00	16.49	0.07	1.2	1.7					●	
16ERM AG 55 [1]	9.52	0.500	3.000	48.00	8.00	16.49	0.07	1.2	1.7		●	●	●	●	●
16EL G 55	9.52	1.750	3.000	14.00	8.00	16.49	0.20	1.2	1.7			●			
16ER G 55	9.52	1.750	3.000	14.00	8.00	16.49	0.23	1.2	1.7			●		●	
16ERB G 55 [1]	9.52	1.750	3.000	14.00	8.00	16.49	0.23	1.2	1.7					●	
16ERM G 55 [1]	9.52	1.750	3.000	14.00	8.00	16.49	0.23	1.2	1.7			●	●	●	●
22EL N 55	12.70	3.500	5.000	7.00	5.00	22.00	0.42	1.7	2.5			●			
22ER N 55	12.70	3.500	5.000	7.00	5.00	22.00	0.48	1.7	2.5			●		●	
22UEIRL U 55	12.70	5.500	8.000	4.50	3.25	22.00	0.60	0.9	11.0		●	●			
27ER Q 55	15.88	5.500	6.000	4.50	4.00	27.50	0.60	2.0	2.9			●		●	
27UEIRL U 55	15.88	6.500	9.000	4.00	2.75	27.50	0.81	1.2	13.7			●			

- For insert identification system, see pages 638-639 • For threading between walls use GRIP-type inserts TIP-WT, GEPI-WT, TIPI-WT
- For detailed cutting data, see page 711

[1] With pressed chipformer
[2] Threads per inch maximum
[3] Threads per inch minimum
[4] Threads per inch maximum
[5] Threads per inch minimum

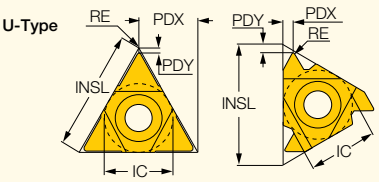
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

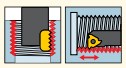
ISCARTHREAD

IR/L-55°

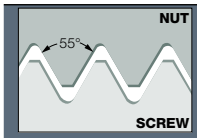
Internal Laydown Threading Inserts with a 55° Partial Profile for General Industry







Internal left-hand shown



Designation	Dimensions IC	TPIX[2]	TPIN[3]	INSL	RE	PDY	PDX	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC508	IC808	IC908	IC1007
06IL A 55	4.00	48.00	20.00	6.88	0.07	0.6	0.6	●							
06IR A 55	4.00	48.00	20.00	6.88	0.08	0.6	0.6	●							
08IL A 55	5.00	48.00	16.00	8.24	0.08	0.6	0.7	●							
08IR A 55	5.00	48.00	16.00	8.24	0.08	0.6	0.7	●	●					●	
08UIRL U 55	5.00	18.00	12.00	8.24	0.10	0.9	4.0	●							
11IL A 55	6.35	48.00	16.00	11.00	0.05	0.8	0.9				●			●	
11IR A 55	6.35	48.00	16.00	11.00	0.05	0.8	0.9	●			●			●	●
16IR A 55	9.52	48.00	16.00	16.49	0.05	0.8	0.9			●				●	
16IL AG 55	9.52	48.00	8.00	16.49	0.07	1.2	1.7							●	
16IR AG 55	9.52	48.00	8.00	16.49	0.07	1.2	1.7				●			●	
16IRB AG 55 [1]	9.52	48.00	8.00	16.49	0.07	1.2	1.7							●	
16IRM AG 55 [1]	9.52	48.00	8.00	16.49	0.05	1.2	1.7				●		●	●	●
16IL G 55	9.52	14.00	8.00	16.49	0.20	1.2	1.7							●	
16IR G 55	9.52	14.00	8.00	16.49	0.23	1.2	1.7				●	●		●	
16IRB G 55 [1]	9.52	14.00	8.00	16.49	0.23	1.2	1.7							●	
16IRM G 55 [1]	9.52	14.00	8.00	16.49	0.20	1.2	1.7				●		●	●	●
22IR N 55	12.70	7.00	5.00	22.00	0.42	1.7	2.5			●	●			●	
27IR Q 55	15.88	4.00	4.00	27.50	0.60	2.0	2.9							●	

- For insert identification system, see pages 638-639 • For threading between walls use GRIP-type inserts TIP-WT, GEPI-WT, TIPI-WT.
- For detailed cutting data, see page 711

[1] With pressed chipformer
[2] Threads per inch maximum
[3] Threads per inch minimum

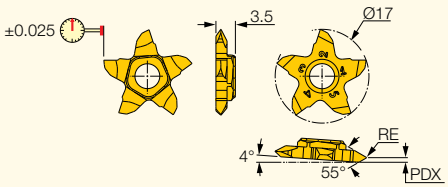
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

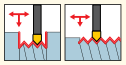
PENTACUT THREADING LINE

PENTA 17-WT-RS/LS

Precision Ground Pentagonal External Threading Inserts with a 55° Partial Profile for General Industry







Designation	Dimensions TPIX(1)	TPIN(2)	RE	PDX	IC1008
PENTA 17-WTL003LS	72.00	16.00	0.03	0.80	●
PENTA 17-WTR003RS	72.00	16.00	0.03	0.80	●
PENTA 17-WTL008LS	31.00	8.00	0.08	1.40	●
PENTA 17-WTR008RS	31.00	8.00	0.08	1.40	●

(1) Threads per inch maximum
(2) Threads per inch minimum

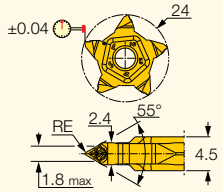
For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

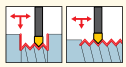
PENTACUT THREADING LINE

PENTA 24-WT

Precision Ground Pentagonal External Threading Inserts with a Whitworth 55° Partial Profile







Designation	Dimensions TPIX(2)	TPIN(3)	RE	IC908
PENTA 24A-WT-0.15 (1)	24.00	8.00	0.15	●
PENTA 24A-WT-0.05 (1)	80.00	8.00	0.05	●

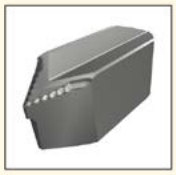
• TPIN=6.4/D(inch) D-nominal thread diameter (inch)
(1) Flat rake (without a chipformer)
(2) Threads per inch maximum
(3) Threads per inch minimum

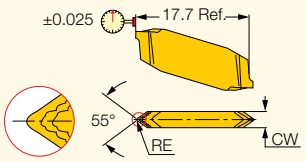
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

ISCARTHREAD
CUTGRIP

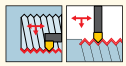
TIP-WT

Precision Ground Double-Ended Threading Inserts with a 55° Partial Profile and a Chipformer





TIP inserts are 1.6 mm longer than GIP in the same pocket



Designation	Dimensions CW	RE	RETOL(2)	TPIX(3)	TPIN(4)	Tough ↔ Hard IC08	IC908
TIP 2WT-0.05 (1)	2.40	0.05	0.030	54.00	12.00	●	●
TIP 4WT-0.15 (1)	4.00	0.15	0.030	19.00	7.00	●	●
TIP 5WT-0.25 (1)	5.50	0.25	0.030	12.00	6.00		●

• Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD
(1) TPIN(thread per inch minimum) = D/6.4 • D-Diameter of thread (inch)
(2) Corner radius tolerance (+/-)
(3) Threads per inch maximum
(4) Threads per inch minimum

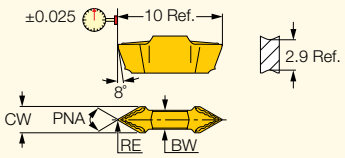
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

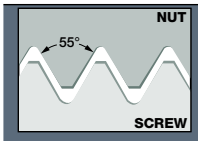
ISCARTHREAD
CUTGRIP

GEPI-WT

Precision Ground Double-Ended Threading Inserts with a 55° Partial Profile and a Chipformer for 11.5 mm Bore Diameter







Designation	Dimensions									Tough ↔ Hard	
	CW	RE	RETOL(1)	PNA	BW	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	IC08	IC908
GEPI 2.5-WT0.05	2.50	0.05	0.030	55.0	1.80	0.470	2.540	10.00	54.00	●	●

• Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.167xD, TPI min D/6.0

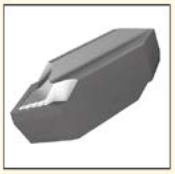
(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

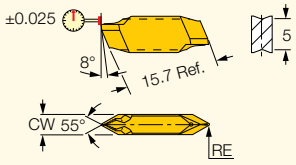
For tools, see pages: AVC-GEAIR/L (346) • E-GEHIR / E-GHIR (340) • GEAIR/L (340) • GEHIMR/L (337) • GEHIMR/L-SC (337) • GEHIR/L (338) • GEHIR/L-SC (339) • GEHSR (373) • GEHSR/L-SL (372)

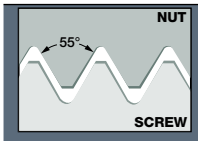
ISCARTHREAD
CUTGRIP

TIPI-WT

Double-Ended Internal Threading Inserts with a 55° Partial Profile and a Chipformer for 20 mm Min. Bore Diameter







Designation	Dimensions						Tough ↔ Hard	
	CW	RE	RETOL(1)	TPN(2)	TPIX(3)	TPIN(4)	IC08	IC908
TIPI 3.4WT-0.10	3.40	0.10	0.030	0.950	27.00	8.00	●	●
TIPI 5.4WT-0.20	5.40	0.20	0.030	1.670	15.00	5.00		●

• Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD, TPI min D/5.25 D=Diameter of thread (pitch max<=CW)

(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Threads per inch maximum
(4) Threads per inch minimum

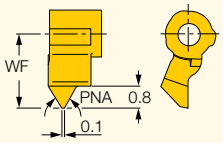
For tools, see pages: AVC-GAIR/L (347) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

ISCARTHREAD
MINICHAM

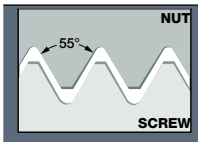
UMGR-A55

Mini Indexable Inserts with Whitworth Partial Profile for Threading in 5.2 mm and Larger Holes





Right-hand shown



Designation	Dimensions							IC508
	WF	PNA	TPIX(1)	TPIN(2)	TPN(3)	TPX(4)	DMIN	
UMGR 4.0-A55	2.70	55.0	40.00	24.00	0.500	1.400	5.20	●

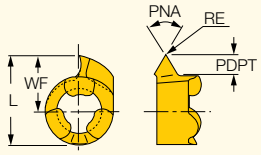
(1) Threads per inch maximum
(2) Threads per inch minimum
(3) Thread pitch minimum (mm)
(4) Thread pitch maximum (mm)

For tools, see pages: MGUHR (411)

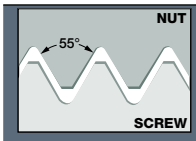
ISCARTHREAD CHAMGROOVE

GIQR/L-WT
Internal Inserts with Whitworth Partial Profile for Threading in 8 mm and Larger Holes





Left-hand shown



Designation	Dimensions L	RE	PNA	PDPT(1)	WF	DMIN	TPIN(2)	TPIX(3)	IC528
GIQR/L 8-WT-0.05	7.78	0.05	55.0	1.50	4.80	8.00	16.00	50.00	●
GIQR/L 11-WT-0.05	10.68	0.05	55.0	2.00	6.70	11.00	11.00	50.00	●

• Can be used for thread milling by circular interpolation • TPI min D/5.9 • D-diameter of thread (pitch max<=W) • For cutting speed recommendations, see page 711

(1) Cutting depth maximum

(3) Threads per inch maximum

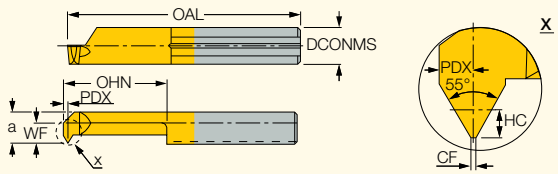
(3) Threads per inch maximum

For tools, see pages: MG (414) • MGCH (414)

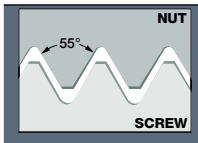
ISCARTHREAD PICCOCUT

PICCO-55°-Thread
Inserts for 55° Internal Threading Profile





Right-hand shown



Designation	Dimensions DCONMS	TPIX(1)	TPIN(2)	HC	CF	PDX	WF	a	OHN(3)	OAL	DMIN	IC228
PICCO R 005.5548-15	5.00	48.00	24.00	0.40	0.06	0.5	1.90	4.40	15.0	30.00	4.80	●
PICCO R 006.5548-15	6.00	48.00	24.00	0.40	0.06	0.5	2.30	5.30	15.0	30.00	6.00	●
PICCO R 006.5524-15	6.00	24.00	16.00	0.81	0.12	0.8	2.30	5.30	15.0	30.00	6.00	●
PICCO R 007.5524-15	7.00	24.00	16.00	0.81	0.12	0.8	2.80	6.30	15.0	30.00	7.00	●

• All mini-bars have sharp corners • For detailed cutting data, see page 711

(1) Threads per inch maximum

(2) Threads per inch minimum

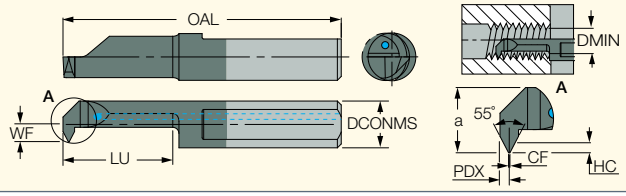
(3) Minimum overhang

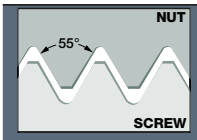
For holders, see pages: GHPCOR (361) • PICCO ACE (359) • PICCO/MG PCO (holder) (360)

ISCARTHREAD PICCOCUT

PICCO-55°-N (55° Threading)
Inserts with Internal Coolant Channel for 55° Internal Threading Profile







Designation	Dimensions DCONMS	TPIX(1)	TPIN(2)	HC	CF	PDX	WF	a	LU	OAL	DMIN	IC908
PICCO R 006.5524-15N	6.05	24.00	16.00	0.81	0.12	0.8	2.30	5.30	14.0	36.00	6.00	●
PICCO R 007.5524-15N	7.05	24.00	16.00	0.81	0.12	0.8	2.80	6.30	14.0	36.00	7.00	●

• All mini-bars have sharp corners • Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only • For detailed cutting data, see page 711

(1) Threads per inch maximum

(2) Threads per inch minimum

For holders, see pages: PICCO ACE-N (710) • PICCO-N (holder) (710)

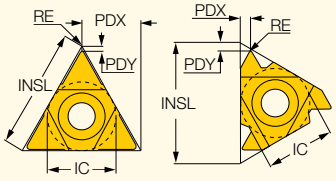


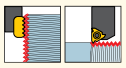
Partial Profle 60°

ISCARTHREAD

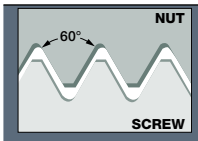
ER/L-60°
External Laydown Threading Inserts with a 60° Partial Profile for General Industries







External right-hand shown



Designation	Dimensions									Tough ↔ Hard							
	IC	TPN[2]	TPX[3]	TPIX[4]	TPIN[5]	INSL	RE	PDY	PDX	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11EL A 60	6.35	0.500	1.500	48.00	16.00	11.00	0.05	0.8	0.9							●	
11ER A 60	6.35	0.500	1.500	48.00	16.00	11.00	0.06	0.8	0.9							●	
16EL A 60	9.52	0.500	1.500	48.00	16.00	16.49	0.06	0.8	0.9		●	●				●	
16ER A 60	9.52	0.500	1.500	48.00	16.00	16.49	0.06	0.8	0.9	●		●	●			●	●
16ERB A 60 [1]	9.52	0.500	1.500	48.00	16.00	16.49	0.06	0.8	0.8				●			●	
16ERM A 60 [1]	9.52	0.500	1.500	48.00	16.00	16.49	0.05	0.8	0.9		●	●			●	●	●
16EL AG 60	9.52	0.500	3.000	48.00	8.00	16.49	0.06	1.2	1.7		●	●				●	
16ER AG 60	9.52	0.500	3.000	48.00	8.00	16.49	0.06	1.2	1.7	●	●	●	●	●		●	●
16ERB AG 60 [1]	9.52	0.500	3.000	48.00	8.00	16.49	0.06	1.2	1.7							●	
16ERM AG 60 [1]	9.52	0.500	3.000	48.00	8.00	16.49	0.06	1.2	1.7		●	●		●	●	●	●
16EL G 60	9.52	1.750	3.000	14.00	8.00	16.49	0.22	1.2	1.7			●				●	
16ER G 60	9.52	1.750	3.000	14.00	8.00	16.49	0.22	1.2	1.7	●		●	●			●	●
16ERB G 60 [1]	9.52	1.750	3.000	14.00	8.00	16.49	0.22	1.2	1.7							●	
16ERM G 60 [1]	9.52	1.750	3.000	14.00	8.00	16.49	0.25	1.2	1.7		●	●			●	●	●
22EL N 60	12.70	3.500	5.000	7.00	5.00	22.00	0.42	1.7	2.5		●					●	
22ER N 60	12.70	3.500	5.000	7.00	5.00	22.00	0.42	1.7	2.5	●	●	●	●			●	●
22ERM N 60 [1]	12.70	3.500	5.000	7.00	5.00	22.00	0.32	1.7	2.5		●	●			●	●	●
22UEIRL U 60	12.70	5.500	8.000	4.50	3.25	22.00	0.28	0.6	0.6			●				●	
27EL Q 60	15.88	5.500	6.000	4.50	4.00	27.50	0.63	2.0	3.0	●							
27ER Q 60	15.88	5.500	6.000	4.50	4.00	27.50	0.63	2.0	3.0		●	●				●	
27UEIRL U 60	15.88	6.500	9.000	4.00	2.75	27.50	0.28	1.0	13.7		●	●					

- For Insert Identification System, see pages 638-639
- For threading between walls use GRIP-type inserts SCIR/L B/F -MTR/L, TIP-MT, GEPI-MT, TIPI-MT.
- For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer
[2] Thread pitch minimum (mm)
[3] Thread pitch maximum (mm)
[4] Threads per inch maximum
[5] Threads per inch minimum

For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

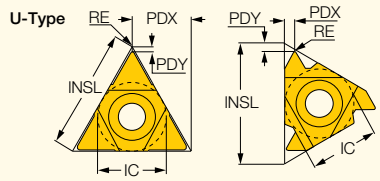


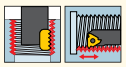
ISCARTHREAD

IR/L-60°

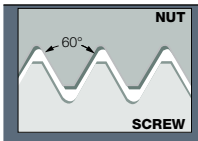
Internal Laydown Threading Inserts with a 60° Partial Profile for General Industry







Internal left-hand shown



Designation	Dimensions IC	TPN[2]	TPX[3]	TPIX[4]	TPIN[5]	INSL	RE	PDY	PDX	Tough ↔ Hard IC28	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IL A 60	4.00	0.500	1.250	48.00	20.00	6.88	0.04	0.6	0.6		●							
06IR A 60	4.00	0.500	1.250	48.00	20.00	6.88	0.04	0.6	0.6	●	●						●	
06IRM A 60 [1]	4.00	0.500	1.250	48.00	20.00	6.88	0.05	0.5	0.6		●							
08IL A 60	5.00	0.500	1.500	48.00	16.00	8.24	0.05	0.6	0.7		●							
08IR A 60	5.00	0.500	1.500	48.00	16.00	8.24	0.05	0.5	0.7	●	●			●			●	●
08IRM A 60 [1]	5.00	0.500	1.500	48.00	16.00	8.24	0.04	0.6	0.7		●					●	●	●
08UIRL U 60	5.00	1.250	2.000	18.00	12.00	8.24	0.10	0.8	4.0		●							
11IL A 60	6.35	0.500	1.500	48.00	16.00	11.00	0.04	0.8	0.9			●	●				●	
11IR A 60	6.35	0.500	0.500	48.00	16.00	11.00	0.04	0.8	0.9		●	●	●	●			●	●
11IRM A 60 [1]	6.35	0.500	1.500	48.00	16.00	11.00	0.05	0.7	0.9				●			●	●	●
16IL A 60	9.52	0.500	1.500	48.00	16.00	16.49	0.04	0.8	0.8				●				●	
16IR A 60	9.52	0.500	1.500	48.00	16.00	16.49	0.04	0.8	0.9		●	●	●				●	●
16IRB A 60 [1]	9.52	0.500	1.500	48.00	16.00	16.49	0.04	0.8	0.8								●	
16IRM A 60 [1]	9.52	0.500	1.500	48.00	16.00	16.49	0.05	0.8	0.9				●			●	●	●
16IL AG 60	9.52	0.500	3.000	48.00	8.00	16.49	0.04	1.2	1.7				●				●	●
16IR AG 60	9.52	0.500	3.000	48.00	8.00	16.49	0.04	1.2	1.7		●	●	●		●		●	●
16IRB AG 60 [1]	9.52	0.500	3.000	48.00	8.00	16.49	0.03	1.2	1.7								●	
16IRM AG 60 [1]	9.52	0.500	3.000	48.00	8.00	16.49	0.05	1.2	1.7			●	●			●	●	●
16IL G 60	9.52	1.750	3.000	14.00	8.00	16.49	0.13	1.2	1.7								●	
16IR G 60	9.52	1.750	3.000	14.00	8.00	16.49	0.13	1.2	1.7		●	●	●	●			●	●
16IRB G 60 [1]	9.52	1.750	3.000	14.00	8.00	16.49	0.13	1.2	1.7								●	
16IRM G 60 [1]	9.52	1.750	3.000	14.00	8.00	16.49	0.10	1.2	1.7			●	●			●	●	●
22IL N 60	12.70	3.500	5.000	7.00	5.00	22.00	0.22	1.7	2.5								●	
22IR N 60	12.70	3.500	5.000	7.00	5.00	22.00	0.22	1.7	2.5				●	●			●	●
22IRM N 60 [1]	12.70	3.500	5.000	7.00	5.00	22.00	0.19	1.7	2.5			●	●			●	●	●
27IL Q 60	15.88	5.500	6.000	4.50	4.00	27.50	0.31	2.1	3.1			●						
27IR Q 60	15.88	5.500	6.000	4.50	4.00	27.50	0.31	1.9	2.7				●				●	

• For Insert Identification System, see pages 638-639 • For technical information and detailed cutting data, see pages 711-727

[1] With a pressed chipformer

[2] Thread pitch minimum (mm)

[3] Thread pitch maximum (mm)

[4] Threads per inch maximum

[5] Threads per inch minimum

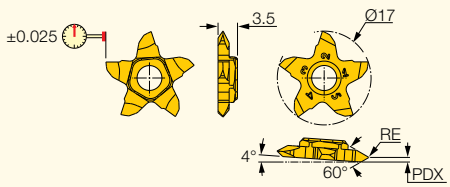
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

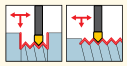
PENTACUT THREADING LINE

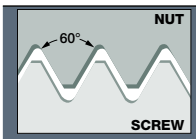
PENTA 17-MT-RS/LS

Precision Ground Pentagonal External Threading Inserts with a 60° Partial Profile for General Industry









Designation	Dimensions TPIN[1]	TPIX[2]	TPN[3]	TPX[4]	RE	PDX	IC1008
PENTA 17-MTL008LS	8.00	36.00	0.700	3.000	0.08	1.40	●
PENTA 17-MTR008RS	8.00	36.00	0.700	3.000	0.08	1.40	●
PENTA 17-MTL003LS	17.00	80.00	0.300	1.500	0.03	0.80	●
PENTA 17-MTR003RS	17.00	80.00	0.300	1.500	0.03	0.80	●

[1] Threads per inch minimum

[2] Threads per inch maximum

[3] Thread pitch minimum (mm)

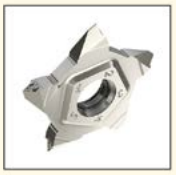
[4] Thread pitch maximum (mm)

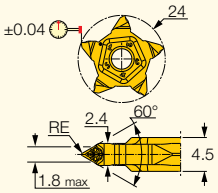
For tools, see pages: NQCH-PCHR/L-S-JHP (378) • PCADRS/LS-JHP (317) • PCHRS/LS-17 (307) • PCHRS/LS-17-JHP (307) • Y-PCHRS-17 (308) • Y-PCHRS-17-JHP (308)

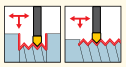
PENTACUT THREADING LINE

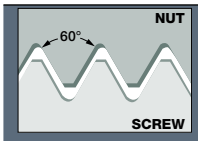
PENTA 24-MT

Precision Ground Pentagonal External Threading Inserts with a 60° Partial Profile for General Industry









Designation	Dimensions TPN[2]	TPX[3]	RE	IC908
PENTA 24A-MT-0.05 [1]	0.250	3.000	0.05	●
PENTA 24-MT-0.05	0.250	3.500	0.05	●
PENTA 24A-MT-0.15	0.800	3.000	0.15	●

- TPX=0.175xD

[1] Flat rake (without a chipformer)
[2] Thread pitch minimum (mm)
[3] Thread pitch maximum (mm)

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

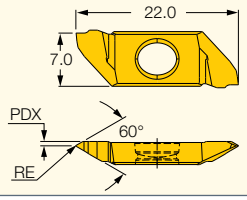
ISCARTHREAD

SWISSCUT INNOVAL LINE

SCIR/L-22-MTR/MTL

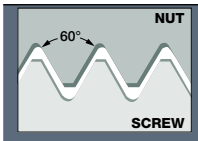
Threading Inserts with a 60° Partial Profile







Left-hand shown



Designation	Dimensions RE	PDX	TPN[1]	TPX[2]	TPIX[3]	TPIN[4]	Tough ↔ Hard IC1008	IC07	IC1007
SCIL 22-MTL003	0.03	0.4	0.300	0.900	83.00	28.00	●	●	●
SCIR 22-MTR003	0.03	0.4	0.300	0.900	83.00	28.00	●	●	●
SCIL 22-MTL007	0.07	0.5	0.700	1.100	36.00	23.00	●	●	●
SCIL 22-MTR007	0.07	0.5	0.700	1.100	36.00	23.00	●		
SCIR 22-MTL007	0.07	0.5	0.700	1.100	36.00	23.00	●		
SCIR 22-MTR007	0.07	0.5	0.700	1.100	36.00	23.00	●	●	●
SCIL 22-MTL010	0.10	0.8	0.900	1.700	28.00	15.00	●	●	●
SCIR 22-MTR010	0.10	0.8	0.900	1.700	28.00	15.00	●	●	●

- For detailed cutting data, see page 711

[1] Thread pitch minimum (mm)
[2] Thread pitch maximum (mm)
[3] Threads per inch maximum
[4] Threads per inch minimum

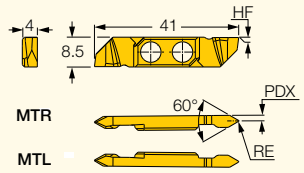
For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

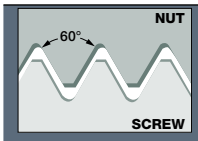
SWISSCUT EXTRA LONG
ISCARTHREAD

SCIR/L-41-MTR/MTL

Threading Inserts with a 60° Partial Profile







Designation	Dimensions RE	PDX	TPN(1)	TPX(2)	TPIN(3)	TPIX(4)	HF(5)	IC1008
SCIL 41-MTL006	0.06	0.90	0.400	1.500	17.00	64.00	0.2	●
SCIR 41-MTR006	0.06	0.90	0.400	1.500	17.00	64.00	0.2	●
SCIL 41-MTL020	0.20	1.60	1.500	2.500	10.00	17.00	0.2	●
SCIR 41-MTR020	0.20	1.60	1.500	2.500	10.00	17.00	0.2	●

• For detailed cutting data, see page 711

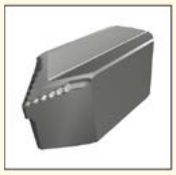
(1) Thread pitch minimum (mm)
(2) Thread pitch maximum (mm)
(3) Threads per inch minimum
(4) Threads per inch maximum
(5) Cutting edge below center

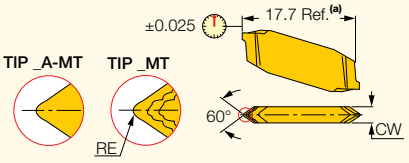
For tools, see pages: SCHR/L-41BF (369)

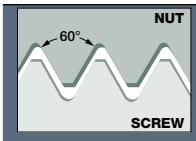
ISCARTHREAD
CUTGRIP

TIP-MT

Precision Ground Double-Ended Threading Inserts with a 60° Partial Profile and Chipformer







Designation	Dimensions CW	RE	RETOL(2)	TPN(3)	TPIX(4)	TPIN(5)	TPX(6)	Tough ↔ Hard IC08	IC908
TIP 2A-MT-0.05 (1)	2.40	0.05	0.030	0.450	56.00	12.00	2.120		●
TIP 2MT-0.05	2.40	0.05	0.030	0.450	56.00	12.00	2.120	●	●
TIP 2MT-0.14	2.40	0.14	0.030	1.110	23.00	12.00	2.120	●	●
TIP 4A-MT-0.15 (1)	4.00	0.15	0.030	1.270	20.00	7.00	3.630		●
TIP 4MT-0.15	4.00	0.15	0.030	1.270	20.00	7.00	3.630		●
TIP 4MT-0.20	4.00	0.20	0.030	1.600	16.00	7.00	3.630	●	●
TIP 5MT-0.25	5.50	0.25	0.030	1.950	13.00	5.00	5.100	●	●

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Without chipformer (flat rake)
(2) Corner radius tolerance (+/-)
(3) Thread pitch minimum (mm)
(4) Threads per inch maximum
(5) Threads per inch minimum
(6) Thread pitch maximum (mm)

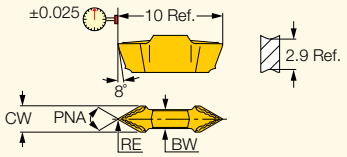
For tools, see pages: C#-GHDR/L (274) • CGHN 26-M (356) • CGHN 32-DGM (358) • CGHN 32-M (357) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

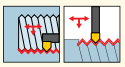
ISCARTHREAD
CUTGRIP

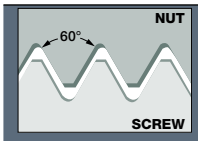
GEPI-MT

Precision Ground Internal Double-Ended Threading Inserts with a 60° Partial Profile for General Applications









Designation	Dimensions CW	RE	RETOL(1)	PNA	BW	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	Tough ↔ Hard IC08	IC908
GEPI 2.5-MT0.05	2.50	0.05	0.030	60.0	1.80	0.910	2.540	10.00	28.00	●	●

- Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD, TPI min D/5.35
- D=Diameter of thread (pitch max<=CW)

(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

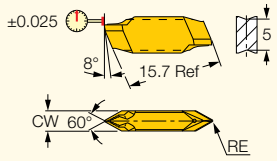
For tools, see pages: AVC-GEAIR/L (346) • E-GEHIR / E-GHIR (340) • GEAIR/L (340) • GEHIMR/L (337) • GEHIMR/L-SC (337) • GEHIR/L (338) • GEHIR/L-SC (339) • GEHSR (373) • GEHSR/L-SL (372)

ISCARTHREAD
CUTGRIP

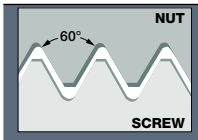
TIPI-MT

Precision Ground Double-Ended Internal Threading Inserts with 60° Partial Profile and Chipformer for 20mm Min. Bore Dia.









Designation	Dimensions CW	RE	RETOL(1)	TPN(2)	TPIX(3)	TPIN(4)	TPX(5)	Tough ↔ Hard IC08	IC908
TIPI 3.4MT-0.10	3.40	0.10	0.030	1.800	14.00	8.00	3.180	●	●
TIPI 5.4MT-0.20	5.40	0.20	0.030	3.190	8.00	5.00	5.100	●	●

- Toolholder seat needs to be modified according to insert profile to ensure clearance. • Pitch max 0.205xD, TPI min D/4.8
- D=Diameter of thread (pitch max<=CW) • TIPI inserts are 1.6 mm longer than GIPI in the same pocket

(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Threads per inch maximum
(4) Threads per inch minimum
(5) Thread pitch maximum (mm)

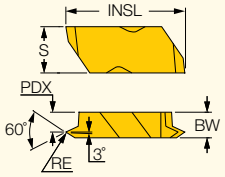
For tools, see pages: AVC-GAIR/L (347) • CGIN 26 (348) • GAIR/L (346) • GHIR/L (W=1.9-6.4) (344) • GHIR/L-C (W=4-6.4) (344) • GHIR/L-SC (W=2-4.8) (345)

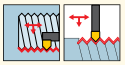
NOTCHGRIP
GROOVE-TURN LINE
ISCARTHREAD

60° PARTIAL PROFILE THREADING FLTF

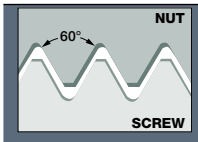
Double-Ended Precision Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions TPIN(1)	TPIX(2)	TPIN_DF2(3)	TPIX_DF2(4)	RE	PDX	BW	S	INSL	TPN_DF2	TPX_DF2	IC908
FLTF-3R/L	9.00	24.00	10.00	44.00	0.00	3.60	4.95	8.74	22.60	2.500	1.750	●
FLTF-4R/L	9.00	24.00	10.00	44.00	0.00	5.10	6.48	11.51	28.45	2.500	1.750	●
FLTF-2R/L	12.00	24.00	14.00	44.00	0.00	2.80	3.81	5.56	12.95	0.600	1.750	●

- DMIN according to related boring bar

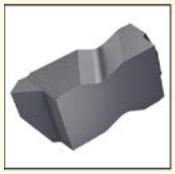
(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.

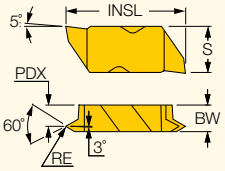
For tools, see pages: FLASR/L (708) • FLSR/L (708)

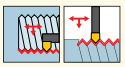
NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

60° PARTIAL PROFILE THREADING FLTK

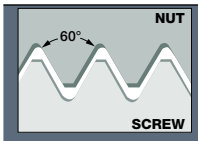
Double-Ended Precision Positive Rake Threading Inserts







Right-hand shown



Designation	Dimensions										IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	TTP	PDX	BW	S	INSL	
FLTK-3R/L	9.00	24.00	10.00	44.00	0.00	BOTH	3.60	4.95	8.74	22.60	●
FLTK-4R/L	9.00	24.00	10.00	44.00	0.00	BOTH	5.10	6.48	11.51	28.45	●
FLTK-2R/L	12.00	24.00	14.00	44.00	0.00	BOTH	2.80	3.81	5.56	12.95	●

• DMIN according to related boring bar
[1] TPI int. min.
[2] TPI int. max.
[3] TPI ext. min.
[4] TPI ext. max.

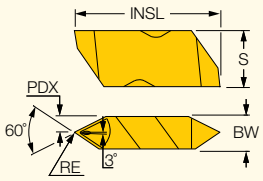
For tools, see pages: FLASR/L (708) • FLSR/L (708)

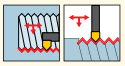
NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

60° PARTIAL PROFILE THREADING FLT-CB

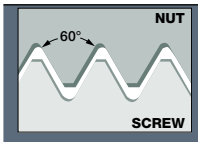
Double-Ended Precision Threading Inserts with Chipbreakers







Right-hand shown



Designation	Dimensions									IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	
FLT-4R/L-HCB	4.00	12.00	4.00	20.00	0.00	3.30	6.48	11.51	28.45	●
FLT-3R/LC-HCB	5.00	6.00	6.00	11.00	0.00	2.50	4.95	8.74	22.60	●
FLT-3R/L-HCB	5.00	12.00	6.00	20.00	0.00	2.50	4.95	8.74	22.60	●
FLT-3R/L-FCB	7.00	20.00	8.00	36.00	0.00	2.50	4.95	8.74	22.60	●
FLT-3R/L-CB	8.00	12.00	8.00	20.00	0.00	2.50	4.95	8.74	22.60	●

• DMIN according to related boring bar
[1] TPI int. min.
[2] TPI int. max.
[3] TPI ext. min.
[4] TPI ext. max.

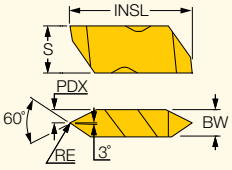
For tools, see pages: FLASR/L (708) • FLSR/L (708)

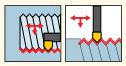
NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

60° PARTIAL PROFILE THREADING FLT

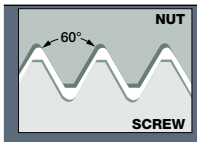
Double-Ended Precision Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions									IC908
	TPIN[1]	TPIX[2]	TPIN_DF2[3]	TPIX_DF2[4]	RE	PDX	BW	S	INSL	
FLT-4R/L	4.00	12.00	4.00	20.00	0.00	3.30	6.48	11.51	28.45	●
FLT-3R/L	5.00	12.00	6.00	20.00	0.00	2.50	4.95	8.74	22.60	●
FLT-3010R/L	5.00	12.00	6.00	18.00	0.00	2.50	4.95	8.74	22.60	●
FLT-2R/L	7.00	20.00	8.00	36.00	0.00	1.90	3.81	5.56	12.95	●

• DMIN according to related boring bar
[1] TPI int. min.
[2] TPI int. max.
[3] TPI ext. min.
[4] TPI ext. max.

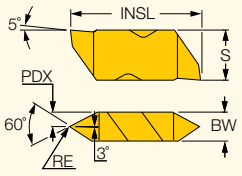
For tools, see pages: FLASR/L (708) • FLSR/L (708)

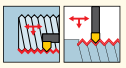
NOTCH GRIP GROOVE-TURN LINE
ISCARTHREAD

60° PARTIAL PROFILE THREADING FLTP

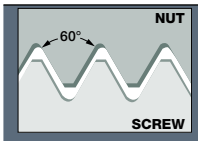
Double-Ended Precision Positive Rake Threading Inserts







Right-hand shown



Designation	Dimensions TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	IC908
FLTP-4R/L	4.00	12.00	4.00	20.00	0.00	3.30	6.50	11.51	28.45	●
FLTP-3R/L	5.00	12.00	6.00	20.00	0.00	2.50	5.00	8.74	22.60	●
FLTP-2R/L	7.00	20.00	8.00	36.00	0.00	1.90	3.80	5.56	12.95	●

- DMIN according to related boring bar

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.

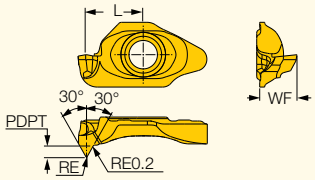
For tools, see pages: FLASR/L (708) • FLSR/L (708)

ISCARTHREAD
MIN CUT MINI FACE LINE

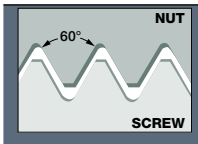
MITR 8-MT

Internal ISO Metric Threading Inserts for Partial Profile









Designation	Dimensions PDPT[1]	RE	L	WF	DMIN[2]	TPN[3]	TPX[4]	IC908
MITR 8-MT2-0.1	1.17	0.10	5.75	3.80	10.00	1.500	2.000	●
MITR 8-MT1-0.05	1.23	0.05	5.75	3.80	10.00	0.750	1.250	●

(1) Cutting depth maximum
(2) Minimum diameter
(3) Thread pitch minimum (mm)
(4) Thread pitch maximum (mm)

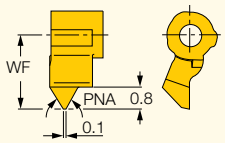
For tools, see pages: MIFHR (413)

ISCARTHREAD
MINICHAM

UMGR-A60

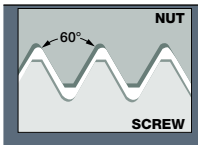
Mini Indexable Inserts with a 60° Partial Profile for Threading in 5.2 mm and Larger Holes







Right-hand shown



Designation	Dimensions PNA	WF	DMIN	TPN[1]	TPX[2]	TPIN[3]	TPIX[4]	IC508
UMGR 4.0-A60	60.0	2.70	5.20	0.600	1.250	20.00	40.00	●

- For detailed cutting data, see page 711

(1) Thread pitch minimum (mm)
(2) Thread pitch maximum (mm)
(3) Threads per inch minimum
(4) Threads per inch maximum

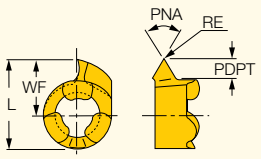
For tools, see pages: MGUHR (411)

ISCARTHREAD CHAMGROOVE

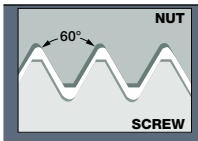
GIQR/L-MT

Internal Threading Inserts with a 60° Partial Profile for Threading in 8 mm and Larger Holes





Left-hand shown



Designation	Dimensions										IC528
	L	RE	PNA	PDPT(1)	WF	DMIN(2)	TPN(3)	TPX(4)	TPIN(5)	TPIX(6)	
GIQR/L 8-MT-0.05	7.78	0.05	60.0	1.50	4.80	8.00	0.500	1.590	16.00	50.00	●
GIQR/L 11-MT-0.05	10.68	0.05	60.0	2.00	6.70	11.00	0.500	2.300	11.00	50.00	●

• Can be used for thread milling by circular interpolation • Pitch max 0.19xD • D-diameter of thread • For cutting speed recommendations, see page 711

(1) Cutting depth maximum
(2) Minimum diameter
(3) Thread pitch minimum (mm)
(4) Thread pitch maximum (mm)
(5) Threads per inch minimum
(6) Threads per inch maximum

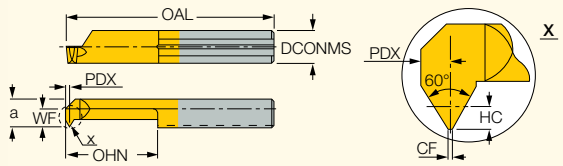
For tools, see pages: MG (414) • MGCH (414)

ISCARTHREAD PICCOCUT

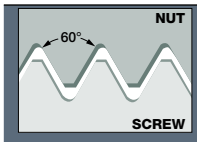
PICCO R/L-60°-Thread

Inserts with a 60° Internal Thread Profile for 2.4 mm Min. Bore Diameter





Right-hand shown



Designation	Dimensions													Tough ↔ Hard	
	DCONMS	HC	CF	PDX	WF	a	OHN(1)	OAL	DMIN	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	IC228	IC908
PICCO R 003.0105-8	4.00	0.27	0.04	0.3	0.30	2.30	8.0	22.00	2.40	0.500	0.700	36.00	48.00		●
PICCO R 004.0105-10	4.00	0.27	0.09	0.4	1.00	3.00	10.0	24.00	3.20	0.500	0.750	36.00	48.00		●
PICCO R/L 004.0205-15	4.00	0.27	0.06	0.4	1.50	3.50	15.0	30.00	4.00	0.500	0.750	36.00	48.00	●	
PICCO R/L 005.0205-15	5.00	0.27	0.06	0.4	1.90	4.40	15.0	30.00	5.00	0.500	0.750	36.00	48.00	●	
PICCO L 005.0407-15	5.00	0.40	0.09	0.5	1.90	4.40	15.0	30.00	5.00	0.750	1.000	24.00	36.00	●	
PICCO R 005.0407-15	5.00	0.40	0.09	0.5	1.90	4.40	15.0	30.00	5.00	0.750	1.000	24.00	36.00	●	●
PICCO R 005.0407-20	5.00	0.40	0.09	0.5	1.90	4.40	20.0	35.00	5.00	0.750	1.000	24.00	36.00		●
PICCO R/L 005.0510-15	5.00	0.55	0.12	0.6	1.90	4.40	15.0	30.00	4.80	1.000	1.250	20.00	24.00	●	
PICCO R 005.0510-20	5.00	0.55	0.12	0.6	1.90	4.40	20.0	35.00	4.80	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0510-15	6.00	0.55	0.12	0.6	2.30	5.30	15.0	30.00	6.00	1.000	1.250	20.00	24.00	●	
PICCO R 006.0510-22	6.00	0.55	0.12	0.6	2.30	5.30	22.0	37.00	6.00	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0612-15	6.00	0.68	0.15	0.7	2.30	5.30	15.0	30.00	6.00	1.250	1.500	16.00	20.00	●	
PICCO R 006.0612-22	6.00	0.68	0.15	0.7	2.30	5.30	22.0	37.00	6.00	1.250	1.500	16.00	20.00		●
PICCO R/L 006.0815-15	6.00	0.81	0.18	0.8	2.30	5.30	15.0	30.00	6.00	1.500	1.750	14.00	16.00	●	
PICCO R 006.0815-22	6.00	0.81	0.18	0.8	2.30	5.30	22.0	37.00	6.00	1.500	1.750	14.00	16.00		●
PICCO R/L 007.0815-15	7.00	0.81	0.18	0.8	2.70	6.30	15.0	30.00	7.00	1.500	1.750	14.00	16.00	●	

• For detailed cutting data, see page 711

(1) Minimum overhang
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

For holders, see pages: GHPCOR (361) • PICCO ACE (359) • PICCO/MG PCO (holder) (360)

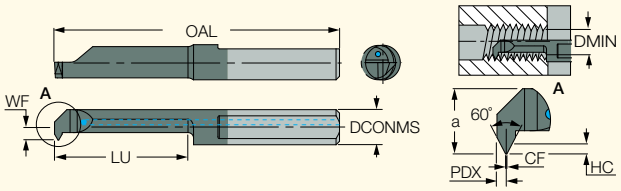
ISCARTHREAD

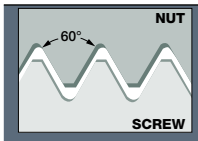
PICCOCUT

PICCO R/L60°-N (60° Threading)

Inserts with a 60° Internal Thread Profile and Internal Coolant Channel for 2.4 mm Min. Bore Diameter







Designation	Dimensions													IC908
	DCONMS	HC	CF	PDX	WF	a	LU	OAL	DMIN	TPN(1)	TPX(2)	TPIN(3)	TPIX(4)	
PICCO R 003.0105-8N	4.05	0.27	0.04	0.3	0.30	2.30	7.0	31.00	2.40	0.500	0.700	36.00	48.00	●
PICCO R 004.0105-10N	4.05	0.27	0.09	0.4	1.00	3.00	9.0	31.00	3.20	0.500	0.750	36.00	48.00	●
PICCO R 004.0205-15N	4.05	0.27	0.06	0.4	1.50	3.50	14.0	36.00	4.00	0.500	0.750	36.00	48.00	●
PICCO R 005.0205-15N	5.05	0.27	0.06	0.4	1.90	4.40	14.0	36.00	5.00	0.500	0.750	36.00	48.00	●
PICCO R 005.0407-15N	5.05	0.40	0.09	0.5	1.90	4.40	14.0	36.00	5.00	0.750	1.000	24.00	36.00	●
PICCO R/L 005.0510-15N	5.05	0.55	0.12	0.6	1.90	4.40	14.0	36.00	4.80	1.000	1.250	20.00	24.00	●
PICCO R 005.0510-20N	5.05	0.55	0.12	0.6	1.90	4.40	19.0	41.00	4.80	1.000	1.250	20.00	24.00	●
PICCO R 006.0510-15N	6.05	0.55	0.12	0.6	2.30	5.30	14.0	36.00	6.00	1.000	1.250	20.00	24.00	●
PICCO R 006.0510-22N	6.05	0.55	0.12	0.6	2.30	5.30	21.0	43.00	6.00	1.000	1.250	20.00	24.00	●
PICCO R 006.0612-15N	6.05	0.68	0.15	0.7	2.30	5.30	14.0	36.00	6.00	1.250	1.500	16.00	20.00	●
PICCO R 006.0815-15N	6.05	0.81	0.18	0.8	2.30	5.30	14.0	36.00	6.00	1.500	1.750	14.00	16.00	●
PICCO R/L 007.0815-15N	7.05	0.81	0.18	0.8	2.70	6.30	14.0	36.00	7.00	1.500	1.750	14.00	16.00	●

• Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only • For detailed cutting data, see page 711

(1) Thread pitch minimum (mm)

(2) Thread pitch maximum (mm)

(3) Threads per inch minimum

(4) Threads per inch maximum

For holders, see pages: PICCO ACE-N (710) • PICCO-N (holder) (710)

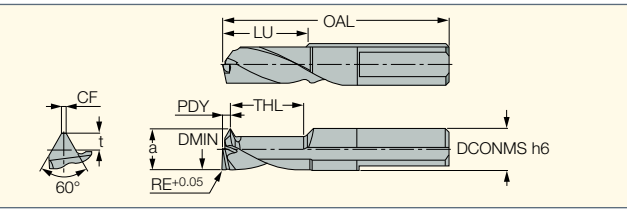


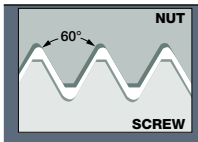
MULTIFUNCTION TOOLS

PICCO-MFT

Solid Carbide Tools for Drilling, Facing, Int. and Ext. Turning and Threading on Swiss and Small CNC Machines







Designation	Dimensions											IC908
	DCONMS	DMIN	LU	TPN(2)	TPX(3)	t	a	CF	THL	OAL	PDY	RE	
PICCO R/L-MFT60 6-4 L08	6.00	4.00	8.0	0.500	0.750	0.46	3.90	0.06	7.3	30.00	1.3	0.10	●
PICCO R-MFT60 6-4 L12	6.00	4.00	12.0	0.500	0.750	0.46	3.90	0.06	11.6	34.00	1.2	0.20	●
PICCO R/L-MFT60 6-5 L10	6.00	5.00	10.0	0.500	1.000	0.61	4.90	0.06	9.0	32.00	1.4	0.10	●
PICCO R/L-MFT60 6-5 L15 (1)	6.00	5.00	15.0	0.500	1.000	0.61	4.90	0.06	14.4	37.00	1.4	0.30	●
PICCO R/L-MFT60 6-6 L18 (1)	6.00	6.00	18.0	0.500	1.000	0.61	5.90	0.06	17.3	43.00	1.4	0.30	●
PICCO R-MFT60 6-6 L12	6.00	6.00	12.0	0.500	1.000	0.61	5.90	0.06	11.0	34.00	1.4	0.10	●
PICCO R/L-MFT60 8-7 L14	8.00	7.00	14.0	0.750	1.250	0.76	6.90	0.09	13.0	41.00	1.5	0.10	●
PICCO R-MFT60 8-7 L21	8.00	7.00	21.0	0.750	1.250	0.76	6.90	0.09	20.0	55.00	1.5	0.30	●
PICCO R/L-MFT60 8-8 L16	8.00	8.00	16.0	0.900	1.500	0.92	7.90	0.11	15.0	43.00	1.5	0.10	●
PICCO L-MFT60 8-8 L24 (1)	8.00	8.00	24.0	0.900	1.500	0.92	7.90	0.11	23.0	57.00	1.5	0.30	●
PICCO R-MFT60 8-8 L24	8.00	8.00	24.0	0.900	1.500	0.92	7.90	0.11	23.0	51.00	1.5	0.30	●

• Applications: Drilling; face turning; internal chamfering; internal turning/boring; internal profiling; external chamfering; external turning; internal and external 60° threading (right- and left-hand)

(1) Available on request

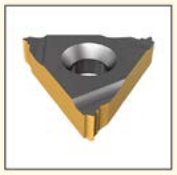
(2) Thread pitch minimum (mm)

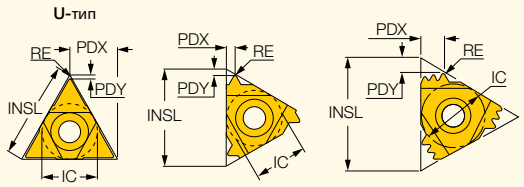
(3) Thread pitch maximum (mm)

For holders, see pages: PICCO/MG PCO (holder) (360)

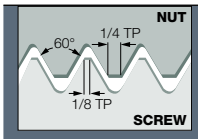
ISCARTHREAD

ER/L-ISO
External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Industry





External right-hand shown



Designation	Dimensions IC	TP[3]	RE	INSL	PDY	PDX	CICT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11EL 0.35 ISO	6.35	0.350	0.04	11.00	0.8	0.4	1							•	
11ER 0.35 ISO	6.35	0.350	0.04	11.00	0.6	0.4	1							•	
11ER 0.40 ISO	6.35	0.400	0.04	11.00	0.7	0.4	1							•	
11ER 0.45 ISO	6.35	0.450	0.05	11.00	0.7	0.4	1	•							
11EL 0.50 ISO	6.35	0.500	0.06	11.00	0.6	0.6	1							•	
11ER 0.50 ISO	6.35	0.500	0.06	11.00	0.6	0.6	1			•				•	
11ER 0.60 ISO	6.35	0.600	0.07	11.00	0.6	0.6	1							•	
11ER 0.70 ISO	6.35	0.700	0.11	11.00	0.6	0.6	1							•	
11EL 0.75 ISO	6.35	0.750	0.08	11.00	0.6	0.6	1							•	
11ER 0.75 ISO	6.35	0.750	0.11	11.00	0.6	0.6	1							•	
11ER 0.80 ISO	6.35	0.800	0.12	11.00	0.6	0.6	1							•	
11EL 1.00 ISO	6.35	1.000	0.13	11.00	0.7	0.7	1			•					
11ER 1.00 ISO	6.35	1.000	0.13	11.00	0.7	0.7	1							•	
11ER 1.25 ISO	6.35	1.250	0.16	11.00	0.8	0.9	1							•	
11EL 1.50 ISO	6.35	1.500	0.19	11.00	0.8	0.9	1							•	
11ER 1.50 ISO	6.35	1.500	0.19	11.00	1.0	0.8	1			•				•	
11ER 1.75 ISO	6.35	1.750	0.22	11.00	1.1	0.8	1			•					
16ER/L 0.35 ISO	9.52	0.350	0.04	16.49	0.6	0.4	1							•	
16EL 0.40 ISO	9.52	0.400	0.05	16.49	0.7	0.4	1							•	
16ER 0.40 ISO	9.52	0.400	0.05	16.49	0.6	0.4	1							•	
16ER 0.45 ISO	9.52	0.450	0.05	16.49	0.6	0.4	1							•	
16EL 0.50 ISO	9.52	0.500	0.06	16.49	0.6	0.6	1							•	
16ER 0.50 ISO	9.52	0.500	0.06	16.49	0.6	0.6	1			•	•			•	•
16ERM 0.50 ISO	9.52	0.500	0.06	16.49	0.6	0.6	1							•	
16ER 0.60 ISO	9.52	0.600	0.10	16.49	0.6	0.6	1							•	
16EL 0.70 ISO	9.52	0.700	0.11	16.49	0.6	0.6	1							•	
16ER 0.70 ISO	9.52	0.700	0.11	16.49	0.6	0.6	1			•				•	•
16EL 0.75 ISO	9.52	0.750	0.11	16.49	0.6	0.6	1							•	
16ER 0.75 ISO	9.52	0.750	0.11	16.49	0.6	0.6	1			•	•			•	•
16ER 0.75 ISO 3M [1]	9.52	0.750	0.07	16.49	1.4	1.9	3							•	
16ERM 0.75 ISO [2]	9.52	0.750	0.08	16.49	0.6	0.6	1						•	•	•
16EL 0.80 ISO	9.52	0.800	0.12	16.49	0.6	0.6	1			•					
16ER 0.80 ISO	9.52	0.800	0.12	16.49	0.6	0.6	1			•				•	•
16ERB 0.80 ISO [2]	9.52	0.800	0.12	16.49	0.7	0.7	1							•	
16EL 1.00 ISO	9.52	1.000	0.13	16.49	0.7	0.7	1			•	•			•	
16ER 1.00 ISO	9.52	1.000	0.13	16.49	0.7	0.7	1	•	•	•	•			•	•
16ER 1.00 ISO 3M [1]	9.52	1.000	0.07	16.49	1.7	2.5	3							•	
16ERB 1.00 ISO [2]	9.52	1.000	0.13	16.49	0.7	0.7	1							•	
16ERM 1.00 ISO [2]	9.52	1.000	0.11	16.49	0.7	0.7	1		•	•		•	•	•	•
16EL 1.25 ISO	9.52	1.250	0.16	16.49	0.8	0.9	1			•	•			•	
16ER 1.25 ISO	9.52	1.250	0.16	16.49	0.8	0.9	1			•	•			•	•
16ERB 1.25 ISO [2]	9.52	1.250	0.16	16.49	0.8	0.9	1							•	
16ERM 1.25 ISO [2]	9.52	1.250	0.14	16.49	0.8	0.9	1			•			•	•	•
16EL 1.50 ISO	9.52	1.500	0.19	16.49	0.9	1.2	1			•	•			•	•
16ER 1.50 ISO	9.52	1.500	0.19	16.49	0.9	1.2	1	•	•	•	•			•	•
16ER 1.50 ISO 2M [1]	9.52	1.500	0.18	16.49	1.5	2.3	2							•	
16ERB 1.50 ISO [2]	9.52	1.500	0.19	16.49	0.8	1.0	1							•	
16ERM 1.50 ISO [2]	9.52	1.500	0.19	16.49	0.8	1.0	1		•	•		•	•	•	•
16EL 1.75 ISO	9.52	1.750	0.22	16.49	0.9	1.2	1							•	
16ER 1.75 ISO	9.52	1.750	0.22	16.49	0.9	1.2	1	•		•	•			•	•
16ERB 1.75 ISO [2]	9.52	1.750	0.22	16.49	0.9	1.2	1							•	
16ERM 1.75 ISO [2]	9.52	1.750	0.20	16.49	0.9	1.2	1			•			•	•	•

- For Insert Identification System, see pages 638-639 • For threading between walls use GRIP-type inserts TIP-ISO class: 6g
- For technical information and detailed cutting data, see pages 711-727

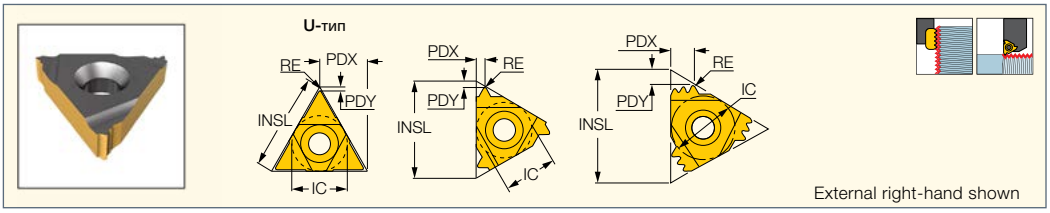
[1] Multi-tooth
[2] With pressed chipformer
[3] Thread pitch
[4] Number of teeth per corner

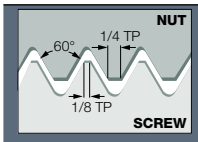
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702)

ISCARTHREAD

ER/L-ISO (Continued)

External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Industry



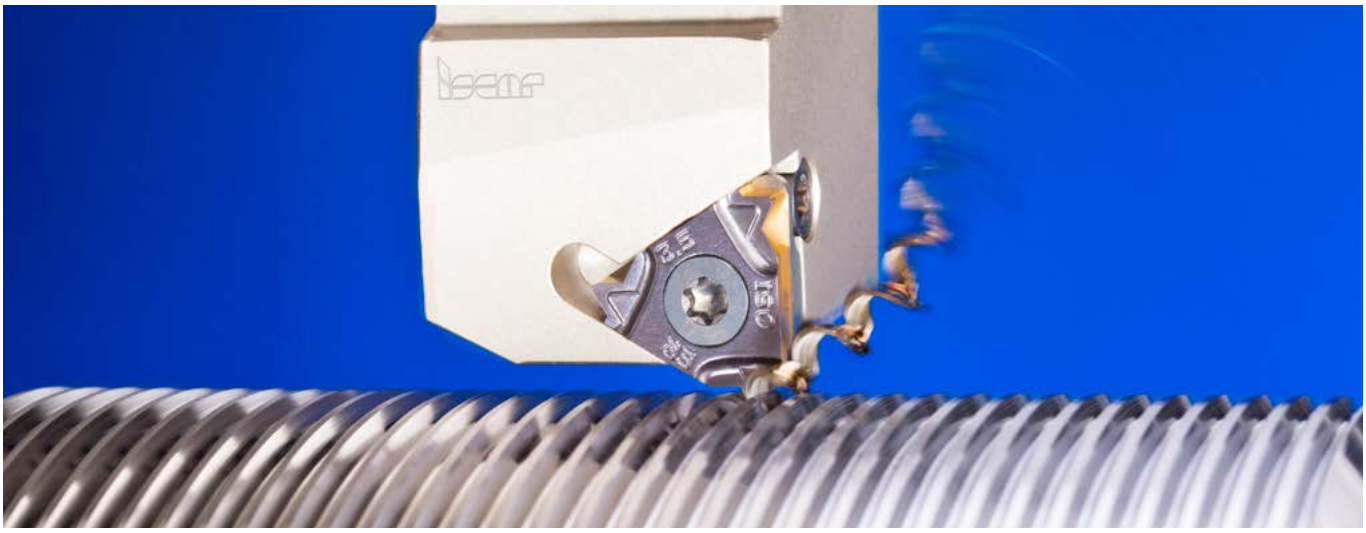


Designation	Dimensions							Tough ↔ Hard							
	IC	TP[3]	RE	INSL	PDY	PDX	CICT[4]	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16EL 2.00 ISO	9.52	2.000	0.25	16.49	1.0	1.3	1	●		●				●	
16ER 2.00 ISO	9.52	2.000	0.25	16.49	1.0	1.3	1	●	●	●	●			●	●
16ER 2.00 ISO 2M [1]	9.52	2.000	0.09	16.49	1.8	2.9	2							●	
16ERB 2.00 ISO [2]	9.52	2.000	0.25	16.49	0.9	1.2	1							●	
16ERM 2.00 ISO [2]	9.52	2.000	0.24	16.49	1.0	1.3	1			●		●	●	●	●
16EL 2.50 ISO	9.52	2.500	0.32	16.49	1.1	1.5	1							●	
16ER 2.50 ISO	9.52	2.500	0.32	16.49	1.1	1.5	1		●	●				●	●
16ERB 2.50 ISO	9.52	2.500	0.32	16.49	1.1	1.5	1							●	
16ERM 2.50 ISO [2]	9.52	2.500	0.30	16.49	1.1	1.5	1			●			●	●	●
16EL 3.00 ISO	9.52	3.000	0.38	16.49	1.2	1.6	1							●	
16ER 3.00 ISO	9.52	3.000	0.38	16.49	1.2	1.6	1	●	●	●		●		●	●
16ERB 3.00 ISO [2]	9.52	3.000	0.38	16.49	1.2	1.6	1							●	
16ERM 3.00 ISO [2]	9.52	3.000	0.38	16.49	1.2	1.6	1		●	●		●	●	●	●
22ER 1.50 ISO 3M [1]	12.70	1.500	0.07	22.00	2.3	3.7	3			●				●	
22ER 2.00 ISO 2M [1]	12.70	2.000	0.25	22.00	2.0	3.0	2							●	
22ER 2.00 ISO 3M [1]	12.70	2.000	0.25	22.00	3.1	5.0	3			●				●	
22EL 3.50 ISO	12.70	3.500	0.46	22.00	1.6	2.3	1	●		●					
22ER 3.50 ISO	12.70	3.500	0.46	22.00	1.6	2.3	1			●				●	
22ERM 3.50 ISO [2]	12.70	3.500	0.48	22.00	1.6	2.3	1						●	●	
22EL 4.00 ISO	12.70	4.000	0.52	22.00	1.6	2.3	1			●				●	
22ER 4.00 ISO	12.70	4.000	0.52	22.00	1.6	2.3	1		●	●				●	●
22ERM 4.00 ISO [2]	12.70	4.000	0.52	22.00	1.6	2.3	1						●	●	
22ER 4.50 ISO	12.70	4.500	0.58	22.00	1.6	2.3	1			●				●	
22EL 5.00 ISO	12.70	5.000	0.66	22.00	1.7	2.5	1			●					
22ER 5.00 ISO	12.70	5.000	0.66	22.00	1.7	2.5	1			●				●	
22ER 6.00 ISO	12.70	6.000	0.79	22.00	1.9	2.7	1			●					
22UERL 5.50 ISO	12.70	5.500	0.70	22.00	2.3	11.0	1			●					
22EL 6.00 ISO	12.70	6.000	0.78	22.00	2.0	2.7	1			●					
22UERL 6.00 ISO	12.70	6.000	0.78	22.00	2.6	11.0	1	●		●					
27ER 3.00 ISO 2M [1]	15.88	3.000	0.38	27.50	2.9	4.6	2							●	
27ER 5.50 ISO	15.88	5.500	0.71	27.50	2.0	2.9	1							●	
27EL 6.00 ISO	15.88	6.000	0.78	27.50	2.0	2.9	1							●	
27ER 6.00 ISO	15.88	6.000	0.78	27.50	2.0	2.9	1	●		●				●	
27UERL 8.00 ISO	15.88	8.000	1.08	27.50	2.4	13.7	1							●	

- For Insert Identification System, see pages 638-639
- For threading between walls use GRIP-type inserts TIP-ISO class: 6g
- For technical information and detailed cutting data, see pages 711-727

[1] Multi-tooth
[2] With pressed chipformer
[3] Thread pitch
[4] Number of teeth per corner

For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702)

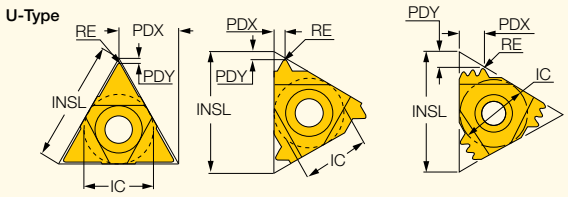


ISCARTHREAD

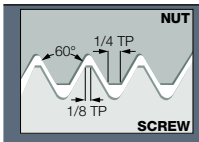
IR/L-ISO

Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Industry





Internal left-hand shown



Designation	Dimensions							Tough ↔ Hard									
	IC	TP[3]	RE	INSL	PDY	PDX	CICT[4]	IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IL 0.50 ISO	4.00	0.500	0.04	6.88	0.6	0.4	1		•								
06IR 0.50 ISO	4.00	0.500	0.04	6.88	0.6	0.4	1		•	•						•	
06IL 0.75 ISO	4.00	0.750	0.06	6.88	0.6	0.5	1		•								
06IR 0.75 ISO	4.00	0.750	0.06	6.88	0.6	0.5	1		•	•						•	
06IL 1.00 ISO	4.00	1.000	0.05	6.88	0.6	0.6	1		•								
06IR 1.00 ISO	4.00	1.000	0.05	6.88	0.6	0.6	1		•	•						•	
06IL 1.25 ISO	4.00	1.250	0.07	6.88	0.6	0.6	1		•								
06IR 1.25 ISO	4.00	1.250	0.07	6.88	0.6	0.6	1		•	•						•	
08IL 0.50 ISO	5.00	0.500	0.04	8.24	0.6	0.4	1		•								
08IR 0.50 ISO	5.00	0.500	0.04	8.24	0.6	0.4	1		•	•						•	
08IR 0.75 ISO	5.00	0.750	0.05	8.24	0.6	0.5	1		•	•						•	
08IL 1.00 ISO	5.00	1.000	0.07	8.24	0.6	0.6	1		•								
08IR 1.00 ISO	5.00	1.000	0.07	8.24	0.6	0.6	1		•	•						•	
08IL 1.25 ISO	5.00	1.250	0.09	8.24	0.6	0.7	1		•								
08IR 1.25 ISO	5.00	1.250	0.09	8.24	0.6	0.7	1		•	•						•	
08IL 1.50 ISO	5.00	1.500	0.10	8.24	0.6	0.7	1		•								
08IR 1.50 ISO	5.00	1.500	0.10	8.24	0.6	0.7	1	•	•	•						•	
08IL 1.75 ISO	5.00	1.750	0.15	8.24	0.6	0.9	1		•								
08IR 1.75 ISO	5.00	1.750	0.15	8.24	0.6	0.8	1		•	•						•	
08UIRL 2.00 ISO	5.00	2.000	0.14	8.24	0.8	4.3	1		•								
11IL 0.35 ISO	6.35	0.350	0.04	11.00	0.8	0.3	1						•				
11IR 0.35 ISO	6.35	0.350	0.04	11.00	0.8	0.3	1									•	
11IR 0.40 ISO	6.35	0.400	0.03	11.00	0.8	0.4	1									•	
11IL 0.50 ISO	6.35	0.500	0.04	11.00	0.8	0.6	1									•	
11IR 0.50 ISO	6.35	0.500	0.04	11.00	0.8	0.6	1					•	•			•	
11IRB 0.50 ISO	6.35	0.500	0.04	11.00	0.8	0.6	1									•	
11IRM 0.50 ISO	6.35	0.500	0.04	11.00	0.3	0.4	1									•	
11IR 0.70 ISO	6.35	0.700	0.05	11.00	0.6	0.6	1									•	
11IR/L 0.75 ISO	6.35	0.750	0.05	11.00	0.6	0.6	1									•	
11IRB 0.75 ISO	6.35	0.750	0.05	11.00	0.1	0.6	1									•	
11IRM 0.75 ISO	6.35	0.750	0.06	11.00	0.3	0.5	1									•	
11IR 0.80 ISO	6.35	0.800	0.04	11.00	0.6	0.6	1									•	
11IRB 0.80 ISO	6.35	0.800	0.04	11.00	0.6	0.6	1									•	
11IL 1.00 ISO	6.35	1.000	0.07	11.00	0.6	0.7	1									•	
11IR 1.00 ISO	6.35	1.000	0.07	11.00	0.6	0.7	1		•		•	•	•			•	•
11IRB 1.00 ISO	6.35	1.000	0.07	11.00	0.6	0.6	1									•	
11IRM 1.00 ISO [1]	6.35	1.000	0.05	11.00	0.6	0.7	1								•	•	•
11IR/L 1.25 ISO	6.35	1.250	0.09	11.00	0.8	0.8	1									•	
11IRB 1.25 ISO	6.35	1.250	0.09	11.00	0.8	0.9	1									•	
11IL 1.50 ISO	6.35	1.500	0.12	11.00	0.8	1.0	1					•				•	
11IR 1.50 ISO	6.35	1.500	0.12	11.00	0.8	1.0	1		•		•	•	•			•	•
11IRB 1.50 ISO	6.35	1.500	0.12	11.00	0.8	1.0	1									•	
11IRM 1.50 ISO [1]	6.35	1.500	0.08	11.00	0.8	1.0	1					•				•	•
11IL 1.75 ISO	6.35	1.750	0.12	11.00	0.8	1.0	1				•					•	
11IR 1.75 ISO	6.35	1.750	0.12	11.00	0.8	1.0	1									•	
11IRB 1.75 ISO	6.35	1.750	0.12	11.00	0.8	1.0	1									•	
11IRM 1.75 ISO	6.35	1.750	0.15	11.00	0.6	0.9	1									•	
11IL 2.00 ISO	6.35	2.000	0.14	11.00	0.8	0.9	1									•	
11IR 2.00 ISO	6.35	2.000	0.14	11.00	0.8	0.9	1		•			•		•		•	•
11IRM 2.00 ISO	6.35	2.000	0.16	11.00	0.6	1.0	1									•	
16IR 0.35 ISO	9.52	0.350	0.02	16.49	0.6	0.3	1									•	
16IR/L 0.40 ISO	9.52	0.400	0.03	16.49	0.6	0.4	1									•	

• For Insert Identification System, see pages 638-639 • Tolerance: Class 6H. • For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer

[2] Multi-tooth

[3] Thread pitch

[4] Number of teeth per corner

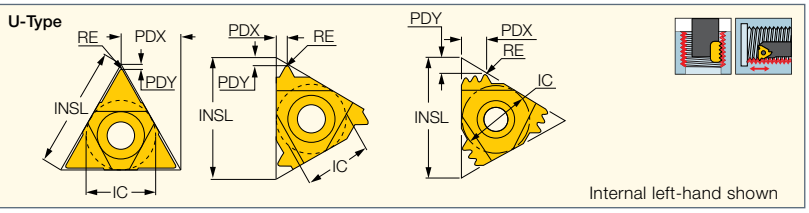
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

ISCARTHREAD

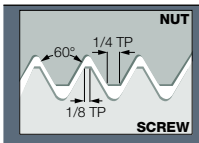
IR/L-ISO (Continued)

Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Industry





Internal left-hand shown



Designation	Dimensions IC	TP[3]	RE	INSL	PDY	PDX	CICT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IL 0.45 ISO	9.52	0.450	0.02	16.49	0.8	0.4	1									•	
16IL 0.50 ISO	9.52	0.500	0.04	16.49	0.6	0.6	1									•	
16IR 0.50 ISO	9.52	0.500	0.04	16.49	0.6	0.6	1					•	•			•	
16IR 0.60 ISO	9.52	0.600	0.04	16.49	0.6	0.6	1									•	
16IR 0.70 ISO	9.52	0.700	0.05	16.49	0.6	0.6	1					•				•	
16IL 0.75 ISO	9.52	0.750	0.05	16.49	0.6	0.6	1									•	
16IR 0.75 ISO	9.52	0.750	0.05	16.49	0.6	0.6	1						•			•	
16IL 0.80 ISO	9.52	0.800	0.05	16.49	0.6	0.6	1				•						
16IR 0.80 ISO	9.52	0.800	0.05	16.49	0.6	0.6	1					•					
16IL 1.00 ISO	9.52	1.000	0.07	16.49	0.7	0.8	1									•	
16IR 1.00 ISO	9.52	1.000	0.07	16.49	0.7	0.8	1				•	•	•			•	•
16IR 1.00 ISO 3M [2]	9.52	1.000	0.07	16.49	1.5	2.5	3									•	
16IRB 1.00 ISO [1]	9.52	1.000	0.07	16.49	0.7	0.8	1									•	
16IRM 1.00 ISO [1]	9.52	1.000	0.05	16.49	0.6	0.7	1				•	•		•	•	•	•
16IL 1.25 ISO	9.52	1.250	0.09	16.49	0.8	0.9	1				•		•			•	
16IR 1.25 ISO	9.52	1.250	0.09	16.49	0.8	0.9	1					•	•			•	
16IRB 1.25 ISO [1]	9.52	1.250	0.09	16.49	0.7	0.8	1									•	
16IRM 1.25 ISO [1]	9.52	1.250	0.06	16.49	0.8	0.9	1					•				•	•
16IL 1.50 ISO	9.52	1.500	0.12	16.49	0.9	1.0	1				•	•				•	•
16IR 1.50 ISO	9.52	1.500	0.12	16.49	0.9	1.0	1		•		•	•	•			•	•
16IR 1.50 ISO 2M [2]	9.52	1.500	0.10	16.49	1.5	2.3	2									•	
16IRB 1.50 ISO [1]	9.52	1.500	0.12	16.49	0.1	1.2	1									•	
16IRM 1.50 ISO [1]	9.52	1.500	0.08	16.49	0.8	1.0	1				•	•		•	•	•	•
16IL 1.75 ISO	9.52	1.750	0.12	16.49	0.9	1.2	1									•	
16IR 1.75 ISO	9.52	1.750	0.12	16.49	0.9	1.2	1					•	•			•	
16IRB 1.75 ISO [1]	9.52	1.750	0.12	16.49	0.9	1.2	1									•	
16IRM 1.75 ISO [1]	9.52	1.750	0.10	16.49	0.9	1.2	1					•			•	•	•
16IL 2.00 ISO	9.52	2.000	0.16	16.49	0.9	1.2	1					•				•	
16IR 2.00 ISO	9.52	2.000	0.16	16.49	0.9	1.2	1		•			•		•		•	•
16IR 2.00 ISO 2M [2]	9.52	2.000	0.14	16.49	1.6	2.7	2									•	
16IRB 2.00 ISO [1]	9.52	2.000	0.14	16.49	1.0	1.2	1									•	
16IRM 2.00 ISO [1]	9.52	2.000	0.11	16.49	1.0	1.3	1					•		•	•	•	•
16IL 2.50 ISO	9.52	2.500	0.18	16.49	1.1	1.5	1									•	
16IR 2.50 ISO	9.52	2.500	0.18	16.49	1.1	1.5	1		•			•				•	•
16IRB 2.50 ISO	9.52	2.500	0.18	16.49	1.2	1.5	1									•	
16IRM 2.50 ISO [1]	9.52	2.500	0.14	16.49	1.1	1.5	1					•			•	•	•
16IL 3.00 ISO	9.52	3.000	0.21	16.49	1.1	1.5	1									•	
16IR 3.00 ISO	9.52	3.000	0.21	16.49	1.1	1.5	1		•			•				•	•
16IRB 3.00 ISO [1]	9.52	3.000	0.21	16.49	1.1	1.5	1									•	
16IRM 3.00 ISO [1]	9.52	3.000	0.22	16.49	1.1	1.5	1					•		•	•	•	•
22IR 1.50 ISO 3M [2]	12.70	1.500	0.11	22.00	2.3	3.7	3					•				•	
22IR 2.00 ISO 2M [2]	12.70	2.000	0.15	22.00	2.3	3.0	2									•	
22IR 2.00 ISO 3M [2]	12.70	2.000	0.13	22.00	3.1	5.0	3									•	
22IL 3.00 ISO	12.70	3.000	0.17	22.00	1.1	1.5	1		•								
22IL 3.50 ISO	12.70	3.500	0.23	22.00	1.6	2.3	1					•					
22IR 3.50 ISO	12.70	3.500	0.23	22.00	1.6	2.3	1					•				•	•
22IL 4.00 ISO	12.70	4.000	0.27	22.00	1.6	2.3	1									•	
22IR 4.00 ISO	12.70	4.000	0.27	22.00	1.6	2.3	1				•	•				•	
22IL 4.50 ISO	12.70	4.500	0.31	22.00	1.6	2.3	1					•					
22IR 4.50 ISO	12.70	4.500	0.31	22.00	1.6	2.3	1					•				•	
22IL 5.00 ISO	12.70	5.000	0.32	22.00	1.7	2.5	1				•					•	
22IR 5.00 ISO	12.70	5.000	0.32	22.00	1.7	2.5	1					•				•	

• For Insert Identification System, see pages 638-639 • Tolerance: Class 6H. • For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer

[2] Multi-tooth

[3] Thread pitch

[4] Number of teeth per corner

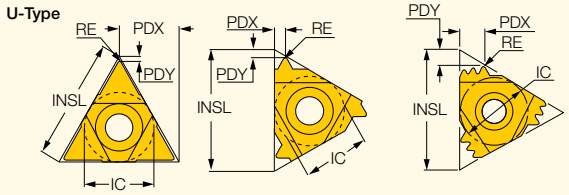
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

ISCARTHREAD

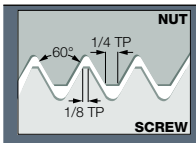
IR/L-ISO (Continued)

Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Industry





Internal left-hand shown



Designation	Dimensions IC	TP(3)	RE	INSL	PDY	PDX	CICT(4)	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
22IR 6.00 ISO	12.70	6.000	0.40	22.00	1.7	2.5	1									●	
22UIRL 5.50 ISO	12.70	5.500	0.36	22.00	2.3	11.0	1					●					
22UIRL 6.00 ISO	12.70	6.000	0.40	22.00	2.1	11.0	1					●					
27IR 3.00 ISO 2M (2)	15.88	3.000	0.21	27.50	3.1	4.6	2									●	
27IR 5.50 ISO	15.88	5.500	0.36	27.50	1.8	2.5	1					●				●	
27IR 6.00 ISO	15.88	6.000	0.40	27.50	1.8	2.5	1					●				●	
27UIRL 8.00 ISO	15.88	8.000	0.50	27.50	2.5	13.8	1									●	

• For Insert Identification System, see pages 638-639 • Tolerance: Class 6H. • For technical information and detailed cutting data, see pages 711-727

(1) With pressed chipformer

(2) Multi-tooth

(3) Thread pitch

(4) Number of teeth per corner

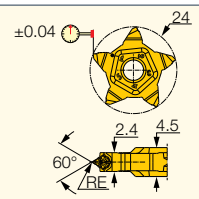
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • MTET Single Point () • PICIN-MGSIR/L (386) • SIR/L (703)

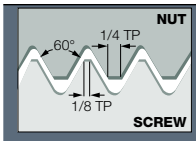
PENTACUT THREADING LINE

PENTA 24-ISO

Precision Ground ISO Metric
Full Profile Pentagonal
External Threading Inserts
with a Chipformer







Designation	Dimensions TP(1)	RE	IC908
PENTA 24-0.5-ISO	0.500	0.08	●
PENTA 24-0.75-ISO	0.750	0.11	●
PENTA 24-0.8-ISO	0.800	0.12	●
PENTA 24-1.0-ISO	1.000	0.14	●
PENTA 24-1.25-ISO	1.250	0.18	●
PENTA 24-1.5-ISO	1.500	0.22	●
PENTA 24-1.75-ISO	1.750	0.25	●
PENTA 24-2.0-ISO	2.000	0.28	●

• DMIN(mm)=5.435xTP

(1) Thread pitch

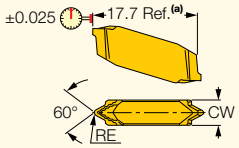
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

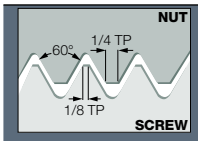
ISCARTHREAD
CUTGRIP

TIP-P-ISO

Precision Ground ISO Metric Full Profile Double-Ended External Threading Inserts with a Chipformer







Designation	Dimensions TP(1)	CW	RE	RETOL(2)	Tough ↔ Hard IC08	IC908
TIP 2P0.5-ISO	0.500	2.40	0.08	0.030	•	•
TIP 2P0.75-ISO	0.750	2.40	0.11	0.030	•	•
TIP 2P0.8-ISO	0.800	2.40	0.12	0.030	•	•
TIP 2P1.0-ISO	1.000	2.40	0.14	0.030	•	•
TIP 2P1.25-ISO	1.250	2.40	0.18	0.030	•	•
TIP 2P1.5-ISO	1.500	2.40	0.22	0.030	•	•
TIP 2P1.75-ISO	1.750	2.40	0.25	0.030	•	•
TIP 4P2.0-ISO	2.000	4.00	0.28	0.030	•	•
TIP 4P2.5-ISO	2.500	4.00	0.35	0.050	•	•
TIP 4P3.0-ISO	3.000	4.00	0.42	0.050		•
TIP 4P3.5-ISO	3.500	4.00	0.48	0.050		•
TIP 5P4.0-ISO	4.000	5.50	0.55	0.050		•
TIP 5P5.0-ISO	5.000	5.50	0.68	0.050		•

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Thread pitch

(2) Corner radius tolerance (+/-)

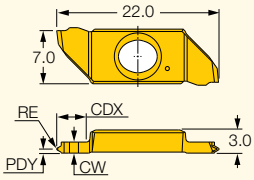
For tools, see pages: C#-GHDR/L (274) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

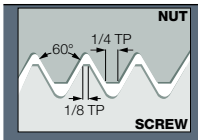
ISCARTHREAD
SWISSCUT INNOVAL LINE

SCIR-22-MTR-ISO

Precision Ground ISO Metric Full Profile Threading Inserts







Designation	Dimensions TP(1)	CW	CDX(2)	RE	PDY	IC1008
SCIR 22-MTR-0.3ISO	0.300	1.00	3.00	0.03	0.2	•
SCIR 22-MTR-0.4ISO	0.400	1.00	3.00	0.04	0.2	•
SCIR 22-MTR-0.5ISO	0.500	1.00	3.00	0.06	0.3	•
SCIR 22-MTR-0.75ISO	0.750	1.00	3.00	0.10	0.4	•
SCIR 22-MTR-1.0ISO	1.000	1.50	4.00	0.14	0.6	•
SCIR 22-MTR-1.5ISO	1.500	2.00	4.00	0.20	0.8	•

(1) Thread pitch

(2) Cutting depth maximum

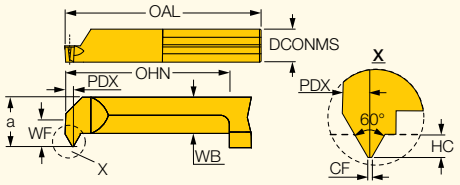
For tools, see pages: NQCH-SCHR/L-BF-JHP (364) • NQCH-Y-SCHR-BF-JHP (364) • SCHR/L-22BF (363) • SCHR/L-22BF-JHP (363) • Y-SCHR-22BF (363) • Y-SCHR-22BF-JHP (364)

PICCOCUT

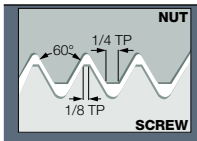
PICCO ISO Full Profile

Inserts for ISO Standard
Full Profile Thread





Right-hand shown



Designation	Dimensions											IC908
	TP[1]	DCONMS	WF	a	OAL	OHN[2]	WB	PDX	HC	CF	DMIN	
PICCO R/L 105.0510-15	1.000	5.00	1.90	4.40	30.00	15.0	3.30	0.6	0.54	0.12	4.80	●
PICCO R/L 106.0612-15	1.250	6.00	2.30	5.30	30.00	15.0	3.40	0.7	0.67	0.15	6.00	●
PICCO R/L 106.0815-15	1.500	6.00	2.30	5.30	30.00	15.0	3.40	0.8	0.81	0.18	6.00	●
PICCO R/L 107.0815-15	1.500	7.00	2.80	6.30	30.00	15.0	3.80	0.8	0.81	0.18	7.00	●

[1] Thread pitch
[2] Minimum overhang

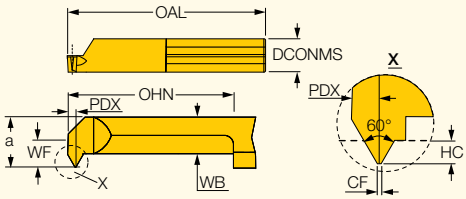
For holders, see pages: GHPCOR (361) • PICCO ACE (359) • PICCO/MG PCO (holder) (360)

PICCOCUT

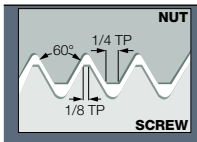
PICCO ISO Full Profile Fine

Inserts for ISO Fine Pitch
Full Profile Thread





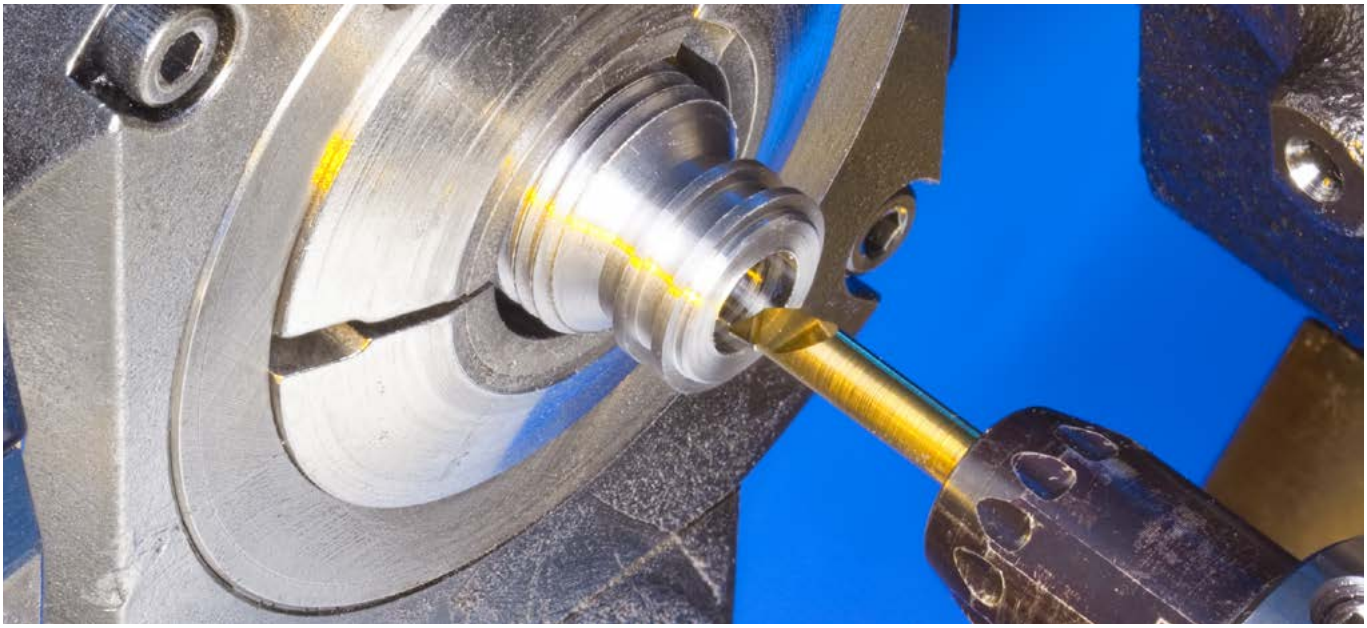
Right-hand shown



Designation	Dimensions											IC908
	TP[1]	DCONMS	WF	a	OAL	OHN[2]	WB	PDX	HC	CF	DMIN	
PICCO R/L 104.0205-15	0.500	5.00	1.50	3.50	30.00	15.0	2.40	0.4	0.27	0.06	4.00	●
PICCO R/L 105.0205-15	0.500	5.00	1.90	4.40	30.00	15.0	3.30	0.4	0.27	0.06	5.00	●
PICCO R/L 105.0407-15	0.750	5.00	1.90	4.40	30.00	15.0	3.30	0.5	0.40	0.09	5.00	●
PICCO R/L 106.0510-15	1.000	6.00	2.30	5.30	30.00	15.0	3.40	0.6	0.54	0.12	6.00	●

[1] Thread pitch
[2] Minimum overhang

For holders, see pages: GHPCOR (361) • PICCO ACE (359) • PICCO/MG PCO (holder) (360)

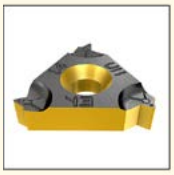


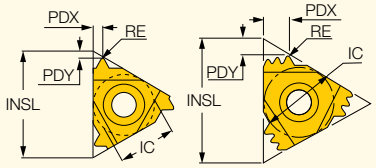
Full Profile UN

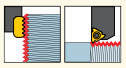
ISCARTHREAD

ER/L-UN

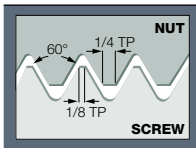
External American UN
Full Profile (UN, UNC, UNF, UNEF)
Laydown Threading Inserts for
General Industry







External right-hand shown



Designation	Dimensions IC	TPI[3]	RE	INSL	PDY	PDX	CICT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11ER 44 UN	6.35	44.0	0.05	11.00	0.6	0.6	1							●	
11ER 32 UN	6.35	32.0	0.10	11.00	0.6	0.6	1							●	
11ER 28 UN	6.35	28.0	0.10	11.00	0.6	0.7	1				●			●	
11ER 24 UN	6.35	24.0	0.12	11.00	0.7	0.8	1							●	
11EL 20 UN	6.35	20.0	0.15	11.00	0.8	0.9	1							●	
11ER 20 UN	6.35	20.0	0.15	11.00	0.8	0.9	1			●	●			●	
11ER 18 UN	6.35	18.0	0.17	11.00	0.8	1.0	1				●			●	
11ER 16 UN	6.35	16.0	0.18	11.00	0.9	1.1	1		●	●				●	
16ER 72 UN	9.52	72.0	0.04	16.49	0.8	0.4	1							●	
16ER 56 UN	9.52	56.0	0.06	16.49	0.7	0.4	1							●	
16ER 48 UN	9.52	48.0	0.05	16.49	0.6	0.6	1							●	
16ER 40 UN	9.52	40.0	0.06	16.49	0.6	0.6	1				●	●		●	
16EL 36 UN	9.52	36.0	0.07	16.49	0.6	0.6	1							●	
16ER 36 UN	9.52	36.0	0.08	16.49	0.6	0.6	1							●	
16EL 32 UN	9.52	32.0	0.10	16.49	0.6	0.6	1							●	
16ER 32 UN	9.52	32.0	0.10	16.49	0.6	0.6	1			●				●	●
16EL 28 UN	9.52	28.0	0.11	16.49	0.6	0.7	1							●	
16ER 28 UN	9.52	28.0	0.11	16.49	0.6	0.7	1			●	●			●	●
16ER 27 UN	9.52	27.0	0.10	16.49	0.7	0.8	1		●						
16EL 24 UN	9.52	24.0	0.13	16.49	0.7	0.8	1							●	
16ER 24 UN	9.52	24.0	0.13	16.49	0.7	0.8	1			●	●			●	●
16ERB 24 UN [1]	9.52	24.0	0.13	16.49	0.7	0.8	1							●	
16ERM 24 UN [1]	9.52	24.0	0.11	16.49	0.7	0.8	1			●				●	●
16EL 20 UN	9.52	20.0	0.16	16.49	0.8	0.8	1			●	●			●	
16ER 20 UN	9.52	20.0	0.16	16.49	0.8	0.9	1			●	●			●	●
16ERB 20 UN [1]	9.52	20.0	0.16	16.49	0.8	0.9	1							●	
16ERM 20 UN [1]	9.52	20.0	0.14	16.49	0.8	0.9	1			●			●	●	●
16EL 18 UN	9.52	18.0	0.17	16.49	0.7	0.8	1				●			●	
16ER 18 UN	9.52	18.0	0.17	16.49	0.7	0.8	1		●	●				●	●
16ERB 18 UN [1]	9.52	18.0	0.18	16.49	0.7	0.8	1							●	
16ERM 18 UN [1]	9.52	18.0	0.15	16.49	0.8	1.0	1			●			●	●	●
16EL 16 UN	9.52	16.0	0.18	16.49	0.9	1.1	1			●				●	
16ER 16 UN	9.52	16.0	0.20	16.49	1.0	1.2	1	●		●				●	●
16ER 16 UN 2M [2]	9.52	16.0	0.09	16.49	1.5	2.3	2							●	
16ERB 16 UN [1]	9.52	16.0	0.20	16.49	1.0	1.2	1							●	
16ERM 16 UN [1]	9.52	16.0	0.19	16.49	0.9	1.1	1			●			●	●	●
16EL 14 UN	9.52	14.0	0.22	16.49	1.0	1.2	1			●		●			
16ER 14 UN	9.52	14.0	0.23	16.49	1.0	1.2	1			●				●	●
16ER 14 UN 2M [2]	9.52	14.0	0.09	16.49	1.6	2.6	2							●	
16ERB 14 UN [1]	9.52	14.0	0.23	16.49	1.0	1.2	1							●	
16ERM 14 UN [1]	9.52	14.0	0.22	16.49	1.0	1.2	1			●			●	●	●
16EL 13 UN	9.52	13.0	0.24	16.49	1.0	1.2	1			●				●	
16ER 13 UN	9.52	13.0	0.24	16.49	1.0	1.2	1			●	●			●	
16ERB 13 UN [1]	9.52	13.0	0.25	16.49	0.9	1.2	1							●	
16ERM 13 UN [1]	9.52	13.0	0.24	16.49	1.0	1.3	1							●	
16EL 12 UN	9.52	12.0	0.27	16.49	1.1	1.2	1			●				●	
16ER 12 UN	9.52	12.0	0.27	16.49	1.1	1.2	1			●	●			●	●
16ER 12 UN 2M [2]	9.52	12.0	0.27	16.49	2.2	3.4	2							●	
16ERB 12 UN [1]	9.52	12.0	0.27	16.49	0.9	1.2	1							●	
16ERM 12 UN [1]	9.52	12.0	0.25	16.49	1.1	1.4	1		●	●			●	●	●
16ER 11.5 UN	9.52	11.5	0.27	16.49	1.2	1.5	1			●				●	
16EL 11 UN	9.52	11.0	0.28	16.49	1.1	1.5	1							●	
16ER 11 UN	9.52	11.0	0.29	16.49	1.1	1.5	1			●				●	

- For Insert Identification System, see pages 638-639 • Tolerance: Class 2A • For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 711-727

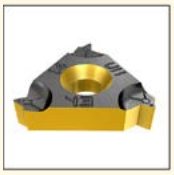
[1] With pressed chipformer.
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

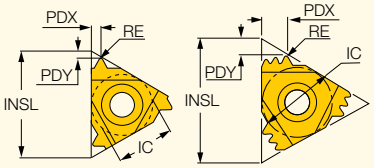
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702)

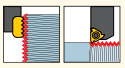
ISCARTHREAD

ER/L-UN (continued)

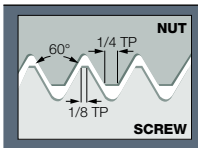
External American UN
Full Profile (UN, UNC, UNF, UNEF)
Laydown Threading Inserts for
General Industry







External right-hand shown



Designation	Dimensions							Tough ↔ Hard							
	IC	TPI[3]	RE	INSL	PDY	PDX	CICT[4]	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ERB 11 UN [1]	9.52	11.0	0.29	16.49	1.1	1.5	1							●	
16EL 10 UN	9.52	10.0	0.32	16.49	1.1	1.5	1			●				●	
16ER 10 UN	9.52	10.0	0.32	16.49	1.1	1.5	1			●	●			●	●
16ERB 10 UN [1]	9.52	10.0	0.32	16.49	1.1	1.5	1							●	
16ERM 10 UN	9.52	10.0	0.32	16.49	1.1	1.5	1							●	
16ER 9 UN	9.52	9.0	0.35	16.49	1.3	1.6	1							●	
16ERB 9 UN [1]	9.52	9.0	0.35	16.49	1.3	1.6	1							●	
16EL 8 UN	9.52	8.0	0.40	16.49	1.2	1.6	1			●				●	
16ER 8 UN	9.52	8.0	0.40	16.49	1.2	1.6	1			●				●	●
16ERB 8 UN [1]	9.52	8.0	0.40	16.49	1.2	1.6	1							●	
16ERM 8 UN [1]	9.52	8.0	0.41	16.49	1.2	1.6	1			●				●	
22ER 12 UN 2M [2]	12.70	12.0	0.27	22.00	2.2	3.4	2							●	
22ER 12 UN 3M [2]	12.70	12.0	0.27	22.00	3.2	5.2	3		●					●	
22ER 7 UN	12.70	7.0	0.47	22.00	1.6	2.3	1			●				●	
22ER 6 UN	12.70	6.0	0.56	22.00	1.6	2.3	1				●			●	
22ER 5 UN	12.70	5.0	0.67	22.00	1.7	2.5	1		●	●				●	
27ER 8 UN 2M [2]	15.88	8.0	0.41	27.50	3.1	4.9	2							●	
27ER 4.5 UN	15.88	4.5	0.75	27.50	1.9	2.7	1							●	
27ER 4 UN	15.88	4.0	0.85	27.50	0.7	0.8	1		●	●	●			●	

- For Insert Identification System, see pages 638-639
- Tolerance: Class 2A
- For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer.
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

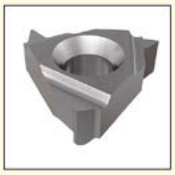
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702)

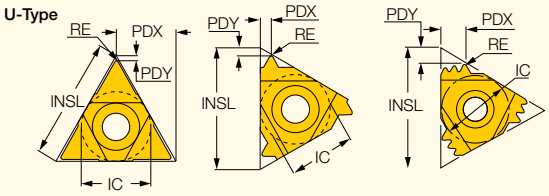


ISCARTHREAD

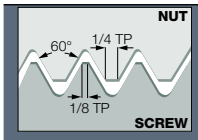
IR/L-UN

Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Industry





Internal left-hand shown



Designation	Dimensions IC	TPI[4]	RE	INSL	PDY	PDX	CICT[5]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 32 UN	4.00	32.0	0.05	6.88	0.6	0.5	1	●								
06IL 24 UN	4.00	24.0	0.07	6.88	0.6	0.6	1	●								
06IR 24 UN	4.00	24.0	0.08	6.88	0.6	0.6	1	●								
06IR 20 UN	4.00	20.0	0.09	6.88	0.6	0.6	1	●								
06IL 18 UN	4.00	18.0	0.07	6.88	0.6	0.7	1	●								
06IR 18 UN	4.00	18.0	0.10	6.88	0.6	0.7	1	●								
08IR 32 UN	5.00	32.0	0.04	8.24	0.6	0.5	1	●								
08IL 28 UN	5.00	28.0	0.04	8.24	0.6	0.6	1	●								
08IR 28 UN	5.00	27.0	0.05	8.24	0.5	0.6	1	●								
08IL 24 UN	5.00	24.0	0.08	8.24	0.6	0.6	1	●								
08IR 24 UN	5.00	24.0	0.08	8.24	0.6	0.6	1	●								
08IR/L 20 UN	5.00	20.0	0.08	8.24	0.7	0.7	1	●								
08IR 18 UN	5.00	18.0	0.08	8.24	0.6	0.7	1	●								
08IR 16 UN	5.00	16.0	0.09	8.24	0.6	0.7	1	●								
08IR 14 UN	5.00	14.0	0.10	8.24	0.6	0.8	1	●							●	
08UIRL 13 UN	5.00	13.0	0.10	8.24	1.0	4.0	1								●	
08UIRL 12 UN	5.00	12.0	0.10	8.24	0.9	4.0	1		●							
08UIRL 11 UN	5.00	11.0	0.10	8.24	0.9	4.0	1	●								
11IR 36 UN	6.35	36.0	0.04	11.00	0.6	0.6	1								●	
11IL 32 UN	6.35	32.0	0.04	11.00	0.6	0.6	1								●	
11IR 32 UN	6.35	32.0	0.05	11.00	0.6	0.6	1								●	
11IRB 32 UN	6.35	32.0	0.04	11.00	0.6	0.6	1								●	
11IL 28 UN	6.35	28.0	0.04	11.00	0.6	0.7	1								●	
11IR 28 UN	6.35	28.0	0.05	11.00	0.6	0.6	1								●	
11IRB 28 UN	6.35	28.0	0.05	11.00	0.6	0.6	1								●	
11IR/L 24 UN	6.35	24.0	0.07	11.00	0.8	0.8	1								●	
11IRB 24 UN	6.35	24.0	0.08	11.00	0.6	0.6	1								●	
11IR/L 20 UN	6.35	20.0	0.09	11.00	0.8	0.9	1								●	
11IRB 20 UN	6.35	20.0	0.09	11.00	0.8	0.9	1								●	
11IL 18 UN	6.35	18.0	0.10	11.00	0.9	1.0	1								●	
11IR 18 UN	6.35	18.0	0.07	11.00	0.8	1.0	1				●				●	●
11IRB 18 UN	6.35	18.0	0.10	11.00	0.9	1.0	1								●	
11IL 16 UN	6.35	16.0	0.11	11.00	0.9	1.0	1								●	
11IR 16 UN	6.35	16.0	0.09	11.00	0.9	1.0	1				●				●	●
11IRB 16 UN	6.35	16.0	0.11	11.00	0.9	1.0	1								●	
11IL 14 UN	6.35	14.0	0.10	11.00	0.9	1.1	1				●				●	
11IR 14 UN	6.35	14.0	0.10	11.00	0.9	1.0	1			●	●				●	
11IRB 14 UN	6.35	14.0	0.13	11.00	0.9	1.0	1								●	
11IR 12 UN	6.35	12.0	0.12	11.00	0.9	1.1	1				●				●	
11IRB 12 UN	6.35	12.0	0.13	11.00	0.9	1.0	1								●	
11IR 11 UN	6.35	11.0	0.14	11.00	0.8	1.0	1				●				●	
16IR 32 UN	9.52	32.0	0.04	16.49	0.6	0.6	1				●				●	
16IL 28 UN	9.52	28.0	0.04	16.49	0.6	0.7	1								●	
16IR 28 UN	9.52	28.0	0.05	16.49	0.6	0.6	1								●	
16IR 24 UN	9.52	24.0	0.05	16.49	0.7	0.8	1				●				●	
16IRB 24 UN [1]	9.52	24.0	0.07	16.49	0.7	0.8	1								●	
16IL 20 UN	9.52	20.0	0.06	16.49	0.8	0.9	1				●				●	
16IR 20 UN	9.52	20.0	0.06	16.49	0.8	0.9	1			●	●	●			●	●
16IRB 20 UN [1]	9.52	20.0	0.09	16.49	0.8	0.8	1								●	
16IRM 20 UN [1]	9.52	20.0	0.06	16.49	0.8	0.9	1								●	●
16IL 18 UN	9.52	18.0	0.08	16.49	0.7	0.8	1								●	

• For Insert Identification System, see pages 638-639 • Tolerance: class 2B,ANSI B1, 3M-1986. • For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer

[2] Multi-tooth

[3] With pressed chipformer.

[4] Threads per inch

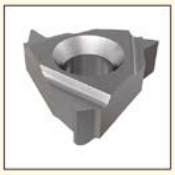
[5] Number of teeth per corner

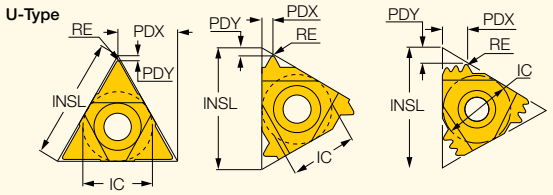
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

ISCARTHREAD

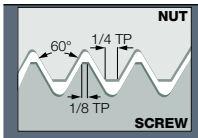
IR/L-UN (Continued)

Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Industry





Internal left-hand shown



Designation	Dimensions IC	TPI[4]	RE	INSL	PDY	PDX	CICT[5]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IR 18 UN	9.52	18.0	0.08	16.49	0.7	0.8	1				●				●	
16IRB 18 UN [1]	9.52	18.0	0.08	16.49	0.7	0.8	1								●	
16IRM 18 UN [1]	9.52	18.0	0.08	16.49	0.8	1.0	1							●	●	
16IL 16 UN	9.52	16.0	0.11	16.49	1.0	1.1	1								●	
16IR 16 UN	9.52	16.0	0.11	16.49	0.9	1.1	1				●				●	
16IR 16 UN-2M [2]	9.52	16.0	0.09	16.49	1.5	2.3	2						●		●	
16IRB 16 UN [3]	9.52	16.0	0.11	16.49	0.9	1.1	1								●	
16IRM 16 UN [1]	9.52	16.0	0.09	16.49	0.9	1.1	1				●				●	●
16IL 14 UN	9.52	14.0	0.10	16.49	0.9	1.1	1				●				●	
16IR 14 UN	9.52	14.0	0.13	16.49	0.9	1.1	1				●				●	
16IRB 14 UN [1]	9.52	14.0	0.13	16.49	0.9	1.1	1								●	
16IRM 14 UN [1]	9.52	14.0	0.11	16.49	0.9	1.2	1				●			●	●	●
16IL 12 UN	9.52	12.0	0.12	16.49	1.0	1.1	1				●				●	
16IR 12 UN	9.52	12.0	0.13	16.49	1.0	1.1	1				●	●			●	●
16IRB 12 UN [1]	9.52	12.0	0.13	16.49	1.0	1.1	1								●	
16IRM 12 UN [1]	9.52	12.0	0.12	16.49	1.1	1.4	1				●			●	●	●
16IR 11.5 UN	9.52	11.5	0.14	16.49	1.0	1.1	1								●	
16IR 11 UN	9.52	11.0	0.14	16.49	1.0	1.1	1								●	
16IR/L 10 UN	9.52	10.0	0.15	16.49	1.1	1.5	1				●				●	
16IRB 10 UN [1]	9.52	10.0	0.15	16.49	1.1	1.5	1								●	
16IR 9 UN	9.52	9.0	0.17	16.49	1.2	1.7	1								●	
16IL 8 UN	9.52	8.0	0.23	16.49	1.1	1.5	1				●	●			●	
16IR 8 UN	9.52	8.0	0.23	16.49	1.1	1.5	1				●	●			●	●
16IRB 8 UN [1]	9.52	8.0	0.23	16.49	1.1	1.5	1								●	
16IRM 8 UN [1]	9.52	8.0	0.20	16.49	1.1	1.5	1				●			●	●	●
22IR 16 UN 3M [2]	12.70	16.0	0.07	22.00	2.5	4.0	3								●	
22IR 12 UN 2M [2]	12.70	12.0	0.09	22.00	2.3	3.4	2								●	
22IR 12 UN 3M [2]	12.70	12.0	0.13	22.00	3.2	5.2	3								●	
22IL 7 UN	12.70	7.0	0.22	22.00	1.6	2.3	1								●	
22IR 7 UN	12.70	7.0	0.22	22.00	1.6	2.3	1	●			●				●	
22IR 6 UN	12.70	6.0	0.26	22.00	1.6	2.3	1				●				●	
22IR 5 UN	12.70	5.0	0.32	22.00	1.6	2.3	1				●				●	
22UIRL 4.5 UN	12.70	4.5	0.36	22.00	2.4	11.0	1				●					
27IR 8 UN 2M [2]	15.88	8.0	0.19	27.50	3.1	4.9	2								●	
27IR 4.5 UN	15.88	4.5	0.36	27.50	1.7	2.4	1				●				●	
27IR 4 UN	15.88	4.0	0.41	27.50	1.8	2.5	1				●				●	

• For Insert Identification System, see pages 638-639 • Tolerance: class 2B,ANSI B1, 3M-1986. • For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer

[2] Multi-tooth

[3] With pressed chipformer.

[4] Threads per inch

[5] Number of teeth per corner

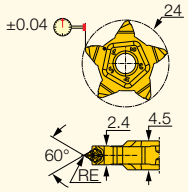
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

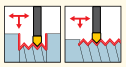
PENTACUT THREADING LINE

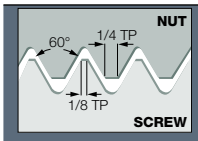
PENTA 24-UN

American UN (UNC, UNF, UNEF)
Precision Ground Full Profile
Pentagonal External Inserts
with a Chipformer









Designation	Dimensions TPI[1]	Dimensions RE	IC908
PENTA 24-24-UN	24.0	0.13	●
PENTA 24-20-UN	20.0	0.16	●
PENTA 24-18-UN	18.0	0.18	●
PENTA 24-16-UN	16.0	0.21	●
PENTA 24-14-UN	14.0	0.23	●

• DMIN(inch)=5.435/TPI • Tolerance: Class 2A

(1) Threads per inch

For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

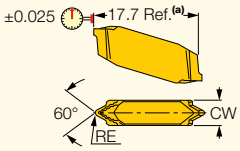
ISCARTHREAD

CUTGRIP

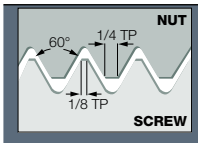
TIP-P-UN

American UN (UNC,UNF,UNEF)
Precision Ground External
Double-Ended Full Profile Threading
Inserts with a Chipformer









Designation	Dimensions CW	RE	RETOL[1]	TPI[2]	Tough ↔ Hard IC08	IC808	IC908
TIP 2P32-UN	2.40	0.10	0.030	32.0	●		●
TIP 2P28-UN	2.40	0.11	0.030	28.0	●		●
TIP 2P24-UN	2.40	0.13	0.030	24.0	●		●
TIP 2P20-UN	2.40	0.16	0.030	20.0	●		●
TIP 2P18-UN	2.40	0.18	0.030	18.0	●		●
TIP 2P16-UN	2.40	0.20	0.030	16.0	●		●
TIP 2P14-UN	2.40	0.23	0.030	14.0	●		●
TIP 2P13-UN	2.40	0.25	0.030	13.0	●		●
TIP 2P12-UN	2.40	0.27	0.030	12.0	●		●
TIP 4P11-UN	4.00	0.30	0.030	11.0			●
TIP 4P10-UN	4.00	0.33	0.050	10.0		●	●
TIP 4P08-UN	4.00	0.41	0.050	8.0			●

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Corner radius tolerance (+/-)

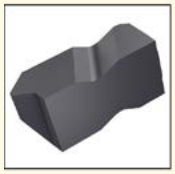
(2) Threads per inch

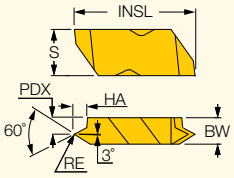
For tools, see pages: C#-GHDR/L (274) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

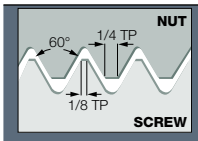
UN THREADING FLTC-E

Double-Ended, Precision, Flat
Top Full Profile Threading Inserts





Right-hand shown



Designation	Dimensions TPI[1]	RE	HA	PDX	BW	S	INSL	IC908
FLTC-3R/L7E	7.0	0.43	2.74	2.70	4.95	8.74	22.60	●
FLTC-3R/L8E	8.0	0.38	2.39	2.70	4.95	8.74	22.60	●
FLTC-3R/L9E	9.0	0.33	2.13	2.70	4.95	8.74	22.60	●
FLTC-3R/L10E	10.0	0.30	1.93	2.70	4.95	8.74	22.60	●
FLTC-3R/L11E	11.0	0.28	1.75	2.70	4.95	8.74	22.60	●
FLTC-3R/L12E	12.0	0.25	1.30	3.80	4.95	8.74	22.60	●
FLTC-3R/L14E	14.0	0.23	1.37	3.80	4.95	8.74	22.60	●
FLTC-3R/L16E	16.0	0.20	1.17	3.80	4.95	8.74	22.60	●
FLTC-3R/L18E	18.0	0.18	1.04	3.80	4.95	8.74	22.60	●
FLTC-3R/L20E	20.0	0.15	0.94	3.80	4.95	8.74	22.60	●
FLTC-3R/L24E	24.0	0.13	0.79	3.80	4.95	8.74	22.60	●
FLTC-3R/L28E	28.0	0.08	0.58	3.80	4.95	8.74	22.60	●
FLTC-3R/L32E	32.0	0.08	0.53	3.80	4.95	8.74	22.60	●

(1) Threads per inch

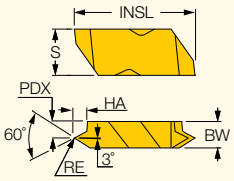
For tools, see pages: FLASR/L (708) • FLSR/L (708)

NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

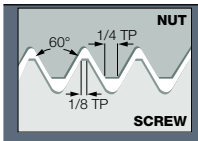
UN THREADING FLTC-I

Double-Ended, Precision, Flat
Top Full Profile Threading Inserts





Right-hand shown



Designation	Dimensions TPI[1]	RE	HA	PDX	BW	S	INSL	IC908
FLTC-3R/L7I	7.0	0.23	2.34	2.70	4.95	8.74	22.60	●
FLTC-3R/L8I	8.0	0.18	2.06	2.70	4.95	8.74	22.60	●
FLTC-3R/L9I	9.0	0.15	1.83	2.70	4.95	8.74	22.60	●
FLTC-3R/L10I	10.0	0.13	1.65	2.70	4.95	8.74	22.60	●
FLTC-3R/L11I	11.0	0.13	1.50	2.70	4.95	8.74	22.60	●
FLTC-3R/L12I	12.0	0.10	1.22	3.80	4.95	8.74	22.60	●
FLTC-3R/L14I	14.0	0.08	1.12	3.76	4.95	8.74	22.60	●
FLTC-3R/L16I	16.0	0.08	1.02	3.76	4.95	8.74	22.60	●
FLTC-3R/L18I	18.0	0.08	0.91	3.76	4.95	8.74	22.60	●
FLTC-3R/L20I	20.0	0.08	0.79	3.76	4.95	8.74	22.60	●
FLTC-3R/L24I	24.0	0.08	0.66	3.76	4.95	8.74	22.60	●
FLTC-3R/L28I	28.0	0.08	0.58	3.76	4.95	8.74	22.60	●

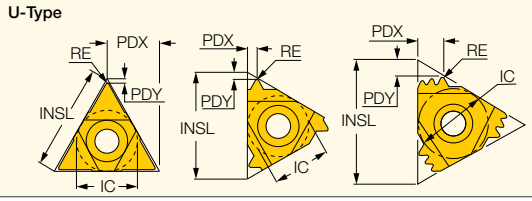
(1) Threads per inch

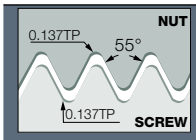
Full Profile W (Whitworth BSW, BSF, BSP)

ISCARTHREAD

ER/L-W
External Whitworth
(BSW, BSF, BSP)
B.S.84-1956 DIN259
Medium Class Full Profile
Laydown Threading Inserts







Designation	Dimensions IC	TPI[3]	RE	INSL	PDY	PDX	CICT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11ER/L 19 W	6.35	19.0	0.15	11.00	0.8	1.0	1							•	
11ER 14 W	6.35	14.0	0.21	11.00	0.9	1.1	1							•	
16ER 32 W	9.52	32.0	0.09	16.49	0.6	0.6	1		•						
16ER 28 W	9.52	28.0	0.11	16.49	0.6	0.7	1			•				•	•
16ER 26 W	9.52	26.0	0.12	16.49	0.7	0.7	1							•	
16ER 24 W	9.52	24.0	0.14	16.49	0.7	0.8	1							•	
16ER 22 W	9.52	22.0	0.13	16.49	0.8	0.9	1							•	
16ER 20 W	9.52	20.0	0.16	16.49	0.7	0.8	1							•	
16EL 19 W	9.52	19.0	0.17	16.49	0.7	0.8	1							•	
16ER 19 W	9.52	19.0	0.17	16.49	0.7	0.8	1	•		•				•	•
16ERB 19 W [1]	9.52	19.0	0.17	16.49	0.7	0.8	1							•	
16ERM 19 W [1]	9.52	19.0	0.16	16.49	0.8	1.0	1		•	•			•	•	•
16EL 18 W	9.52	18.0	0.17	16.49	0.9	1.2	1							•	
16ER 18 W	9.52	18.0	0.17	16.49	0.9	1.2	1		•					•	
16ER 16 W	9.52	16.0	0.20	16.49	0.9	1.2	1							•	
16ERB 16 W [1]	9.52	16.0	0.20	16.49	0.9	1.2	1							•	
16ERM 16 W [1]	9.52	16.0	0.20	16.49	0.9	1.1	1			•			•	•	•
16EL 14 W	9.52	14.0	0.23	16.49	1.0	1.2	1							•	
16ER 14 W	9.52	14.0	0.23	16.49	1.0	1.2	1	•		•				•	
16ER 14 W 2M [2]	9.52	14.0	0.21	16.49	1.7	2.7	2							•	
16ERB 14 W [1]	9.52	14.0	0.23	16.49	1.0	1.2	1							•	
16ERM 14 W [1]	9.52	14.0	0.24	16.49	1.0	1.2	1		•	•			•	•	•
16ER/L 12 W	9.52	12.0	0.27	16.49	1.2	1.4	1							•	
16EL 11 W	9.52	11.0	0.29	16.49	1.1	1.5	1			•				•	
16ER 11 W	9.52	11.0	0.29	16.49	1.1	1.5	1	•	•	•	•	•		•	•
16ERB 11 W [1]	9.52	11.0	0.29	16.49	1.1	1.5	1							•	
16ERM 11 W [1]	9.52	11.0	0.27	16.49	1.1	1.5	1			•		•	•	•	•
16ER 10 W	9.52	10.0	0.32	16.49	1.1	1.5	1			•				•	
16ERB 10 W [1]	9.52	10.0	0.32	16.49	1.1	1.5	1							•	
16ER 9 W	9.52	9.0	0.34	16.49	1.2	1.7	1			•					
16EL 8 W	9.52	8.0	0.39	16.49	1.2	1.5	1							•	
16ER 8 W	9.52	8.0	0.41	16.49	1.2	1.6	1							•	
22ER 14 W 3M [2]	12.70	14.0	0.21	22.00	2.8	4.5	3							•	
22ER 11 W 2M [2]	12.70	11.0	0.09	22.00	2.2	3.4	2							•	
22ER 7 W	12.70	7.0	0.45	22.00	1.6	2.3	1							•	
22ER 6 W	12.70	6.0	0.52	22.00	1.6	2.3	1							•	
22ER 5 W	12.70	5.0	0.65	22.00	1.7	2.4	1			•					
27ER 4 W	15.88	4.0	0.85	27.50	2.0	2.9	1							•	
27UEIRL 3.5 W	15.88	3.5	0.95	27.50	2.1	13.7	1							•	

• For Insert Identification System, see pages 638-639 • For threading between walls use GRIP-type insert TIP-BSW • Tolerance: medium class
• For technical information and detailed cutting data, see pages 711-727

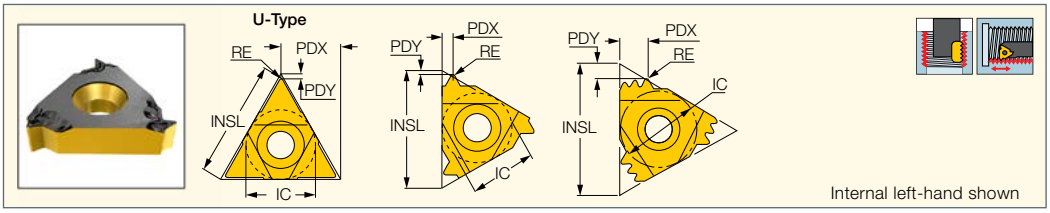
[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

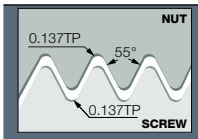
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702)

ISCARTHREAD

IR/L-W

Internal Whitworth
(BSW, BSF, BSP)
B.S.84-1956 DIN259
Medium Class Full Profile
Laydown Threading Inserts





Designation	Dimensions IC	TPI[3]	RE	INSL	PDY	PDX	CICT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 26 W	4.00	26.0	0.10	6.88	0.7	0.6	1	●								
08IR 28 W	5.00	28.0	0.11	8.24	0.5	0.6	1	●								
08IR 19 W	5.00	19.0	0.15	8.24	0.6	0.6	1	●	●						●	
08IR 18 W	5.00	18.0	0.16	8.24	0.6	0.7	1	●								
08IR 16 W	5.00	16.0	0.18	8.24	0.6	0.7	1	●								
11IR 36 W	6.35	36.0	0.07	11.00	0.6	0.6	1					●				
11IR 28 W	6.35	28.0	0.10	11.00	0.6	0.7	1				●					
11IRB 28 W	6.35	28.0	0.10	11.00	0.6	0.6	1								●	
11IR 26 W	6.35	26.0	0.10	11.00	0.7	0.7	1	●								
11IR/L 24 W	6.35	24.0	0.11	11.00	0.7	0.8	1								●	
11IRB 24 W	6.35	24.0	0.11	11.00	0.6	0.6	1								●	
11IR 20 W	6.35	20.0	0.14	11.00	0.8	0.9	1				●				●	
11IRB 20 W	6.35	20.0	0.14	11.00	0.8	0.9	1								●	
11IR 19 W	6.35	19.0	0.15	11.00	0.8	1.0	1				●				●	●
11IRB 19 W	6.35	19.0	0.17	11.00	0.7	0.9	1								●	
11IL 18 W	6.35	18.0	0.16	11.00	0.8	1.0	1								●	
11IR 18 W	6.35	18.0	0.18	11.00	0.8	0.9	1								●	
11IRB 18 W	6.35	18.0	0.18	11.00	0.9	0.9	1								●	
11IR 16 W	6.35	16.0	0.18	11.00	0.9	1.1	1								●	
11IRB 16 W	6.35	16.0	0.18	11.00	0.8	0.9	1								●	
11IL 14 W	6.35	14.0	0.23	11.00	0.9	1.1	1								●	
11IR 14 W	6.35	14.0	0.23	11.00	0.9	1.1	1	●			●	●			●	●
11IRB 14 W	6.35	14.0	0.23	11.00	0.9	1.0	1								●	
16IR 32 W	9.52	32.0	0.09	16.49	0.6	0.6	1			●						
16IR 28 W	9.52	28.0	0.09	16.49	0.6	0.7	1				●					
16IR 26 W	9.52	26.0	0.12	16.49	0.8	0.8	1								●	
16IR 24 W	9.52	24.0	0.11	16.49	0.7	0.8	1								●	
16IR 22 W	9.52	22.0	0.13	16.49	0.8	0.9	1								●	
16IL 20 W	9.52	20.0	0.14	16.49	0.8	0.9	1				●				●	
16IR 20 W	9.52	20.0	0.14	16.49	0.7	0.8	1				●				●	
16IRM 20 W [1]	9.52	20.0	0.14	16.49	0.8	0.9	1								●	
16IR 19 W	9.52	19.0	0.17	16.49	0.7	0.8	1				●				●	
16IRB 19 W [1]	9.52	19.0	0.17	16.49	0.7	0.8	1								●	
16IRM 19 W [1]	9.52	19.0	0.15	16.49	0.8	1.0	1				●					
16IR/L 18 W	9.52	18.0	0.18	16.49	0.8	0.8	1								●	
16IR 16 W	9.52	16.0	0.20	16.49	1.0	1.0	1								●	
16IRB 16 W [1]	9.52	16.0	0.20	16.49	1.0	1.2	1								●	
16IRM 16 W [1]	9.52	16.0	0.18	16.49	0.9	1.1	1								●	
16IL 14 W	9.52	14.0	0.23	16.49	1.0	1.2	1								●	
16IR 14 W	9.52	14.0	0.23	16.49	1.0	1.2	1	●			●	●			●	●
16IR 14 W 2M [2]	9.52	14.0	0.19	16.49	1.7	2.6	2								●	●
16IRB 14 W [1]	9.52	14.0	0.23	16.49	1.0	1.2	1								●	
16IRM 14 W [1]	9.52	14.0	0.21	16.49	1.0	1.2	1				●			●	●	●
16IR 12 W	9.52	12.0	0.27	16.49	1.2	1.5	1								●	
16IL 11 W	9.52	11.0	0.29	16.49	1.1	1.5	1								●	
16IR 11 W	9.52	11.0	0.29	16.49	1.1	1.5	1	●		●	●	●			●	●
16IRB 11 W [1]	9.52	11.0	0.28	16.49	1.1	1.5	1								●	
16IRM 11 W [1]	9.52	11.0	0.27	16.49	1.1	1.5	1				●		●	●	●	●
16IR 10 W	9.52	10.0	0.32	16.49	1.1	1.1	1								●	
16IRB 10 W [1]	9.52	10.0	0.31	16.49	1.1	1.5	1								●	
16IR 9 W	9.52	9.0	0.34	16.49	1.2	1.7	1				●					
16IL 8 W	9.52	8.0	0.41	16.49	1.1	1.1	1			●					●	
16IR 8 W	9.52	8.0	0.41	16.49	1.1	1.1	1								●	
22IR 14 W 3M [2]	12.70	14.0	0.21	22.00	2.8	4.5	3								●	
22IR 11 W 2M [2]	12.70	11.0	0.09	22.00	2.3	3.4	2								●	
22IR 7 W	12.70	7.0	0.45	22.00	1.6	2.3	1								●	
22IR 6 W	12.70	6.0	0.52	22.00	1.6	2.3	1				●					
22IR 5 W	12.70	5.0	0.65	22.00	1.7	2.4	1				●					
27IR 4.5 W	15.88	4.5	0.73	27.50	1.8	2.6	1				●					
27IR 4 W	15.88	4.0	0.82	27.50	2.0	2.9	1								●	

• For Insert Identification System, see pages 638-639 • Tolerance: medium class • For technical information and detailed cutting data, see pages 711-727
[1] With pressed chipformer [2] Multi-tooth [3] Threads per inch [4] Number of teeth per corner

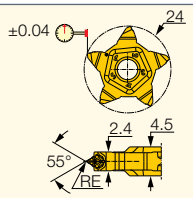
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

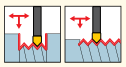
PENTACUT THREADING LINE

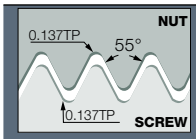
PENTA 24-W

Whitworth (BSW, BSF, BSP)
B.S.84-1956 DIN 259 Pentagonal
Full Profile External Threading
Inserts with a Chipformer









Designation	Dimensions TPI(1)	RE	IC908
PENTA 24-28-W	28.0	0.09	●
PENTA 24-19-W	19.0	0.15	●
PENTA 24-14-W	14.0	0.21	●

- DMIN(inch)=5.435/TPI

(1) Threads per inch

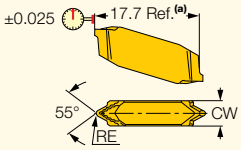
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

ISCARTHREAD
CUTGRIP

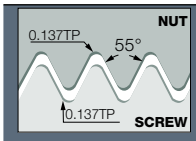
TIP-P-BSW

American (BSW, BSF, BSP)
Precision Ground External
Double-Ended Full Profile Threading
Inserts with a Chipformer









Designation	Dimensions CW	RE	TPI(1)	Tough ↔ Hard IC08	IC908
TIP 2P28-BSW	2.40	0.11	28.0	●	●
TIP 2P26-BSW	2.40	0.12	26.0	●	●
TIP 2P24-BSW	2.40	0.12	24.0	●	●
TIP 2P20-BSW	2.40	0.16	20.0	●	●
TIP 2P19-BSW	2.40	0.16	19.0	●	●
TIP 2P18-BSW	2.40	0.17	18.0	●	●
TIP 2P16-BSW	2.40	0.19	16.0	●	●
TIP 2P14-BSW	2.40	0.22	14.0	●	●
TIP 4P12-BSW	4.00	0.25	12.0		●
TIP 4P11-BSW	4.00	0.28	11.0	●	●
TIP 4P10-BSW	4.00	0.31	10.0		●

- (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

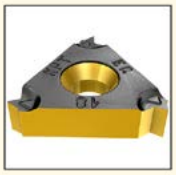
(1) Threads per inch

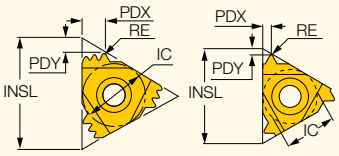
For tools, see pages: C#-GHDR/L (274) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

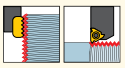
ISCARTHREAD

ER/L-NPT

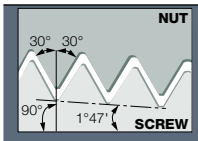
External NPT
(National Pipe Threads)
Full Profile Laydown
Threading Inserts for Steam,
Gas and Water Pipes







External right-hand shown

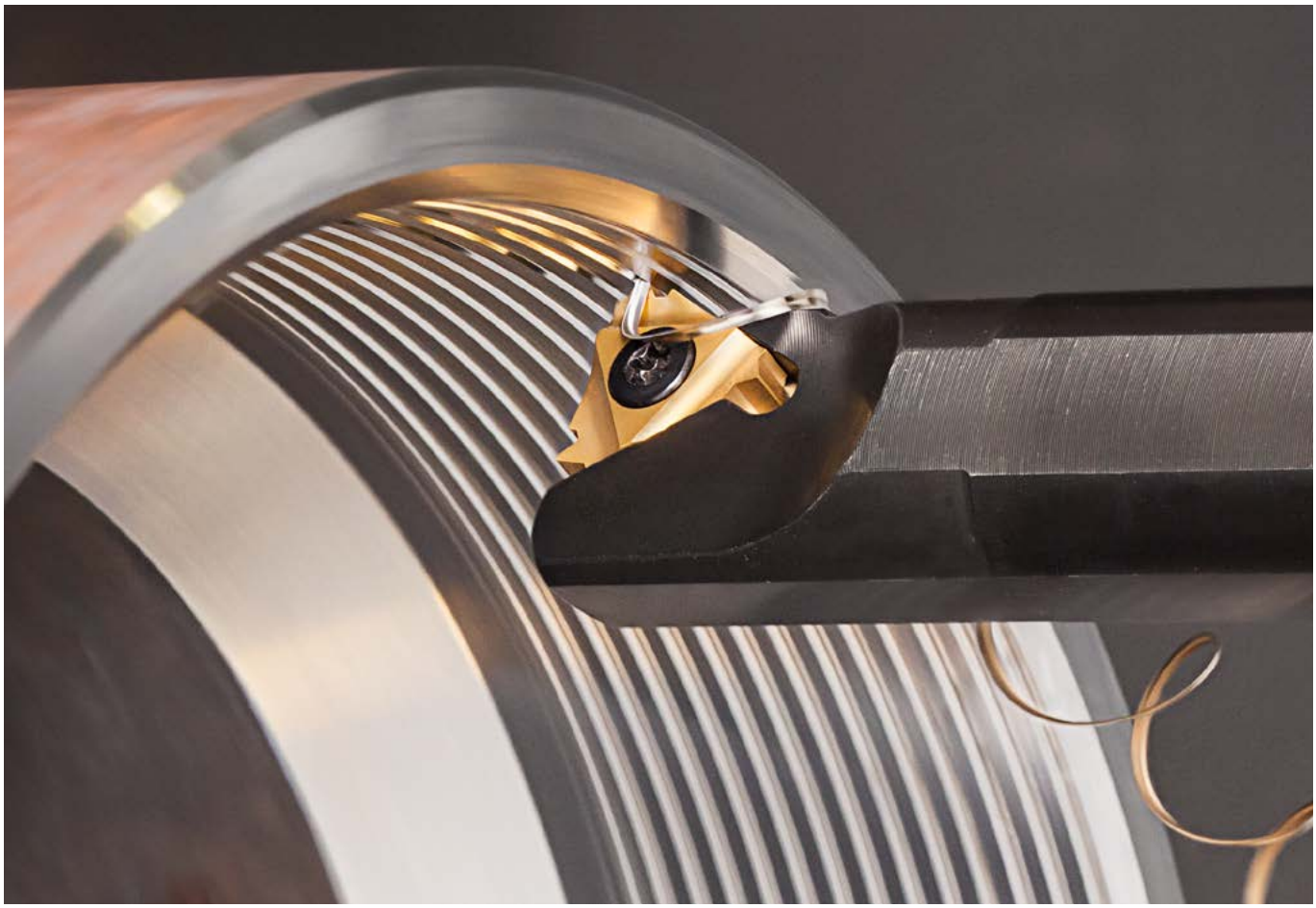


Designation	Dimensions IC	TPI[3]	RE	INSL	PDY	PDX	CICT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC808	IC908	IC1007
16ER 27 NPT	9.52	27.0	0.04	16.49	0.7	0.8	1			•		•	
16ER 18 NPT	9.52	18.0	0.06	16.49	0.8	1.0	1	•		•		•	•
16ERB 18 NPT [1]	9.52	18.0	0.06	16.49	0.9	1.1	1					•	
16ERM 18 NPT [1]	9.52	18.0	0.05	16.49	0.8	1.0	1				•	•	•
16EL 14 NPT	9.52	14.0	0.07	16.49	0.9	1.2	1					•	
16ER 14 NPT	9.52	14.0	0.07	16.49	0.9	1.2	1	•		•		•	•
16ERB 14 NPT [1]	9.52	14.0	0.07	16.49	0.9	1.2	1					•	
16ERM 14 NPT [1]	9.52	14.0	0.05	16.49	0.9	1.2	1		•	•	•	•	•
16EL 11.5 NPT	9.52	11.5	0.09	16.49	1.1	1.5	1					•	
16ER 11.5 NPT	9.52	11.5	0.09	16.49	1.1	1.5	1		•	•		•	•
16ERB 11.5 NPT [1]	9.52	11.5	0.09	16.49	1.1	1.5	1					•	
16ERM 11.5 NPT [1]	9.52	11.5	0.09	16.49	1.1	1.5	1			•	•	•	•
16ER 8 NPT	9.52	8.0	0.11	16.49	1.4	1.6	1		•	•		•	
16ERB 8 NPT [1]	9.52	8.0	0.11	16.49	1.4	1.7	1					•	
16ERM 8 NPT [1]	9.52	8.0	0.12	16.49	1.3	1.8	1			•	•	•	•
22ER 11.5 NPT 2M [2]	12.70	11.5	0.09	22.00	2.3	3.5	2					•	
27ER 11.5 NPT 3M [2]	15.88	11.5	0.09	27.50	3.3	5.5	3					•	
27ER 8 NPT 2M [2]	15.88	8.0	0.09	27.50	3.3	5.0	2					•	

• For Insert Identification System, see pages 638-639 • For threading between walls use GRIP-type insert TIP-NPT. • National Pipe Threads ANSI/ASME B1.20.1-1983
• For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

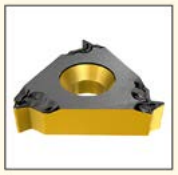
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

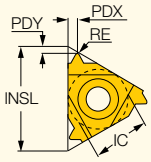


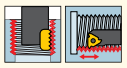
ISCARTHREAD

IR/L-NPT

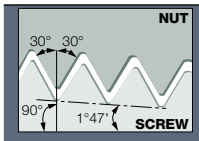
Internal NPT
(National Pipe Threads)
Full Profile Laydown
Threading Inserts for Steam,
Gas and Water Pipes







Internal left-hand shown



Designation	Dimensions IC	TPI[3]	RE	INSL	PDY	PDX	CICT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 27 NPT	4.00	27.0	0.04	6.88	0.6	0.6	1	•							
08IR 18 NPT	5.00	18.0	0.06	8.24	0.6	0.8	1	•						•	
11IL 18 NPT	6.35	18.0	0.06	11.00	0.8	1.0	1							•	
11IR 18 NPT	6.35	18.0	0.06	11.00	0.8	1.0	1			•				•	
11IRB 18 NPT	6.35	18.0	0.06	11.00	0.8	1.0	1							•	
11IL 14 NPT	6.35	14.0	0.07	11.00	0.8	1.0	1			•					
11IR 14 NPT	6.35	14.0	0.07	11.00	0.8	1.0	1			•				•	•
16IR 27 NPT	9.52	27.0	0.04	16.49	0.7	0.8	1							•	
16IR 18 NPT	9.52	18.0	0.06	16.49	0.8	1.0	1							•	
16IRM 14 NPT [1]	9.52	14.0	0.05	16.49	0.9	1.2	1			•			•	•	•
16IRB 14 NPT [1]	9.52	14.0	0.07	16.49	0.9	1.2	1							•	
16IL 14 NPT	9.52	14.0	0.07	16.49	0.9	1.2	1							•	
16IR 14 NPT	9.52	14.0	0.07	16.49	0.9	1.2	1	•		•				•	•
16IRM 11.5 NPT [1]	9.52	11.5	0.09	16.49	1.1	1.5	1					•	•	•	•
16IRB 11.5 NPT [1]	9.52	11.5	0.09	16.49	1.1	1.5	1							•	
16IL 11.5 NPT	9.52	11.5	0.09	16.49	1.1	1.5	1			•				•	
16IR 11.5 NPT	9.52	11.5	0.09	16.49	1.1	1.5	1		•					•	•
16IRM 8 NPT [1]	9.52	8.0	0.12	16.49	1.3	1.8	1						•	•	•
16IRB 8 NPT [1]	9.52	8.0	0.11	16.49	1.2	1.7	1							•	
16IL 8 NPT	9.52	8.0	0.11	16.49	1.3	1.8	1			•				•	
16IR 8 NPT	9.52	8.0	0.11	16.49	1.2	1.7	1			•	•			•	
22IR 11.5 NPT 2M [2]	12.70	11.5	0.09	22.00	2.3	3.5	2							•	
27IR 11.5 NPT 3M [2]	15.88	11.5	0.09	27.50	3.3	5.5	3							•	
27IR 8 NPT 2M [2]	15.88	8.0	0.12	27.50	3.1	5.0	2							•	

- For Insert Identification System, see pages 638-639 • National Pipe Threads ANSI/ASME B1.20.1-1983
- For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

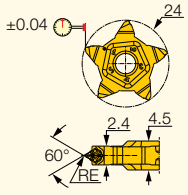
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

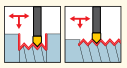
PENTACUT THREADING LINE

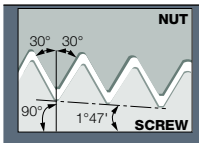
PENTA 24-NPT

NPT (National Pipe Threads)
Precision Ground Pentagonal
External Full Profile Threading
Inserts with a Chipformer









Designation	Dimensions TPI[1]	RE	IC908
PENTA 24-18-NPT	18.0	0.07	•
PENTA 24-14-NPT	14.0	0.09	•

[1] Threads per inch

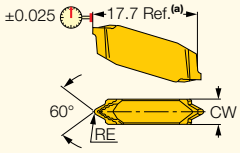
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

ISCARTHREAD
CUTGRIP

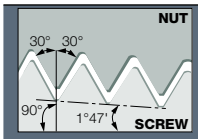
TIP-P-NPT

NPT (National Pipe Threads)
Precision Ground Double-Ended
External Full Profile Threading
Inserts with a Chipformer









Designation	Dimensions CW	RE	RETOL(1)	TPI(2)	Tough ↔ Hard IC08	IC908
TIP 2P27-NPT	2.40	0.05	0.030	27.0	●	●
TIP 2P18-NPT	2.40	0.07	0.030	18.0	●	●
TIP 2P14-NPT	2.40	0.09	0.030	14.0		●
TIP 4P11.5-NPT	4.00	0.10	0.030	11.5	●	●
TIP 4P8-NPT	4.00	0.13	0.030	8.0	●	●

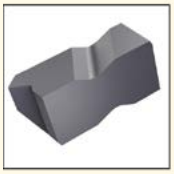
• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance
(1) Corner radius tolerance (+/-)
(2) Threads per inch

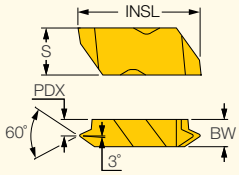
For tools, see pages: C#-GHDR/L (274) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

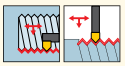
NOTCHGRIP GROOVE-TURN LINE
ISCARTHREAD

NPT THREADING
FLDC-V-75

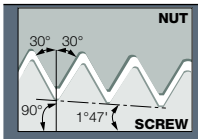
Double-Ended, Precision,
Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8VR/L75	8.0	3/4	2.50	4.95	8.74	22.60	●
FLDC-3-115VR/L75	11.5	3/4	3.70	4.95	8.74	22.60	●
FLDC-3-14VR/L-75	14.0	3/4	3.80	4.95	8.74	22.60	●
FLDC-3-18VR/L-75	18.0	3/4	3.90	4.95	8.74	22.60	●
FLDC-3-27VR/L-75	27.0	3/4	4.10	4.95	8.74	22.60	●

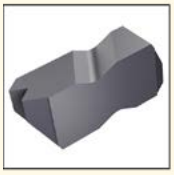
• DMIN according to related boring bar
(1) Threads per inch

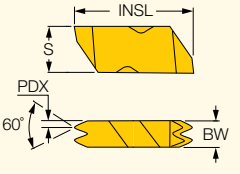
For tools, see pages: FLASR/L (708) • FLSR/L (708)

NOTCHGRIP GROOVE-TURN LINE
ISCARTHREAD

NPT THREADING
FLDC-NPT-E

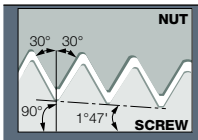
Double-Ended, Precision, Flat Top
Multi-Tooth Threading Inserts







Right-hand shown

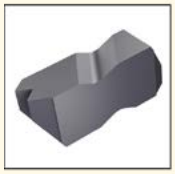


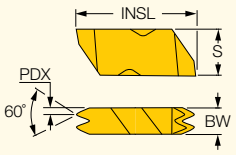
Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8NPT 2E	8.0	3/4	1.50	6.35	8.74	22.60	●
FLDC-3-11.5NPT-2E	11.5	3/4	1.20	6.35	8.74	22.60	●

(1) Threads per inch

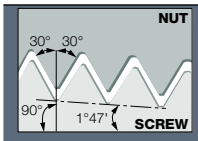
NOTCH GRIP GROOVE-TURN LINE
ISCARTHREAD

NPT THREADING
FLDC-NPT-I
Double-Ended, Precision, Flat Top
Multi-Tooth Threading Inserts









Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8NPT 2I	8.0	3/4	1.50	6.35	8.74	22.60	●
FLDC-3-11.5NPT-2I	11.5	3/4	1.20	6.35	8.74	22.60	●

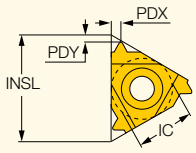
(1) Threads per inch

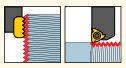
Full Profile NPTF

ISCARTHREAD

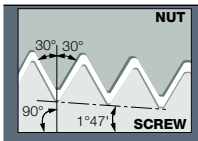
ER-NPTF
External NPTF
(National Pipe Threads)
Full Profile Laydown
Threading Inserts for Steam,
Gas and Water Pipes







External right-hand shown



Designation	Dimensions IC	TPI(1)	INSL	PDY	PDX	Tough ↔ Hard IC250	IC908
11ER 14 NPTF	6.35	14.0	11.00	0.8	1.0		●
16ER 27 NPTF	9.52	27.0	16.49	0.7	0.8		●
16ER 18 NPTF	9.52	18.0	16.49	0.8	0.9		●
16ER 14 NPTF	9.52	14.0	16.49	0.9	1.1	●	●
16ER 11.5 NPTF	9.52	11.5	16.49	1.1	1.5		●

- For Insert Identification System, see pages 638-639 • (National Pipe Threads-Dry Seal) ANSI/ASME B1.20.1-1976 full profile
- For technical information and detailed cutting data, see pages 711-727

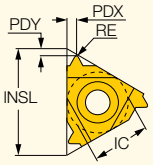
(1) Threads per inch

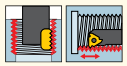
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

ISCARTHREAD

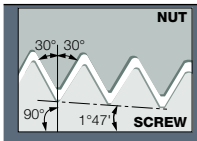
IR/L-NPTF
Internal NPTF
(National Pipe Threads)
Full Profile Laydown
Threading Inserts for Steam,
Gas and Water Pipes







Internal left-hand shown



Designation	Dimensions IC	TPI(1)	RE	INSL	PDY	PDX	Tough ↔ Hard IC228	IC250	IC908
06IR 27 NPTF	4.00	27.0	0.04	6.88	0.7	0.6	●		
08IR 27 NPTF	5.00	27.0	0.04	8.24	0.6	0.6	●		
08IL 18 NPTF	5.00	18.0	0.06	8.24	0.6	0.8	●		
08IR 18 NPTF	5.00	18.0	0.04	8.24	0.6	0.8	●		
11IR 18 NPTF	6.35	18.0	0.04	11.00	0.8	1.0			●
11IRB 18 NPTF	6.35	18.0	0.04	11.00	0.8	1.0			●
11IR 14 NPTF	6.35	14.0	0.04	16.49	0.8	1.1			●
16IR 18 NPTF	9.52	18.0	0.06	16.49	0.8	1.0			●
16IL 14 NPTF	9.52	14.0	0.07	16.49	0.9	1.2			●
16IR 14 NPTF	9.52	14.0	0.04	16.49	0.9	1.2		●	●
16IR 11.5 NPTF	9.52	11.5	0.04	16.49	1.1	1.5		●	●

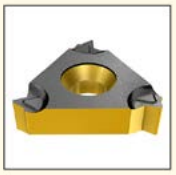
- For Insert Identification System, see pages 638-639 • (National Pipe Threads-Dry seal) ANSI/ASME B1.20.1-1976
- For technical information and detailed cutting data, see pages711-727

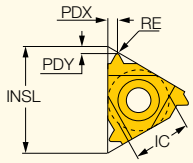
(1) Threads per inch

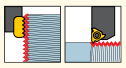
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

ISCARTHREAD

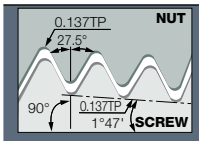
ER/L-BSPT
External BSPT
(British Standard Pipe)
B.S.21-1957 Full Profile
Laydown Threading Inserts







External right-hand shown

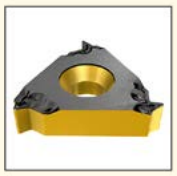


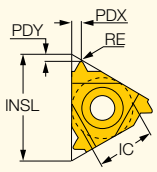
Designation	Dimensions IC	INSL	TPI[2]	RE	PDY	PDX	Tough ↔ Hard IC250	IC808	IC908	IC1007
16ER 28 BSPT	9.52	16.49	28.0	0.11	0.6	0.6			•	
16EL 19 BSPT	9.52	16.49	19.0	0.16	0.7	0.8			•	
16ER 19 BSPT	9.52	16.49	19.0	0.16	0.7	0.8	•		•	•
16EL 14 BSPT	9.52	16.49	14.0	0.23	1.0	1.1			•	
16ER 14 BSPT	9.52	16.49	14.0	0.23	1.0	1.1	•		•	•
16ERB 14 BSPT [1]	9.52	16.49	14.0	0.23	1.0	1.1			•	
16ERM 14 BSPT [1]	9.52	16.49	14.0	0.24	1.0	1.2		•	•	•
16EL 11 BSPT	9.52	16.49	11.0	0.29	1.1	1.5			•	
16ER 11 BSPT	9.52	16.49	11.0	0.29	1.1	1.5	•		•	
16ERB 11 BSPT [1]	9.52	16.49	11.0	0.29	1.1	1.5			•	
16ERM 11 BSPT [1]	9.52	16.49	11.0	0.31	1.1	1.5			•	•

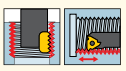
• For Insert Identification System, see pages 638-639 • For threading between walls use insert TIP-BSPT
• For technical information and detailed cutting data, see pages 711-727
[1] With pressed chipformer
[2] Threads per inch
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

ISCARTHREAD

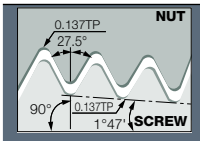
IR/L-BSPT
Internal BSPT
(British Standard Pipe)
B.S.21-1957 Full Profile
Laydown Threading Inserts







Internal left-hand shown



Designation	Dimensions IC	INSL	TPI[2]	RE	PDY	PDX	Tough ↔ Hard IC228	IC250	IC808	IC908	IC1007
06IR 28 BSPT	4.00	6.88	28.0	0.11	0.7	0.6	•				
08IR 28 BSPT	5.00	8.24	28.0	0.11	0.6	0.6	•				
08IR 19 BSPT	5.00	8.24	19.0	0.16	0.6	0.7	•				
11IR 19 BSPT	6.35	11.00	19.0	0.16	0.8	0.9		•		•	•
11IRB 19 BSPT	6.35	11.00	19.0	0.16	0.8	0.9				•	
11IR/L 14 BSPT	6.35	11.00	14.0	0.23	0.9	1.0				•	
16IR 28 BSPT	9.52	16.49	28.0	0.11	0.6	0.6				•	
16IR 19 BSPT	9.52	16.49	19.0	0.16	0.8	0.9		•			
16IRB 14 BSPT [1]	9.52	16.49	14.0	0.23	1.0	1.1				•	
16IRM 14 BSPT [1]	9.52	16.49	14.0	0.21	1.0	1.2			•	•	•
16IL 14 BSPT	9.52	16.49	14.0	0.21	1.0	1.2				•	
16IR 14 BSPT	9.52	16.49	14.0	0.23	1.0	1.1				•	
16IRM 11 BSPT [1]	9.52	16.49	11.0	0.28	1.1	1.5			•	•	•
16IRB 11 BSPT [1]	9.52	16.49	11.0	0.29	1.1	1.5				•	
16IL 11 BSPT	9.52	16.49	11.0	0.29	1.1	1.5				•	
16IR 11 BSPT	9.52	16.49	11.0	0.29	1.1	1.5	•	•		•	

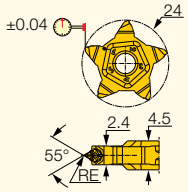
• For Insert Identification System, see pages 638-639 • For technical information and detailed cutting data, see pages 711-727
[1] With pressed chipformer
[2] Threads per inch
For tools, see pages: AVC-D-SIR/L (707) • MGSIR/L (118) • PICIN-MGSIR/L (386) • SIR/L (703)

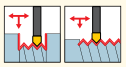
PENTACUT THREADING LINE

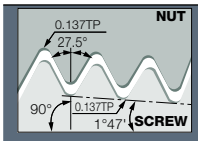
PENTA 24-BSPT

BSPT (British Standard Pipe) Precision Ground External Pentagonal Full Profile Threading Inserts with a Chipformer









Designation	Dimensions TPI[1]	RE	IC908
PENTA 24-19-BSPT	19.0	0.16	●
PENTA 24-14-BSPT	14.0	0.22	●

- DMIN(inch)=5.435/TPI

(1) Threads per inch

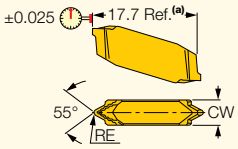
For tools, see pages: PCAD RE/LE-JHP (499) • PCADR/L (316) • PCADR/L-JHP (317) • PCHBR/L (318) • PCHPR/L (316) • PCHR/L-24 (312) • PCHR/L-24-JHP (313) • PCHR/L-24-JHP-MC (313)

ISCARTHREAD CUTGRIP

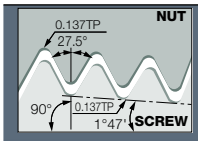
TIP-P-BSPT

Precision Ground BSPT (British Standard Pipe) External Double-Ended Full Profile Threading Inserts with a Chipformer









Designation	Dimensions CW	RE	RETOL[1]	TPI[2]	Tough ↔ Hard IC08	IC908
TIP 2P28-BSPT	2.40	0.11	0.030	28.0	●	●
TIP 2P19-BSPT	2.40	0.16	0.030	19.0	●	●
TIP 2P14-BSPT	2.40	0.22	0.030	14.0	●	●
TIP 4P11-BSPT	4.00	0.28	0.030	11.0	●	●

- (a) TIP inserts are 1.6 mm longer than GIP in the same pocket
- Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Corner radius tolerance (+/-)

(2) Threads per inch

For tools, see pages: C#-GHDR/L (274) • CGHN-D (283) • CGHN-DG (283) • CGHN-S (282) • CGPAD (281) • CGPAD-JHP (282) • GHDR/L (short pocket) (275) • GHDR/L-JHP (short pocket) (276) • GHDR/L-JHP-MC (short pocket) (277) • GHGR/L (278) • GHMPR/L (273) • GHMR/L (273) • GHSR/L (373) • GHSR/L-JHP-SL (374) • NQCH-GHSR/L-JHP (374)

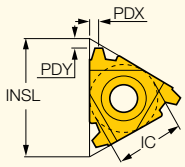


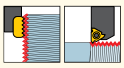
ISCARTHREAD

ER/L-STACME

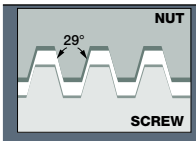
External STUB ACME Laydown Threading Inserts with a Shallow ACME Profile for Control Valves







External right-hand shown



Designation	Dimensions IC	INSL	TPI(1)	PDY	PDX	Tough ↔ Hard IC50M	IC250	IC908
16EL 16 STACME	9.52	16.49	16.0	1.0	1.0		●	
16ER 16 STACME	9.52	16.49	16.0	1.0	1.0			●
16ER 14 STACME	9.52	16.49	14.0	1.1	1.1		●	
16EL 12 STACME	9.52	16.49	12.0	1.2	1.2			●
16ER 12 STACME	9.52	16.49	12.0	1.2	1.2		●	●
16EL 10 STACME	9.52	16.49	10.0	1.3	1.3	●		
16ER 10 STACME	9.52	16.49	10.0	1.3	1.2			●
16EL 8 STACME	9.52	16.49	8.0	1.5	1.5			●
16ER 8 STACME	9.52	16.49	8.0	1.5	1.5	●	●	●
16EL 6 STACME	9.52	16.49	6.0	1.8	1.8			●
16ER 6 STACME	9.52	16.49	6.0	1.7	1.7		●	●
22EL 5 STACME	12.70	22.00	5.0	2.0	2.3	●		
22ER 5 STACME	12.70	22.00	5.0	2.0	2.3			●
27EL 4 STACME	15.88	27.50	4.0	2.3	2.4	●		
27ER 4 STACME	15.88	27.50	4.0	2.3	2.4			●
27EL 3 STACME	15.88	27.50	3.0	2.8	2.9			●
27ER 3 STACME	15.88	27.50	3.0	2.8	2.9		●	

- For Insert Identification System, see pages 638-639 • STUB ACME ASME/ANSI B1.8-1988 Class 2G
- For technical information and detailed cutting data, see pages 711-727

(1) Threads per inch

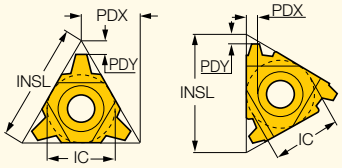
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

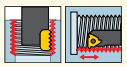
ISCARTHREAD

IR/L-STACME

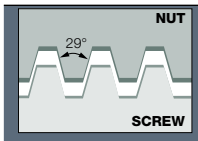
Internal STUB ACME Laydown Threading Inserts with a Shallow ACME Profile for Control Valves







Internal left-hand shown



Designation	Dimensions IC	INSL	TPI(1)	PDY	PDX	Tough ↔ Hard IC50M	IC250	IC908
16IL 16 STACME	9.52	16.49	16.0	1.0	1.0	●		
16IR 16 STACME	9.52	16.49	16.0	1.0	1.0	●		●
16IR 12 STACME	9.52	16.49	12.0	1.2	1.2			●
16IR 10 STACME	9.52	16.49	10.0	1.2	1.2	●		●
16IL 8 STACME	9.52	16.49	8.0	1.5	1.5			●
16IR 8 STACME	9.52	16.49	8.0	1.5	1.5	●		●
16IR 6 STACME	9.52	16.49	6.0	1.6	1.7		●	●
22IR/L 5 STACME	12.70	22.00	5.0	2.0	2.3	●		
22UIR 3 STACME	12.70	22.00	3.0	3.3	11.0		●	
27IL 4 STACME	15.88	27.50	4.0	2.3	2.4	●		
27IR 4 STACME	15.88	27.50	4.0	2.3	2.4			●
27IR/L 3 STACME	15.88	27.50	3.0	2.8	2.9		●	

- For Insert Identification System, see pages 638-639 • Tolerance: Class 2G. • For technical information and detailed cutting data, see pages 711-727

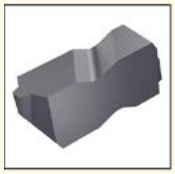
(1) Threads per inch

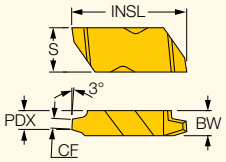
For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

STUB ACME THREADING
FLAS-PT-I

Double-Ended, Precision, Flat Top on Internal Threading Ins erts





Right-hand shown

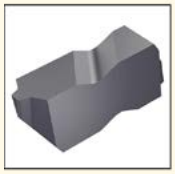
Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-6L2-PT-I	2.0	5.23	7.20	9.73	11.51	28.45	●
FLAS-4L3-PT-I	3.0	3.44	5.10	6.48	11.51	28.45	●
FLAS-3L4-PT-I	4.0	2.55	3.80	4.95	8.74	22.60	●
FLAS-3L5-PT-I	5.0	2.01	3.80	4.95	8.74	22.60	●
FLAS-3L6-PT-I	6.0	1.66	3.80	4.95	8.74	22.60	●
FLAS-3L8-PT-I	8.0	1.21	3.80	4.95	8.74	22.60	●
FLAS-3L10-PT-I	10.0	0.94	3.80	4.95	8.74	22.60	●
FLAS-3L12-PT-I	12.0	0.83	3.80	4.95	8.74	22.60	●
FLAS-3L14-PT-I	14.0	0.70	3.80	4.95	8.74	22.60	●
FLAS-3L16-PT-I	16.0	0.60	3.80	4.95	8.74	22.60	●

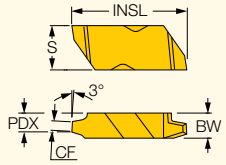
[1] Threads per inch

NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

STUB ACME THREADING
FLAS-PT-E

Double-Ended, Precision, Flat Top External Threading Inserts





Right-hand shown

Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-3R4-PT-E	4.0	2.55	3.80	4.95	8.74	22.60	●
FLAS-3R5-PT-E	5.0	2.01	3.80	4.95	8.74	22.60	●
FLAS-3R6-PT-E	6.0	1.66	3.80	4.95	8.74	22.60	●
FLAS-3R8-PT-E	8.0	1.21	3.80	4.95	8.74	22.60	●
FLAS-3R10-PT-E	10.0	0.94	3.80	4.95	8.74	22.60	●
FLAS-3R12-PT-E	12.0	0.83	3.80	4.95	8.74	22.60	●
FLAS-3R14-PT-E	14.0	0.70	3.80	4.95	8.74	22.60	●
FLAS-3R16-PT-E	16.0	0.60	3.80	4.95	8.74	22.60	●
FLAS-4R3-PT-E	3.0	3.44	5.10	6.48	11.51	28.45	●
FLAS-6R2-PT-E	2.0	5.23	7.20	9.73	11.51	28.45	●

[1] Threads per inch

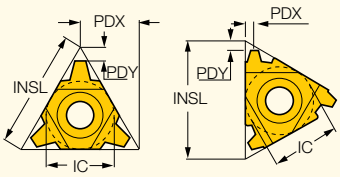
For tools, see pages: FLASR/L (708) • FLSR/L (708)

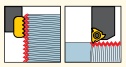
ISCARTHREAD

ER/L-ACME

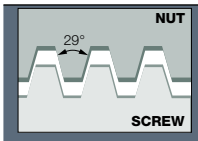
External ACME Profile Laydown
Threading Inserts for Feed Screws







External right-hand shown



Designation	Dimensions IC	INSL	TPI(1)	PDY	PDX	Tough ↔ Hard IC50M	IC250	IC08	IC908	IC1007
11ER 16 ACME	6.35	11.00	16.0	0.9	1.0				•	
16ER 16 ACME	9.52	16.49	16.0	1.0	1.0		•		•	
16ER 12 ACME	9.52	16.49	12.0	1.0	1.0				•	
16ER 10 ACME	9.52	16.49	10.0	1.4	1.3		•		•	
16ER/L 8 ACME	9.52	16.49	8.0	1.3	1.5		•		•	
22EL 6 ACME	12.70	22.00	6.0	1.8	2.1				•	
22ER 6 ACME	12.70	22.00	6.0	1.8	2.1	•			•	
22EL 5 ACME	12.70	22.00	5.0	2.0	2.4				•	
22ER 5 ACME	12.70	22.00	5.0	2.0	2.4		•		•	
22ER/L 4 ACME	12.70	22.00	4.0	2.1	2.3				•	
22UERL 4 ACME	12.70	22.00	4.0	2.3	11.0	•			•	
27EL 4 ACME	15.88	27.50	4.0	2.3	2.7				•	
27ER 4 ACME	15.88	27.50	4.0	2.3	2.6		•	•	•	
27UERL 3 ACME	15.88	27.50	3.0	2.8	13.7		•		•	
16EL 6 ACME	9.52	16.49	6.0	1.4	1.6		•			
16ER 14 ACME	9.52	16.49	14.0	1.0	1.0		•			
16ER 6 ACME	9.52	16.49	6.0	1.4	1.6		•			•

• For Insert Identification System, see pages 638-639 • ACME ASME/ANSI B1.5-1988 Class 3G • For technical information and detailed cutting data, see pages 711-727

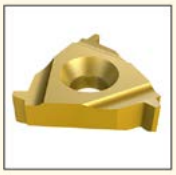
(1) Threads per inch

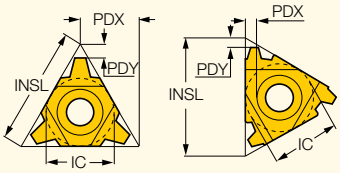
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

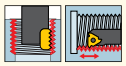
ISCARTHREAD

IR/L-ACME

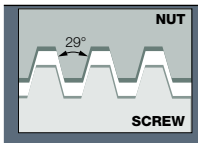
Internal ACME Profile Laydown
Threading Inserts for Feed Screws







Internal left-hand shown



Designation	Dimensions IC	INSL	TPI(1)	PDY	PDX	Tough ↔ Hard IC50M	IC250	IC08	IC508	IC908
16IL 16 ACME	9.52	16.49	16.0	0.9	1.0	•				
16IR 16 ACME	9.52	16.49	16.0	0.9	1.0	•	•			
16IL 14 ACME	9.52	16.49	14.0	1.0	1.2	•				
16IL 12 ACME	9.52	16.49	12.0	1.1	1.2	•				
16IR 12 ACME	9.52	16.49	12.0	1.1	1.2		•	•		•
16IL 10 ACME	9.52	16.49	10.0	1.3	1.3	•				
16IR 10 ACME	9.52	16.49	10.0	1.3	1.4		•			
16IL 8 ACME	9.52	16.49	8.0	1.5	1.5					•
16IR 8 ACME	9.52	16.49	8.0	1.3	1.5		•			•
22IL 6 ACME	12.70	22.00	6.0	1.9	2.1	•	•			
22IR 6 ACME	12.70	22.00	6.0	1.9	2.1	•	•			•
22IL 5 ACME	12.70	22.00	5.0	2.0	2.1	•			•	•
22IR 5 ACME	12.70	22.00	5.0	2.0	2.1		•			•
22IR 4 ACME	12.70	22.00	4.0	2.1	2.1					•
22UIRL 4 ACME	12.70	22.00	4.0	2.3	11.0			•		
27IL 4 ACME	15.88	27.50	4.0	2.3	2.6					•
27IR 4 ACME	15.88	27.50	4.0	2.3	2.6		•			•
27UIRL 3 ACME	15.88	27.50	3.0	2.8	13.7					•

• For Insert Identification System, see pages 638-639 • ACME ASME/ANSI B1.5-1988 Class 3G • For technical information and detailed cutting data, see pages 711-727

(1) Threads per inch

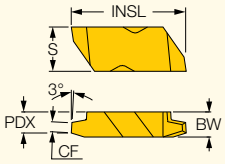
For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

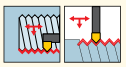
ISCARTHREAD

ACME THREADING FLA

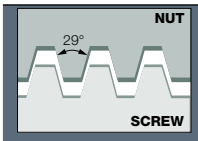
Double-Ended, Precision,
Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-6R/L2	2.0	4.58	7.20	9.73	11.51	28.45	●
FLA-6R/L2.5	2.5	3.63	7.20	9.73	11.51	28.45	●
FLA-6R/L3	3.0	3.01	7.20	9.73	11.51	28.45	●
FLA-3R/L4	4.0	2.22	3.40	4.95	8.74	22.60	●
FLA-4R/L4	4.0	2.22	5.10	6.48	11.51	28.45	●
FLA-3R/L5	5.0	1.75	3.80	4.95	8.74	22.60	●
FLA-4R/L5	5.0	1.75	5.10	6.48	11.51	28.45	●
FLA-3R/L6	6.0	1.44	3.80	4.95	8.74	22.60	●
FLA-4R/L6	6.0	1.44	5.10	6.48	11.51	28.45	●
FLA-3R/L8	8.0	1.04	3.80	4.95	8.74	22.60	●
FLA-4R/L8	8.0	1.04	5.10	6.48	11.51	28.45	●
FLA-3R/L10	10.0	0.81	3.80	4.95	8.74	22.60	●
FLA-3R/L12	12.0	0.72	3.80	4.95	8.74	22.60	●
FLA-3R/L14	14.0	0.61	3.80	4.95	8.74	22.60	●
FLA-3R/L16	16.0	0.52	3.80	4.95	8.74	22.60	●

• For ACME thread limits, see page • DMIN according to related boring bar

(1) Threads per inch

For tools, see pages: FLASR/L (708) • FLSR/L (708)

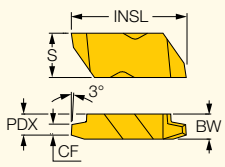
NOTCH-GRIP GROOVE-TURN LINE

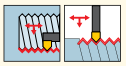
ISCARTHREAD

ACME THREADING FLAS

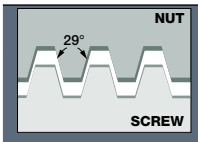
Double-Ended, Precision,
Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLAS-6R/L2	2.0	5.23	7.20	9.73	11.51	28.45	●
FLAS-4R/L3	3.0	3.44	5.10	6.48	11.51	28.45	●
FLAS-3L4	4.0	2.55	3.80	4.95	8.74	22.60	●
FLAS-3R/L5	5.0	2.01	3.80	4.95	8.74	22.60	●
FLAS-3R/L6	6.0	1.66	3.80	4.95	8.74	22.60	●
FLAS-3R/L8	8.0	1.21	3.80	4.95	8.74	22.60	●
FLAS-3R/L10	10.0	0.94	3.80	4.95	8.74	22.60	●
FLAS-3R/L12	12.0	0.83	3.80	4.95	8.74	22.60	●
FLAS-3R/L14	14.0	0.70	3.80	4.95	8.74	22.60	●
FLAS-3R/L16	16.0	0.60	3.80	4.95	8.74	22.60	●

• DMIN according to related boring bar

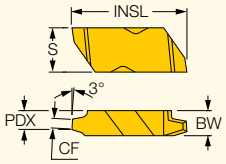
(1) Threads per inch

For tools, see pages: FLASR/L (708) • FLSR/L (708)

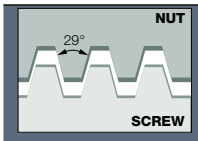
NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

ACME THREADING
FLA-PT-E
Double-Ended, Precision, Flat Top External Threading Inserts





Right-hand shown



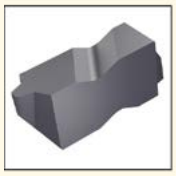
Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3R4-PT-E	4.0	2.22	3.40	4.95	8.74	28.45	●
FLA-3R5-PT-E	5.0	1.75	3.80	4.95	8.74	28.45	●
FLA-3R6-PT-E	6.0	1.44	3.80	4.95	8.74	22.60	●
FLA-3R8-PT-E	8.0	1.04	3.80	4.95	8.74	28.45	●
FLA-3R10-PT-E	10.0	0.81	3.80	4.95	8.74	22.60	●
FLA-3R12-PT-E	12.0	0.72	3.80	4.95	8.74	22.60	●
FLA-3R14-PT-E	14.0	0.61	3.80	4.95	8.74	22.60	●
FLA-3R16-PT-E	16.0	0.52	3.80	4.95	8.74	22.60	●
FLA-4R4-PT-E	4.0	2.22	5.10	6.48	11.51	28.45	●
FLA-4R5-PT-E	5.0	1.75	5.10	6.48	11.51	22.60	●
FLA-4R6-PT-E	6.0	1.44	5.10	6.48	11.51	28.45	●
FLA-4R8-PT-E	8.0	1.04	5.10	6.48	11.51	22.60	●
FLA-6R2-PT-E	2.0	4.58	7.20	9.73	11.51	28.45	●
FLA-6R2.5-PT-E	2.5	3.63	7.20	9.73	11.51	28.45	●
FLA-6R3-PT-E	3.0	3.01	7.20	9.73	11.51	28.45	●

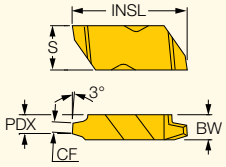
[1] Threads per inch

For tools, see pages: FLASR/L (708) • FLSR/L (708)

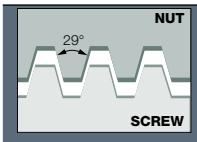
NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

ACME THREADING
FLA-PT-I
Double-Ended, Precision, Flat Top Internal Threading Inserts





Right-hand shown



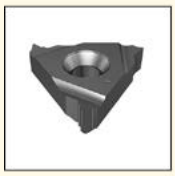
Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3L16-PT-I	16.0	0.52	3.80	4.95	8.74	22.60	●
FLA-3L14-PT-I	14.0	0.61	3.80	4.95	8.74	22.60	●
FLA-3L12-PT-I	12.0	0.72	3.80	4.95	8.74	22.60	●
FLA-3L10-PT-I	10.0	0.81	3.80	4.95	8.74	22.60	●
FLA-3L8-PT-I	8.0	1.04	3.80	4.95	8.74	22.60	●
FLA-3L6-PT-I	6.0	1.44	3.80	4.95	8.74	22.60	●
FLA-3L5-PT-I	5.0	1.75	3.80	4.95	8.74	22.60	●
FLA-3L4-PT-I	4.0	2.22	3.40	4.95	8.74	22.60	●
FLA-4L8-PT-I	8.0	1.04	5.10	6.48	11.51	28.45	●
FLA-4L6-PT-I	6.0	1.44	5.10	6.48	11.51	28.45	●
FLA-4L5-PT-I	5.0	1.75	5.10	6.48	11.51	28.45	●
FLA-4L4-PT-I	4.0	2.22	5.10	6.48	11.51	28.45	●
FLA-6L3-PT-I	3.0	3.01	7.20	9.73	11.51	28.45	●
FLA-6L2.5-PT-I	2.5	3.63	7.20	9.73	11.51	28.45	●
FLA-6L2-PT-I	2.0	4.58	7.20	9.73	11.51	28.45	●

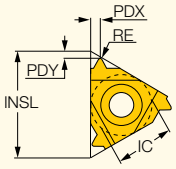
[1] Threads per inch

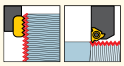
ISCARTHREAD

ER/L-UNJ

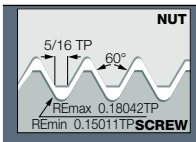
External UNJ Profile Laydown Threading Inserts for the Aviation and Aerospace Industries







External right-hand shown

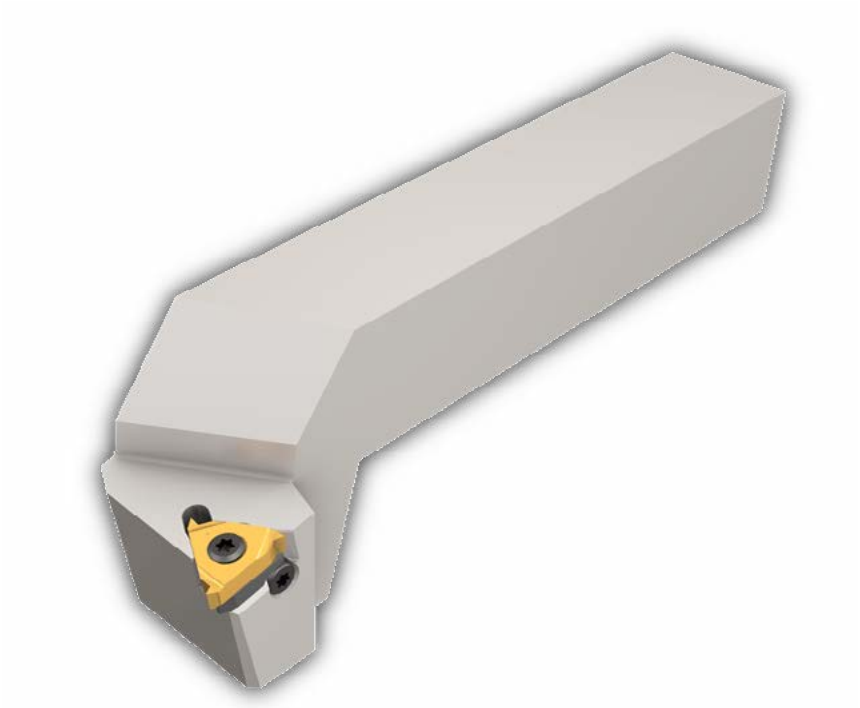


Designation	Dimensions						Tough ↔ Hard					
	IC	TPI[1]	RE	INSL	PDY	PDX	IC50M	IC250	IC08	IC908	IC806	IC1007
11ER 28 UNJ	6.35	28.0	0.14	11.00	0.6	0.6				●		
11ER 24 UNJ	6.35	24.0	0.16	11.00	0.7	0.8				●		
11ER 20 UNJ	6.35	20.0	0.19	11.00	0.8	0.9				●		
16ER 40 UNJ	9.52	40.0	0.10	16.49	0.6	0.6				●		
16ER 36 UNJ	9.52	36.0	0.11	16.49	0.6	0.6				●		
16ER 32 UNJ	9.52	32.0	0.13	16.49	0.6	0.6				●	●	
16EL 28 UNJ	9.52	28.0	0.15	16.49	0.6	0.6				●		
16ER 28 UNJ	9.52	28.0	0.15	16.49	0.6	0.6				●	●	
16EL 24 UNJ	9.52	24.0	0.16	16.49	0.7	0.8		●				
16ER 24 UNJ	9.52	24.0	0.18	16.49	0.7	0.8				●	●	
16EL 20 UNJ	9.52	20.0	0.21	16.49	0.8	0.9				●		
16ER 20 UNJ	9.52	20.0	0.21	16.49	0.8	0.9		●		●	●	●
16EL 18 UNJ	9.52	18.0	0.23	16.49	0.7	0.8			●			
16ER 18 UNJ	9.52	18.0	0.23	16.49	0.7	0.8				●	●	●
16EL 16 UNJ	9.52	16.0	0.26	16.49	0.9	1.2				●		
16ER 16 UNJ	9.52	16.0	0.26	16.49	0.9	1.2	●			●	●	●
16EL 14 UNJ	9.52	14.0	0.30	16.49	1.1	1.2				●		
16ER 14 UNJ	9.52	14.0	0.30	16.49	1.0	1.2		●		●	●	
16ER 13 UNJ	9.52	13.0	0.29	16.49	1.1	1.3				●		
16EL 12 UNJ	9.52	12.0	0.35	16.49	1.1	1.2				●		
16ER 12 UNJ	9.52	12.0	0.35	16.49	1.0	1.2				●	●	
16ER 11 UNJ	9.52	11.0	0.32	16.49	1.1	1.5				●		
16ER 10 UNJ	9.52	10.0	0.38	16.49	1.1	1.5				●	●	
16EL 8 UNJ	9.52	8.0	0.48	16.49	1.2	1.6		●				
16ER 8 UNJ	9.52	8.0	0.48	16.49	1.2	1.6				●		

- UNJ MIL-S-8879C 9-1992 Class 3A
- Only right-hand inserts are available in grade IC806 and IC1007
- Thread milling application available only for inserts size 06, 08, 11
- For Insert Identification System, see pages 638-639
- For technical information and detailed cutting data, see pages 711-727

[1] Threads per inch

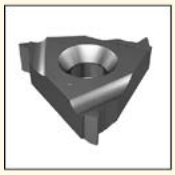
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700) • SER/L-JHP (701) • SER/L-JHP-MC (702)

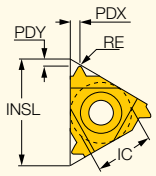


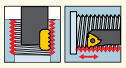
ISCARTHREAD

IR/L-UNJ

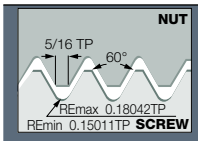
Internal UNJ Profile Laydown Threading Inserts for the Aviation and Aerospace Industries







Internal left-hand shown



Designation	Dimensions IC	TPI[1]	RE	INSL	PDY	PDX	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC908	IC806
08IR 20 UNJ	5.00	20.0	0.09	8.24	0.6	0.7	●					
08IR 18 UNJ	5.00	18.0	0.10	8.24	0.6	0.7	●					
11IR 32 UNJ	6.35	32.0	0.04	11.00	0.6	0.6					●	
11IRB 32 UNJ	6.35	32.0	0.04	11.00	0.6	0.6					●	
11IR 28 UNJ	6.35	28.0	0.05	11.00	0.6	0.6					●	
11IRB 28 UNJ	6.35	28.0	0.05	11.00	0.6	0.6					●	
11IR 24 UNJ	6.35	24.0	0.05	11.00	0.7	0.8				●	●	
11IRB 24 UNJ	6.35	24.0	0.05	11.00	0.6	0.6					●	
11IR 20 UNJ	6.35	20.0	0.07	11.00	0.8	0.9					●	
11IRB 20 UNJ	6.35	20.0	0.07	11.00	0.8	0.9					●	
11IR 18 UNJ	6.35	18.0	0.08	11.00	0.8	0.9					●	●
11IRB 18 UNJ	6.35	18.0	0.08	11.00	0.9	1.0					●	
11IR 16 UNJ	6.35	16.0	0.09	11.00	0.8	0.9					●	●
11IRB 16 UNJ	6.35	16.0	0.09	11.00	0.8	0.9					●	
11IRB 14 UNJ	6.35	14.0	0.10	11.00	0.8	0.9					●	
16IR 32 UNJ	9.52	32.0	0.04	16.49	0.6	0.6					●	
16IR 24 UNJ	9.52	24.0	0.05	16.49	0.7	0.8		●			●	
16IR 20 UNJ	9.52	20.0	0.07	16.49	0.8	0.8					●	
16IR 18 UNJ	9.52	18.0	0.07	16.49	0.7	0.8					●	●
16IL 16 UNJ	9.52	16.0	0.09	16.49	1.0	1.2					●	
16IR 16 UNJ	9.52	16.0	0.09	16.49	1.0	1.2			●		●	●
16IR 14 UNJ	9.52	14.0	0.10	16.49	1.0	1.1					●	●
16IL 12 UNJ	9.52	12.0	0.12	16.49	1.1	1.0					●	
16IR 12 UNJ	9.52	12.0	0.12	16.49	1.1	1.0					●	●
16IR 10 UNJ	9.52	10.0	0.14	16.49	1.1	1.5					●	
16IR/L 8 UNJ	9.52	8.0	0.19	16.49	1.2	1.6					●	

- Thread milling application available only for inserts size 06, 08, 11
- For Insert Identification System, see pages 638-639
- For technical information and detailed cutting data, see pages 711-727

[1] Threads per inch

For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

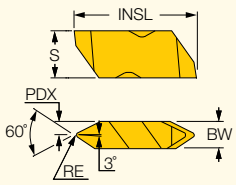
NOTCH-GRIP GROOVE-TURN LINE

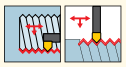
ISCARTHREAD

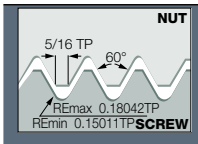
UNJ THREADING FLJ

Double-Ended, Precision, Flat Top Threading Inserts









Designation	Dimensions TPI[1]	RE	PDX	BW	S	INSL	IC908
FLJ-3020R/L8	8.0	0.48	2.49	4.95	8.74	22.60	●
FLJ-3014R/L12	12.0	0.32	2.49	4.95	8.74	22.60	●
FLJ-3010R/L16	16.0	0.24	2.49	4.95	8.74	22.60	●

- DMIN according to related boring bar

[1] Threads per inch

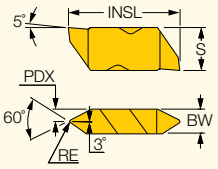
For tools, see pages: FLASR/L (708) • FLSR/L (708)

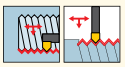
NOTCH-GRIP GROOVE-TURN LINE
ISCARTHREAD

UNJ THREADING FLJP

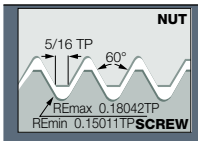
Double-Ended, Precision Threading Inserts with a Positive Rake







Right-hand shown



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLJP-3020R/L8	8.0	0.48	2.50	4.95	8.74	22.60	•
FLJP-3014R/L12	12.0	0.32	2.50	4.95	8.74	22.60	•
FLJP-3010R/L16	16.0	0.24	2.50	4.95	8.74	22.60	•

• DMIN according to related boring bar

(1) Threads per inch

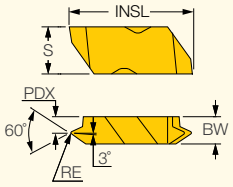
For tools, see pages: FLASR/L (708) • FLSR/L (708)

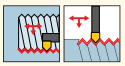
NOTCH-GRIP GROOVE-TURN LINE
ISCARTHREAD

UNJ THREADING FLJF

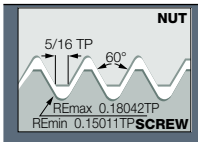
Double-Ended, Precision Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLJF-3012R/L14	14.0	0.27	3.58	4.95	8.74	22.60	•
FLJF-3010R/L16	16.0	0.24	3.60	4.95	8.74	22.60	•
FLJF-3009R/L18	18.0	0.21	3.60	4.95	8.74	22.60	•
FLJF-3008R/L20	20.0	0.19	3.60	4.95	8.74	22.60	•
FLJF-3007R/L24	24.0	0.16	3.60	4.95	8.74	22.60	•
FLJF-3006R/L28	28.0	0.14	3.60	4.95	8.74	22.60	•
FLJF-3005R/L32	32.0	0.12	3.60	4.95	8.74	22.60	•

• DMIN according to related boring bar

(1) Threads per inch

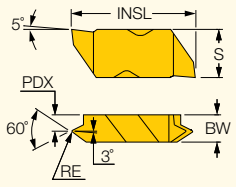
For tools, see pages: FLASR/L (708) • FLSR/L (708)

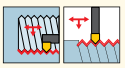
NOTCH-GRIP GROOVE-TURN LINE
ISCARTHREAD

UNJ THREADING FLJK

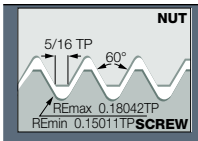
Double-Ended, Precision Threading Inserts with a Positive Rake







Right-hand shown



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLJK-3012R/L14	14.0	0.27	3.58	4.95	8.74	22.60	•
FLJK-3010R/L16	16.0	0.24	3.60	4.95	8.74	22.60	•
FLJK-3009R/L18	18.0	0.21	3.60	4.95	8.74	22.60	•
FLJK-3008R/L20	20.0	0.19	3.60	4.95	8.74	22.60	•
FLJK-3007R/L24	24.0	0.16	3.60	4.95	8.74	22.60	•
FLJK-3006R/L28	28.0	0.14	3.60	4.95	8.74	22.60	•
FLJK-3005R/L32	32.0	0.12	3.60	4.95	8.74	22.60	•

• DMIN according to related boring bar

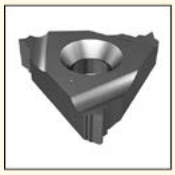
(1) Threads per inch

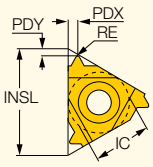
For tools, see pages: FLASR/L (708) • FLSR/L (708)

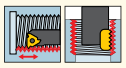
ISCARTHREAD

IR-MJ

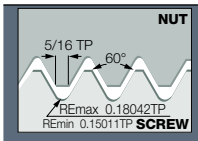
Internal MJ ISO 5855 Metric Full Profile Laydown Threading Inserts for the Aviation and Aerospace Industries







Internal left-hand shown



Designation	Dimensions IC	TP(1)	INSL	RE	PDY	PDX	Tough ↔ Hard IC908	IC806
11IR 1.00 MJ	6.35	1.000	11.00	0.05	0.6	0.6	●	●
11IRB 1.00 MJ	6.35	1.000	11.00	0.05	0.6	0.6	●	
11IR 1.25 MJ	6.35	1.250	11.00	0.07	0.8	0.9	●	●
11IR 1.50 MJ	6.35	1.500	11.00	0.08	0.8	1.0	●	●
11IRB 1.50 MJ	6.35	1.500	11.00	0.08	0.8	0.9	●	
11IR 2.00 MJ	6.35	2.000	11.00	0.12	0.9	1.0	●	●
16IR 1.00 MJ	9.52	1.000	16.49	0.05	0.7	0.8	●	●
16IR 1.25 MJ	9.52	1.250	16.49	0.07	0.8	0.9	●	●
16IR 1.50 MJ	9.52	1.500	16.49	0.08	1.1	1.1	●	●

- Thread milling application available only for inserts size 06, 08, 11
- For Insert Identification System, see pages 638-639
- For technical information and detailed cutting data, see pages 711-727

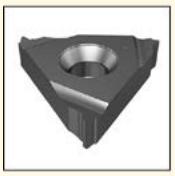
(1) Thread pitch

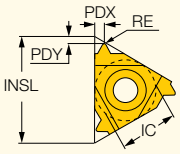
For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

ISCARTHREAD

ER-MJ

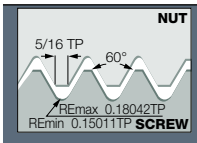
External MJ ISO 5855 Metric Full Profile Laydown Threading Inserts for the Aviation and Aerospace Industries







External right-hand shown



Designation	Dimensions IC	TP(1)	INSL	RE	PDY	PDX	Tough ↔ Hard IC250	IC908	IC806
16ER 1.00 MJ	9.52	1.000	16.49	0.17	0.7	0.8		●	●
16ER 1.25 MJ	9.52	1.250	16.49	0.21	0.8	0.8		●	●
16ER 1.50 MJ	9.52	1.500	16.49	0.25	0.9	1.1	●	●	●
16ER 2.00 MJ	9.52	2.000	16.49	0.33	1.0	1.1		●	●

- For Insert Identification System, see pages 638-639
- For technical information and detailed cutting data, see pages 711-727

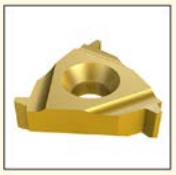
(1) Thread pitch

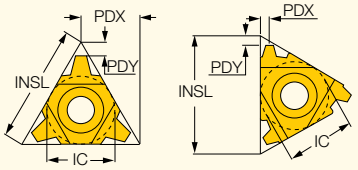
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

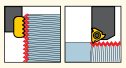
TR Trapez

ISCARTHREAD

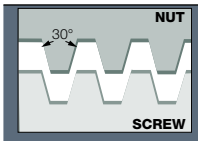
ER/L-TR
External Trapeze Shaped
DIN 103 Laydown Threading
Inserts for Feed Screws







External right-hand shown



Designation	Dimensions IC	TP[2]	INSL	PDY	PDX	Tough ↔ Hard IC228	IC50M	IC250	IC908	IC1007
16EL 1.5 TR	9.52	1.500	16.49	1.0	1.0			●		
16ER 1.5 TR	9.52	1.500	16.49	1.0	1.0			●	●	
16EL 2 TR	9.52	2.000	16.49	1.0	1.0			●		
16ER 2 TR	9.52	2.000	16.49	1.0	1.0			●	●	
16EL 3 TR	9.52	3.000	16.49	1.4	1.6				●	
16ER 3 TR	9.52	3.000	16.49	1.4	1.6	●		●	●	●
16ER 4 TR	9.52	4.000	16.49	1.8	1.9			●	●	
22EL 4 TR	12.70	4.000	22.00	1.8	1.9				●	
22ER 4 TR	12.70	4.000	22.00	1.8	1.9			●	●	
22EL 5 TR	12.70	5.000	22.00	2.0	2.4			●	●	
22ER 5 TR	12.70	5.000	22.00	2.0	2.4		●	●	●	
22ER/L 6 TR	12.70	6.000	22.00	2.0	2.4				●	
22UERL 6 TR	12.70	6.000	22.00	2.0	11.0		●	●	●	
22UERL 7 TR	12.70	7.000	22.00	2.3	11.0			●		
22UERL 8 TR	12.70	8.000	22.00	2.5	11.0			●		
27EL 6 TR	15.88	6.000	27.50	2.3	2.6				●	
27ER 6 TR	15.88	6.000	27.50	2.3	2.6			●	●	
27EL 7 TR	15.88	7.000	27.50	2.2	2.6			●		
27ER 7 TR	15.88	7.000	27.50	2.3	2.6			●	●	
27UERL 8 TR	15.88	8.000	27.50	2.5	13.7			●	●	
27UERL 9 TR	15.88	9.000	27.50	3.0	13.7			●	●	
27UERL 10 TR [1]	15.88	10.000	27.50	3.2	13.7			●	●	

• For Insert Identification System, see pages 638-639 • DIN 103 04/1977,1502901/1977 Class 7e • For technical information and detailed cutting data, see pages 711-727

[1] One cutting edge only

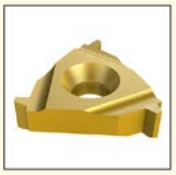
[2] Thread pitch

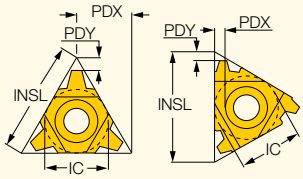
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

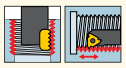
ISCARTHREAD

IR/L-TR

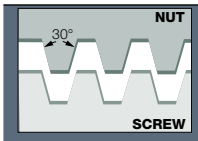
Internal Trapeze Shaped
DIN 103 Laydown Threading
Inserts for Feed Screws







Internal left-hand shown



Designation	Dimensions IC	TP[2]	INSL	PDY	PDX	Tough ↔ Hard IC228	IC50M	IC250	IC908
08IR 1.5 TR [1]	5.00	1.500	8.24	0.60	0.6	●			
08UIRL 2 TR	5.00	2.000	8.24	0.90	4.0	●			
16IR 1.5 TR	9.52	1.500	16.49	1.00	1.0			●	●
16IL 2 TR	9.52	2.000	16.49	1.00	1.3			●	●
16IR 2 TR	9.52	2.000	16.49	1.00	1.1			●	●
16IL 3 TR	9.52	3.000	16.49	1.30	1.5				●
16IR 3 TR	9.52	3.000	16.49	1.30	1.5	●			●
22IL 4 TR	12.70	4.000	22.00	1.90	2.0				●
22IR 4 TR	12.70	4.000	22.00	1.90	2.0			●	●
22IL 5 TR	12.70	5.000	22.00	2.00	2.3				●
22IR 5 TR	12.70	5.000	22.00	2.00	2.3			●	●
22IL 6 TR	12.70	6.000	22.00	2.00	2.3				●
22IR 6 TR	12.70	6.000	22.00	2.00	2.2		●	●	●
22UIRL 6 TR	12.70	6.000	22.00	2.00	11.0			●	●
22UIRL 7 TR	12.70	7.000	22.00	2.30	11.0			●	
27IL 6 TR	15.88	6.000	27.50	2.30	2.7				●
27IR 6 TR	15.88	6.000	27.50	2.30	2.6			●	●
27IR 7 TR	15.88	7.000	27.50	2.20	2.6			●	
27UIRL 8 TR	15.88	8.000	27.50	2.50	13.7	●		●	●
27UIRL 9 TR	15.88	9.000	27.50	3.00	13.7			●	●
27UIRL 10 TR [1]	15.88	10.000	27.50	3.20	2.5				●

• For Insert Identification System, see pages 638-639 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 711-727

[1] A single threading corner

[2] Thread pitch

For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

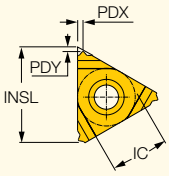
PG (Panzergewinde)

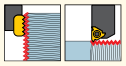
ISCARTHREAD

ER-PG

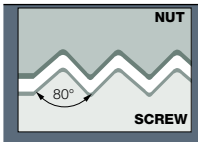
External Threading Inserts
for the Electrical Industry







External right-hand shown



Designation	Dimensions IC	TPI[1]	INSL	PDY	PDX	RE	Tough ↔ Hard IC08	IC908
16ER 16 PG	9.52	16.0	16.49	0.8	1.0	0.17		●
16ER 18 PG	9.52	18.0	16.49	0.8	0.9	0.15	●	●
16ER 20 PG	9.52	20.0	16.49	0.7	0.8	0.13		●

• For Insert Identification System, see pages 638-639

[1] Threads per inch

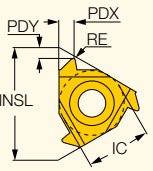
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

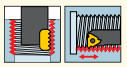
ISCARTHREAD

IR/L-PG

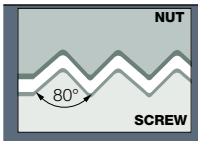
Internal Thread Profile Inserts for the Electrical Industry







Internal left-hand shown



Designation	Dimensions IC	TPI[1]	RE	INSL	PDY	PDX	IC908
11IR 18 PG	6.35	18.0	0.15	11.00	0.8	0.9	●
16IR 18 PG	9.52	18.0	0.15	16.49	0.8	0.9	●
16IR 16 PG	9.52	16.0	0.17	16.49	0.7	0.9	●

• For Insert Identification System, see pages 638-639

(1) Threads per inch

For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

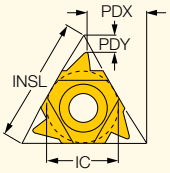
SAGE (Sagengenwide) Metric Buttress DIN 513

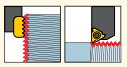
ISCARTHREAD

ER/L-SAGE

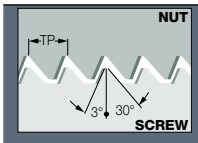
External Buttress Thread (DIN 513) for High Force in One Direction Applications







External right-hand shown



Designation	Dimensions IC	INSL	TP[2]	PDY	PDX	Tough ↔ Hard IC250	IC908
16ER/L 2 SAGE	9.52	16.49	2.000	1.1	1.6		●
22ER 3 SAGE	12.70	22.00	3.000	1.5	2.4		●
22EL 4 SAGE	12.70	22.00	4.000	1.9	3.1		●
22ER 4 SAGE	12.70	22.00	4.000	1.9	3.1	●	
22UER 5 SAGE [1]	12.70	22.00	5.000	1.2	11.6		●
22UER/L 6 SAGE [1]	12.70	22.00	6.000	1.2	11.7		●

• For Insert Identification System, see pages 638-639 • For technical information and detailed cutting data, see pages 711-727

(1) Requires special anvil

(2) Thread pitch

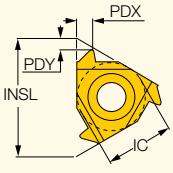
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

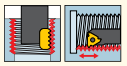
ISCARTHREAD

IR/L-SAGE

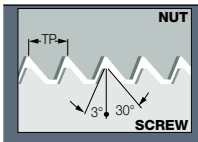
Internal Sagengenwinde (DIN 513) Thread Application for High Force in One Direction







Internal left-hand shown



Designation	Dimensions IC	TP[2]	INSL	PDY	PDX	IC908
16IR/L 2 SAGE	9.52	2.000	16.49	1.2	1.7	●
22IR 3 SAGE	12.70	3.000	22.00	1.9	2.9	●
22IR 4 SAGE	12.70	4.000	22.00	2.2	3.3	●
22UIR 5 SAGE	12.70	5.000	22.00	1.9	11.7	●
22UIR 6 SAGE [1]	12.70	6.000	22.00	2.1	11.9	●

• For Insert Identification System, see pages 638-639 • For technical information and detailed cutting data, see pages 711-727

(1) Requires special anvil

(2) Thread pitch

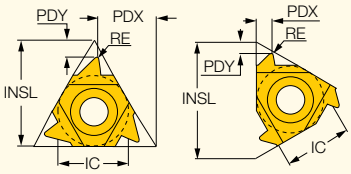
For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

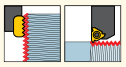
ISCARTHREAD

ER/L-ABUT

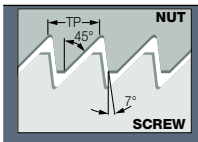
External American Buttress Laydown Threading Inserts for High Force Transmission in One Direction







External right-hand shown



Designation	Dimensions IC	TPI[1]	RE	INSL	PDY	PDX	Tough ↔ Hard IC250	IC908
16ER 20 ABUT	9.52	20.0	0.07	16.49	1.0	1.3		●
16EL 16 ABUT	9.52	16.0	0.09	16.49	1.1	1.5		●
16ER 16 ABUT	9.52	16.0	0.09	16.49	1.1	1.5	●	●
16EL 12 ABUT	9.52	12.0	0.12	16.49	1.4	2.0		●
16ER 12 ABUT	9.52	12.0	0.12	16.49	1.4	2.0	●	●
16ER/L 10 ABUT	9.52	10.0	0.15	16.49	1.5	2.3		●
22ER 8 ABUT	12.70	8.0	0.18	22.00	2.1	3.3	●	●
22ER 6 ABUT	12.70	6.0	0.25	22.00	2.1	3.4		●
22UER 4 ABUT	12.70	4.0	0.41	22.00	2.3	9.5	●	●
27UEL 3 ABUT	15.88	3.0	0.56	27.50	3.1	11.7		●
27UER 3 ABUT	15.88	3.0	-	27.50	3.1	11.7	●	●

• For Insert Identification System, see pages 638-639 • ANSI B1.9-1973 Class 2 • For technical information and detailed cutting data, see pages 711-727

[1] Threads per inch

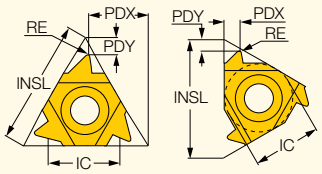
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

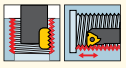
ISCARTHREAD

IR/L-ABUT

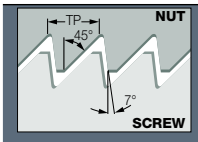
Internal American Buttress Laydown Threading Inserts for High Force Transmission in One Direction







Internal left-hand shown



Designation	Dimensions IC	TPI[1]	RE	INSL	PDY	PDX	Tough ↔ Hard IC50M	IC250	IC908
11IR 20 ABUT	6.35	20.0	0.07	11.00	1.0	1.3			●
11IL 16 ABUT	6.35	16.0	0.09	11.00	1.0	1.5		●	
11IR 16 ABUT	6.35	16.0	0.09	11.00	1.0	1.5			●
16IR 20 ABUT	9.52	20.0	0.07	16.49	1.0	1.3		●	●
16IR/L 16 ABUT	9.52	16.0	0.09	16.49	1.0	1.5			●
16IL 12 ABUT	9.52	12.0	0.12	16.49	1.4	2.0			●
16IR 12 ABUT	9.52	12.0	0.12	16.49	1.4	2.0		●	●
16IL 10 ABUT	9.52	10.0	0.15	16.49	1.5	2.3			●
16IR 10 ABUT	9.52	10.0	0.15	16.49	1.5	2.3		●	●
22IR 8 ABUT	12.70	8.0	0.18	22.00	2.2	3.3			●
22IR 6 ABUT	12.70	6.0	0.25	22.00	2.2	3.4			●
22UIR 4 ABUT	12.70	4.0	0.41	22.00	2.3	9.5	●	●	
27UIR 3 ABUT	15.88	3.0	0.60	27.50	3.1	11.7			●

• For Insert Identification System, see pages 638-639 • ANSI B1.9-1973 Class 2 • For technical information and detailed cutting data, see pages 711-727

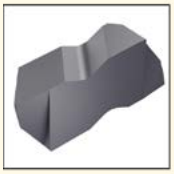
[1] Threads per inch

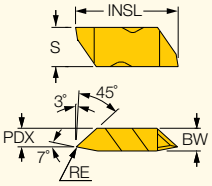
For tools, see pages: SIR/L (703)

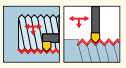
NOTCH GRIP GROOVE-TURN LINE
ISCARTHREAD

AMERICAN STANDARD BUTTRESS THREADING FLTB-A

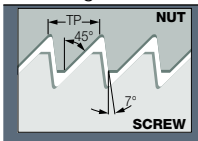
Double-Ended, Precision, Flat Top Threading Inserts for 7° Lead







Right-hand shown



Designation	Dimensions TPIN(1)	TPIX(2)	RE	PDX	BW	S	INSL	IC908
FLTB-4R/LA	4.00	6.00	0.20	5.20	6.48	11.51	28.45	●
FLTB-3R/LA	8.00	16.00	0.13	4.20	4.95	8.74	22.60	●
FLTB-2R/LA	16.00	20.00	0.05	3.20	3.81	5.56	12.95	●

- DMIN according to related boring bar

(1) TPI min.

(2) TPI max.

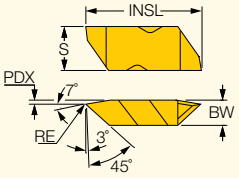
For tools, see pages: FLASR/L (708) • FLSR/L (708)

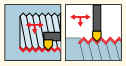
NOTCH GRIP GROOVE-TURN LINE
ISCARTHREAD

AMERICAN STANDARD BUTTRESS THREADING FLTB-B

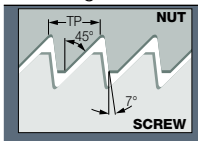
Double-Ended, Precision, Flat Top Threading Inserts for 45° Lead







Left-hand shown



Designation	Dimensions TPIN(1)	TPIX(2)	RE	PDX	BW	S	INSL	IC908
FLTB-4R/LB	4.00	6.00	0.20	0.40	6.48	11.51	28.45	●
FLTB-3R/LB	8.00	16.00	0.13	0.30	4.95	8.74	22.60	●
FLTB-2R/LB	16.00	20.00	0.05	0.30	3.81	5.56	12.95	●

- DMIN according to related boring bar

(1) TPI min.

(2) TPI max.

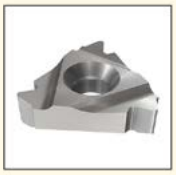
For tools, see pages: FLASR/L (708) • FLSR/L (708)

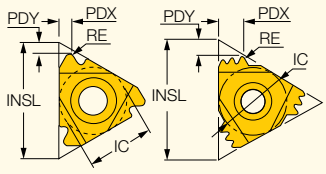
API RD (API ROUND)

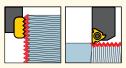
ISCARTHREAD

ER/L-API RD

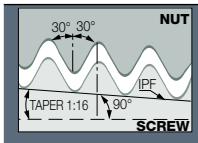
External API - Oil Thread Round Profile Laydown Threading Inserts







External right-hand shown



Designation	Dimensions IC	TPI(2)	RE	INSL	IPF	PDY	PDX	CICT(3)	Tough ↔ Hard IC250	IC908
16ER 10 API RD	9.52	10.0	0.36	16.49	0.75	1.2	1.5	1	●	●
16EL 8 API RD	9.52	8.0	0.43	16.49	0.75	1.3	1.6	1		●
16ER 8 API RD	9.52	8.0	0.43	16.49	0.75	1.3	1.6	1	●	●
22ER 10 API RD 2M (1)	12.70	10.0	0.36	22.00	0.75	2.4	3.7	2		●
27ER 8 API RD 2M (1)	15.88	8.0	0.43	27.50	0.75	3.0	4.5	2		●

- For Insert Identification System, see pages 638-639 • API Spec 5B8-1996. • For technical information and detailed cutting data, see pages 711-727
- For recommended number of passes for multi-tooth inserts, see page

(1) Multi-tooth

(2) Threads per inch

(3) Number of teeth per corner

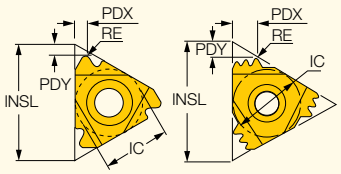
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

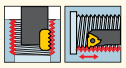
ISCARTHREAD

IR/L-API RD

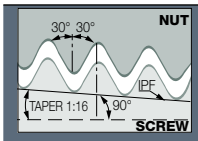
Internal API - Oil Thread Round Profile Laydown Threading Inserts







Internal left-hand shown



Designation	Dimensions IC	TPI(2)	RE	INSL	IPF	PDY	PDX	CICT(3)	Tough ↔ Hard IC250	IC908
16IL 10 API RD	9.52	10.0	0.36	16.49	0.75	1.5	1.4	1		●
16IR 10 API RD	9.52	10.0	0.36	16.49	0.75	1.3	1.5	1	●	●
16IL 8 API RD	9.52	8.0	0.43	16.49	0.75	1.3	1.6	1	●	
16IR 8 API RD	9.52	8.0	0.43	16.49	0.75	1.1	1.5	1	●	●
22IR 10 API RD 2M (1)	12.70	10.0	0.36	22.00	0.75	2.4	3.7	2		●
27IR 8 API RD 2M (1)	15.88	8.0	0.43	27.50	0.75	3.0	4.5	2		●

- For Insert Identification System, see pages 638-639 • API Spec 5B8-1996 • For technical information and detailed cutting data, see pages 711-727
- For recommended number of passes for multi-tooth inserts see page

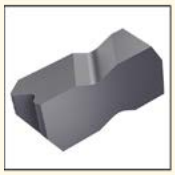
(1) Multi-tooth
(2) Threads per inch
(3) Number of teeth per corner

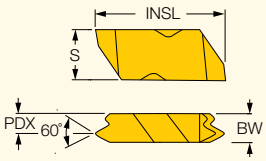
For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

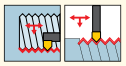
NOTCH-GRIP GROOVE-TURN LINE
ISCARTHREAD

API ROUND THREADING FLDC-RD-75

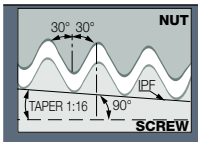
Double-Ended, Precision, Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8RDR/L75	8.0	3/4	5.00	3.18	8.74	22.60	●
FLDC-3-10RDR/L75	10.0	3/4	5.00	3.18	8.74	22.60	●

- DMIN according to related boring bar

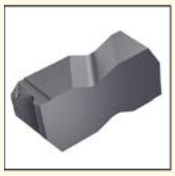
(1) Threads per inch

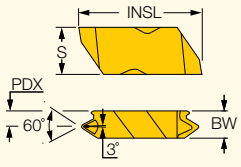
For tools, see pages: FLASR/L (708) • FLSR/L (708)

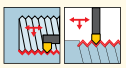
NOTCH-GRIP GROOVE-TURN LINE
ISCARTHREAD

API ROUND THREADING FLDC-RD-75-CB

Double-Ended, Precision, Threading Inserts with a Chipbreaker







Right-hand shown

Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8RDR/L75-CB	8.0	3/4	4.95	3.18	8.74	25.15	●

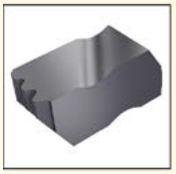
- DMIN according to related boring bar

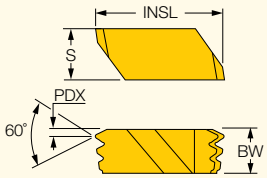
(1) Threads per inch

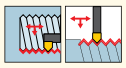
For tools, see pages: FLASR/L (708) • FLSR/L (708)

NOTCH-GRIP
GROOVE-TURN LINE
ISCARTHREAD

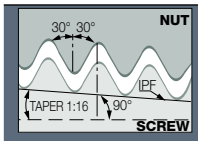
API ROUND THREADING
FLDC-RD-75M
Double-Ended Precision, Flat Top Multi-Tooth Threading Inserts







Left-hand shown



Designation	Dimensions TPI[1]	IPF	PDX	BW	S	INSL	IC908
FLDC-6-8RDR75	8.0	3/4	1.80	9.73	11.51	28.45	●
FLDC-6-10RDR75	10.0	3/4	3.40	9.73	11.51	28.45	●

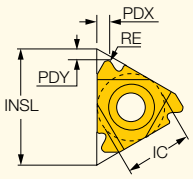
• DMIN according to related boring bar
[1] Threads per inch

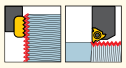
API

ISCARTHREAD

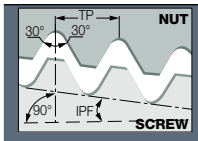
ER/L-API
External API - Oil Thread Profile Laydown Threading Inserts







External right-hand shown



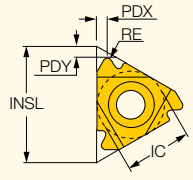
Designation	Dimensions IC	RE	INSL	TPI[4]	IPF	PDX	PDY	Size[5]	Tough ↔ Hard IC250	IC908
22ER 5 API 403 [1]	12.70	0.49	22.00	5.0	3	1.8	2.5	2.375"-4.5"REG	●	●
27ER 4 API 382 [2]	15.88	0.96	27.50	4.0	2	2.1	2.8	NC23-NC50	●	●
27ER 4 API 383 [2]	15.88	0.96	27.50	4.0	3	2.1	2.8	NC56-NC77		●
27EL 4 API 502 [3]	15.88	0.64	27.50	4.0	2	2.0	3.0	6-5/8" REG	●	
27ER 4 API 502 [3]	15.88	0.64	27.50	4.0	2	2.0	3.0	6-5/8" REG	●	●
27ER 4 API 503 [3]	15.88	0.64	27.50	4.0	3	2.0	3.0	5-1/2,7-5/8,8-5/8REG		●

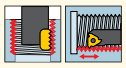
• For Insert Identification System, see pages 638-639 • For technical information and detailed cutting data, see pages 711-727
[1] V-0.040
[2] V-0.050
[3] V-0.038R
[4] Threads per inch
[5] Connection no. or size
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

ISCARTHREAD

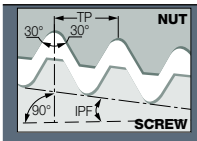
IR/L-API
Internal API - Oil Thread Profile Laydown Threading Inserts







Internal left-hand shown



Designation	Dimensions IC	INSL	TPI[4]	RE	PDY	PDX	Size[5]	Tough ↔ Hard IC250	IC908
22IR 5 API 403 [1]	12.70	22.00	5.0	0.51	1.8	2.5	2.375"-4.5"REG	●	●
27IR 4 API 382 [2]	15.88	27.50	4.0	0.96	2.1	2.8	NC23-NC50	●	●
27IR 4 API 383 [2]	15.88	27.50	4.0	0.96	2.1	2.8	NC56-NC77		●
27IR/L 4 API 502 [3]	15.88	27.50	4.0	0.64	2.0	3.0	6-5/8" REG	●	
27IR 4 API 503 [3]	15.88	27.50	4.0	0.64	2.0	3.0	5-1/2,7-5/8,8-5/8REG	●	

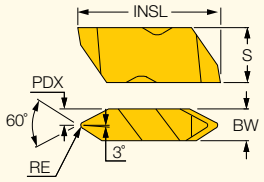
• For Insert Identification System, see pages 638-639 • 0.050, API Spec 74-1994 • For technical information and detailed cutting data, see pages 711-727
[1] V-0.040
[2] V-0.050
[3] V-0.038R
[4] Threads per inch
[5] Connection no. or size
For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

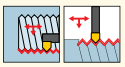
NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

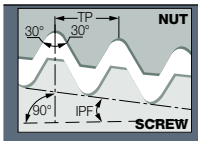
API PARTIAL PROFILE THREADING FLD

Double-Ended, Precision, Flat Top Partial Profile Threading Inserts









Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLD-4050R/L	4.0	0.51	3.25	6.48	11.51	28.45	●
FLD-3038R/L	4.0	0.84	2.08	4.95	8.74	22.60	●
FLD-4038R/L	4.0	0.84	3.25	6.48	11.51	28.45	●
FLD-3040R/L	5.0	0.38	2.08	4.95	8.74	22.60	●
FLD-4040R/L	5.0	0.38	3.25	6.48	11.51	28.45	●

• DMIN according to related boring bar

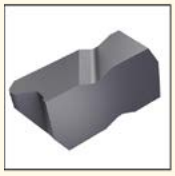
(1) Threads per inch

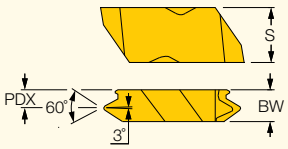
For tools, see pages: FLASR/L (708) • FLSR/L (708)

NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

API THREADING FLDC-E

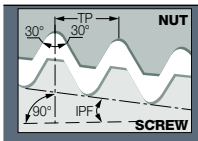
Double-Ended, Precision, Flat Top Threading Inserts







Right-hand shown



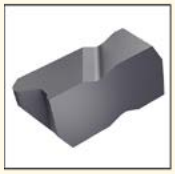
Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-4-425E	4.0	2	4.65	7.92	11.51	28.45	●
FLDC-4-428E	4.0	2	4.65	7.92	11.51	28.45	●
FLDC-4-435E	4.0	3	4.65	7.92	11.51	28.45	●
FLDC-4-438E	4.0	3	4.65	7.92	11.51	28.45	●
FLDC-3-530E	5.0	3	3.73	6.35	8.74	22.60	●

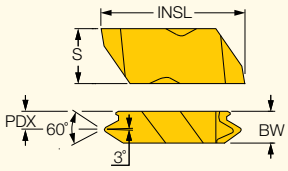
(1) Threads per inch

NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

API THREADING FLDC-I

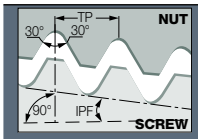
Double-Ended, Precision, Flat Top Threading Inserts







Right-hand shown



Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-4-425I	4.0	2	4.65	7.92	11.51	28.45	●
FLDC-4-428I	4.0	2	4.65	7.92	11.51	28.45	●
FLDC-4-435I	4.0	3	4.65	7.92	11.51	28.45	●
FLDC-4-438I	4.0	3	4.65	7.92	11.51	28.45	●
FLDC-3-530I	5.0	3	3.73	6.35	8.74	22.60	●

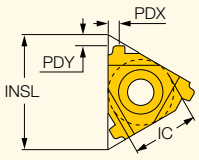
(1) Threads per inch

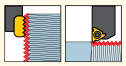
BUT (API BUTRESS CASING)

ISCAR THREAD

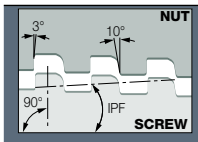
ER-BUT
External BUT - Oil Thread
Profile Laydown Threading
Inserts for Buttress Casing







External right-hand shown



Designation	Dimensions IC	TPI(1)	INSL	IPF	PDY	PDX	Size(2)	Tough ↔ Hard IC250	IC908
22ER 5 BUT 0.75	12.70	5.0	22.00	0.75	2.2	2.4	4-1/2" - 13-3/8"	●	●
22ER 5 BUT-1.00	12.70	5.0	22.00	1.0	2.3	2.4	16" - 20"	●	

• For Insert Identification System, see pages 638-639 • API STD.5B • For technical information and detailed cutting data, see pages 711-727

(1) Threads per inch

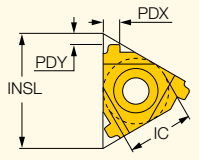
(2) Connection no. or size

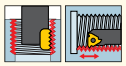
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

ISCAR THREAD

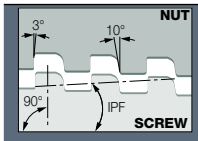
IR-BUT
Internal BUT - Oil Thread
Profile Laydown Threading
Inserts for Buttress Casing







Internal left-hand shown



Designation	Dimensions IC	TPI(1)	INSL	IPF	PDY	PDX	Size(2)	Tough ↔ Hard IC250	IC908
22IR 5 BUT 0.75	12.70	5.0	22.00	0.75	2.2	2.4	4-1/2" - 13-3/8"		●
22IR 5 BUT 1.00	12.70	5.0	22.00	1.00	2.3	2.4	16" - 20"	●	

• For Insert Identification System, see pages 638-639 • API STD.5B • For technical information and detailed cutting data, see pages 711-727

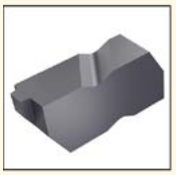
(1) Threads per inch

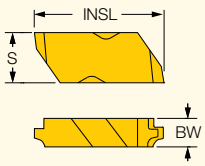
(2) Connection no. or size

For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

NOTCH GRIP GROOVE-TURN LINE
ISCAR THREAD

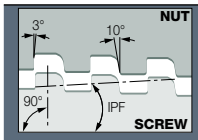
API BUTTRESS THREADING FLDC-B-E
Double-Ended, Precision,
Flat Top Threading Inserts







Right-hand shown



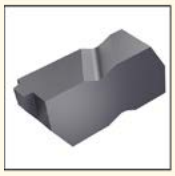
Designation	Dimensions TPI(1)	IPF	BW	S	INSL	IC908
FLDC-3-5B1E	5.0	1	6.35	8.74	22.60	●
FLDC-4-5B1E	5.0	1	6.48	11.51	28.45	●
FLDC-3-5B75E	5.0	3/4	6.35	8.74	22.60	●
FLDC-4-5B75E	5.0	3/4	6.48	11.51	28.45	●

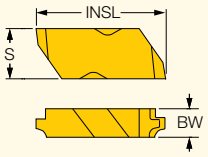
(1) Threads per inch

NOTCH GRIP
GROOVE-TURN LINE
ISCARTHREAD

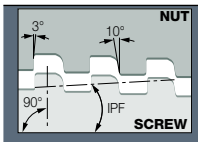
API BUTTRESS THREADING FLDC-B-I

Double-Ended, Precision, Flat Top Threading Inserts





Right-hand shown



Designation	Dimensions TPI[1]	IPF	BW	PDX	S	INSL	IC908
FLDC-3-5B1I	5.0	1	6.35	10.22	8.74	22.60	●
FLDC-4-5B1I	5.0	1	6.48	16.05	11.51	28.45	●
FLDC-3-5B75I	5.0	3/4	6.35	10.22	8.74	22.60	●
FLDC-4-5B75I	5.0	3/4	6.48	16.05	11.51	28.45	●

(1) Threads per inch

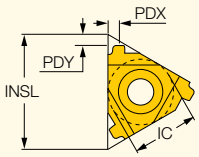
Extreme Line Casing

ISCARTHREAD

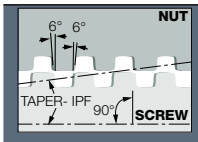
ER-EL

External EL - Extreme Line Oil Thread Profile Laydown Threading Inserts





External right-hand shown



Designation	Dimensions IC	TPI[1]	INSL	IPF	PDY	PDX	Size[2]	Tough ↔ Hard IC250	IC908
22ER 6 EL 1.5	12.70	6.0	22.00	1.5	1.9	1.9	5" - 7-5/8"	●	●
22ER 5 EL 1.25	12.70	5.0	22.00	1.25	2.1	2.0	8-5/8" - 10-3/4"		●

• For Insert Identification System, see pages 638-639 • ANSI B1.9.1973 Class 2

(1) Threads per inch

(2) Connection no. or size

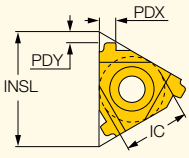
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

ISCARTHREAD

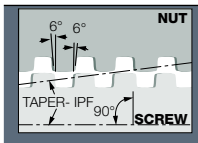
IR-EL

Internal EL - Extreme Line Oil Thread Profile Laydown Threading Inserts





Internal left-hand shown



Designation	Dimensions IC	TPI[1]	INSL	IPF	PDY	PDX	Size[2]	IC908
22IR 6 EL 1.5	12.70	6.0	22.00	1.5	1.9	1.9	5" - 7-5/8"	●

• For Insert Identification System, see pages 638-639 • ANSI B1.9.1973 Class 2

(1) Threads per inch

(2) Connection no. or size

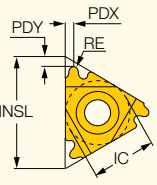
For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

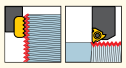
ISCARTHREAD

ER/L-RND

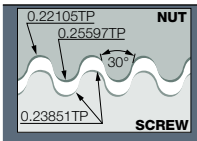
External DIN 405 Round Laydown Threading Inserts for Fire Fighting and Food Industry Pipe Couplings







External right-hand shown



Designation	Dimensions IC	TPI[2]	RE	INSL	PDY	PDX	Tough ↔ Hard IC228	IC250	IC508	IC908
16EL 10 RND	9.52	10.0	0.61	16.49	1.1	1.2				●
16ER 10 RND	9.52	10.0	0.61	16.49	1.1	1.2		●		●
16ER/L 8 RND	9.52	8.0	0.76	16.49	1.4	1.3		●		●
16ERM 8 RND [1]	9.52	8.0	0.75	16.49	1.4	1.3				●
16EL 6 RND	9.52	6.0	1.01	16.49	1.5	1.7		●		
16ER 6 RND	9.52	6.0	1.01	16.49	1.5	1.6		●		●
16ERM 6 RND [1]	9.52	6.0	1.01	16.49	1.5	1.7			●	●
22EL 6 RND	12.70	6.0	1.01	22.00	1.5	1.7		●		
22ER 6 RND	12.70	6.0	1.01	22.00	1.5	1.7	●			●
22EL 4 RND	12.70	4.0	1.51	22.00	2.2	2.3				●
22ER 4 RND	12.70	4.0	1.51	22.00	2.2	2.3		●		●
27ER 4 RND	15.88	4.0	1.51	27.50	2.2	2.3		●		

• For Insert Identification System, see pages 638-639 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 711-727

[1] With pressed chipformer

[2] Threads per inch

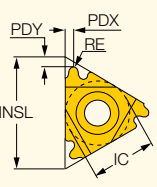
For tools, see pages: C#-SER/L (701) • SER-D (702) • SER/L (700)

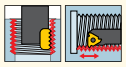
ISCARTHREAD

IR/L-RND

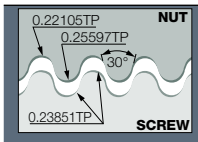
Internal DIN 405 Round Laydown Threading Inserts for Fire Fighting and Food Industry Pipe Couplings







Internal left-hand shown



Designation	Dimensions IC	TPI[2]	RE	INSL	PDY	PDX	Tough ↔ Hard IC250	IC908
16IR 10 RND	9.52	10.0	0.36	16.49	1.1	1.2		●
16IR/L 8 RND	9.52	8.0	0.70	16.49	1.4	1.4		●
16IL 6 RND	9.52	6.0	0.94	16.49	1.4	1.5		●
16IR 6 RND	9.52	6.0	0.94	16.49	1.4	1.4	●	●
16IRM 6 RND [1]	9.52	6.0	0.94	16.49	1.4	1.5		●
22IR 6 RND	12.70	6.0	0.94	22.00	1.5	1.7		●
22IR 4 RND	12.70	4.0	1.40	22.00	2.2	2.3		●
27IR 4 RND	15.88	4.0	1.40	27.50	2.2	2.3	●	

• For Insert Identification System, see pages 638-639 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 711-727

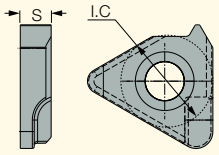
[1] With pressed chipformer

[2] Threads per inch

For tools, see pages: AVC-D-SIR/L (707) • SIR/L (703)

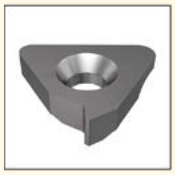
Thread anvils EL/IR
Thread Anvils for External
Left & Internal Right

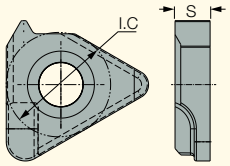




Designation	IC	a°	S
AI16 -0	9.52	0	3.20
AI16M-0	9.52	0	3.20
AI16 -0.50	9.52	-0.5	3.20
AI16 +0.5	9.52	0.5	3.20
AI16M+0.5	9.52	0.5	3.20
AI16 -1.50	9.52	-1.5	3.20
AI16	9.52	1.5	3.20
AI16M	9.52	1.5	3.20
AI16 +2.5	9.52	2.5	3.20
AI16M+2.5	9.52	2.5	3.20
AI16 +3.5	9.52	3.5	3.20
AI16 +4.5	9.52	4.5	3.20
AI22-0	12.70	0	4.00
AI22M-0	12.70	0	4.00
AI22U-0	12.70	0	4.00
AI22 -0.5	12.70	-0.5	4.00
AI22U -0.5	12.70	-0.5	4.00
AI22 +0.50	12.70	0.5	4.00
AI22M+0.5	12.70	0.5	4.00
AI22 -1.50	12.70	-1.5	4.00
AI22U -1.5	12.70	-1.5	4.00
AI22	12.70	1.5	4.00
AI22M	12.70	1.5	4.00
AI22U	12.70	1.5	4.00
AI22 +2.5	12.70	2.5	4.00
AI22M+2.5	12.70	2.5	4.00
AI22U +2.50	12.70	2.5	4.00
AI22 +3.5	12.70	3.5	4.00
AI22U +3.5	12.70	3.5	4.00
AI22 +4.5	12.70	4.5	4.00
AI22U +4.5	12.70	4.5	4.00
AI27-0	15.88	0	5.50
AI27M-0	15.88	0	5.50
AI27U-0	15.88	0	5.50
AI27 -0.5	15.88	-0.5	3.20
AI27U-0.50	15.88	-0.5	5.50
AI27 +0.5-P	15.88	0.5	5.50
AI27M+0.5	15.88	0.5	4.00
AI27U +0.50	15.88	0.5	5.50
AI27 -1.5	15.88	-1.5	5.50
AI27U -1.5	15.88	-1.5	5.50
AI27	15.88	1.5	5.50
AI27M	15.88	1.5	5.50
AI27U	15.88	1.5	5.50
AI27 +2.5	15.88	2.5	5.50
AI27U +2.5	15.88	2.5	5.50
AI27U +2.5TR	15.88	2.5	5.50
AI27 +3.5	15.88	3.5	5.50
AI27U +3.5	15.88	3.5	5.50
AI27U +3.5TR	15.88	3.5	5.50
AI27 +4.5	15.88	4.5	5.50
AI27U +4.5	15.88	4.5	5.50
AI27U +4.5TR	15.88	4.5	5.50

Thread anvils ER/IL
Thread Anvils for External
Right & Internal Left





Designation	IC	a°	S
AE16 -0	9.52	0	3.20
AE16M -0	9.52	0	3.20
AE16 -0.5	9.52	-0.5	3.20
AE16M -0.5	9.52	-0.5	3.20
AE16 +0.5	9.52	0.5	3.20
AE16M +0.5	9.52	0.5	3.20
AE16 -1.5	9.52	-1.5	3.20
AE16M -1.5	9.52	-1.5	3.20
AE16	9.52	1.5	3.20
AE16M	9.52	1.5	3.20
AE16 +2.5	9.52	2.5	3.20
AE16M +2.5	9.52	2.5	3.20
AE16 +3.5	9.52	3.5	3.20
AE16 +4.5	9.52	4.5	3.20
AE22 -0	12.70	0	4.00
AE22M -0	12.70	0	4.00
AE22U -0	12.70	0	4.00
AE22 -0.5	12.70	-0.5	4.00
AE22M -0.5	12.70	-0.5	4.00
AE22U -0.5	12.70	-0.5	4.00
AE22 +0.5	12.70	0.5	4.00
AE22M +0.5	12.70	0.5	4.00
AE22U +0.5	12.70	0.5	4.00
AE22 -1.5	12.70	-1.5	4.00
AE22U -1.5	12.70	-1.5	4.00
AE22	12.70	1.5	4.00
AE22M	12.70	1.5	4.00
AE22U	12.70	1.5	4.00
AE22 +2.5	12.70	2.5	4.00
AE22M +2.5	12.70	2.5	4.00
AE22U +2.5	12.70	2.5	4.00
AE22 +3.5	12.70	3.5	4.00
AE22U +3.5	12.70	3.5	4.00
AE22 +4.5	12.70	4.5	4.00
AE22U +4.5	12.70	4.5	4.00
AE27 -0	15.88	0	5.50
AE27M -0	15.88	0	5.50
AE27U -0	15.88	0	5.50
AE27 -0.5	15.88	-0.5	5.50
AE27U -0.5	15.88	-0.5	5.50
AE27 +0.5	15.88	0.5	5.50
AE27M +0.5	15.88	0.5	5.50
AE27U +0.5	15.88	0.5	5.50
AE27 -1.5	15.88	-1.5	5.50
AE27U -1.5	15.88	-1.5	5.50
AE27	15.88	1.5	5.50
AE27M	15.88	1.5	5.50
AE27U	15.88	1.5	5.50
AE27 +2.5	15.88	2.5	5.50
AE27U +2.5	15.88	2.5	5.50
AE27U +2.5TR	15.88	2.5	5.50
AE27 +3.5	15.88	3.5	5.50
AE27U +3.5	15.88	3.5	5.50
AE27U +3.5TR	15.88	3.5	5.50
AE27 +4.5	15.88	4.5	5.50
AE27U +4.5	15.88	4.5	5.50
AE27U +4.5TR	15.88	4.5	5.50

THREADING TOOLS



Toolholder Identification System

S	E	R	2020	K	16	□
1	2	3	4	5	6	7

1 Clamping System

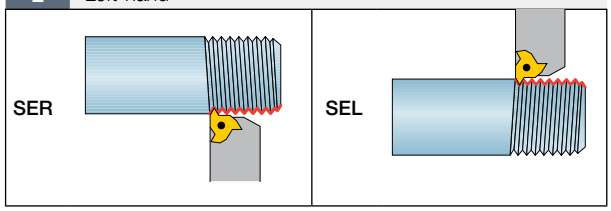
S	Screw Clamping

2 Application

E	External
I	Internal

3 Hand of Tool

R	Right-hand
L	Left-hand



4 Type

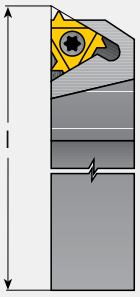
External Toolholders
Shank: hxb
2020-20x20 mm

*** Optional Prefix**

C HSK KM	Exchangeable Adaptation System

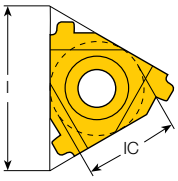
5 Tool Length

	mm
D	60
F	80
H	100
K	125
L	140
M	150
P	170
R	200
S	250
T	300
U	350
V	400



6 Insert Size

l (mm)	IC
06	5/32"
08	3/16"
08U	3/16"
11	1/4"
16	3/8"
22	1/2"
22U	1/2"
27	5/8"
27U	5/8"



7 Optional Specifications

U	For U-type inserts
B	Bore for coolant
C	Carbide shank
O	Offset style
D	Drop head
G	Gang tool
SP	Special

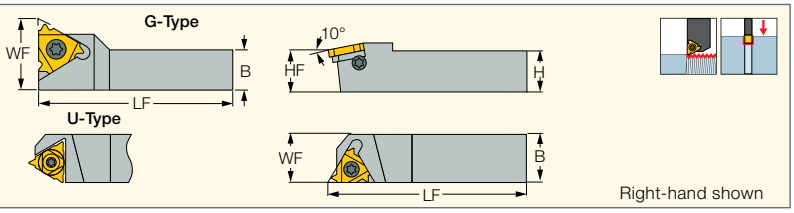
Tool Types		
C#-SER/L HSK-SEL		Standard  U-Type 
ISCAR GROOVE-TURN TOOLS		
PENTACUT Carrying Inserts with 5 Threading Corners. For tool information, refer to the section on GROOVE-TURN.		

Boring Bars		
E-SIR-HEAD		Standard  U-Type 
GROOVE-TURN Boring Bars		
CHAMGROOVE Holder and Carbide Bar		
CHAMGROOVE Integral		
PICCOCUT Holders and Carbide Bars		

External Threading Toolholders

ISCARTHREAD

SER/L
External Threading Toolholders



Designation	H	HF	B	LF	WF	Insert(2)
SER 0808 H11 (1)	8.0	8.0	8.0	100.00	11.00	11 ER..
SER/L 1010 H11 (1)	10.0	10.0	10.0	100.00	11.00	11 ER/L..
SER/L 1212 F16	12.0	12.0	12.0	80.00	12.00	16 ER/L..
SER 1212 X16	12.0	12.0	12.0	120.00	12.00	16 ER/L..
SER/L 1616 H16	16.0	16.0	16.0	100.00	16.00	16 ER/L..
SER 1616 K16G	16.0	16.0	16.0	125.00	21.70	16 ER..
SER/L 2020-16-AD	20.0	20.0	20.0	67.00	20.00	16 ER/L..
SER/L 2020 K16	20.0	20.0	20.0	125.00	20.00	16 ER/L..
SER/L 2525 M16	25.0	25.0	25.0	150.00	25.00	16 ER/L..
SER/L 3232 P16	32.0	32.0	32.0	170.00	32.00	16 ER/L..
SER/L 2525 M22	25.0	25.0	25.0	150.00	25.00	22 ER/L..
SER/L 3232 P22	32.0	32.0	32.0	170.00	32.00	22 ER/L..
SER 4040 R22	40.0	40.0	40.0	200.00	40.00	22 ER/L..
SER/L 2525 M22U	25.0	25.0	25.0	150.00	28.00	22 UER/L..
SER/L 3232 P22U	32.0	32.0	32.0	170.00	32.00	22 UER/L..
SEL 4040 R22U	40.0	40.0	40.0	200.00	40.00	22 UER/L..
SER/L 2525 M27	25.0	25.0	25.0	150.00	25.00	27 ER/L..
SER/L 3232 P27	32.0	32.0	32.0	170.00	32.00	27 ER/L..
SER 4040 R27	40.0	40.0	40.0	200.00	40.00	27 ER/L..
SER/L 2525 M27U	25.0	25.0	25.0	150.00	32.00	27 UER/L..
SER/L 3232 P27U	32.0	32.0	32.0	170.00	32.00	27 UER/L..
SER/L 4040 R27U	40.0	40.0	40.0	200.00	40.00	27 UER/L..

- All tools are made for 1.5 helix angle
- For multi-tooth inserts use anvils AE16M / AI16M; AE22M / AI22M; AE27M / AI27M
- For GTGA inserts, use anvil AE 16-0

(1) Toolholder without anvil (2) Right-hand inserts (ER) for right-hand tools (SER)

Spare Parts

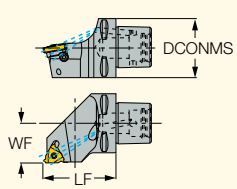
Designation					
SER 0808 H11	SR M2.6-L6.7-S11				T-8/5
SER/L 1010 H11	SR M2.6-L6.7-S11				T-8/5
SEL 1212 F16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 1212 F16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SER 1212 X16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SEL 1616 H16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 1616 H16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SER 1616 K16G	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SEL 2020-16-AD	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 2020-16-AD	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SEL 2020 K16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 2020 K16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SEL 2525 M16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 2525 M16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SEL 3232 P16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 3232 P16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SEL 2525 M22	SR 8-32-L15-S22	SR 8-32-L5.8-A22		AI22	T-20/5
SER 2525 M22	SR 8-32-L15-S22	SR 8-32-L5.8-A22	AE22		T-20/5
SEL 3232 P22	SR 8-32-L15-S22	SR 8-32-L5.8-A22		AI22	T-20/5
SER 3232 P22	SR 8-32-L15-S22	SR 8-32-L5.8-A22	AE22		T-20/5
SER 4040 R22	SR 8-32-L15-S22	SR 8-32-L5.8-A22	AE22		T-20/5
SEL 2525 M22U	SR 8-32-L15-S22	SR 8-32-L5.8-A22		AI22U	T-20/5
SER 2525 M22U	SR 8-32-L15-S22	SR 8-32-L5.8-A22	AE22U		T-20/5
SEL 3232 P22U	SR 8-32-L15-S22	SR 8-32-L5.8-A22		AI22U	T-20/5
SER 3232 P22U	SR 8-32-L15-S22	SR 8-32-L5.8-A22	AE22U		T-20/5
SEL 4040 R22U	SR 8-32-L15-S22	SR 8-32-L5.8-A22		AI22U	T-20/5
SEL 2525 M27	SR M5-L22-S40	SR M5-L5.8-A27		AI27	T-25/3
SER 2525 M27	SR M5-L22-S40	SR M5-L5.8-A27	AE27		T-25/3
SEL 3232 P27	SR M5-L22-S40	SR M5-L5.8-A27		AI27	T-25/3
SER 3232 P27	SR M5-L22-S40	SR M5-L5.8-A27	AE27		T-25/3
SER 4040 R27	SR M5-L22-S40	SR M5-L5.8-A27	AE27		T-25/3
SEL 2525 M27U	SR M5-L22-S40	SR M5-L5.8-A27		AI27U	T-25/3
SER 2525 M27U	SR M5-L22-S40	SR M5-L5.8-A27	AE27U		T-25/3
SEL 3232 P27U	SR M5-L22-S40	SR M5-L5.8-A27		AI27U	T-25/3
SER 3232 P27U	SR M5-L22-S40	SR M5-L5.8-A27	AE27U		T-25/3
SEL 4040 R27U	SR M5-L22-S40	SR M5-L5.8-A27		AI27U	T-25/3
SER 4040 R27U	SR M5-L22-S40	SR M5-L5.8-A27	AE27U		T-25/3

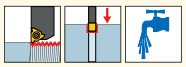
ISCARTHREAD

CAMFIX

C#-SER/L

External Threading Tools with CAMFIX Exchangeable Shanks





Right-hand shown

Designation	DCONMS	WF	LF	Insert(1)	CP(2)	CDI(3)
C4 SEL-27050-16	40.00	27.00	50.00	16ER/L...	200	1
C4 SER-27050-16	40.00	27.00	50.00	16ER/L...	0	1
C5 SEL-35060-16	50.00	35.00	60.00	16ER/L...	200	1
C5 SER-35060-16	50.00	35.00	60.00	16ER/L...	0	1
C6 SEL-45065-16	63.00	45.00	65.00	16ER/L...	200	1
C6 SER-45065-16	63.00	45.00	65.00	16ER/L...	0	1
C4 SER/L-27050-22	40.00	27.00	50.00	22ER/L...	200	1
C5 SER/L-35060-22	50.00	35.00	60.00	22ER/L...	200	1
C6 SER/L-45065-22	63.00	45.00	65.00	22ER/L...	200	1
C8 SER/L-55080-22	80.00	55.00	80.00	22ER/L...	200	1

(1) Right-hand inserts for right-hand tools and vice versa

(2) Coolant pressure (Bar)

(3) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: ER-BUT (692) • ER-EL (693) • ER-MJ (683) • ER-NPTF (672) • ER-PG (685) • ER/L-55° (640) • ER/L-60° (644) • ER/L-ABUT (687) • ER/L-ACME (677) • ER/L-API (690) • ER/L-API RD (688) • ER/L-BSPT (673) • ER/L-ISO (653) • ER/L-NPT (669) • ER/L-RND (694) • ER/L-SAGE (686) • ER/L-STACME (675) • ER/L-TR (684) • ER/L-UN (660) • ER/L-UNJ (680) • ER/L-W (666) • GTGA (325) • GTMA (326)

For holders, see pages: HSK-C# (735)

Spare Parts

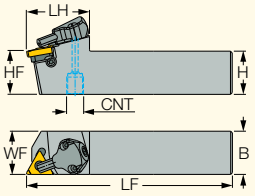
Designation					
C4 SEL-27050-16	AI16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
C4 SER-27050-16	AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	EZ 83
C5 SEL-35060-16	AI16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	EZ 104
C5 SER-35060-16	AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	EZ 104
C6 SEL-45065-16	AI16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
C6 SER-45065-16	AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
C4 SEL-27050-22	AI22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
C4 SER-27050-22	AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
C5 SEL-35060-22	AI22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
C5 SER-35060-22	AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
C6 SEL-45065-22	AI22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
C6 SER-45065-22	AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
C8 SEL-55080-22	AI22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
C8 SER-55080-22	AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	

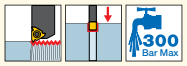
ISCARTHREAD

JETCUT

SER/L-JHP

External Threading Tools with Coolant Channels





Designation	H	B	HF	LF	LH	WF	CNT	Insert(1)
SER/L 2020 K16-JHP	20.0	20.0	20.0	125.00	37.0	20.00	G1/8-28	16 ER/L..
SER/L 2525 M16-JHP	25.0	25.0	25.0	150.00	37.0	25.00	G1/8-28	16 ER/L..
SER/L 3232 P16-JHP	32.0	32.0	32.0	170.00	37.0	32.00	G1/8-28	16 ER/L..

- All tools are made for 1.5 helix angle
- For multi-tooth inserts use anvils AE16M / AI16M; AE22M / AI22M; AE27M / AI27M
- For GTGA inserts, use anvil AE 16-0

(1) Right-hand inserts (ER) for right-hand tools (SER)

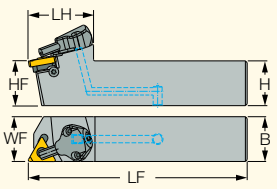
For inserts, see pages: ER-MJ (683) • ER-NPTF (672) • ER-PG (685) • ER/L-55° (640) • ER/L-60° (644) • ER/L-ABUT (687) • ER/L-ACME (677) • ER/L-API RD (688) • ER/L-BSPT (673) • ER/L-ISO (653) • ER/L-NPT (669) • ER/L-RND (694) • ER/L-SAGE (686) • ER/L-STACME (675) • ER/L-TR (684) • ER/L-UN (660) • ER/L-UNJ (680) • ER/L-W (666) • GTGA (325) • GTMA (326)

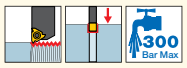
Spare Parts

Designation						
SEL 2020 K16-JHP	SR 5-40-L12.2-S16	AI16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SER 2020 K16-JHP	SR 5-40-L12.2-S16	AE16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SEL 2525 M16-JHP	SR 5-40-L12.2-S16	AI16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SER 2525 M16-JHP	SR 5-40-L12.2-S16	AE16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SEL 3232 P16-JHP	SR 5-40-L12.2-S16	AI16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SER 3232 P16-JHP	SR 5-40-L12.2-S16	AE16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP

ISCARTHREAD
JETCUT

SER/L-JHP-MC
External Threading Tools with
Bottom Inlet Coolant Channels





Designation	H	HF	B	LF	LH	WF	Insert(1)
SER/L 2020X16 JHP-MC	20.0	20.0	20.0	107.00	36.2	20.00	16 ER/L..
SER/L 2525X16 JHP-MC	25.0	25.0	25.0	122.00	36.2	25.00	16 ER/L..

- All tools are made for 1.5 helix angle
- For multi-tooth inserts use anvils AE16M / AI16M; AE22M / AI22M; AE27M / AI27M
- For GTGA inserts, use anvil AE 16-0

(1) Right-hand inserts (ER) for right-hand tools (SER)

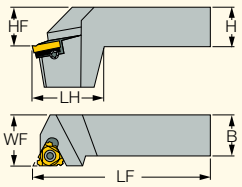
For inserts, see pages: ER-MJ (683) • ER-NPTF (672) • ER-PG (685) • ER/L-55° (640) • ER/L-60° (644) • ER/L-ABUT (687) • ER/L-ACME (677) • ER/L-API RD (688) • ER/L-BSPT (673) • ER/L-ISO (653) • ER/L-NPT (669) • ER/L-RND (694) • ER/L-SAGE (686) • ER/L-STACME (675) • ER/L-TR (684) • ER/L-UN (660) • ER/L-UNJ (680) • ER/L-W (666) • GTGA (325) • GTMA (326)

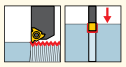
Spare Parts

Designation						
SEL 2020X16 JHP-MC	SR 5-40-L12.2-S16	AI16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SER 2020X16 JHP-MC	SR 5-40-L12.2-S16	AE16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SEL 2525X16 JHP-MC	SR 5-40-L12.2-S16	AI16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP
SER 2525X16 JHP-MC	SR 5-40-L12.2-S16	AE16	T-8/5	SR 5-40-L6.8-A16	T-10/5	CU-V-JHP

ISCARTHREAD

SER-D
External Threading
Drophead Toolholders





Right-hand shown

Designation	H	HF	B	LF	WF	LH	Insert				
SER 2525 M16D	25.0	25.0	25.0	150.00	32.00	38.0	16 ER..	SR 5-40-L12.2-S16	T-10/5	AE16	SR 5-40-L6.8-A16
SER 2525 M22D	25.0	25.0	25.0	150.00	32.00	38.0	22 ER..	SR 8-32-L15-S22	T-20/5	AE22	SR 8-32-L5.8-A22

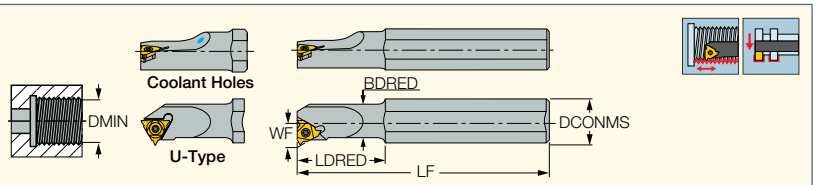
- All toolholders are made for 1.5 helix angle.
- For GTGA inserts, use anvil AE 16-0

For inserts, see pages: GTMA (326)



ISCARTHREAD

SIR/L
Internal Threading Bars



Right-hand shown

Designation	DMIN	DCONMS	BDRED	LF	LDRED	WF	CSP(4)	Shank m.(5)	Insert(6)
SIR/L 0005 H06CB (1)	6.40	6.00	5.10	100.00	25.0	4.30	1	C	06 IR/IL..
SIR/L 0005 H06 (2)	6.40	12.00	5.10	100.00	12.0	4.30	0	S	06 IR/IL..
SIR 0005 H06-W (2)	6.40	12.00	5.10	100.00	12.0	4.30	0	S	06 IR/IL..
SIR/L 0007 K08CB (1)	9.00	8.00	6.60	125.00	30.0	5.30	1	C	08 IR/IL..
SIR/L 0008 K08UCB	9.00	8.00	7.30	125.00	35.0	6.40	1	C	08 UIRL..
SIR/L 0007 K08 (2)	9.00	16.00	6.60	125.00	18.0	5.30	0	S	08 IR/IL..
SIR/L 0008 K08U (2)	9.00	16.00	7.30	125.00	21.0	6.60	0	S	08 UIRL..
SIR/L 0010 H11 (2)	12.00	10.00	10.00	100.00	-	7.40	0	S	11 IR/IL..
SIR/L 0010 M11CB (1)	12.00	10.00	10.00	150.00	-	7.40	1	C	11 IR/IL..
SIR 0010 H11B (2)	12.00	10.00	10.00	100.00	-	7.40	1	S	11 IR/IL..
SIR/L 0010 K11 (2)	12.00	16.00	10.00	125.00	25.0	6.50	0	S	11 IR/IL..
SIR/L 0010 K11B (2)	12.00	16.00	10.00	125.00	25.0	7.40	1	S	11 IR/IL..
SIR/L 0012 P11CB (1)	15.00	12.00	12.00	170.00	-	8.40	1	C	11 IR/IL..
SIL 0013 L11 (2)	15.00	16.00	13.00	140.00	32.0	8.90	0	S	11 IR/IL..
SIR 0013 L11 (2)	15.00	16.00	13.00	140.00	32.0	8.90	0	S	11 IR/L..
SIR/L 0013 M16 (2)	16.00	16.00	13.00	150.00	32.0	10.00	0	S	16 IR/L..
SIL 0013 M16B (2)	16.00	16.00	13.00	150.00	32.0	10.20	1	S	16 IR/L..
SIR 0013 M16B (2)	16.00	16.00	13.00	150.00	32.0	10.00	1	S	16 IR/L..
SIR 0016 R16CB (1)	19.00	16.00	16.00	200.00	-	11.70	1	C	16 IR/IL..
SIR/L 0016 P16 (2)	19.00	20.00	16.00	170.00	40.0	11.40	0	S	16 IR/L..
SIR/L 0016 P16B (2)	19.00	20.00	16.00	170.00	40.0	11.70	1	S	16 IR/L..
SIR/L 0020 P16	24.00	20.00	20.00	170.00	-	13.70	0	S	16 IR/L..
SIR/L 0020 P16B	24.00	20.00	20.00	170.00	-	13.70	1	S	16 IR/L..
SIR/L 0020 P22 (2)	24.00	20.00	20.00	170.00	-	15.60	0	S	22 IR/L..
SIR/L 0020-16-AD	24.00	20.00	20.00	80.00	-	13.70	0	S	16 IR/L..
SIR 0020 S16CB	24.00	20.00	20.00	250.00	-	13.70	1	C	16 IR/L..
SIR 0025 S16CB	28.00	25.00	25.00	250.00	-	16.20	1	C	16 IR/L..
SIR/L 0025 R16	29.00	25.00	25.00	200.00	-	16.30	0	S	16 IR/L..
SIL 0025 R16B	29.00	25.00	25.00	200.00	-	16.20	1	S	16 IR/L..
SIR/L 0025 R22	29.00	25.00	25.00	200.00	-	17.20	0	S	22 IR/L..
SIR/L 0025 R22B	29.00	25.00	25.00	200.00	-	18.10	1	S	22 IR/L..
SIL 0025-16-AD	29.00	25.00	25.00	100.00	-	16.30	0	S	16 IR/L..
SIR 0025 R16B	29.00	25.00	25.00	200.00	-	16.30	1	S	16 IR/L..
SIR 0025-16-AD	29.00	25.00	25.00	100.00	-	16.20	0	S	16 IR/L..
SIR/L 0032 S16	36.00	32.00	32.00	250.00	-	19.70	0	S	16 IR/L..
SIR/L 0032 S22	38.00	32.00	32.00	250.00	-	21.50	0	S	22 IR/L..
SIR/L 0032 S22U	38.00	32.00	32.00	250.00	-	25.50	0	S	22 UIRL..
SIL 0032 S27	40.00	32.00	32.00	250.00	-	22.40	0	S	27 IR/L
SIR/L 0032 S27U (3)	40.00	32.00	32.00	250.00	-	24.70	0	S	27 UIRL..
SIR 0032 S27	40.00	32.00	32.00	250.00	-	22.40	0	S	27 IR/L..
SIR/L 0040 T16	44.00	40.00	40.00	300.00	-	23.70	0	S	16 IR/L..
SIR/L 0040 T22	46.00	40.00	40.00	300.00	-	25.80	0	S	22 IR/L..
SIR 0040 T22U	46.00	40.00	40.00	300.00	-	29.50	0	S	22 UIRL..
SIR/L 0040 T27	48.00	40.00	40.00	300.00	-	26.60	0	S	27 IR/L..
SIR 0040 T27U (3)	48.00	40.00	40.00	300.00	-	29.40	0	S	27 UIRL..
SIR/L 0050 U16	54.00	50.00	50.00	350.00	-	28.70	0	S	16 IR/L..
SIR/L 0050 U22	56.00	50.00	50.00	350.00	-	30.60	0	S	22 IR/L..
SIR/L 0050 U27	58.00	50.00	50.00	350.00	-	31.60	0	S	27 IR/L..
SIR 0050 U27U (3)	58.00	50.00	50.00	350.00	-	34.30	0	S	27 UIRL..
SIR/L 0060 V27	68.00	60.00	60.00	400.00	-	36.60	0	S	27 IR/L..
SIR/L 0060 V27U (3)	68.00	60.00	60.00	400.00	-	39.30	0	S	27 UIRL..

- B-steel shank with coolant hole, CB-carbide shank with coolant hole
- All toolholders provide 1.5 helix angle, either via the pocket or the anvil supplied
- For GTGA inserts, use anvil AL 16-0

(1) Carbide shank without anvil
(2) Toolholder without anvil
(3) For ACME, STUB ACME, TRAPEZ (DIN 103) and ROUND (DIN 405) thread profiles check in user guide for anvil information
(4) 0 - Without coolant supply, 1 - With coolant supply
(5) C-carbide,S-steel
(6) Right-hand inserts (IR) for right-hand tools (SIR)

For holders, see pages: DT30/2 ##L70WN (758) • DT30/2 ADR-##-20-55 (758)

Spare Parts

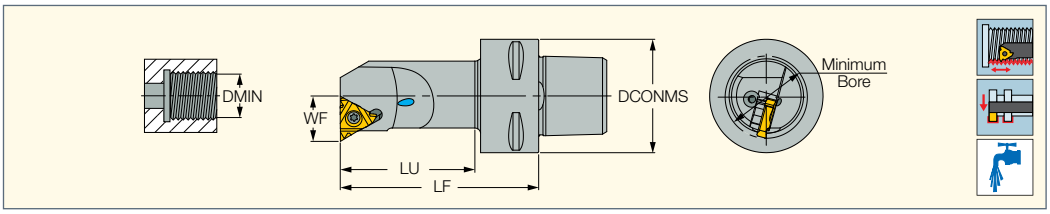
Designation						
SIR/L 0005 H06CB				SR 14-552	T-6/5	
SIR/L 0005 H06				SR 14-552	T-6/5	
SIR 0005 H06-W				SR 14-552	T-6/5	
SIR/L 0007 K08CB				SR 14-558	T-6/5	
SIR/L 0008 K08UCB				SR 14-558	T-6/5	
SIR/L 0007 K08				SR 14-558	T-6/5	
SIR/L 0008 K08U				SR 14-558	T-6/5	
SIR/L 0010 H11				SR M2.6-L6.7-S11	T-8/5	
SIR/L 0010 M11CB				SR M2.6-L6.7-S11	T-8/5	
SIR 0010 H11B				SR M2.6-L6.7-S11	T-8/5	
SIR/L 0010 K11				SR M2.6-L6.7-S11	T-8/5	
SIR/L 0010 K11B				SR M2.6-L6.7-S11	T-8/5	PL 16
SIR/L 0012 P11CB				SR M2.6-L6.7-S11	T-8/5	
SIR/L 0013 L11				SR M2.6-L6.7-S11	T-8/5	
SIR/L 0013 M16				SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0013 M16B				SR 5-40-L9.7-S16S	T-10/5	PL 16
SIR 0016 R16CB				SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0016 P16				SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0016 P16B				SR 5-40-L9.7-S16S	T-10/5	PL 20
SIL 0020 P16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIL 0020 P16B		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	PL 20
SIR/L 0020 P22				SR 8-32-L12-S22S	T-20/5	
SIL 0020-16-AD		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0020 P16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0020 P16B	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	PL 20
SIR 0020 S16CB	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0020-16-AD	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0025 S16CB	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIL 0025 R16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0025 R16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIL 0025 R16B		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	PL 25
SIR 0025 R16B	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	PL 25
SIL 0025 R22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIR 0025 R22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIL 0025 R22B		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	PL 25
SIR 0025 R22B	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	PL 25
SIL 0025-16-AD		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0025-16-AD	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIL 0032 S16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0032 S16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIL 0032 S22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIL 0032 S22U		AE22U	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIR 0032 S22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIR 0032 S22U	AI22U		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIL 0032 S27		AE27	SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIL 0032 S27U		AE27U	SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0032 S27	AI27		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0032 S27U	AI27U		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIL 0040 T16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0040 T16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIL 0040 T22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIR 0040 T22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIR 0040 T22U	AI22U		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIL 0040 T27		AE27	SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0040 T27	AI27		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0040 T27U	AI27U		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIL 0050 U16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIR 0050 U16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5	
SIL 0050 U22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIR 0050 U22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5	
SIL 0050 U27		AE27	SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0050 U27	AI27		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0050 U27U	AI27U		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIL 0060 V27		AE27	SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIL 0060 V27U		AE27U	SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0060 V27	AI27		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	
SIR 0060 V27U	AI27U		SR M5-L5.8-A27	SR M5-L22-S40	T-25/3	

ISCARTHREAD

CAMFIX

C#-SIR/L

Internal Threading Bars with CAMFIX Exchangeable Shanks



Designation	DCONMS	DMIN	WF	LU	LF	Insert	CP[1]	CDI[2]
C4 SIR/L-12060-16	40.00	20.00	11.70	37.0	60.00	16 IR/L..	300	1
C4 SIR/L-14060-16	40.00	25.00	13.50	38.0	60.00	16 IR/L..	300	1
C4 SIR-15065-22	40.00	25.00	15.40	42.0	65.00	22 IR/L..	300	1
C4 SIL-17070-16	40.00	29.00	16.00	48.0	70.00	16 IR/L..	300	1
C4 SIL-19070-22	40.00	29.00	17.90	48.0	70.00	22 IR/L..	300	1
C4 SIR-17070-16	40.00	29.00	16.00	48.0	70.00	16 IR/L..	300	1
C4 SIR-19070-22	40.00	29.00	17.90	48.0	70.00	22 IR/L..	300	1
C4 SIR/L-22090-16	40.00	36.00	19.50	69.0	90.00	16 IR/L..	300	1
C4 SIR/L-22090-22	40.00	38.00	21.40	69.0	90.00	22 IR/L..	300	1
C4 SIR/L-27080-16	40.00	44.00	23.50	60.0	80.00	16 IR/L..	300	1
C4 SIR/L-27080-22	40.00	46.00	25.40	60.0	80.00	22 IR/L..	300	1
C5 SIR/L-12060-16	50.00	20.00	11.70	35.0	60.00	16 IR/L..	300	1
C5 SIR/L-14060-16	50.00	25.00	13.50	36.0	60.00	16 IR/L..	300	1
C5 SIR/L-15065-22	50.00	25.00	15.40	41.0	65.00	22 IR/L..	300	1
C5 SIR/L-17070-16	50.00	29.00	16.00	47.0	70.00	16 IR/L..	300	1
C5 SIR/L-19070-22	50.00	29.00	17.90	47.0	70.00	22 IR/L..	300	1
C5 SIR/L-22090-16	50.00	36.00	19.50	68.0	90.00	16 IR/L..	300	1
C5 SIR/L-22090-22	50.00	38.00	21.40	68.0	90.00	22 IR/L..	300	1
C5 SIR/L-27105-16	50.00	44.00	23.50	84.0	105.00	16 IR/L..	300	1
C5 SIR/L-27105-22	50.00	46.00	25.40	84.0	105.00	22 IR/L..	300	1
C6 SIR/L-14070-16	63.00	25.00	13.50	42.0	70.00	16 IR/L..	300	1
C6 SIR/L-17075-16	63.00	29.00	16.00	48.0	75.00	16 IR/L..	300	1
C6 SIR/L-19075-22	63.00	29.00	17.90	48.0	75.00	22 IR/L..	300	1
C6 SIR/L-22090-16	63.00	36.00	19.50	64.0	90.00	16 IR/L..	300	1
C6 SIR/L-22090-22	63.00	38.00	21.40	64.0	90.00	22 IR/L..	300	1
C6 SIR/L-27105-16	63.00	44.00	23.50	80.0	105.00	16 IR/L..	300	1
C6 SIL-27105-22	63.00	46.00	25.40	80.0	105.00	22 IR/L..	300	1
C6 SIR-27105-22	63.00	46.00	25.40	8.0	105.00	22 IR/L..	300	1

[1] Coolant pressure (Bar)

[2] 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: GTMA (326) • IR-BUT (692) • IR-EL (693) • IR-MJ (683) • IR/L-55° (640) • IR/L-60° (645) • IR/L-ACME (677) • IR/L-API (690) • IR/L-API RD (689) • IR/L-BSPT (673) • IR/L-ISO (655) • IR/L-NPT (670) • IR/L-NPTF (672) • IR/L-PG (686) • IR/L-RND (694) • IR/L-SAGE (686) • IR/L-STACME (675) • IR/L-TR (685) • IR/L-UN (662) • IR/L-UNJ (681) • IR/L-W (667) • GTGA (325)

Spare Parts

Designation					
C4 SIL-12060-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIR-12060-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIL-14060-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIR-14060-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIR-15065-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C4 SIL-17070-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIL-19070-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C4 SIR-17070-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIR-19070-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C4 SIL-22090-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIR-22090-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIL-22090-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C4 SIR-22090-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C4 SIL-27080-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIR-27080-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C4 SIL-27080-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C4 SIR-27080-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C5 SIL-12060-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIR-12060-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIL-14060-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIL-15065-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C5 SIR-14060-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIR-15065-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C5 SIL-17070-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIL-19070-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C5 SIR-17070-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIR-19070-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C5 SIL-22090-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIR-22090-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIL-22090-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5

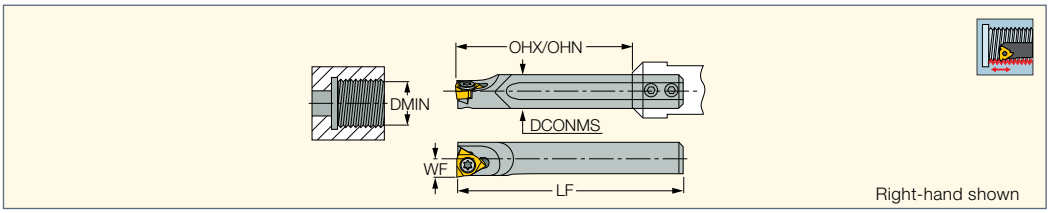
Spare Parts

C5 SIR-22090-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C5 SIL-27105-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIR-27105-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C5 SIL-27105-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C5 SIR-27105-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C6 SIL-14070-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIR-14070-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIL-17075-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIL-19075-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C6 SIR-17075-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIR-19075-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C6 SIL-22090-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIR-22090-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIL-22090-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C6 SIR-22090-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C6 SIL-27105-16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIR-27105-16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
C6 SIL-27105-22		AE22	SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5
C6 SIR-27105-22	AI22		SR 8-32-L5.8-A22	SR 8-32-L15-S22	T-20/5

ISCARTHREAD

MGSIR/L

Solid Carbide Bars for Internal Turning and Threading



Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN		
MGSIR/L 06-06	6.00	59.00	16.0	42.0	3.90	7.00	SR 14-552	T-6/5
MGSIR/L 08-06	8.00	72.00	20.0	56.0	5.00	9.20	SR 14-552	T-6/5

- In order to maintain high machining reliability, we strongly recommend replacing the clamping screw every 10 insert indexes

(1) Minimum overhang in adjustment range

(2) Maximum overhang in adjustment range

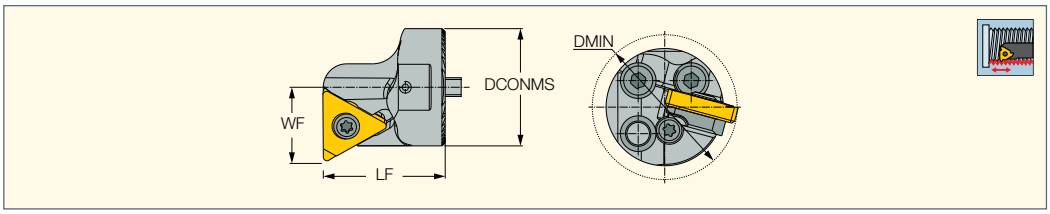
For inserts, see pages: IR/L-55° (640) • IR/L-60° (645) • IR/L-BSPT (673) • IR/L-ISO (655) • IR/L-NPT (670) • IR/L-NPTF (672) • IR/L-UN (662) • IR/L-W (667)

For holders, see pages: SBB (106)



FLASHTURN ECO LINE
WHISPERLINE ANTI-VIBRATION

AVC-D-SIR/L
Interchangeable Boring Heads for Threading Inserts



Designation	WF	DCONMS	DMIN	LF	CSP(2)
AVC-D25-SIR/L-16	16.20	25.00	29.00	26.00	1
AVC-D32-SIR/L-16	19.70	32.00	36.00	27.00	1
AVC-D40-SIR/L-16 (1)	23.70	40.00	44.00	30.00	1
AVC-D32-SIR/L-22	21.60	32.00	38.00	32.00	1
AVC-D40-SIR/L-22 (1)	25.60	40.00	46.00	38.00	1

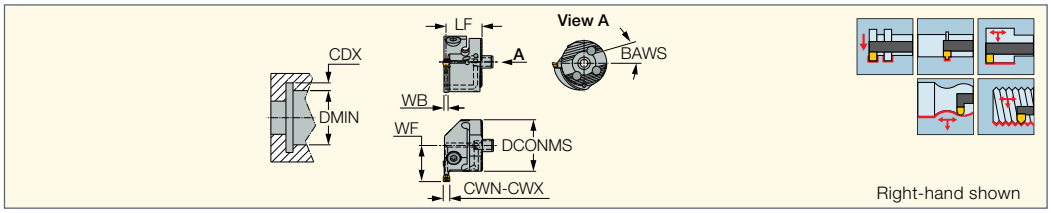
(1) DMIN of 50mm shank is DMIN of requested head + 10mm • DMIN of 60mm shanks is DMIN of requested head + 20mm
(2) 0 - Without coolant supply, 1 - With coolant supply
For inserts, see pages: GTGA (325) • GTMA (326) • IR-BUT (692) • IR-EL (693) • IR-MJ (683) • IR/L-55° (640) • IR/L-60° (645) • IR/L-ACME (677) • IR/L-API (690) • IR/L-API RD (689) • IR/L-BSPT (673) • IR/L-ISO (655) • IR/L-NPT (670) • IR/L-NPTF (672) • IR/L-PG (686) • IR/L-RND (694) • IR/L-SAGE (686) • IR/L-STACME (675) • IR/L-TR (685) • IR/L-UN (662) • IR/L-UNJ (681) • IR/L-W (667)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92)

Spare Parts

Designation				
AVC-D25-SIL-16	AE16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	T-10/5
AVC-D25-SIR-16	AI16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	T-10/5
AVC-D32-SIL-16	AE16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	T-10/5
AVC-D32-SIR-16	AI16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	T-10/5
AVC-D40-SIL-16	AE16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	T-10/5
AVC-D40-SIR-16	AI16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	T-10/5
AVC-D32-SIL-22	AE22	SR 8-32-L15-S22	SR 8-32-L5.8-A22	T-20/5
AVC-D32-SIR-22	AI22	SR 8-32-L15-S22	SR 8-32-L5.8-A22	T-20/5
AVC-D40-SIL-22	AE22	SR 8-32-L15-S22	SR 8-32-L5.8-A22	T-20/5
AVC-D40-SIR-22	AI22	SR 8-32-L15-S22	SR 8-32-L5.8-A22	T-20/5

CUTGRIP

AVC-GEAIR/L
Internal Grooving Turning and Threading Adapters



Designation	DMIN	CWN(1)	CWX(2)	DCONMS	CDX(3)	WF	LF	WB	BAWS	MIID(4)
AVC-D16-GEAIR/L-2	21.00	1.90	2.40	16.00	3.00	12.00	14.50	1.60	45	GEPI 2.00-0.10
AVC-D16-GEAIR/L-3	21.00	2.40	2.70	16.00	3.00	12.00	14.50	2.00	45	GEPI 3.00-0.20
AVC-D20-GEAIR/L-2	26.00	1.90	2.40	20.00	3.00	14.70	13.50	1.60	15	GEPI 2.00-0.10
AVC-D20-GEAIR/L-3	26.00	2.40	3.18	20.00	3.00	14.70	13.50	2.00	15	GEPI 3.00-0.20
AVC-D25-GEAIR/L-2	31.00	1.90	2.40	25.00	4.00	17.50	17.50	1.60	15	GEPI 2.00-0.10
AVC-D25-GEAIR/L-3	31.00	2.40	3.18	25.00	4.00	17.50	17.50	2.00	15	GEPI 3.00-0.20

- Using the adapters with CAMFIX holders is only possible in case the machine has an option for rotating the CAMFIX Axis.
- For user guide, see pages 711-727

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
(4) Master insert identification
For inserts, see pages: GEMI (341) • GEMI (full radius) (341) • GEPI (342) • GEPI (full radius) (342) • GEPI-MT (648) • GEPI-WT (642)
For holders, see pages: AV-D (93) • C#-SH-E-JHP (630) • C#-SH-JHP (630) • SH-D (92) • SH-S#-N-AVC (90)

Spare Parts

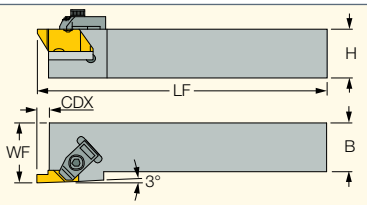
Designation					
AVC-D16-GEAIR/L-2	SR 14-551				T-9/5
AVC-D16-GEAIR/L-3	SR 14-551				T-9/5
AVC-D20-GEAIR/L-2	SR 34-510		SW6-SD	BLD T15/M7	
AVC-D20-GEAIR/L-3	SR 34-510		SW6-SD	BLD T15/M7	
AVC-D25-GEAIR/L-2	SR M4X14 DIN912	HW 3.0			
AVC-D25-GEAIR/L-3	SR M4X14 DIN912	HW 3.0			

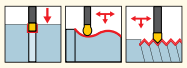
Tools for External Grooving and Threading Inserts

NOTCH-GRIP GROOVE-TURN LINE

FLSR/L

Tools for External Grooving and Threading Inserts





Right-hand shown

Designation	SSC(1)	B	CDX	WF	LF	Insert
FLSR/L-2020M2	2.0	20.0	3.00	25.00	125.00	FL/IN_-2
FLSR/L-2020M3	3.0	20.0	5.00	25.00	125.00	FL/IN_-3
FLSR/L-2525M2	2.0	25.0	3.00	32.00	150.00	FL/IN_-2
FLSR/L-2525M3	3.0	25.0	5.00	32.00	150.00	FL/IN_-3

(1) Seat size code

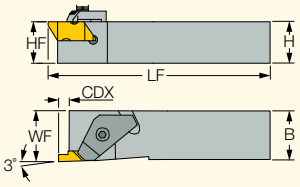
For inserts, see pages: 60° PARTIAL PROFILE THREADING FLT (649) • 60° PARTIAL PROFILE THREADING FLT-CB (649) • 60° PARTIAL PROFILE THREADING FLTF (648) • 60° PARTIAL PROFILE THREADING FLTK (649) • 60° PARTIAL PROFILE THREADING FLTP (650) • ACME THREADING FLA (678) • ACME THREADING FLA-PT-E (679) • ACME THREADING FLAS (678) • AMERICAN STANDARD BUTTRESS THREADING FLTB-A (688) • AMERICAN STANDARD BUTTRESS THREADING FLTB-B (688) • API PARTIAL PROFILE THREADING FLD (691) • API ROUND THREADING FLDC-RD-75 (689) • API ROUND THREADING FLDC-RD-75-CB (689) • NPT THREADING FLDC-V-75 (671) • STUB ACME THREADING FLAS-PT-E (676) • UN THREADING FLTC-E (665) • UNJ THREADING FLJ (681) • UNJ THREADING FLJF (682) • UNJ THREADING FLJK (682) • UNJ THREADING FLJP (682)

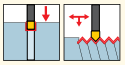
NOTCH-GRIP GROOVE-TURN LINE

ISCARTHREAD

FLASR/L

External Tools for Grooving and Threading for Swiss-type Machines

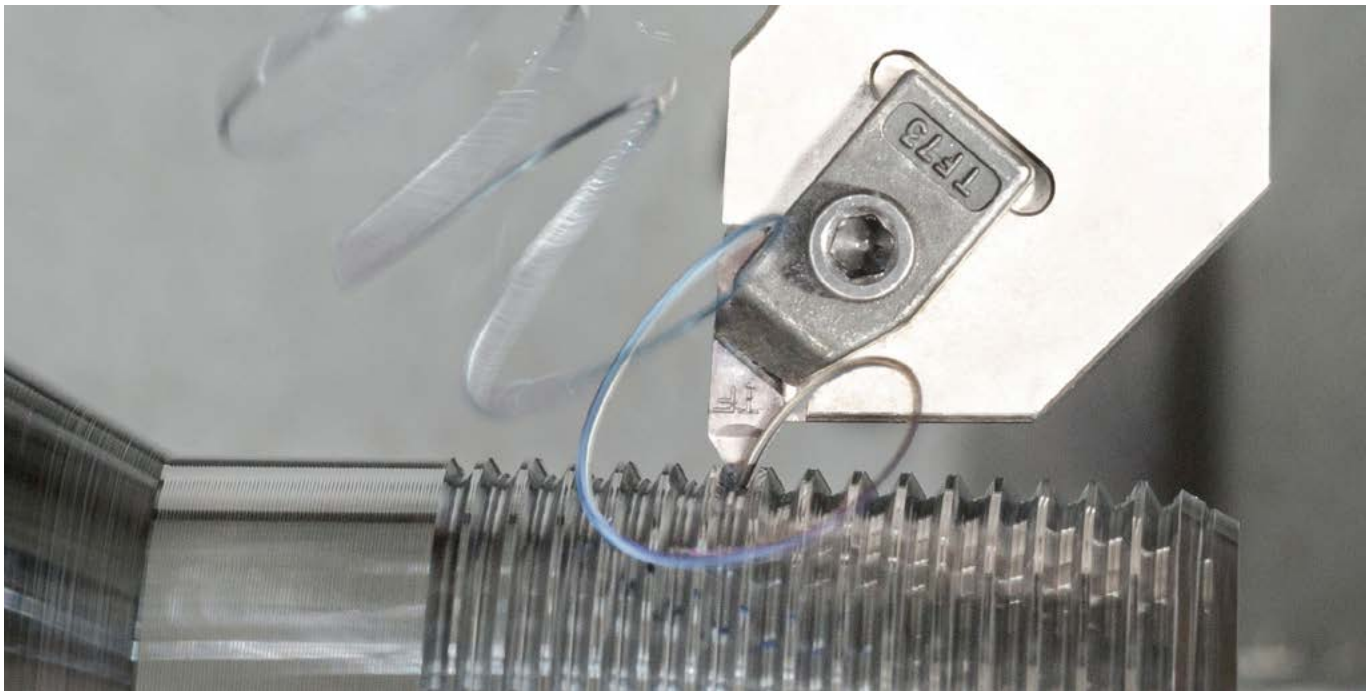




Designation	SSC(1)	H	HF	B	CDX	WF	LF	Insert
FLASR/L-1010M2	2.0	10.0	10.0	10.0	3.51	10.00	150.00	FL/IN_-2
FLASR/L-1212M2	2.0	12.0	12.0	12.0	3.51	12.00	150.00	FL/IN_-2
FLASR-1616M2	2.0	16.0	16.0	16.0	3.51	16.00	150.00	FL/IN_-2
FLASR/L-1616M3	3.0	16.0	16.0	16.0	5.31	16.00	125.00	FL/IN_-3

(1) Seat size code

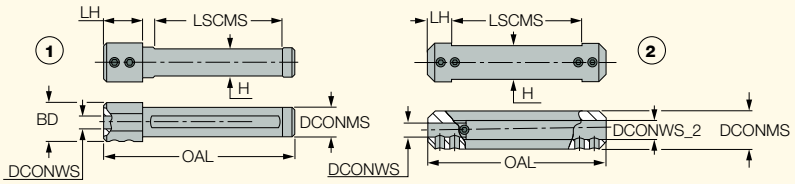
For inserts, see pages: 60° PARTIAL PROFILE THREADING FLT (649) • 60° PARTIAL PROFILE THREADING FLT-CB (649) • 60° PARTIAL PROFILE THREADING FLTF (648) • 60° PARTIAL PROFILE THREADING FLTK (649) • 60° PARTIAL PROFILE THREADING FLTP (650) • ACME THREADING FLA (678) • ACME THREADING FLA-PT-E (679) • ACME THREADING FLAS (678) • AMERICAN STANDARD BUTTRESS THREADING FLTB-A (688) • AMERICAN STANDARD BUTTRESS THREADING FLTB-B (688) • API PARTIAL PROFILE THREADING FLD (691) • API ROUND THREADING FLDC-RD-75 (689) • API ROUND THREADING FLDC-RD-75-CB (689) • NPT THREADING FLDC-V-75 (671) • STUB ACME THREADING FLAS-PT-E (676) • UN THREADING FLTC-E (665) • UNJ THREADING FLJ (681) • UNJ THREADING FLJF (682) • UNJ THREADING FLJK (682) • UNJ THREADING FLJP (682)



PICCOCUT

PICCO/MG PCO (holder)

Holders for PICCO Inserts and Small Diameter Boring Bars

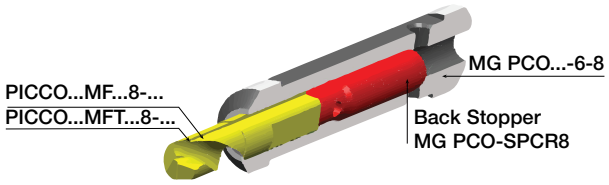


Designation	DCONMS	DCONWS	DCONWS_2	OAL	LH	LSCMS	H	BD	Fig.				
PICCO 12-4-5	12.00	4.00	5.00	75.00	10.00	55.00	10.3	-	2	SR M5X4-PF	HW 2.5		
PICCO 16-4-5	16.00	4.00	5.00	75.00	10.00	55.00	14.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 20-4-5	20.00	4.00	5.00	90.00	10.00	70.00	18.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 22-4-5 (1)	22.00	4.00	5.00	90.00	10.00	70.00	20.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 16-6-7	16.00	6.00	7.00	75.00	10.00	55.00	14.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 20-6-7	20.00	6.00	7.00	90.00	10.00	70.00	18.0	-	2	SR M5X6-PF	HW 2.5		
PICCO 22-6-7 (1)	22.00	6.00	7.00	90.00	10.00	70.00	20.0	-	2	SR M5X6-PF	HW 2.5		
MG PCO-12-6	12.00	6.00	-	75.00	15.00	50.80	11.0	18.00	1	SR M5X6-PF	HW 2.5		
MG PCO-16-6-8	16.00	6.00	8.00	75.00	10.00	55.00	14.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-20-6-8	20.00	6.00	8.00	90.00	10.00	70.00	18.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-22-6-8 (1)	22.00	6.00	8.00	90.00	10.00	70.00	20.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-25-6-8	25.00	6.00	8.00	90.00	10.00	70.00	23.0	-	2	SR M5X6-PF	HW 2.5		MG PCO-SPCR8
MG PCO-16-9	16.00	9.00	-	75.00	15.00	53.00	15.0	20.00	1	SR M5X6-PF	HW 2.5	PL 16	

- Holders are suitable for right- and left-hand inserts, and boring bars

(1) Tools for Swiss-type CNC

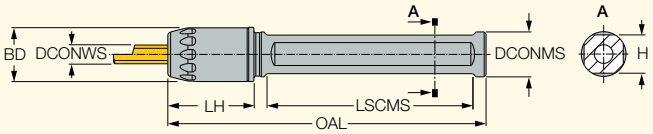
For tools, see pages: PICIN-MGSIR/L (386) • PICIN-SCLCR/L (386) • PICIN-SWUBR/L (386)



PICCOACE

PICCO ACE

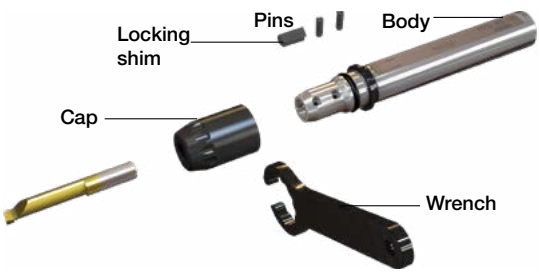
Holders for PICCOCUT Inserts

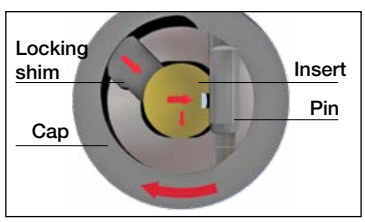


Designation	DCONMS	DCONWS	BD	OAL	LH	LSCMS	H		
PICCO ACE 12-4	12.00	4.00	14.50	85.00	23.00	53.00	10.3	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 12-5	12.00	5.00	14.50	85.00	23.00	53.00	10.3	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-4	16.00	4.00	14.50	85.00	21.50	53.50	14.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-5	16.00	5.00	14.50	85.00	21.50	53.00	14.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-6	16.00	6.00	19.90	85.00	23.00	53.50	14.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 16-7	16.00	7.00	19.90	85.00	23.00	53.50	14.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 20-4	20.00	4.00	14.50	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 20-5	20.00	5.00	14.50	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 20-6	20.00	6.00	19.90	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 20-7	20.00	7.00	19.90	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 22-4	22.00	4.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 22-5	22.00	5.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 22-6	22.00	6.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 22-7	22.00	7.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25-4	25.00	4.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25-5	25.00	5.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25-6	25.00	6.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25-7	25.00	7.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7

- Holders are suitable for right- and left-hand PICCO inserts

For tools, see pages: PICIN-MGSIR/L (386) • PICIN-SCLCR/L (386) • PICIN-SWUBR/L (386)



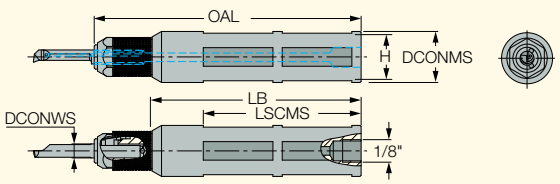




PICCOACE JETCUT

PICCO ACE-N

Holders for PICCO-JETCUT Inserts with Internal Coolant Channels



Designation	DCONMS	DCONWS	OAL	LSCMS	LB	H
PICCO ACE 16-4N	16.00	4.05	115.00	68.00	90.00	14.0
PICCO ACE 16-5N	16.00	5.05	115.00	68.00	90.00	14.0
PICCO ACE 16-6N	16.00	6.05	115.00	68.00	90.00	14.0
PICCO ACE 16-7N	16.00	7.05	115.00	68.00	90.00	14.0
PICCO ACE 20-4N	20.00	4.05	115.00	68.00	90.00	18.0
PICCO ACE 20-5N	20.00	5.05	115.00	68.00	90.00	18.0
PICCO ACE 20-6N	20.00	6.05	115.00	68.00	90.00	18.0
PICCO ACE 20-7N	20.00	7.05	115.00	68.00	90.00	18.0
PICCO ACE 22-4N	22.00	4.05	115.00	68.00	90.00	20.0
PICCO ACE 22-6N	22.00	6.05	115.00	68.00	90.00	20.0
PICCO ACE 25-4N	25.00	4.05	115.00	68.00	90.00	23.0
PICCO ACE 25-5N	25.00	5.05	115.00	68.00	90.00	23.0
PICCO ACE 25-6N	25.00	6.05	115.00	68.00	90.00	23.0
PICCO ACE 25-7N	25.00	7.05	115.00	68.00	90.00	23.0

- Holders are suitable for right and left-hand PICCO...-N type solid tools only

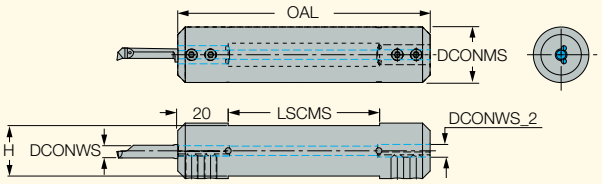
Spare Parts

Designation			
PICCO ACE 16-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 16-5N	UM600H.K	UM600H.M5	PIN 2X10 DIN6325
PICCO ACE 16-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 16-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6
PICCO ACE 20-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 20-5N	UM600H.K	UM600H.M5	PIN 2X10 DIN6325
PICCO ACE 20-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 20-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6
PICCO ACE 22-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 22-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 25-4N	UM600H.K	UM600H.M4	PIN 2X10 DIN6325
PICCO ACE 25-5N	UM600H.K	UM600H.M5	PIN 2X10 DIN6325
PICCO ACE 25-6N	UM600H.K	UM600H.M6	ZAD 2X12 DIN 6325 m6
PICCO ACE 25-7N	UM600H.K	UM600H.M7	ZAD 2X12 DIN 6325 m6

JETCUT PICCOCUT

PICCO-N (holder)

Holders for PICCO-JETCUT Inserts with Internal Coolant Channels



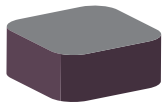
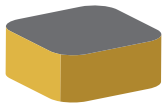
Designation	DCONMS	DCONWS	DCONWS_2	OAL	LSCMS	H	
PICCO 16-4-5N	16.00	4.05	5.05	85.00	45.00	14.0	SR M5X0.5X6 T10
PICCO 20-4-5N	20.00	4.05	5.05	100.00	60.00	18.0	SR M5X0.5X8 T10
PICCO 22-4-5N	22.00	4.05	5.05	100.00	60.00	20.0	SR M5X0.5X8 T10
PICCO 16-6-7N	16.00	6.05	7.05	85.00	45.00	14.0	SR M5X0.5X6 T10
PICCO 16-6-8N	16.00	6.05	8.00	85.00	45.00	14.0	SR M5X0.5X6 T10
PICCO 20-6-7N	20.00	6.05	7.05	100.00	60.00	18.0	SR M5X0.5X8 T10
PICCO 20-6-8N	20.00	6.05	8.00	100.00	60.00	18.0	SR M5X0.5X8 T10
PICCO 22-6-7N	22.00	6.05	7.05	100.00	60.00	20.0	SR M5X0.5X8 T10

- Holders are suitable for right- and left-hand inserts, and boring bars

Machining Data for Threading

ISO	Material		Condition	Tensile Strength (N/mm^2)	Hardness HB	Material Group No.	Coated			
							IC228	IC908	IC808	IC1007
							Cutting Speed (m/min)			
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1	60-100	115-190	125-205	135-230
		>= 0.25 %C	Annealed	650	190	2	60-95	110-180	120-195	130-220
		< 0.55 %C	Quenched and tempered	850	250	3	50-90	100-175	105-185	120-210
		>= 0.55 %C	Annealed	750	220	4	45-85	90-165	95-175	110-200
			Quenched and tempered	1000	300	5	45-85	90-165	95-175	110-200
	Low alloy and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	50-95	100-180	105-195	120-215
			Quenched and tempered	930	275	7	40-75	75-140	80-150	90-170
				1000	300	8	35-70	70-135	75-145	85-160
				1200	350	9	35-70	70-135	75-145	85-160
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10	40-65	80-120	85-130	95-145
			Quenched and tempered	1100	325	11	25-50	50-100	55-105	60-120
	Stainless steel and cast steel		Ferritic/martensitic	680	200	12	35-70	70-130	75-140	85-155
			Martensitic	820	240	13	45-60	85-110	90-120	100-130
M	Stainless steel and cast steel		Austenitic, duplex	600	180	14	45-75	90-140	95-150	110-170
K	Gray cast iron (GG)		Ferritic/pearlitic		180	15	65-85	125-160	135-170	150-190
			Pearlitic /martensitic		260	16	45-65	90-120	95-130	110-145
	Nodular cast iron (GGG)		Ferritic		160	17	35-70	70-130	75-140	85-155
			Pearlitic		250	18	30-60	60-115	65-125	70-140
	Malleable cast iron		Ferritic		130	19	30-35	60-70	65-75	70-85
			Pearlitic		230	20	30-75	60-145	65-155	70-175
N	Aluminum-wrought alloys		Not hardenable		60	21	50-195	100-365	105-390	120-440
			Hardenable		100	22	40-115	80-220	85-235	95-265
	Aluminum-cast alloys	<=12% Si	Not hardenable		75	23	105-215	200-400	215-430	240-480
			Hardenable		90	24	105-150	200-280	215-300	240-335
		>12% Si	High temperature		130	25	105-150	200-280	215-300	240-335
	Copper alloys	>1% Pb	Free cutting		110	26	40-135	80-255	85-275	95-305
			Brass		90	27	40-135	80-255	85-275	95-305
			Electrolytic copper		100	28	40-130	80-255	85-275	95-305
	Non metallic		Duroplastics, fiber plastics			29	40-130	80-250	85-265	95-300
			Hard rubber			30	40-130	80-250	85-265	95-300
S	High temperature alloys	Fe based	Annealed		200	31	25-30	45-60	50-65	55-70
			Hardened		280	32	15-25	35-50	35-55	40-60
		Ni or Co based	Annealed		250	33	10-15	20-30	20-30	25-35
			Hardened		350	34	5-10	15-25	15-25	18-30
			Cast		320	35	5-10	15-25	15-25	18-30
	Titanium alloys		Pure	400		36	75-90	140-170	150-180	170-205
			Alpha+beta alloys hardened	1050		37	25-35	50-70	55-75	60-85
H	Hardened steel		Hardened		55 HRC	38	25-30	45-60	50-65	55-70
			Hardened		60 HRC	39	25-30	45-60	50-65	55-70
	Chilled cast iron		Cast		400	40	25-30	45-60	50-65	55-70
	Cast iron		Hardened		55 HRC	41	25-30	45-60	50-65	55-70

ISCAR Threading Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC228	P30-P45 M25-M40	A very substrate with PVD coating, suitable for machining steels and stainless steel at low to medium cutting speeds.	TiN TICN Base	
	IC250	P15-P35 M20-M40	A tough substrate with PVD coating. Suitable for machining steels and alloy steels at low to medium cutting speeds.	TiN TICN Base	
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	
	IC1007	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating, suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to high speeds under stable conditions. Features high wear resistance and plastic deformation durability. Good choice for non-ferrous materials and cast iron.	TiN TiAlN Base	

* For coated grades

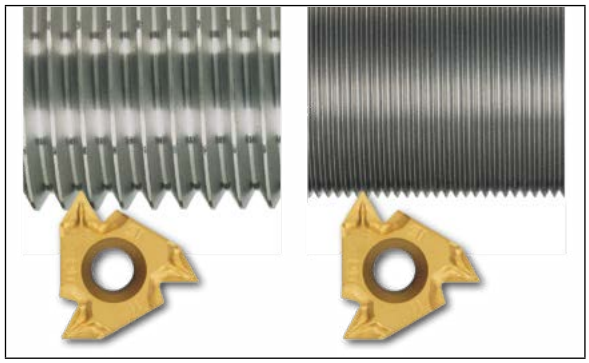
	Grade	ISO	Grade Description	Coating Layers	Uncoated
UNCOATED	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base	

User Guide and Cutting Data

Types and Profiles of Threading Inserts

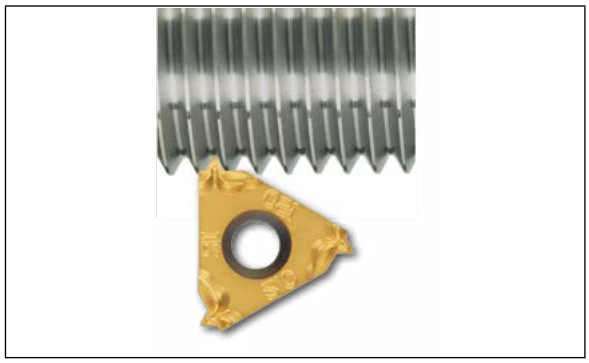
Partial Profile

- Performs different thread standards and is suitable for a wide range of pitches that have a common angle (60º or 55º)
- Inserts with a small root-corner radius suitable for the smallest pitch of the range
- Additional operations to complete the outer/ internal diameter are necessary
- Not recommended for mass production
- Eliminates the need for different inserts

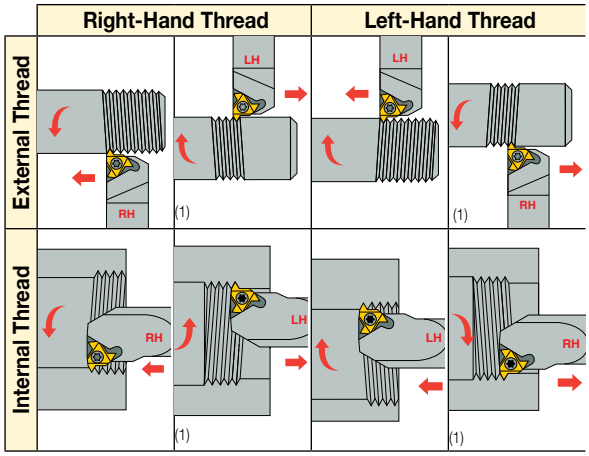


Full Profile

- Performs a complete thread profile
- Root corner radius is only suitable for the relevant pitch
- Recommended for mass production
- Suitable for one profile only



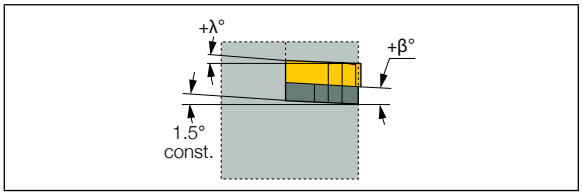
Thread Turning Methods



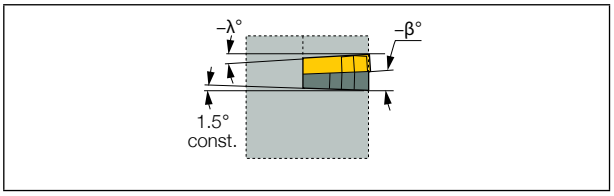
(1) Change anvil to negative

Anvil Selection According to Thread Helix Angle λ

		Standard						
Thread Helix Angle λ		>4°	3°-4°	2°-3°	1°-2°	0°-1°	Negative Anvils	
	Inclination Angle β	4.5°	3.5°	2.5°	1.5°	0.5°	-0.5°	-1.5°
I (d)	Toolholder	Anvil Designation						
16	EX RH OR IN LH	AE16+4.5	AE16+3.5	AE16+2.5	AE16	AE16+0.5	AE16-0.5	AE16-1.5
(3/8)	EX LH OR IN RH	AI16+4.5	AI16+3.5	AI16+2.5	AI16	AI16+0.5	AI16-0.5	AI16-1.5
22	EX RH OR IN LH	AE22+4.5	AE22+3.5	AE22+2.5	AE22	AE22+0.5	AE22-0.5	AE22-1.5
(1/2)	EX LH OR IN RH	AI22+4.5	AI22+3.5	AI22+2.5	AI22	AI22+0.5	AI22-0.5	AI22-1.5
27	EX RH OR IN LH	AE27+4.5	AE27+3.5	AE27+2.5	AE27	AE27+0.5	AE27-0.5	AE27-1.5
(5/8)	EX LH OR IN RH	AI27+4.5	AI27+3.5	AI27+2.5	AI27	AI27+0.5	AI27-0.5	AI27-1.5
22U	EX RH OR IN LH	AE22U+4.5	AE22U+3.5	AE22U+2.5	AE22U	AE22U+0.5	AE22U-0.5	AE22U-1.5
(1/2U)	EX LH OR IN RH	AI22U+4.5	AI22U+3.5	AI22U+2.5	AI22U	AI22U+0.5	AI22U-0.5	AI22U-1.5
27U	EX RH OR IN LH	AE27U+4.5	AE27U+3.5	AE27U+2.5	AE27U	AE27U+0.5	AE27U-0.5	AE27U-1.5
(5/8U)	EX LH OR IN RH	AI27U+4.5	AI27U+3.5	AI27U+2.5	AI27U	AI27U+0.5	AI27U-0.5	AI27U-1.5



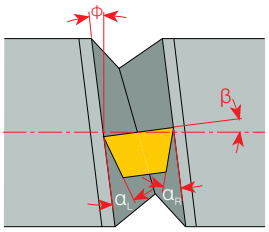
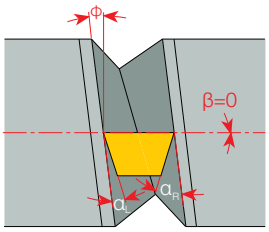
Anvils for positive inclination angle applicable when turning **RH** thread with **RH** holders or **LH** thread with **LH** toolholders.



Anvils for negative inclination used when turning **RH** thread with **LH** holder or **LH** thread with **RH** toolholder.

Anvils for Laydown Inserts

The parameter for tilting the threading insert relative to the helix angle of threading is of great importance when threading is produced. This parameter ensures proper operation of the insert during threading production in terms of equal load distribution applied to the insert, equal distribution of forces operating on the insert, development of uniform wear on both sides of the cutting edge, and avoiding friction of the insert with the side of the threading profile. If the side clearance insert angles (α) are not equal in relation to the helix angle (φ), the insert must be tilted. This is performed by using anvils.

Recommended	Less Recommended
$\alpha_L=\alpha_R$	$\alpha_L\neq\alpha_R$
	

Quick and easy way to select a correct anvil

Helix (Lead) angle calculation by formula

or

Helix (Lead) angle area from the graph

Recommendation for an inclination angle (β°) according to the thread turning method definition and dependent on the thread standard

Recommendation for a suitable anvil according to the insert size and type of toolholder (internal or external)

The anvil should be selected from the table according to the threading standard. The correct anvil depends on the right inclination angle (β) and insert size. The inclination angle (β) is obtained by selecting the thread turning method and finding the helix angle (ϕ) for single-start threading, or lead angle (ϕL) for the multi-start threading.
The helix angle (ϕ) and the lead angle (ϕL) are determined as exact values by using the formula below or as a graph area (see below: Helix (Lead) angle area by using graph, depending on the threading diameter and lead.

Helix angle (ϕ) calculation by using the Single-Start Threading Formula	**Lead angle (ϕ_L) calculation by using the Single-Start Threading Formula**
$\phi=\arctan\left(\frac{P}{\pi \times Dpitch}\right)$	$\phi_L=\arctan\left(\frac{Lead}{\pi \times Dpitch}\right)$ $Lead= n \times P$
When: ϕ = Helix angle Dpitch = Pitch diameter* * effective diameter of threading P = Threading pitch π ≈ 3.142	When: ϕ_L = Lead angle Dpitch = Pitch diameter* * effective diameter of threading P = Threading pitch n = number of threading starts π ≈ 3.142

Usable formulas

$$\text{Lead (inch)} = \frac{1 \text{ inch}}{\text{TPI}} \times \text{No. of starts}$$

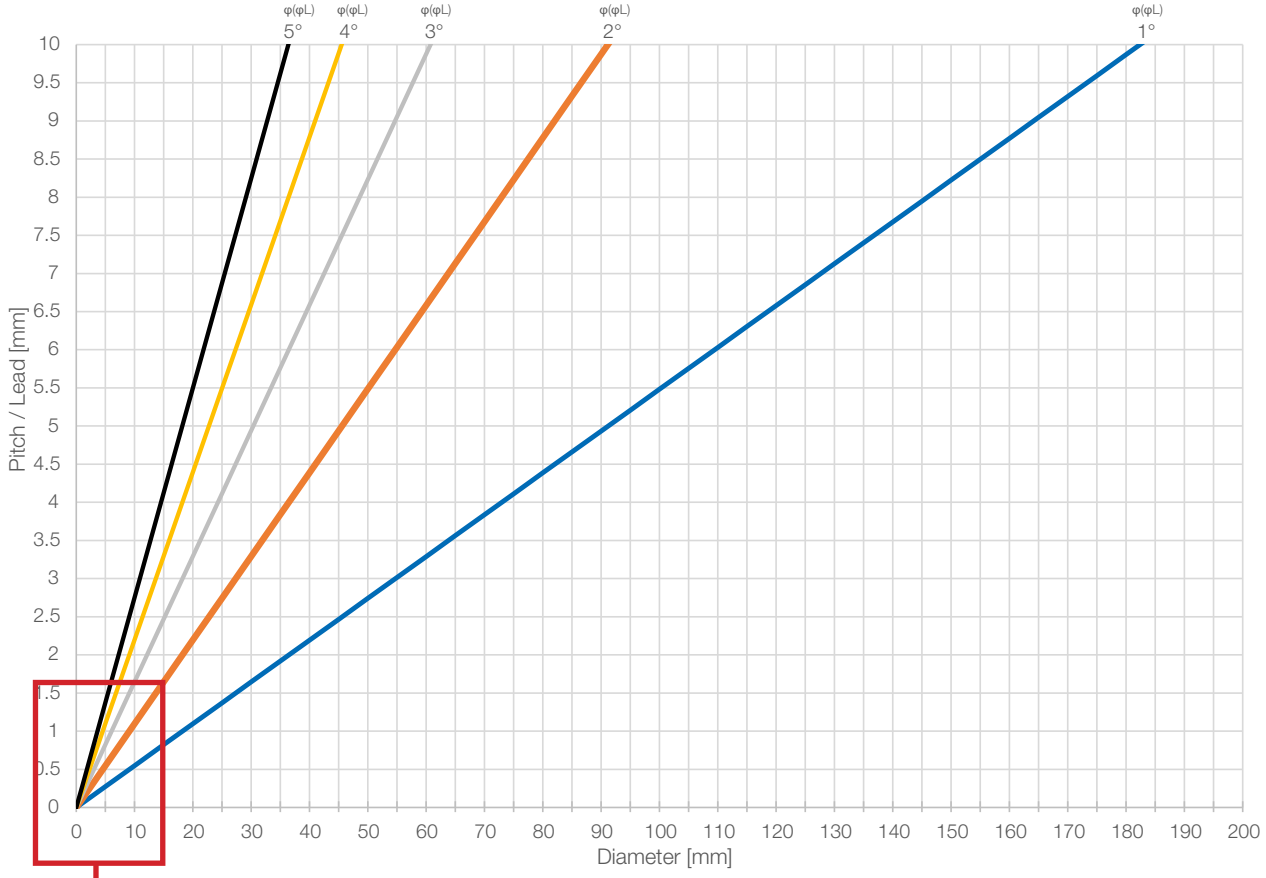
TPI = No. of threading per inch

1 inch = 25.4 mm

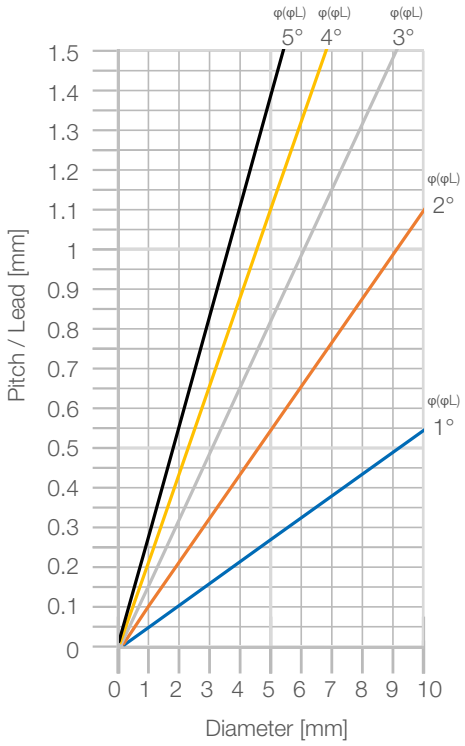
$$\text{Pitch (mm)} = \frac{25.4}{\text{TPI}}$$

Helix (Lead) angle area by using graph

Helix angle evaluation

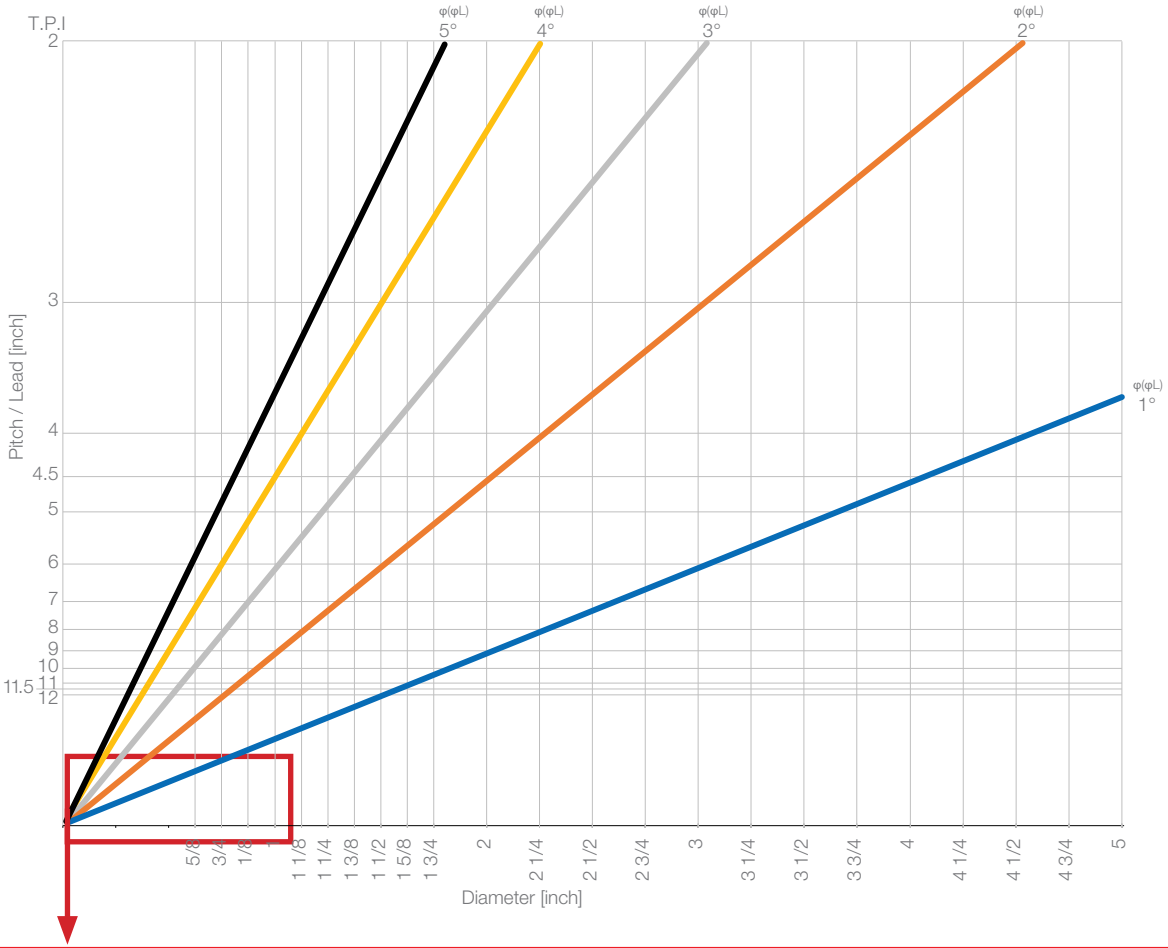


Detailed view for small pitch/diameter

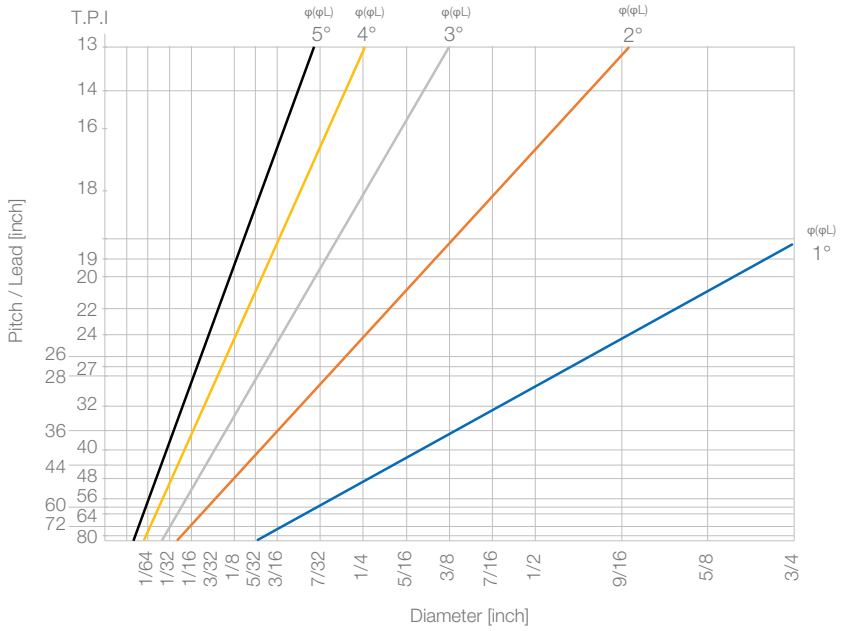


Helix (Lead) angle area by using graph

Helix angle evaluation



Detailed view for small pitch/diameter



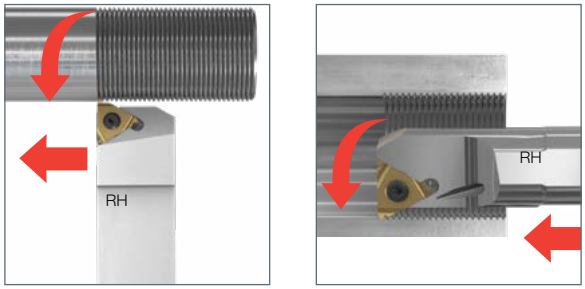
Anvil selection for symmetric threading profiles

The table below defines the recommended insert inclination angle (β) and anvil selection according to the helix angle (ϕ) for single-start threading and the lead angle (ϕL) for multi-start threading, depending on the threading turning method for machining the following symmetric threading profiles:

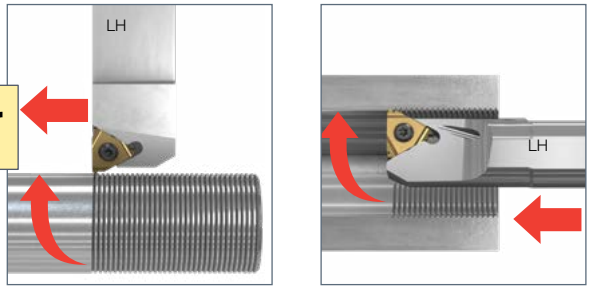
- partial profile threading with an angle profile of 60°, 55° only
- full profile threading according to ISO, UN, Whitworth, NPT, BSPT, Trapeze, ACME, RD standards only

Thread turning method

Production of right-hand threading with right-hand holder



Production of left-hand threading with left-hand holder



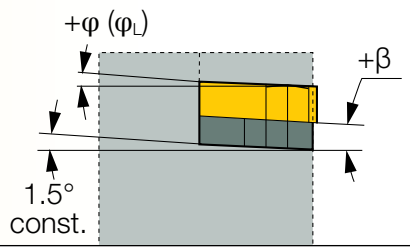
Anvil selection

			Positive Anvils				
Threading helix (lead) angle ϕ (ϕL)		**ϕ (ϕL)≥ 5°**	**4°≤ϕ (ϕL)<5°**	**3°<ϕ (ϕL)≤4°**	**2°<ϕ (ϕL)≤3°**	**1°<ϕ (ϕL)≤2°**	**0°<ϕ (ϕL)≤1°**
Inclination Angle β			**4.5°**	**3.5°**	**2.5°**	**1.5° (std)**	**0.5°**
IC	**Toolholder**	**Anvil Designation**					
16 (3/8)	EX RH OR IN LH EX RH OR IN LH	special solution	AE 16+4.5 AI 16+4.5	AE 16+3.5 AI 16-3.5	AE 16+2.5 AI 16+2.5	* AE 16+1.5 * AI 16+1.5	AE 16+0.5 AI 16+0.5
22 (1/2)	EX RH OR IN LH EX RH OR IN LH		AE 22+4.5 AI 22+4.5	AE 22+3.5 AI 22+3.5	AE 22+2.5 AI 22+2.5	* AE 22+1.5 * AI 22+1.5	AE 22+0.5 AI 22+0.5
27 (5/8)	EX RH OR IN LH EX RH OR IN LH		AE 27-4.5 AI 27+4.5	AE 27+3.5 AI 27+3.5	AE 27+2.5 AI 27+2.5	* AE 27+1.5 * AI 27+1.5	AE 27+0.5 AI 27+0.5
22U (1/2U)	EX RH OR IN LH EX RH OR IN LH		AE 22U+4.5 AI 22U+4.5	AE 22U+3.5 AI 22U+3.5	AE 22U+2.5 AI 22U+2.5	* AE 22U+1.5 * AI 22U+1.5	AE 22U+0.5 AI 22U+0.5
27U (5/8U)	EX RH OR IN LH EX RH OR IN LH		AE 27U+4.5 AI 27U+4.5	AE 27U+3.5 AI 27U+3.5	AE 27U+2.5 AI 27U+2.5	* AE 27U+1.5 * AI 27U+1.5	AE 27U+0.5 AI 27U+0.5

* Standard anvil supplied with tool

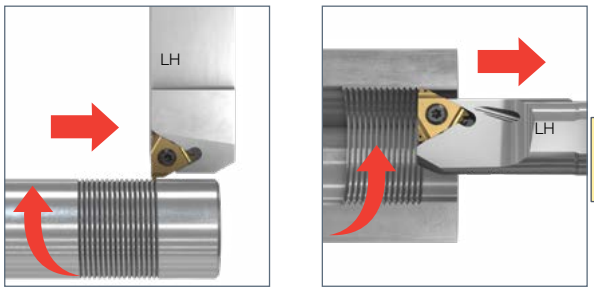
Positive Anvils

Feed Towards the Chuck



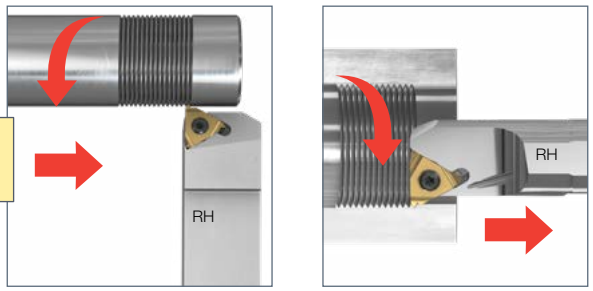
Thread turning method

Production of right-hand threading with left-hand holder*



* Change anvil to negative

Production of left-had threading with right-hand holder*



* Change anvil to negative

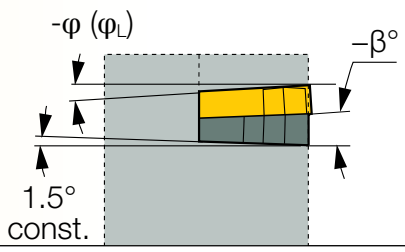
Anvil selection

		Negative Anvils		
Threading helix (lead) angle ϕ (ϕL)		**0°<ϕ (ϕL)≤1°**	**1°<ϕ (ϕL)≤2°**	**ϕ (ϕL)≥2°**
Inclination Angle β		**-0.5°**	**-1.5°**	
IC	**Toolholder**	**Anvil Designation**		
16 (3/8)	EX RH OR IN LH EX RH OR IN LH	AE 16-0.5 AI 16-0.5	AE 16-1.5 AI 16-1.5	special solution
22 (1/2)	EX RH OR IN LH EX RH OR IN LH	AE 22-0.5 AI 22-0.5	AE 22-1.5 AI 22-1.5	
27 (5/8)	EX RH OR IN LH EX RH OR IN LH	AE 27-0.5 AI 27-0.5	AE 27-1.5 AI 27-1.5	
22U (1/2U)	EX RH OR IN LH EX RH OR IN LH	AE 22U-0.5 AI 22U-0.5	AE22U-1.5 AI 22U-1.5	
27U (5/8U)	EX RH OR IN LH EX RH OR IN LH	AE 27U-0.5 AI 27U-0.5	AE 27U-1.5 AI 27U-1.5	

- EX - Anvil for external threading
- IN - Anvil for internal threading

Negative Anvils

Feed Towards the Tailstock

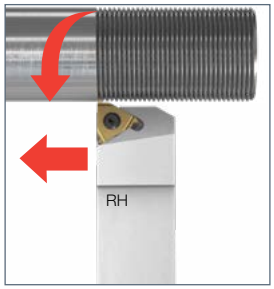


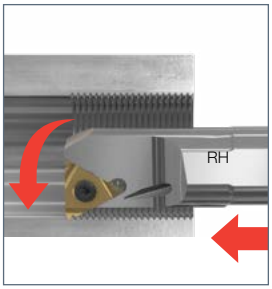
Anvil selection for ABUT threading standard only

The table below defines the recommended insert inclination angle (β) and anvil selection according to helix angle (ϕ) for single-start threading and according to lead angle (ϕL) for multi-start threading, depending on the threading turning method for machining asymmetric threading profile according to ABUT threading standard only.

Threading turning method

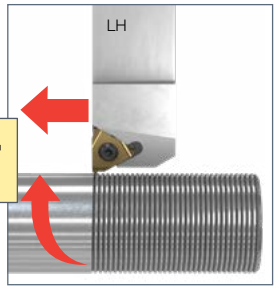
Production of right-hand threading with right-hand holder

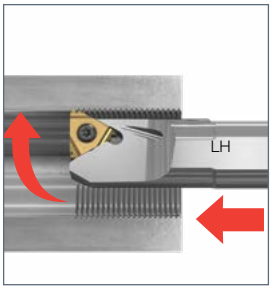




or

Production of left-hand threading with left-hand holder





Anvil selection

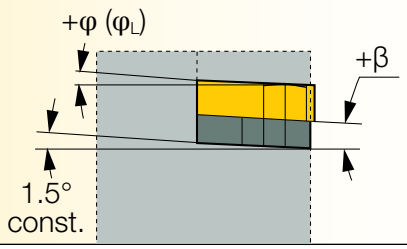
			Positive Anvils		Negative Anvils	
Threading helix (lead) angle ϕ (ϕL)		**ϕ (ϕL)>3.5°**	**3°<ϕ (ϕL)≤3.5°**	**2°<ϕ (ϕL)≤3°**	**1°<ϕ (ϕL)≤2°**	**0°<ϕ (ϕL)≤1°**
Inclination angle β			**1.5° (std)**	**0.5**	**-0.5°**	**-1.5°**
IC	**Toolholder**	**Anvil designation**				
16 (3/8)	EX RH OR IN LH EX LH OR IN RH	special solution	* AE 16 +1.5 * AI16 +1.5	AE 16 +0.5 AI16 +0.5	AE 16 -0.5 AI 16 -0.5	AE 16 -1.5 AI 16 -1.5
22 (1/2)	EX RH OR IN LH EX LH OR IN RH		* AE 22 +1.5 * AI 22 +1.5	AE 22 +0.5 AI 22 +0.5	AE 22 -0.5 AI 22 -0.5	AE 22 -1.5 AI 22 -1.5
27 (5/8)	EX RH OR IN LH EX LH OR IN RH		* AE 27 +1.5 * AI 27 +1.5	AE 27 +0.5 AI 27 +0.5	AE 27 -0.5 AI 27 -0.5	AE 27 -1.5 AI 27 -1.5
22U (1/2U)	EX RH OR IN LH EX LH OR IN RH		* AE 22U +1.5 * AI 22U +1.5	AE 22U +0.5 AI 22U +0.5	AE 22U -0.5 AI 22U -0.5	AE 22U -1.5 AI 22U -1.5
27U (5/8U)	EX RH OR IN LH EX LH OR IN RH		* AE 27U +1.5 * AI 27U +1.5	AE 27U +0.5 AI 27U +0.5	AE 27U -0.5 AI 27U -0.5	AE 27U -1.5 AI 27U -1.5

* Standard anvil supplied with tool

- EX - Anvil for external threading
- IN - Anvil for internal threading

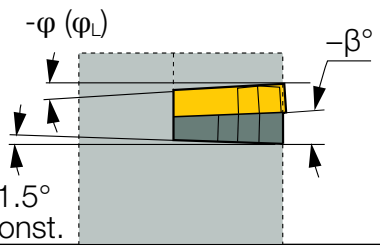
Positive Anvils

Feed Towards the Chuck



Negative Anvils

Feed Towards the Tailstock

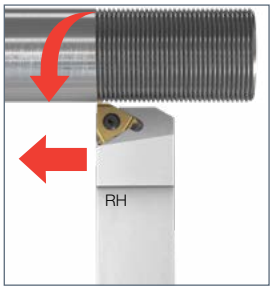


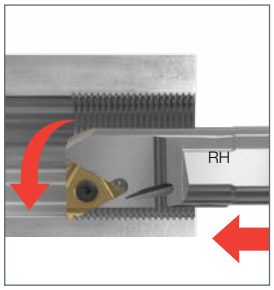
Anvil selection for SAGE threading standard only

The table below defines the recommended insert inclination angle (β) and anvil selection according to helix angle (φ) for single-start threading and according to lead angle (φL) for multi-start threading, depending on the thread turning method for machining asymmetric threading profile according to SAGE thread standard only.

thread turning method

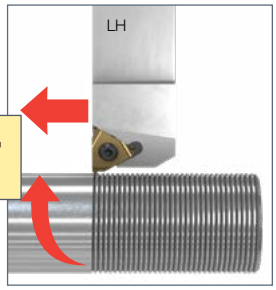
Production of right-hand threading with right-hand holder

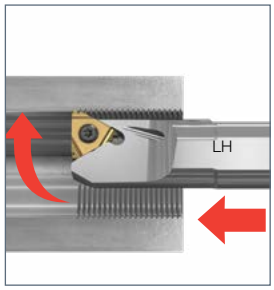




or

Production of left-hand threading with left-hand holder



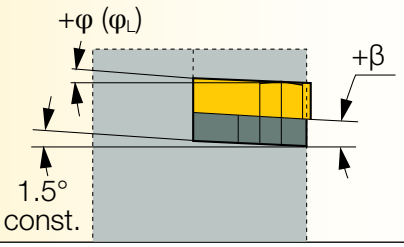
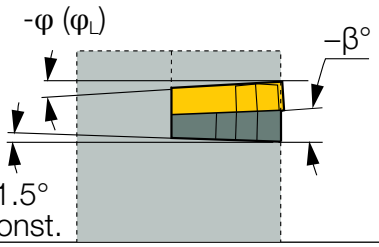


Anvil selection

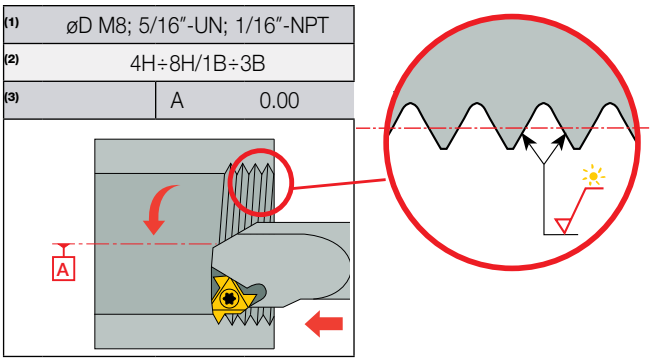
			Positive Anvils			Negative Anvils	
Threading helix (lead) angle φ (φL)		**φ (φL)>5.6°**	**5°<φ (φL)≤5.6°**	**3°<φ (φL)≤5°**	**2°<φ (φL)≤3°**	**1°<φ (φL)≤2°**	**0°<φ (φL)≤1°**
Inclination angle β			**2.5°**	**1.5°(std)**	**0.5°**	**-0.5°**	**-1.5°**
IC	**Toolholder**	**Anvil designation**					
16 (3/8)	EX RH OR IN LH EX RH OR IN LH	special solution	AE 16 +2.5 AI 16 +2.5	* AE 16 +1.5 * AI 16 +1.5	AE 16 +0.5 AI16 +0.5	AE 16 -0.5 AI 16 -0.5	AE 16 -1.5 AI 16 -1.5
22 (1/2)	EX RH OR IN LH EX RH OR IN LH		AE 22 +2.5 AI 22 +2.5	* AE 22 +1.5 * AI 22 +1.5	AE 22 +0.5 AI 22 +0.5	AE 22 -0.5 AI 22 -0.5	AE 22 -1.5 AI 22 -1.5
27 (5/8)	EX RH OR IN LH EX RH OR IN LH		AE 27 +2.5 AI 27 +2.5	* AE 27 +1.5 * AI 27 +1.5	AE 27 +0.5 AI 27 +0.5	AE 27 -0.5 AI 27 -0.5	AE 27 -1.5 AI 27 -1.5
22U (1/2U)	EX RH OR IN LH EX RH OR IN LH		AE 22U +2.5 AI 22U +2.5	* AE 22U +1.5 * AI 22U +1.5	AE 22U +0.5 AI 22U +0.5	AE 22U -0.5 AI 22U -0.5	AE 22U -1.5 AI 22U -1.5
27U (5/8U)	EX RH OR IN LH EX RH OR IN LH		AE 27U +2.5 AI 27U +2.5	* AE 27U +1.5 * AI 27U +1.5	AE 27U +0.5 AI 27U +0.5	AE 27U -0.5 AI 27U -0.5	AE 27U -1.5 AI 27U -1.5

* Standard anvil supplied with tool

- EX - Anvil for external threading
- IN - Anvil for internal threading

Positive Anvils	Negative Anvils
Feed Towards the Chuck	Feed Towards the Tailstock
	

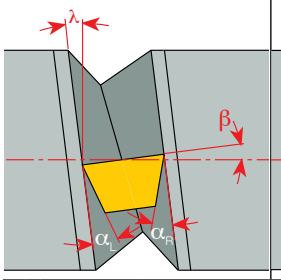
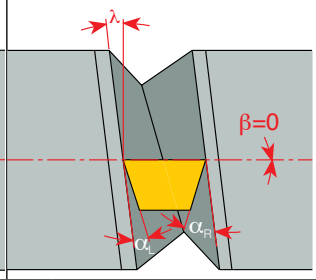
Mini-Tool Features



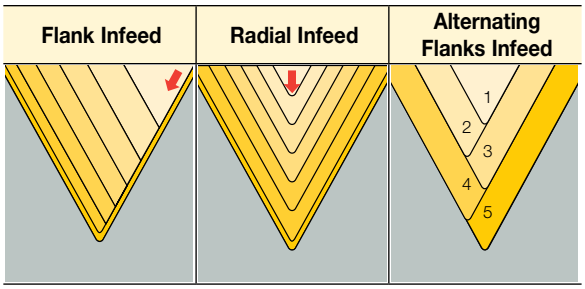
(1) Smallest possible thread
(2) All tolerances
(3) Minimum runout
(4) High surface quality

Flank Clearance and Effective Inclination Angle

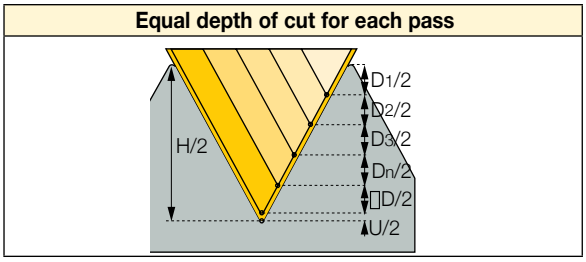
Inclination angle β of the cutting edges corresponds to a specific thread helix angle l and ensures an equal clearance angle on both sides of the insert.

αl=αr ✔	Incorrect αl<αr ✘
	
α - Flank clearance angle **λ** - Helix angle **β** - Effective inclination angle is achieved by selecting the suitable anvil	**H** - Depth of thread profile (on ø) **D** - Depth of pass (on ø) **U** - Depth of finishing pass (on ø)

Infeed Methods for Threading Operations

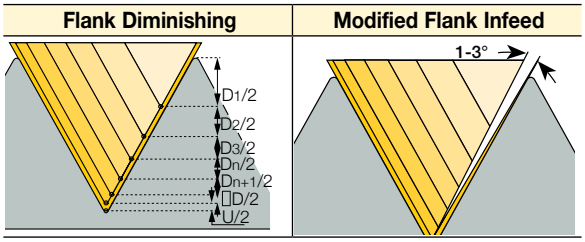


Flank Equal



$$\frac{D_1}{2} = \frac{D_2}{2} = \frac{D_3}{2} = \frac{D_n}{2}$$

Diminished depth of cut for each pass



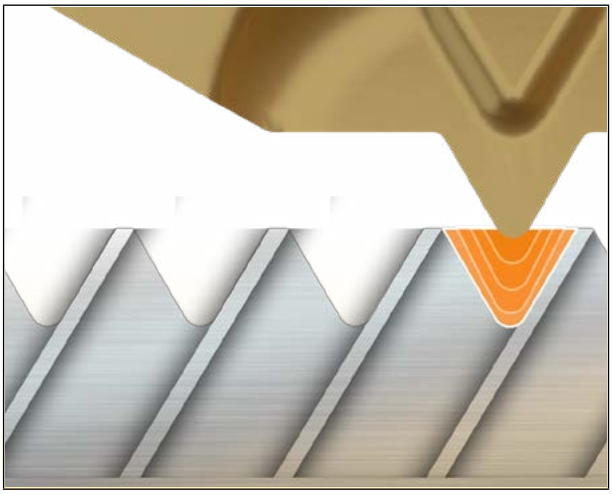
$$\frac{D_1}{2} > \frac{D_2}{2} > \frac{D_3}{2} > \frac{D_n}{2} > \frac{D_{n+1}}{2}$$

Depth per Pass and Number of Passes

In order to produce threads, the cutting tool needs to make several numbers of cuts along the workpiece surface. The parameters of depth per pass and number of passes have a very important role in threading production. These parameters have a direct effect on cutting edge wear, tool life, threading surface quality, and threading production stability.
The two methods most common in determining the depth per pass and the number of passes are constant chip area by decreasing depth per pass or constant depth per pass. The choice of method does not depend on the selected infeed methods (radial infeed, flank infeed, modified flank infeed, alternating flank infeed), which are described in chapter 2.12.
The depth per pass and number of passes parameters depend on the type of equipment, tool overhang, machine stability, workpiece material, cutter geometry and the threading depth required.

Constant chip area by decreasing depth per pass (recommended)

This is the most common method and is generally recommended, as in most cases it ensures high productivity. The principle of this method is that the initial cutting depth at the first pass is the largest, and then gradually decreases at each pass to ensure material removal within a constant chip area.
The calculation of passes is designed so that the last pass, which is destined to be a finish pass, will be 0.05 - 0.1 mm (0.0019 - 0.0039 inches). Using this method ensures constant loads on cutting edge and uniform wear, which increases tool life.



Formula for calculation of depth per pass

$$\Delta a_{p(i)} = \frac{a_p}{\sqrt{n_a - 1}} \times \sqrt{C}$$

When:

$\Delta a_{p(i)}$ — Depth of cut i pass ($i = 1...n_a$)

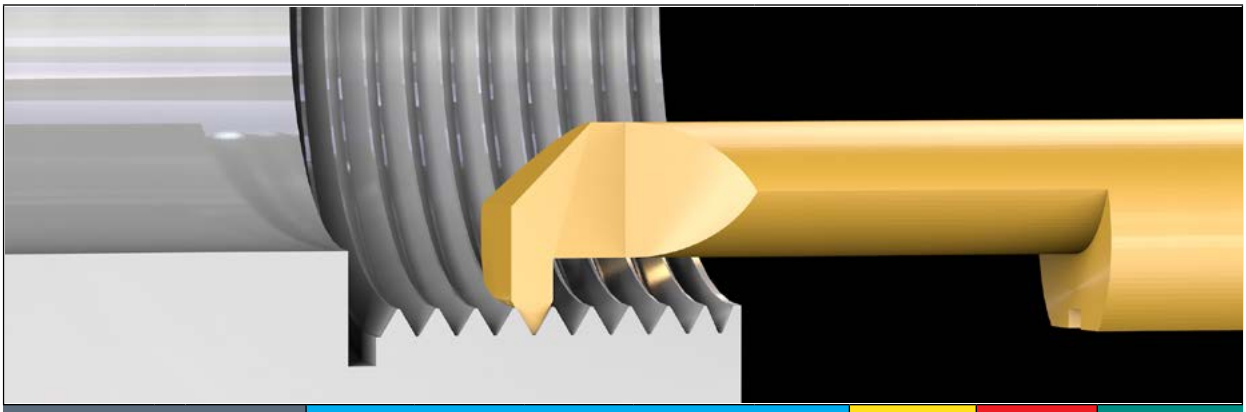
i — Pass

a_p — Total depth of cut

n_a — Number of passes

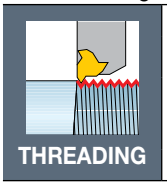
C — Constant value:
For 1st pass: C=0.3; For 2nd pass: C=1; For 3rd pass and higher: C = i – 1

Cutting Data



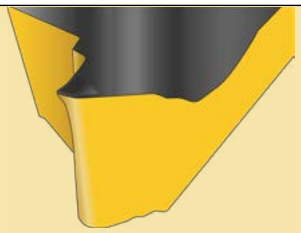
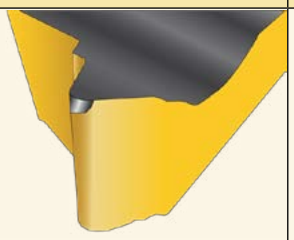
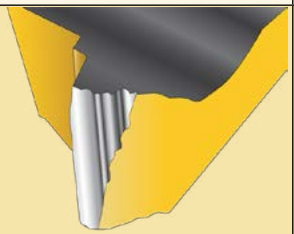
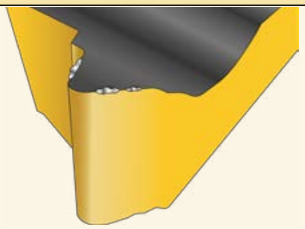
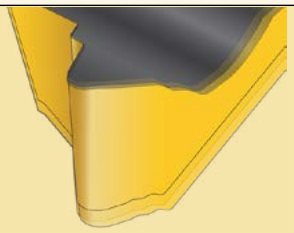
Carbide Grade		Steel (N/mm Tensile Strength)					Stainless Steel	Cast Iron	Non-ferrous
		400-500	500-700	700-850	850-1150	>1150			
Cutting Speed V_c (m/min)	IC228	160	140	120	90	70	90	100	300
	IC908	185	160	140	105	80	105	115	350
Pitch (p) mm	**TPI**	**No. of Passes**							
0.5	48	6	6	7	7	8	8	7	6
0.75	32	8	8	9	9	10	10	9	8
1.0	24	10	10	12	12	12	12	12	10
1.25	20-19	12	12	14	14	15	15	14	12
1.5	16	15	15	17	17	18	18	17	15

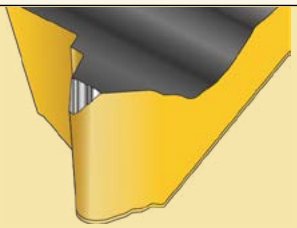
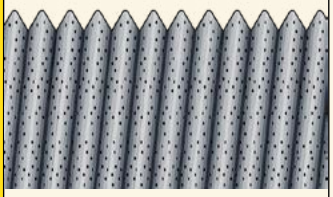
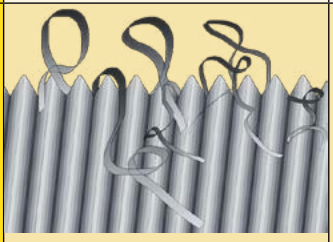
For internal threading of small diameters, the PVD coated grade IC228 is recommended.

Material groups		ISO P		ISO M	ISO K	ISO N	ISO S	ISO H
		1-11	12-13	14	15-20	21-28	31-37	38-41
		Steel	Stainless Steel Ferritic & Martensitic	Stainless Steel Austenitic & Duplex (Ferritic-Austenitic)	Cast Iron	Non-ferrous	High Temperature Alloys	Hard Steel & Cast Iron
 THREADING	Harder	**IC1007**	IC1007	IC1007	**IC1007**	IC08	**IC806**	**IC1007**
		IC808 (IC908)			IC808 (IC908)		IC1007	
		IC250 (IC950)	**IC808 (IC908)**	**IC808 (IC908)**	IC250 (IC950)	**IC228**	IC808 (IC908)	IC808 (IC908)
	Tougher	IC228	IC228	IC228	IC228	IC28		

■ First choice

Troubleshooting

		Cause	Solution
Plastic Deformation		• Excessive heat in cutting zone • Wrong carbide grade • Inadequate coolant supply • Depth of cut too large • Cutting speed too high • Nose radius too small	• Reduce RPM / Reduce depth of cut / Check turned dia. • Use coated grade / Use harder grade • Apply coolant • Reduce depth of cut / Increase no. of passes • Reduce cutting speed • If possible use insert with larger radius
Premature Wear		• Cutting speed too high • Infeed depth too small • Highly abrasive material • Inadequate coolant supply • Wrong inclination anvil • Wrong turned dia. prior to threading • Insert is above center line	• Reduce RPM • Modify flank infeed / Increase depth of cut • Use coated grade • Apply coolant • Reselect anvil • Check turned dia. • Check center height
Insert Breakage		• Wrong turned dia. prior to threading • Wrong grade • Poor chip control • Incorrect center height	• Check turned dia. • Use tougher grade • Change to M-Type / B-Type inserts and use modified flank infeed • Check center height
Build Up Edge		• Cutting edge too cold • Wrong grade • Inadequate coolant supply • Incorrect cutting speed	• Increase RPM / Increase depth of cut • Use coated grade • Apply coolant • Increase cutting speed
Vibration		• Incorrect workpiece clamping • Incorrect tool setup • Incorrect cutting speed • Incorrect center height	• Use soft jaws • Check tool overhang / Use anti-vibration bars • Increase cutting speed • Check center height

		Cause	Solution
Incorrect Thread Profile		• Unsuitable threading profile • Incorrect center height • Incorrect pitch in the program	• Adjust to correct tool, anvil, and insert • Adjust center height • Change the program
Broken Nose During 1st Pass		• Cutting edge too cold • Depth of cut too large • Wrong grade • Wrong turned dia. prior to threading • Incorrect center height • Infeed depth too shallow • Wrong inclination anvil • Tool overhang tool long	• Reduce RPM • Reduce depth of cut/Increase number of infeed passes • Use tougher grade • Check turned dia. • Adjust center height • Change depth of cut • Reselect anvil • Reduce tool overhang / Use Anti-vibration bar
Poor Surface Finish		• Wrong cutting speed • Excessive heat in cutting zone • Poor chip control • Inadequate coolant supply • Wrong inclination anvil • Tool overhang too long • Incorrect center height	• Increase/reduce RPM • Reduce depth of cut • Modify flank infeed • Apply coolant • Reselect anvil • Reduce tool overhang • Check center height
Poor Chip Control		• Excessive heat in cutting zone • Wrong grade • Inadequate coolant supply • Wrong turned dia. prior to threading • Incorrect method of infeed	• Reduce RPM /change depth of cut /check turned dia. • Use coated grade /check turned dia./use M/B-Type inserts • Apply coolant • Check turned dia. • Modify flank infeed 3-5°

Special Request Form Thread Turning

Project Information

Customer _____ Industry _____ Country _____

Customer Goal (Productivity, Economy, etc.):

Proposal for: ☐ Finish Insert ☐ Rough Insert ☐ Holder ☐ Machining Concept

ISCAR Representative: Email: _____ Tel: _____

Competitors: _____ Target Price: _____ Annual Consumption: _____

Threading

Designation _____ Pitch _____ Standard _____ Tolerance Clas _____

Major Dia. _____ Minor Dia. _____ Pitch Dia. _____ Number of Starts _____

Threading Depth _____ ☐ Through Hole ☐ Blind Hole

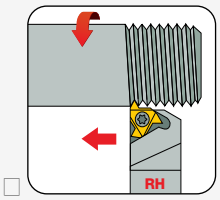
Special Form _____

For non-standard profiles, detailed information must be supplied (drawing, dimensions & tolerances)

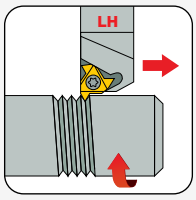
Application

Part _____ Material _____ Hardness _____

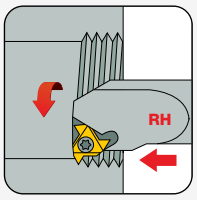
RH Right-hand Threading



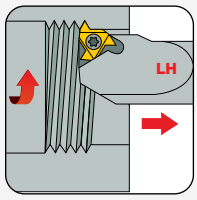
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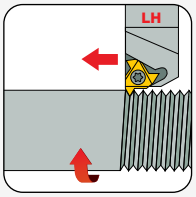


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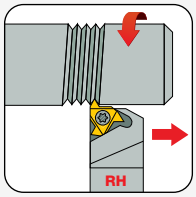


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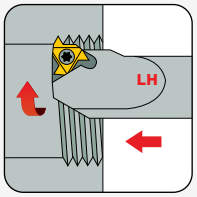
LH Left-hand Threading



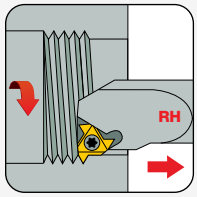
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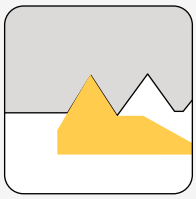


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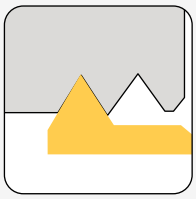


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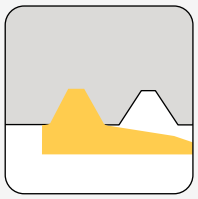
Insert Profile:



☐ Full



☐ Partial

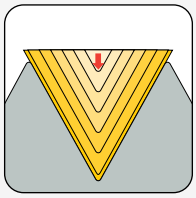


☐ Semi-Partial

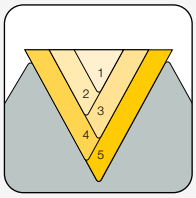


☐ Multi-Point

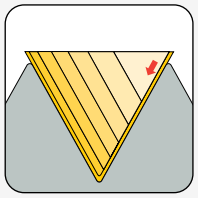
Infeed:



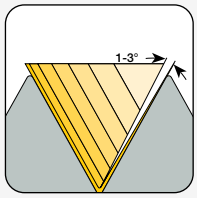
☐ Radial



☐ Incremental



☐ Flank



☐ Modified Flank

Attachments ☐ Drawing ☐ Model ☐ Sketch ☐ Photo

Machine Model _____ Shank Type/Size _____

Coolant: ☐ Internal ☐ External ☐ None Type: _____

Remarks: _____

NON-ROTATING TOOL HOLDERS



Member IMC Group

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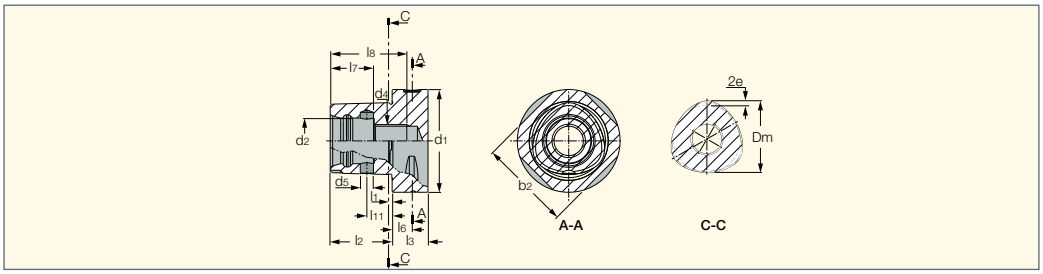
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CAMFIX

CAMFIX (ISO 26623-1)

Toolholder Standard

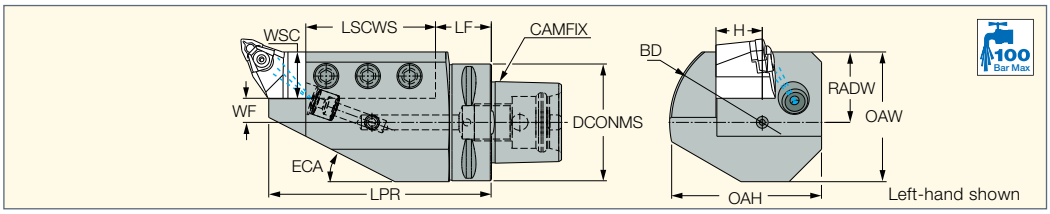


CAMFIX	b2	d1 ±0.1	d2	d4	d5 ±0.1	Dm	e	l1	l2 ±0.1	l3 min	l6 ±0.15	l7 ±0.15	l8 min	l11 ±0.1
C3	28,3	32	15	M12x1.5	3,6	22	0,7	2,5	19	15	6	13	25	8
C4	35,3	40	18	M14x1.5	4,6	28	0,9	2,5	24	20	8	15	30	11,5
C5	44,4	50	21	M16x1.5	6,1	35	1,12	3	30	20	10	20	37	14
C6	55,8	63	28	M20x2	8,1	44	1,4	3	38	22	12	27	47	15,5
C8	71,1	80	32	M20x2	9,1	55	2	3	48	30	12	28	48	25
C8X	88,7	100	32	M20x2	9,1	55	2	3	48	32	16	28	48	25
C10	88,3	100	43	M24x2	12	72	2,8	3	60	36	16	40	70	26,5

CAMFIX

C#-ASHR/L

Holders with CAMFIX Exchangeable Shanks for External Square Shank Tools



Designation	DCONMS	H	WSC	WF	LPR	LSCWS	LF	OAH	RADW	OAW	ECA	BD	CDI(2)
C4 ASHR/L 16-1	40.00	16.0	16.0	7.00	104.00	70.00	34.00	50.00	23.0	43.50	30.0	60.00	1
C5 ASHR/L 20-1	50.00	20.0	20.0	10.00	98.00	63.50	24.50	78.00	30.0	59.00	30.0	90.00	1
C6 ASHR/L 20-1	63.00	20.0	20.0	10.00	100.00	63.50	26.50	78.00	30.0	59.00	30.0	90.00	1
C6 ASHR/L 25-1	63.00	25.0	25.0	13.00	120.00	70.00	30.00	82.00	38.0	70.00	27.0	100.00	1
C6 ASHR 25 1-J (1)	63.00	25.0	25.0	4.50	120.00	999.00	82.00	86.50	29.5	61.00	4.1	90.00	1
C8 ASHR/L 32-1	80.00	32.0	32.0	8.00	140.00	90.00	40.00	87.00	40.0	80.00	27.0	110.00	1

(1) Recommended for Mazak INTEGREX! No interference problem on machine magazine

(2) 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

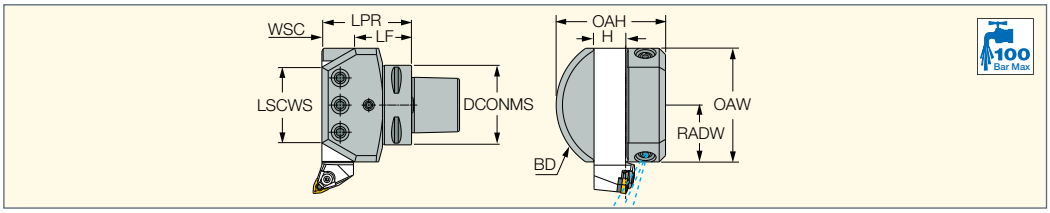
Designation						
C4 ASHR/L 16-1	SR M8X16 DIN915	HW 5.0*	SATZ-M10X1-M5	COOLING TUBE C4*	WRENCH NOZZLE HP M10*	WRENCH COOL TUBE C4*
C5 ASHR/L 20-1	SR M10X25 DIN915	HW 5.0*	SATZ-M10X1-M5	COOLING TUBE C5*	WRENCH NOZZLE HP M10*	WRENCH COOL TUBE C5*
C6 ASHR/L 20-1	SR M10X25 DIN915	HW 5.0*	SATZ-M10X1-M5	COOLING TUBE C6*	WRENCH NOZZLE HP M10*	WRENCH COOL TUBE C6*
C6 ASHR/L 25-1	SR M12X30 DIN915	HW 6.0*	SATZ-M12X1-M6	COOLING TUBE C6*	WRENCH NOZZLE HP M12*	WRENCH COOL TUBE C6*
C8 ASHR/L 32-1	SR M12X30 DIN915	HW 6.0*	SATZ-M12X1-M6	COOLING TUBE C8*	WRENCH NOZZLE HP M12*	WRENCH COOL TUBE C8*

* Optional, should be ordered separately

CAMFIX

C#-ASHA

Perpendicular Holders with CAMFIX Shanks for External Square Shank Tools



Designation	DCONMS	H	WSC	LPR	LSCWS	LF	RADW	OAW	OAH	BD	CDI(1)
C5 ASHA 20	50.00	20.0	20.0	58.00	46.00	38.00	38.0	76.00	76.5	90.00	1
C6 ASHA 20	63.00	20.0	20.0	60.00	46.00	40.00	38.0	76.00	76.5	90.00	1
C6 ASHA 25	63.00	25.0	25.0	71.00	61.00	46.00	45.0	90.00	86.6	110.00	1
C8 ASHA 32	80.00	32.0	32.0	85.00	80.00	53.00	55.0	110.00	95.0	142.00	1

(1) 1 - Hole for data chip, 0 - Without hole for data chip

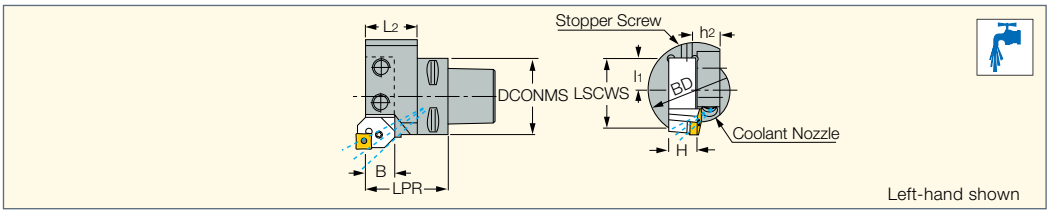
Spare Parts

Designation						
C5 ASHA 20	SR M10X25 DIN915	HW 5.0*	SATZ-M10X1-M5	WRENCH NOZZLE HP M10*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C6 ASHA 20	SR M10X25 DIN915	HW 5.0*	SATZ-M10X1-M5	WRENCH NOZZLE HP M10*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ASHA 25	SR M12X30 DIN915	HW 6.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C8 ASHA 32	SR M12X30 DIN915	HW 6.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C8*	WRENCH COOL TUBE C8*

* Optional, should be ordered separately

CAMFIX

C#-ADE
Holders with CAMFIX Exchangeable Shanks for External Square Shank Tools



Designation	DCONMS	LPR	L2	B	BD	LSCWS	l1	H	h2	CP(1)	CDI(2)
C3 ADE 16R/L	32.00	45.00	28.10	16.0	65.00	45.0	20.00	16.0	20.0	100	0
C4 ADE-20L	40.00	49.20	29.10	20.0	87.00	57.0	32.00	20.0	26.0	100	1
C4 ADE-20R	40.00	49.20	27.30	20.0	87.00	57.0	32.00	20.0	26.0	100	1
C5 ADE-20R/L	50.00	55.20	35.10	20.0	87.00	57.0	32.00	20.0	26.0	100	1

• Use the tools with AD suffix • Regular tools should be shortened
(1) Coolant pressure (Bar)
(2) 1 - Hole for data chip, 0 - Without hole for data chip

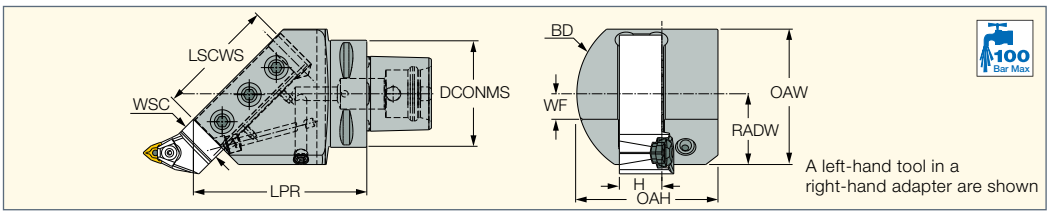
Spare Parts

Designation							
C3 ADE 16R/L	SR M10X20 DIN915	HW 3.0*	SR M6X8 DIN916(a)	HW 5.0*	COOLING TUBE C3*	WRENCH COOL TUBE C3*	SATZ-M8X1-M3
C4 ADE-20L	SR M10X16DIN912	HW 4.0	SR M8X10 DIN913(a)	HW 8.0*	COOLING TUBE C4*	WRENCH COOL TUBE C4*	SATZ-M10X1-M5
C4 ADE-20R	SR M10X16DIN912		SR M8X10 DIN913(a)	HW 8.0*	COOLING TUBE C4*	WRENCH COOL TUBE C4*	SATZ-M10X1-M5
C5 ADE-20L	SR M10X16	HW 4.0	SR M8X10 DIN916(a)	HW 8.0*	COOLING TUBE C5*	WRENCH COOL TUBE C5*	EZ 125
C5 ADE-20R	SR M10X16	HW 4.0	SR M8X10 DIN916(a)		COOLING TUBE C5*	WRENCH COOL TUBE C5*	EZ 125

* Optional, should be ordered separately
(a) Stopper screw

CAMFIX

C#-ASHR/L-45
Holders with CAMFIX Exchangeable Shanks Carrying Square Shank Tools for 45° Mounting on Turn-Mill Machines



Designation	DCONMS	H	WSC	WF	LPR	LSCWS	OAH	RADW	OAW	BD	CDI(1)
C5 ASHR/L 20-45	50.00	20.0	20.0	15.00	96.30	-	62.00	36.0	67.50	72.00	1
C6 ASHR/L 20-45	63.00	20.0	20.0	15.00	98.30	-	62.00	36.0	67.50	72.00	1
C6 ASHR/L 25-45	63.00	25.0	25.0	15.00	102.00	70.00	83.00	41.6	79.60	100.00	1
C8 ASHR/L 32-45	80.00	32.0	32.0	17.00	140.00	100.00	110.00	50.0	110.00	140.00	1

(1) 1 - Hole for data chip, 0 - Without hole for data chip

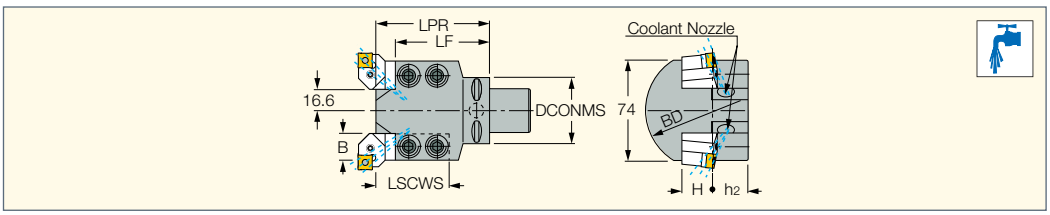
Spare Parts

Designation						
C5 ASHR/L 20-45	SR M10X25 DIN915	HW 5.0*	SATZ-M10X1-M5	WRENCH NOZZLE HP M10*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C6 ASHR/L 20-45	SR M10X25 DIN915	HW 5.0*	SATZ-M10X1-M5	WRENCH NOZZLE HP M10*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ASHR/L 25-45	SR M12X30 DIN915	HW 6.0*	SATZ-M10X1-M5	WRENCH NOZZLE HP M10*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C8 ASHR/L 32-45	SR M12X30 DIN915	HW 6.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C8*	WRENCH COOL TUBE C8*

* Optional, should be ordered separately

CAMFIX

C#-ADES
Holders with CAMFIX Exchangeable Shanks for External Square Shank Tools



Designation	DCONMS	LPR	LSCWS	LF	B	BD	H	h2	CDI(1)
C4 ADES-20	40.00	85.00	54.00	71.00	20.0	90.00	20.0	26.0	1
C5 ADES-20	50.00	85.00	54.00	71.00	20.0	90.00	20.0	26.0	1

• Use the tools with AD suffix. Regular tools should be shortened.
(1) 1 - Hole for data chip, 0 - Without hole for data chip

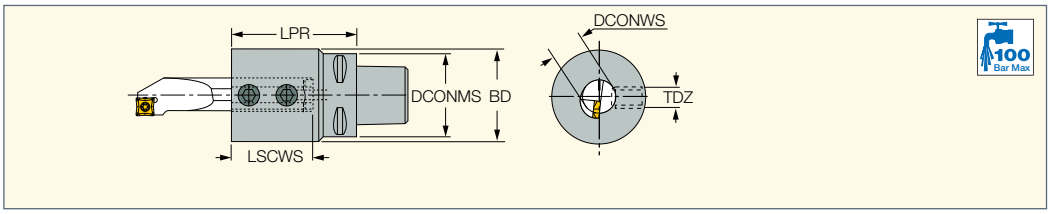
Spare Parts

Designation					
C4 ADES-20	SR M10X16	SR M8X6 DIN913	SATZ-M10X1-M5	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C5 ADES-20	SR M10X16	SR M8X6 DIN913	SATZ-M10X1-M5	COOLING TUBE C5*	WRENCH COOL TUBE C5*

* Optional, should be ordered separately

CAMFIX

C#-ADI
Holders with CAMFIX Exchangeable Shanks for Boring Bars

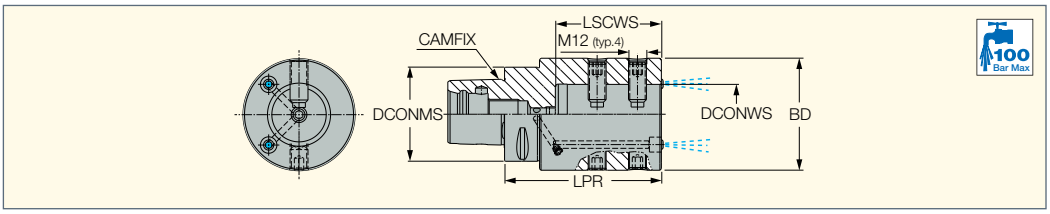


Designation	DCONMS	LPR	LSCWS	DCONWS	BD	TDZ	kg	CDI(1)				
C3 ADI 10	32.00	50.00	20.0	10.00	36.00	M6	0.30	0	SR M6X10 DIN1835B	HW 3.0*	COOLING TUBE C3*	WRENCH COOL TUBE C3*
C3 ADI 12	32.00	50.00	21.5	12.00	36.00	M8	0.30	0	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C3*	WRENCH COOL TUBE C3*
C3 ADI 16	32.00	50.00	29.5	16.00	36.00	M8	0.30	0	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C3*	WRENCH COOL TUBE C3*
C4 ADI 10	40.00	50.00	20.0	10.00	36.00	M6	0.47	1	SR M6X10 DIN1835B	HW 3.0*	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C4 ADI 12	40.00	50.00	24.0	12.00	36.00	M8	0.46	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C4 ADI 16	40.00	50.00	32.0	16.00	36.00	M8	0.43	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C4 ADI 20	40.00	60.00	40.0	20.00	36.00	M10	0.47	1	SR M10X12 DIN1835-B	HW 5.0*	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C4 ADI 25	40.00	70.00	45.0	25.00	54.00	M12	0.97	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C5 ADI 10	50.00	60.00	26.0	10.00	36.00	M6	0.73	1	SR M6X10 DIN1835B	HW 3.0*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ADI 12	50.00	60.00	26.0	12.00	36.00	M8	0.72	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ADI 16	50.00	60.00	32.0	16.00	36.00	M8	0.69	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ADI 20	50.00	60.00	40.0	20.00	36.00	M10	0.69	1	SR M10X12 DIN1835-B	HW 5.0*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ADI 25	50.00	70.00	50.0	25.00	54.00	M12	1.11	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ADI 32	50.00	100.00	76.0	32.00	68.00	M12	2.15	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C6 ADI 12	63.00	65.00	36.0	12.00	36.00	M8	1.07	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ADI 16	63.00	65.00	36.0	16.00	36.00	M8	1.05	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ADI 20	63.00	65.00	40.0	20.00	36.00	M10	1.00	1	SR M10X12 DIN1835-B	HW 5.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ADI 25	63.00	76.00	51.0	25.00	54.00	M12	0.80	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ADI 32	63.00	100.00	76.0	32.00	68.00	M12	2.44	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ADI 40	63.00	100.00	76.0	40.00	98.00	M12	4.47	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ADI 50	63.00	115.00	76.0	50.00	98.00	M12	4.80	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C8 ADI 12	80.00	70.00	36.0	12.00	36.00	M8	2.05	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C8*	WRENCH COOL TUBE C8*
C8 ADI 16	80.00	70.00	36.0	16.00	36.00	M8	2.00	1	SR M8X10 DIN1835-B	HW 4.0*	COOLING TUBE C8*	WRENCH COOL TUBE C8*
C8 ADI 20	80.00	70.00	40.0	20.00	36.00	M10	1.98	1	SR M10X12 DIN1835-B	HW 5.0*	COOLING TUBE C8*	WRENCH COOL TUBE C8*
C8 ADI 25	80.00	80.00	51.0	25.00	54.00	M12	2.43	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C8*	WRENCH COOL TUBE C8*
C8 ADI 32	80.00	110.00	86.0	32.00	68.00	M12	3.44	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C8*	WRENCH COOL TUBE C8*
C8 ADI 40	80.00	115.00	86.0	40.00	98.00	M12	5.81	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C8*	WRENCH COOL TUBE C8*
C8 ADI 50	80.00	115.00	86.0	50.00	98.00	M12	5.36	1	SR M12X16 DIN1835-B	HW 6.0*	COOLING TUBE C8*	WRENCH COOL TUBE C8*

• Use the tools with "AD" suffix • Regular tools should be shortened
(1) 1 - Hole for data chip, 0 - Without hole for data chip
* Optional, should be ordered separately

CAMFIX

C#-ABB
Adapters with CAMFIX Exchangeable Shanks for Boring Bars with Reduction Sleeves



Designation	DCONMS	DCONWS	BD	LPR	LSCWS	CDI(2)
C4 ABB 25-60	40.00	25.00	63.00	100.00	60.0	1
C5 ABB-25-60	50.00	25.00	63.00	100.00	60.0	1
C6 ABB-25-60	63.00	25.00	63.00	100.00	60.0	1
C6 ABB-40-70	63.00	40.00	75.00	105.00	71.0	1
C6ABB-25-60C (1)	63.00	25.00	63.00	95.00	60.0	1
C6ABB-40-70C (1)	63.00	40.00	75.00	105.00	71.0	1
C8 ABB 25-60	80.00	25.00	63.00	100.00	60.0	1
C8 ABB 40-72	80.00	40.00	75.00	105.00	71.0	1

• For SC reduction sleeves, see page 739
(1) Different coolant outlet position and number of screws
(2) 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

Designation								
C4 ABB 25-60	SR M10X12 DIN1835-B(a)	SR M10X20 DIN915(b)	SR M10X6DIN913(c)	HW 5.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C5 ABB-25-60	SR M10X12 DIN1835-B(a)	SR M10X20 DIN915(b)	SR M10X6DIN913(c)	HW 5.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C6 ABB-25-60	SR M10X12 DIN1835-B(a)	SR M10X20 DIN915(b)	SR M10X6DIN913(c)	HW 5.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ABB-40-70	SR M12X16 DIN1835-B(a)	SR M12X30 DIN915(b)	SR M10X6DIN913(c)	HW 6.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*		
C8 ABB 25-60	SR M10X12 DIN1835-B(a)	SR M10X20 DIN915(b)	SR M10X6DIN913(c)	HW 5.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C8*	WRENCH COOL TUBE C8*
C8 ABB 40-72	SR M12X16 DIN1835-B(a)	SR M12X30 DIN915(b)	SR M10X6DIN913(c)	HW 6.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	COOLING TUBE C8*	WRENCH COOL TUBE C8*

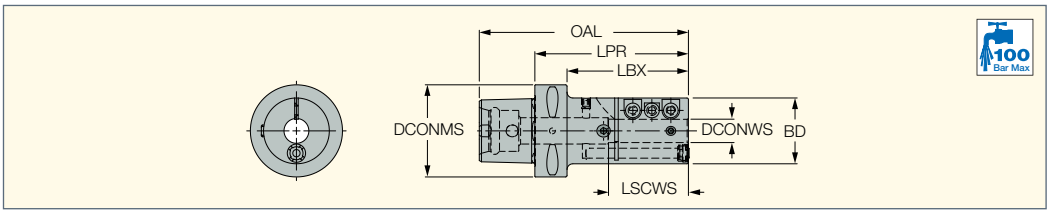
* Optional, should be ordered separately
(a) Used on A-type sleeves
(b) Used on B-type sleeves
(c) Rear stopper screw

CAMFIX

WHISPERLINE ANTI-VIBRATION

C#-AV-JHP

CAMFIX Holders for Anti-Vibration Tools

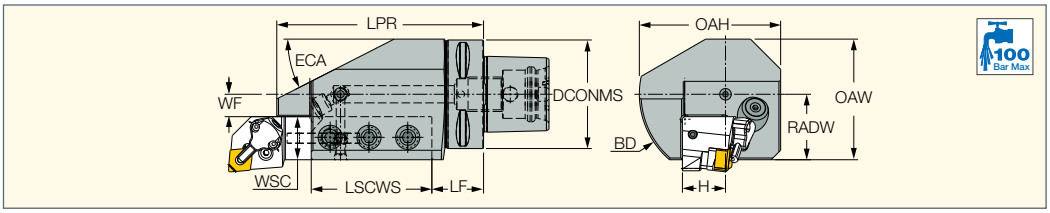


Designation	DCONMS	DCONWS	OAL	BD	LPR	LSCWS	LBX	kg
C6 AV-D16-JHP	63.00	16.00	143.00	45.00	105.00	55.00	83.00	1.57
C6 AV-D20-JHP	63.00	20.00	143.00	55.00	105.00	80.00	83.00	2.00
C6 AV-D25-JHP	63.00	25.00	143.00	55.00	105.00	80.00	83.00	1.89
C6 AV-D32-JHP	63.00	32.00	143.00	65.00	105.00	85.00	66.60	2.23
C6 AV-D40-JHP	63.00	40.00	143.00	75.00	105.00	85.00	64.00	2.49

CAMFIX

C#-ASHR/L-HPMC

Holders with CAMFIX Exchangeable Shanks for External Square Shank Tools with High-Pressure Multi-Connection



Designation	DCONMS	LPR	LSCWS	LF	WF	H	WSC	OAH	RADW	OAW	BD	ECA	CDI[1]
C6 ASHR/L 25-1 HPMC	63.00	120.00	70.00	30.00	13.00	25.0	25.0	82.00	38.00	70.00	100.00	27.0	1

[1] 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

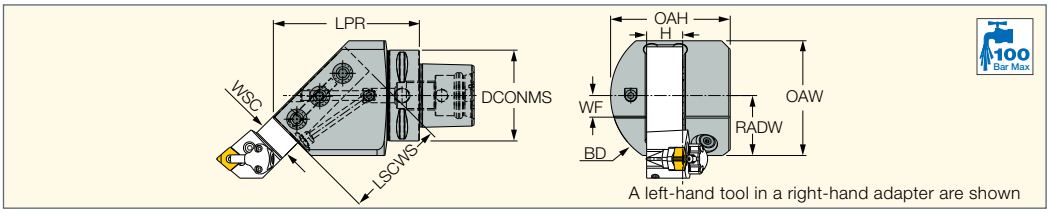
Designation								
C6 ASHR/L 25-1 HPMC	SATZ-M12X1-M6	SR M12X30 DIN915	SR M8X6 DIN913	SR M6X6 DIN913	HW 6.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH NOZZLE HP M12*

* Optional, should be ordered separately

CAMFIX

C#-ASHR/L-45-HPMC

Holders with CAMFIX Exchangeable Shanks Carrying Square Shank Tools for 45° Mounting on Turn-Mill Machines with HPMC



Designation	DCONMS	H	WSC	LSCWS	LPR	OAH	RADW	OAW	WF	BD	CDI[1]
C6 ASHR/L 25-45 HPMC	63.00	25.0	25.0	70.00	101.30	83.00	38.00	79.60	15.00	100.00	1

[1] 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

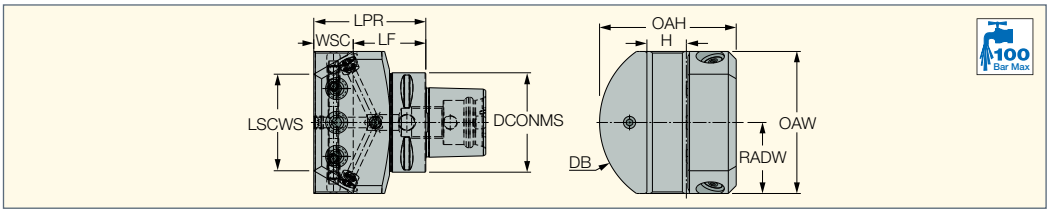
Designation								
C6 ASHR/L 25-45 HPMC	SATZ-M10X1-M5	SR M12X30 DIN915	SR M8X6 DIN913	SR M6X6 DIN913	HW 6.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH NOZZLE HP M10*

* Optional, should be ordered separately

CAMFIX

C#-ASHA-HPMC

Perpendicular Holders with CAMFIX Shanks for External Square Shank Tools with High-Pressure Multi-Connection



Designation	DCONMS	H	WSC	LPR	LSCWS	LF	RADW	OAW	OAH	BD	CDI[1]
C6 ASHA 25 HPMC	63.00	25.0	25.0	71.00	61.20	46.00	45.00	90.00	86.50	110.00	1

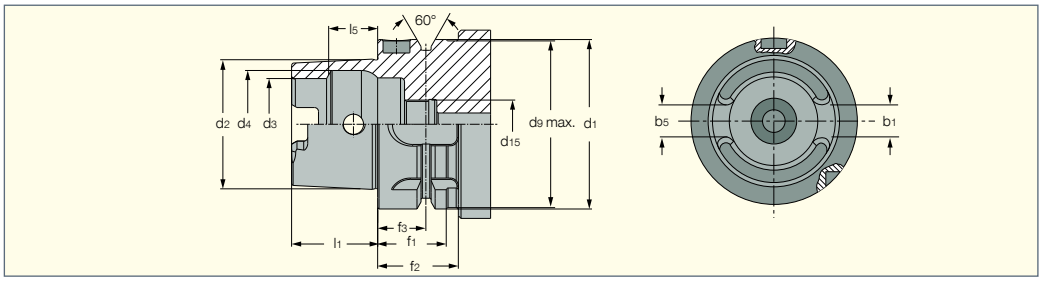
[1] 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

Designation									
C6 ASHA 25 HPMC	SATZ-M12X1-M6	SR M12X30 DIN915	SR M8X6 DIN913	SR M8X10 DIN913	SR M6X6 DIN913	HW 6.0*	COOLING TUBE C6*	WRENCH COOL TUBE C6*	WRENCH NOZZLE HP M12*

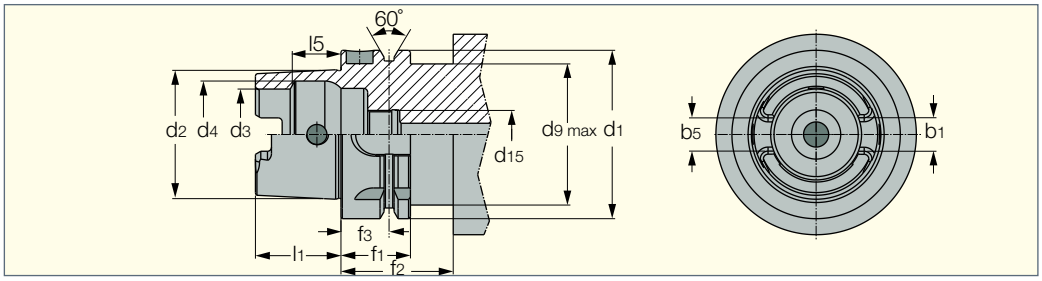
* Optional, should be ordered separately

HSK A WH Complies with ICTM Standards (ISO 12164-3)



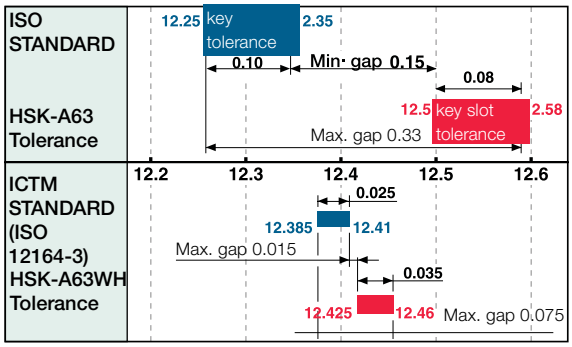
HSK-A WH	d1 h10	d2	d3 H10	d4 H11	d9 max	d15	l1-0.2	l5 Js10	b1±0.04	b5±0.035	f1 -0.1	f2 min	f3 ±0.1
63	63	48	34	40	62	M18X1	32	18.13	12.54	12.425	26	30	18
100	100	75	53	63	99	M24X1.5	50	28.56	20.02	19.91	29	34	20

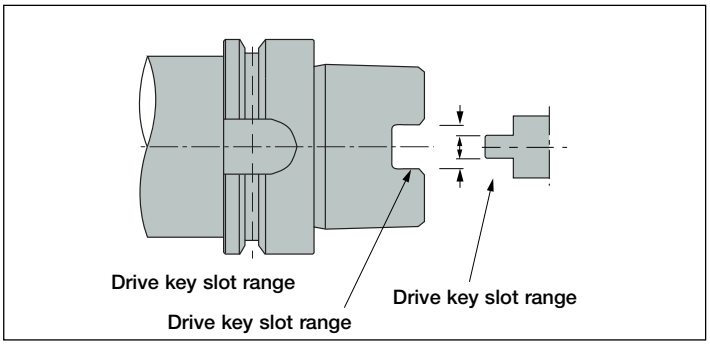
HSK A TM Suitable for all Multi-Tasking Machine Models



HSK A-TM	d1 h10	d2	d3 H10	d4 H11	d9 max	d15	l1-0.2	l5 JS10	b1±0.04	b5±0.035	f1-0.1	f2 min	f3±0.1
63	63	48	34	40	52.8	M18x1	32	18.13	12.54	12.425	26	42	18

HSK A vs. HSK A...WH Tolerance

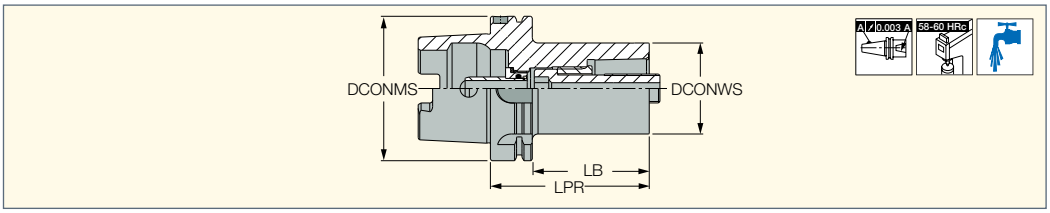




HSK CAMFIX

HSK-C#

CAMFIX (ISO 26623-1)
Holders with HSK DIN 69893
Form A Tapered Shanks



Designation	DCONMS	DCONWS	LPR	LB	kg
C4 AD HSK A63WHX080	63.00	40.00	80.00	54.00	1.10
C5 AD HSK A63WHX90	63.00	50.00	90.00	64.00	1.44
C5 AD HSK A100WHX100	100.00	50.00	100.00	71.00	2.90
C6 AD HSK A100-110	100.00	63.00	110.00	81.00	4.00
C6 AD HSK A100WHX110	100.00	63.00	110.00	81.00	3.61
C8 AD HSK A100WHX120	100.00	80.00	120.00	91.00	4.79

- Note: To enable clamping the part to be attached, first remove the cooling tube

Spare Parts

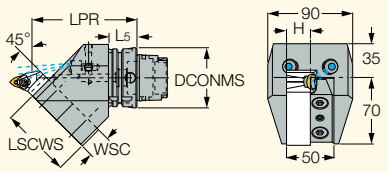
Designation						
C4 AD HSK A63WHX080	SR M14X58 C4	HW 8.0*	MT RING M22X17XC4	COOLING TUBE HSK A63 C5	WRENCH COOL TUBE HSK63*	WRENCH C4 DRW NUT*
C5 AD HSK A63WHX90	SR M16X70 C5	HW 10.0*	MT RING M25X20XC5	COOLING TUBE HSK A63 C5	WRENCH COOL TUBE HSK63*	WRENCH C5 DRW NUT*
C5 AD HSK A100WHX100	SR M16X70 C5	HW 10.0*	MT RING M25X20XC5	COOLING TUBE HSK A100	WRENCH COOL TUBE HSK100*	WRENCH C5 DRW NUT*
C6 AD HSK A100WHX110	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE HSK A100C6/8	WRENCH COOL TUBE HSK100*	WRENCH C6-8 DRW NUT*
C8 AD HSK A100WHX120	SR M20X87 C6/8	HW 14.0*	MT RING M30X24XC6/8	COOLING TUBE HSK A100C6/8	WRENCH COOL TUBE HSK100*	WRENCH C6-8 DRW NUT*

* Optional, should be ordered separately

HSK

HSK A63WH-ASHN-45

Square Shank Tool Adapters with HSK Exchangeable Shanks for 45° Mounting on Turn-Mill Machines



Right-hand shown

Designation	DCONMS	H	WSC	LPR	LSCWS	L5	CDI[2]				
HSK A63WH ASHN 25 45 [1]	63.00	25.0	25.0	121.00	72.00	42.00	1	SR M10X25 DIN912	SR M8X20 DIN916	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)
- For using left-hand toolholder, the position of the clamping spacer must be changed
- Complies with ICTM standard (ISO 12164-3)

[1] Not suitable for ATC (automatic tool changer) on some multi-tasking machine models, please consult your MTB

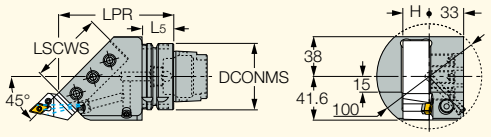
[2] 1 - Hole for data chip, 0 - Without hole for data chip

* Optional, should be ordered separately

HSK

HSK A63WH-ASHR/L-45

Square Shank Tool Adapters with HSK-T Exchangeable Shanks for 45° Mounting on Turn-Mill Machines



A left-hand tool in a right-hand adapter are shown

Designation	DCONMS	H	LPR	LSCWS	L5	CDI[2]			
HSK A63WH ASHR/L 25 45 [1]	63.00	25.0	110.00	70.00	30.00	1	SR M12X30 DIN915	SATZ-M10X1-M5	WRENCH NOZZLE HP M10*

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)
- Complies with ICTM standard (ISO 12164-3)

[1] Not suitable for ATC (automatic tool changer) on some multi-tasking machine models, please consult your MTB

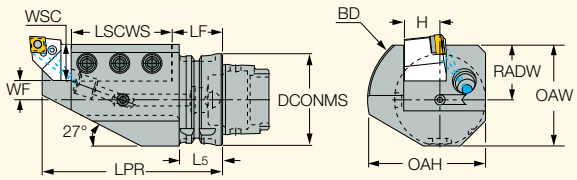
[2] 1 - Hole for data chip, 0 - Without hole for data chip

* Optional, should be ordered separately

HSK

HSK A-WH-ASHR/L-1

Square Shank Tool Adapters with HSK Exchangeable Shanks for Turn-Mill Machines



Left-hand shown

Designation	DCONMS	H	WSC	WF	LPR	LSCWS	LF	L5	OAH	RADW	OAW	BD	CDI[1]
HSK A63WH ASHR/L 25 1	63.00	25.0	25.0	13.00	125.00	70.00	35.00	30.00	82.00	38.0	70.00	100.00	1
HSK A100WH ASHR/L 32 1	100.00	32.0	32.0	8.00	145.00	90.00	45.00	38.00	85.00	40.0	84.00	100.00	1

- Complies with ICTM standard (ISO 12164-3)
- Not suitable for ATC (automatic tool changer) on some multi-tasking machine models, please consult your MTB
- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

[1] 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

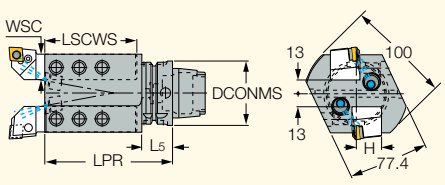
Designation				
HSK A-WH-ASHR/L-1	SR M12X30 DIN915	HW 6.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*

* Optional, should be ordered separately

HSK

HSK A63WH-ASHR/L-2

Twin Square Shank Tool Adapters with HSK Exchangeable Shanks for Turn-Mill Machines



Left-hand shown

Designation	DCONMS	H	WSC	LPR	LSCWS	L5	CDI[2]			
HSK A63WH ASHR/L 25 2 [1]	63.00	25.0	25.0	125.00	95.00	30.00	1	SR M12X30 DIN915	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*

- Complies with ICTM standard (ISO 12164-3)
- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

[1] Not suitable for ATC (automatic tool changer) on some multi-tasking machine models, please consult your MTB

[2] 1 - Hole for data chip, 0 - Without hole for data chip

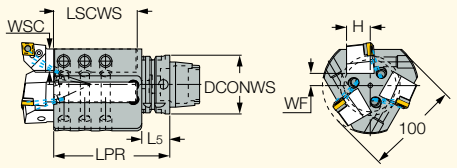
* Optional, should be ordered separately

For tools, see pages: PCLXR/L-JHP (52) • SER/L-JHP (701)

HSK

HSK A63WH-ASHR/L-3

Triple Square Shank Tool Adapters with HSK Exchangeable Shanks for Mounting on Turn-Mill Machines



Left-hand shown

Designation	DCONMS	H	WSC	WF	LPR	LSCWS	L5	CDI[2]		
HSK A63WH ASHR/L 25 3 [1]	63.00	25.0	25.0	13.00	125.00	90.00	30.00	1	SR M12X30 DIN915	SATZ-M8X1-M3

- Complies with ICTM standard (ISO 12164-3)
- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

[1] Not suitable for ATC (automatic tool changer) on some multi-tasking machine models, please consult your MTB

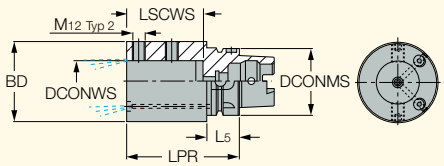
[2] 1 - Hole for data chip, 0 - Without hole for data chip

For tools, see pages: SER/L-JHP (701)

HSK

HSK A-WH ABB

Adapters with HSK Exchangeable Shanks for Boring Bars with Reduction Sleeves



Designation	DCONMS	BD	DCONWS	LPR	LSCWS	L5	CDI[1]
HSK A63WH ABB 40	63.00	75.00	40.00	105.00	71.0	30.00	1
HSK A100WH ABB 40	100.00	82.00	40.00	115.00	71.0	29.00	1
HSK A100WH ABB 50	100.00	92.00	50.00	125.00	83.0	29.00	1

- Complies with ICTM standard (ISO 12164-3)
- Not suitable for ATC (automatic tool changer) on some multi-tasking machine models, please consult your MTB
- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

[1] 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

Designation						
HSK A-WH ABB	SR M12X16 DIN1835-B[a]	SR M12X30 DIN915[b]	SR M10X6DIN913[c]	HW 6.0*	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*

* Optional, should be ordered separately

[a] Used on A-type sleeves

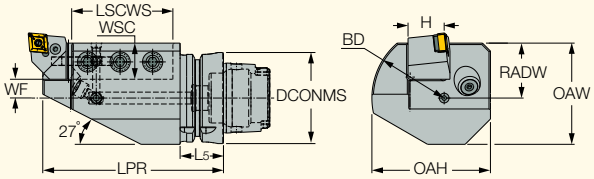
[b] Used on B type sleeves

[c] Rear stopper screw

HSK

HSK A63WH-ASHR/L-HPMC

Holders with HSK Exchangeable Shanks for External Square Shank Tools with High-Pressure Multi-Connection



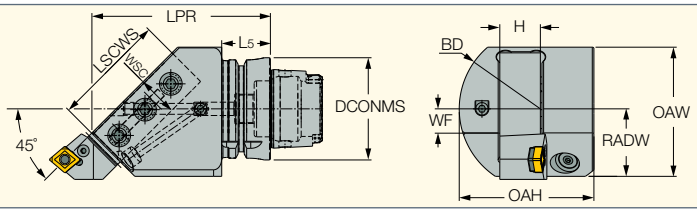
Designation	DCONMS	LPR	LSCWS	L5	WF	H	WSC	OAH	RADW	OAW	BD	CDI[1]
HSK A63WH ASHR/L25-1 HPMC	63.00	125.00	70.00	30.00	13.00	25.0	25.0	82.00	38.00	70.00	100.00	1

[1] 1 - Hole for data chip, 0 - Without hole for data chip

HSK

HSK A63WH-ASHR/L-45-HPMC

Holders with HSK Exchangeable Shanks Carrying Square Shank Tools for 45° Mounting on Turn-Mill Machines with HPMC



Designation	DCONMS	H	WSC	LSCWS	LPR	L5	OAH	RADW	OAW	WF	BD	CDI[1]
HSK A63WH ASHR/L25-45 HPMC	63.00	25.0	25.0	70.00	110.00	30.00	83.00	41.60	79.60	15.00	100.00	1

[1] 1 - Hole for data chip, 0 - Without hole for data chip

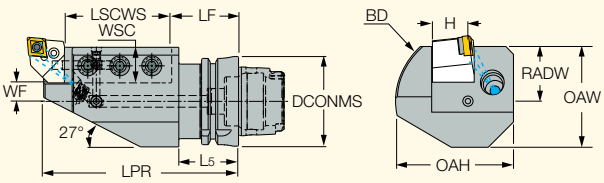
Spare Parts

Designation		
HSK A63WH ASHL25-45 HPMC	SR M6X6 DIN913	SR M12X30 DIN915
HSK A63WH ASHR25-45 HPMC	SR M6X6 DIN913	SR M8X6 DIN913

HSK

HSK A-TM-ASHR/L-1-HPMC

Square Shank Tool Adapters with HSK Exchangeable Shanks for Multi-Tasking Machines with High-Pressure Coolant Channels



Left-hand tool shown

Designation	DCONMS	H	WSC	WF	LPR	LSCWS	LF	L5	OAH	RADW	OAW	BD	CDI(1)
HSK A63TM ASHR/L 25 1 HPMC	63.00	25.0	25.0	13.00	137.00	70.00	47.00	42.00	82.00	38.0	70.00	100.00	1

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

(1) 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

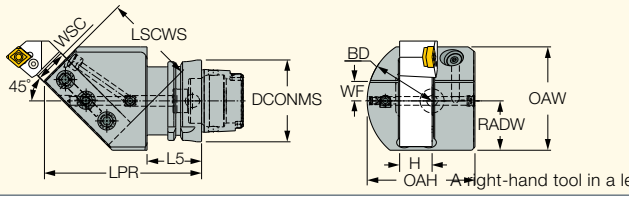
Designation					
HSK A63TM ASHR/L 25 1 HPMC	SR M12X30 DIN915	SR M8X6 DIN913	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	SR M6X6 DIN913

* Optional, should be ordered separately

HSK

HSK A63TM-ASHR/L-45-HPMC

Square Shank Tool Adapters with HSK-T Exchangeable Shanks for 45° Mounting on Multi-Tasking Machines



A right-hand tool in a left-hand adapter are shown

Designation	DCONMS	H	WSC	WF	LPR	LSCWS	L5	OAH	RADW	OAW	BD	CDI(1)
HSK A63TM ASHR/L 25 45 HPMC	63.00	25.0	25.0	15.00	121.00	70.00	42.00	58.00	38.00	79.60	100.00	1

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

(1) 1 - Hole for data chip, 0 - Without hole for data chip

Spare Parts

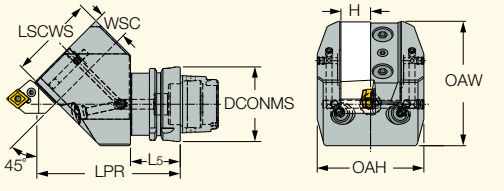
Designation					
HSK A63TM ASHR/L 25 45 HPMC	SR M12X30 DIN915	SR M8X6 DIN913	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	SR M6X6 DIN913

* Optional, should be ordered separately

HSK

HSK A63TM-ASHN-45-HPMC

Square Shank Tool Adapters with HSK Exchangeable Shanks for 45° Mounting on Multi-Tasking Machines



Left-hand shown

Designation	DCONMS	H	WSC	LPR	LSCWS	L5	OAH	OAW	CDI(1)
HSK A63TM ASHN 25 45 HPMC	63.00	25.0	25.0	121.00	72.00	42.00	90.00	105.00	1

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)
- For using left-hand toolholder, the position of the clamping spacer must be changed

(1) 1 - Hole for data chip, 0 - Without hole for data chip

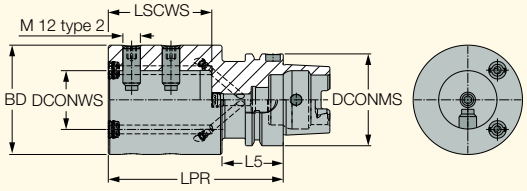
Spare Parts

Designation							
HSK A63TM ASHN 25 45 HPMC	SR M10X25 DIN912	SR M8X20 DIN916	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	SPRING PIN DIN 1481 3X5	SR M8X6 DIN913	SR M6X6 DIN913

* Optional, should be ordered separately

HSK

HSK A63TM ABB
Adapters with HSK Exchangeable Shanks for Boring Bars with Reduction Sleeves



Designation	DCONMS	DCONWS	BD	LPR	LSCWS	L5	CDI(1)
HSK A63TM ABB 40	63.00	40.00	100.00	120.00	71.0	42.00	1

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately) • For SC reduction sleeves, see page 739

(1) 1 - Hole for data chip, 0 - Without hole for data chip

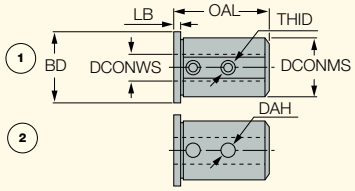
Spare Parts

Designation						
HSK A63TM ABB 40	SR M12X30 DIN915	SR M12X16 DIN1835-B	SATZ-M12X1-M6	WRENCH NOZZLE HP M12*	SR M10X6DIN913	SR M5X4 DIN913

* Optional, should be ordered separately

Accessories

SC-T (sleeves)
Reduction Sleeves for Holders with Exchangeable Adaptation



Designation	DCONMS	DCONWS	BD	OAL	LB	THID	DAH	Fig.		
SC 32T10A	32.00	10.00	39.00	70.00	8.00	M6	-	1		
SC 32T12A	32.00	12.00	39.00	70.00	8.00	M6	-	1		
SC 32T16A	32.00	16.00	39.00	70.00	8.00	M6	-	1		
SC 32T20A	32.00	20.00	39.00	70.00	8.00	M6	-	1		
SC 32T25B	32.00	25.00	39.00	80.00	15.00	M8	-	1		
SC 25T10A	25.00	10.00	31.00	62.00	6.00	M8	-	1	SR M8X6 DIN916	HW 4.0*
SC 25T12A	25.00	12.00	31.00	62.00	6.00	M8	-	1	SR M8X6 DIN916	HW 4.0*
SC 25T16B	25.00	16.00	31.00	62.00	6.00	-	12.00	2		
SC 25T20B	25.00	20.00	31.00	62.00	6.00	-	12.00	2		
SC 25T6A	25.00	6.00	31.00	62.00	6.00	M6	-	1	SR M6X6 DIN916	HW 3.0*
SC 25T8A	25.00	8.00	31.00	62.00	6.00	M8	-	1	SR M8X6 DIN916	HW 4.0*
SC 40T10A	40.00	10.00	46.00	66.00	6.00	M8	-	1	SR M8X10 DIN1835-B	HW 4.0*
SC 40T12A	40.00	12.00	46.00	66.00	6.00	M8	-	1	SR M8X10 DIN1835-B	HW 4.0*
SC 40T16B	40.00	16.00	46.00	66.00	6.00	-	15.00	2		
SC 40T20B	40.00	20.00	46.00	66.00	6.00	-	15.00	2		
SC 40T25B	40.00	25.00	46.00	66.00	6.00	-	15.00	2		
SC 40T32B	40.00	32.00	46.00	66.00	6.00	-	15.00	2		
SC 40T6A	40.00	6.00	46.00	66.00	6.00	M6	-	1	SR M6X10 DIN1835B	HW 3.0*
SC 40T8A	40.00	8.00	46.00	66.00	6.00	M6	-	1	SR M8X10 DIN1835-B	HW 4.0*
SC 50 T40B	50.00	40.00	56.00	86.00	6.00	-	15.00	2		
SC 50T10A	50.00	10.00	56.00	76.00	6.00	M8	-	1	SR M8X6 DIN916	HW 4.0*
SC 50T12A	50.00	12.00	56.00	76.00	6.00	M8	-	1	SR M8X6 DIN916	HW 4.0*
SC 50T16B	50.00	16.00	56.00	86.00	6.00	-	15.00	2		
SC 50T20B	50.00	20.00	56.00	86.00	6.00	-	15.00	2		
SC 50T25B	50.00	25.00	56.00	86.00	6.00	-	15.00	2		
SC 50T32B	50.00	32.00	56.00	86.00	6.00	-	15.00	2		
SC 50T6A	50.00	6.00	56.00	76.00	6.00	M6	-	1	SR M6X6 DIN916	HW 3.0*
SC 50T8A	50.00	8.00	56.00	76.00	6.00	M8	-	1	SR M8X6 DIN916	HW 4.0*

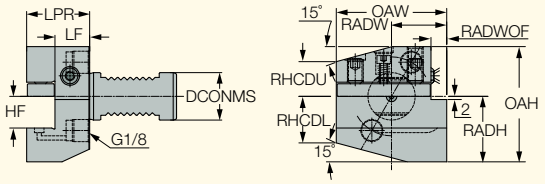
* Optional, should be ordered separately

TOOL BLOCKS

VDI-B1/B4A-JHPMC

Radially Oriented, Short, Right-Hand Holders with VDI DIN69880 Shanks for Square Shank Tools





Designation	DCONMS	HF	LPR	OAW	RADW	RADWOF	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI16 B1A-161234-JHPMC	16.00	12.0	34.00	42.00	23.00	5.00	16.00	15.00	22.00	42.00	0
VDI16 B4A-161234-JHPMC	16.00	12.0	34.00	42.00	23.00	5.00	16.00	15.00	22.00	42.00	0
VDI20 B1A-201640-JHPMC	20.00	16.0	40.00	55.00	30.00	7.00	19.00	19.00	30.00	55.00	0
VDI20 B4A-201640-JHPMC	20.00	16.0	40.00	55.00	30.00	7.00	19.00	19.00	30.00	55.00	0
VDI25 B1A-252040-JHPMC	25.00	20.0	40.00	70.00	35.00	10.00	29.50	22.00	38.50	70.00	0
VDI30 B1B4A-302040-JHPMC	30.00	20.0	40.00	70.00	35.00	10.00	29.50	22.00	41.50	73.00	0
VDI40 B1B4A-402544-JHPMC	40.00	25.0	44.00	85.00	42.50	12.50	35.00	30.00	48.00	86.00	0
VDI50 B1B4A-502544-JHPMC	50.00	25.0	44.00	85.00	42.50	12.50	43.00	30.00	48.00	91.00	0

- Form B1 radial R.H. short, form B4 radial overhead L.H. short.

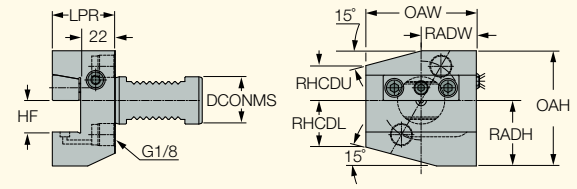
(1) 1 - Hole for data chip, 0 - Without hole for data chip

TOOL BLOCKS

VDI-B1/B4AK-JHPMC

Radially Oriented, Short, Right-Hand, Wedge Clamping Holders with VDI DIN69880 Shanks for Square Shank Tools





Designation	DCONMS	HF	LPR	OAW	RADW	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI30 B1B4AK-302040-JHPMC	30.00	20.0	40.00	70.00	35.00	29.50	22.00	41.50	73.00	0
VDI40 B1B4AK-402544-JHPMC	40.00	25.0	44.00	85.00	42.50	35.00	30.00	48.00	86.00	0
VDI50 B1B4AK-502544-JHPMC	50.00	25.0	44.00	85.00	42.50	43.00	30.00	48.00	91.00	0

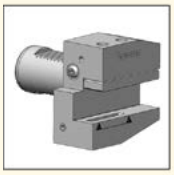
- Form B1 radial R.H. short, form B4 radial overhead L.H. short.

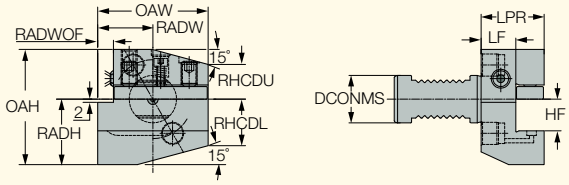
(1) 1 - Hole for data chip, 0 - Without hole for data chip

TOOL BLOCKS

VDI-B2/B3A-JHPMC

Radially Oriented, Short, Left-Hand Holders with VDI DIN69880 Shanks for Square Shank Tools





Designation	DCONMS	HF	LPR	OAW	RADW	RADWOF	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI16 B2A-161234-JHPMC	16.00	12.0	34.00	42.00	23.00	5.00	16.00	15.00	22.00	42.00	0
VDI16 B3A-161234-JHPMC	16.00	12.0	34.00	42.00	23.00	5.00	16.00	15.00	22.00	42.00	0
VDI20 B2A-201640-JHPMC	20.00	16.0	40.00	55.00	30.00	7.00	19.00	19.00	30.00	55.00	0
VDI20 B3A-201640-JHPMC	20.00	16.0	40.00	55.00	30.00	7.00	19.00	19.00	30.00	55.00	0
VDI25 B2A-252040-JHPMC	25.00	20.0	40.00	70.00	35.00	10.00	29.50	22.00	38.50	70.00	0
VDI30 B2B3A-302040-JHPMC	30.00	20.0	40.00	70.00	35.00	10.00	29.50	27.00	41.50	73.00	0
VDI40 B2B3A-402544-JHPMC	40.00	25.0	44.00	85.00	42.50	12.50	35.00	30.00	48.00	86.00	0
VDI50 B2B3A-502544-JHPMC	50.00	25.0	44.00	85.00	42.50	12.50	43.00	38.00	48.00	91.00	0

- Form B2 radial L.H. short, form B3 radial overhead R.H. short.

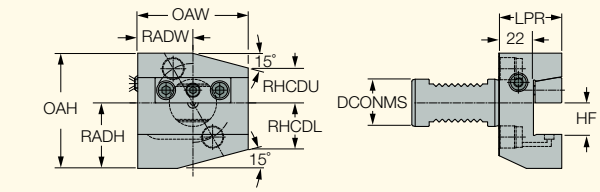
(1) 1 - Hole for data chip, 0 - Without hole for data chip

TOOL BLOCKS

VDI-B2/B3AK-JHPMC

Radially Oriented, Short, Left-Hand, Wedge Clamping Holders with VDI DIN69880 Shanks for Square Shank Tools





Designation	DCONMS	HF	LPR	OAW	RADW	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI30 B2B3AK-302040-JHPMC	30.00	20.0	40.00	70.00	35.00	29.50	27.00	41.50	73.00	0
VDI40 B2B3AK-402544-JHPMC	40.00	25.0	44.00	85.00	42.50	35.00	30.00	48.00	86.00	0
VDI50 B2B3AK-502544-JHPMC	50.00	25.0	44.00	85.00	42.50	35.00	38.00	48.00	91.00	0

- Form B2 radial L.H. short, form B3 radial overhead R.H. short.

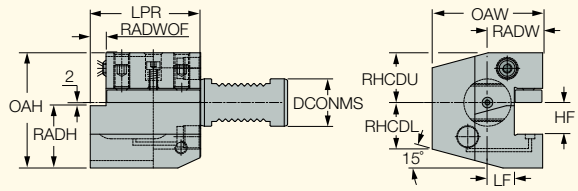
(1) 1 - Hole for data chip, 0 - Without hole for data chip

TOOL BLOCKS

VDI-C1/C4A-JHPMC

Axially Oriented, Short, Right-Hand Holders with VDI DIN69880 Shanks for Square Shank Tools





Designation	DCONMS	HF	LPR	OAW	RADW	LF	RADWOF	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI16 C1C4A-161244-JHPMC	16.00	12.0	44.00	43.00	5.00	13.00	5.00	15.00	15.00	23.00	45.00	0
VDI20 C1C4A-201655-JHPMC	20.00	16.0	55.00	52.00	7.00	13.00	7.00	19.00	19.00	23.00	55.00	0
VDI25 C1C4A-252055-JHPMC	25.00	20.0	55.00	58.00	33.00	13.00	7.00	26.00	28.00	36.00	66.00	0
VDI30 C1C4A-302070-JHPMC	30.00	20.0	70.00	70.00	35.00	17.00	10.00	26.00	22.00	38.00	70.00	0
VDI40 C1C4A-402585-JHPMC	40.00	25.0	85.00	85.00	42.50	21.00	12.50	35.00	30.00	48.00	86.00	0
VDI50 C1C4A-502585-JHPMC	50.00	25.0	85.00	90.50	48.00	26.00	12.50	42.00	35.00	48.00	92.00	0

- Form C1 axial R.H., form C4 axial overhead L.H. short.

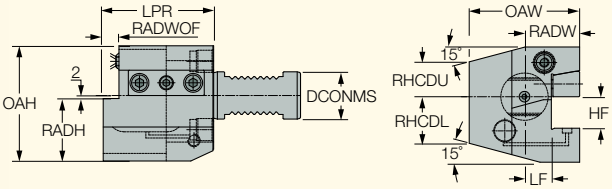
(1) 1 - Hole for data chip, 0 - Without hole for data chip

TOOL BLOCKS

VDI-C1/C4AK-JHPMC

Axially Oriented, Short, Right-Hand, Wedge Clamping Holders with VDI DIN69880 Shanks for Square Shank Tools





Designation	DCONMS	HF	LPR	OAW	RADW	LF	RADWOF	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI30 C1C4AK-302070-JHPMC	30.00	20.0	70.00	70.00	35.00	17.00	10.00	26.00	22.00	38.00	70.00	0
VDI40 C1C4AK-402585-JHPMC	40.00	25.0	85.00	85.00	42.50	21.00	12.50	35.00	30.00	48.00	86.00	0
VDI50 C1C4AK-502585-JHPMC	50.00	25.0	85.00	90.50	48.00	26.00	12.50	42.00	35.00	48.00	92.00	0

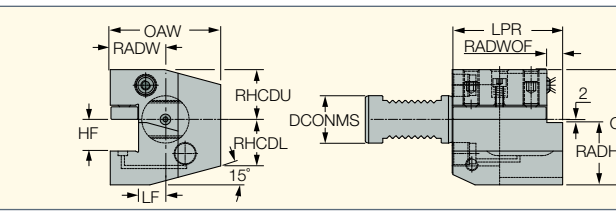
- Form C1 axial R.H., form C4 axial overhead L.H. short.

(1) 1 - Hole for data chip, 0 - Without hole for data chip

TOOL BLOCKS

VDI-C2/C3A-JHPMC

Axially Oriented, Short, Left-Hand Holders with VDI DIN69880 Shanks for Square Shank Tools



Designation	DCONMS	HF	LPR	OAW	RADW	LF	RADWOF	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI16 C2C3A-161244-JHPMC	16.00	12.0	44.00	43.00	24.00	13.00	5.00	15.00	15.00	23.00	45.00	0
VDI20 C2C3A-201655-JHPMC	20.00	16.0	55.00	58.00	33.00	19.00	7.00	19.00	19.00	28.00	55.00	0
VDI25 C2C3A-252055-JHPMC	25.00	20.0	55.00	52.00	37.00	15.00	7.00	38.00	38.00	36.00	66.00	0
VDI30 C2C3A-302070-JHPMC	30.00	20.0	70.00	76.00	41.00	17.00	10.00	26.00	26.00	38.00	70.00	0
VDI40 C2C3A-402585-JHPMC	40.00	25.0	85.00	90.00	47.50	21.00	12.50	35.00	30.00	48.00	86.00	0
VDI50 C2C3A-502585-JHPMC	50.00	25.0	85.00	95.00	52.50	26.00	12.50	42.00	37.00	48.00	92.00	0

- Form C2 axial L.H., form C3 axial overhead R.H. short.

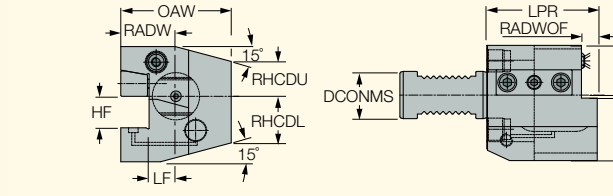
(1) 1 - Hole for data chip, 0 - Without hole for data chip

TOOL BLOCKS

VDI-C2/C3AK-JHPMC

Axially Oriented, Short, Left-Hand, Wedge Clamping Holders with VDI DIN69880 Shanks for Square Shank Tools





Designation	DCONMS	HF	LPR	OAW	RADW	LF	RADWOF	RHCDL	RHCDU	RADH	OAH	CDI(1)
VDI30 C2C3AK-302070-JHPMC	30.00	20.0	70.00	76.00	41.00	17.00	10.00	26.00	22.00	38.00	70.00	0
VDI40 C2C3AK-402585-JHPMC	40.00	25.0	85.00	90.00	47.50	21.00	12.50	35.00	30.00	48.00	86.00	0
VDI50 C2C3AK-502585-JHPMC	50.00	25.0	85.00	65.00	52.50	26.00	12.50	42.00	35.00	48.00	92.00	0

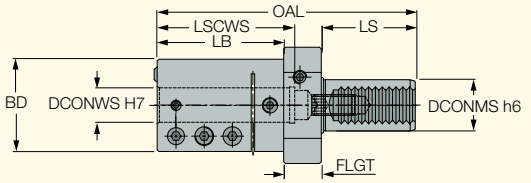
- Form C2 axial L.H., form C3 axial overhead R.H. short.

(1) 1 - Hole for data chip, 0 - Without hole for data chip

WHISPERLINE ANTI-VIBRATION

VDI AV-JHP

VDI Holders For
Anti-Vibration Tools

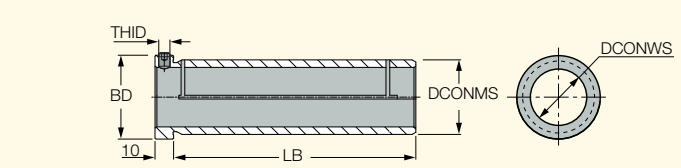


Designation	DCONMS	DCONWS	OAL	LS	BD	DF	LSCWS	LB	FLGT	OAH
VDI30 AV-D16-JHP	30.00	16.00	143.00	55.0	50.00	68.00	70.00	66.0	22.00	56.00
VDI30 AV-D20-JHP	30.00	20.00	151.00	55.0	54.00	68.00	80.00	74.0	22.00	56.00
VDI30 AV-D25-JHP	30.00	25.00	167.00	55.0	58.00	68.00	100.00	90.0	22.00	56.00
VDI30 AV-D32-JHP	30.00	32.00	197.00	55.0	63.00	68.00	128.00	120.0	22.00	56.00
VDI40 AV-D16-JHP	40.00	16.00	151.00	63.0	50.00	83.00	70.00	66.0	22.00	65.00
VDI40 AV-D20-JHP	40.00	20.00	159.00	63.0	54.00	83.00	80.00	74.0	22.00	65.00
VDI40 AV-D25-JHP	40.00	25.00	175.00	63.0	58.00	83.00	100.00	90.0	22.00	65.00
VDI40 AV-D32-JHP	40.00	32.00	205.00	63.0	63.00	83.00	128.00	120.0	22.00	65.00
VDI40 AV-D40-JHP	40.00	40.00	237.00	63.0	73.00	83.00	150.00	152.0	22.00	65.00
VDI50 AV-D16-JHP	50.00	16.00	181.00	78.0	50.00	98.00	85.00	81.0	22.00	70.00
VDI50 AV-D20-JHP	50.00	20.00	181.00	78.0	54.00	98.00	89.00	73.0	30.00	70.00
VDI50 AV-D25-JHP	50.00	25.00	198.00	78.0	59.00	98.00	106.00	90.0	30.00	70.00
VDI50 AV-D32-JHP	50.00	32.00	228.00	78.0	65.00	98.00	128.00	120.0	30.00	70.00
VDI50 AV-D40-JHP	50.00	40.00	260.00	78.0	73.00	98.00	160.00	152.0	30.00	70.00
VDI50 AV-D50-JHP	50.00	50.00	260.00	78.0	83.00	98.00	160.00	152.0	30.00	70.00
VDI60 AV-D25-JHP	60.00	25.00	214.00	94.0	59.00	123.00	106.00	90.0	30.00	85.00
VDI60 AV-D32-JHP	60.00	32.00	244.00	94.0	65.00	123.00	128.00	120.0	30.00	85.00
VDI60 AV-D40-JHP	60.00	40.00	276.00	94.0	73.00	123.00	160.00	152.0	30.00	85.00
VDI60 AV-D50-JHP	60.00	50.00	296.00	94.0	83.00	123.00	180.00	172.0	30.00	85.00
VDI60 AV-D60-JHP	60.00	60.00	296.00	94.0	102.00	123.00	180.00	172.0	30.00	85.00

WHISPERLINE ANTI-VIBRATION

AV FLEX-SLEEVE

Reduction Sleeves for Tool
Blocks and VDI Holders

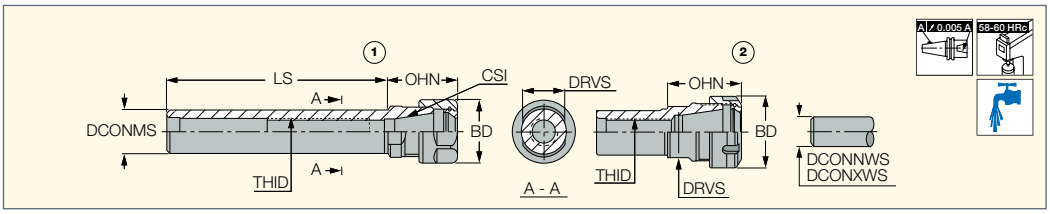


Designation	DCONMS	DCONWS	BD	LB	THID
RED PU1S-AV-3225	32.00	25.00	37.00	115.00	M6
RED PU1S-AV-4032	40.00	32.00	45.00	127.00	M6
RED PU1S-AV-5040	50.00	40.00	55.00	127.00	M6
RED PU1S-AV-6050	60.00	50.00	65.00	154.00	M6



Straight Shank

ST-ER
DIN 6499 ER Collet Chucks
with Straight Shanks



Designation	DCONMS	CSI	DCONNWS(1)	DCONXWS(2)	LS	OHN(3)	THID	BD	DRVS(4)	Fig.	kg
ST 16X 50 ER11 F	16.00	ER11	0.5	7.0	50.00	18.50	M8	19.00	13.0	1.	0.06
ST 20X 50 ER11 F	20.00	ER11	0.5	7.0	50.00	18.50	M10	19.00	17.0	1.	0.10
ST 20X100 ER11	20.00	ER11	0.5	7.0	100.00	18.50	M10	19.00	17.0	1.	0.20
ST 20X150 ER11	20.00	ER11	0.5	7.0	150.00	18.50	M10	19.00	17.0	1.	0.25
ST 20X 50 ER16 F	20.00	ER16	0.5	10.0	50.00	32.30	M12	28.00	19.0	1.	0.07
ST 20X100 ER16	20.00	ER16	0.5	10.0	100.00	30.00	M12	28.00	19.0	1.	0.20
ST 20X100 ER16 F	20.00	ER16	0.5	10.0	100.00	30.00	M12	28.00	19.0	1.	0.25
ST 20X150 ER16	20.00	ER16	0.5	10.0	150.00	30.00	M12	28.00	19.0	1.	0.28
ST 20X 50 ER20 F	20.00	ER20	1.0	13.0	50.00	42.50	M12	34.00	22.0	1.	0.15
ST 25X100 ER20	25.00	ER20	1.0	13.0	100.00	36.00	M16	34.00	22.0	1.	0.30
ST 25X150 ER20	25.00	ER20	1.0	13.0	150.00	36.00	M16	34.00	22.0	1.	0.39
ST 20X 50 ER25 F	20.00	ER25	1.0	16.0	50.00	46.00	M12	42.00	28.0	2.	0.34
ST 20X100 ER25	20.00	ER25	1.0	16.0	100.00	46.00	M12	42.00	28.0	2.	0.29
ST 20X100 ER25 F	20.00	ER25	1.0	16.0	100.00	46.00	M12	42.00	28.0	2.	0.09
ST 25X 50 ER25 F	25.00	ER25	1.0	16.0	50.00	46.00	M16	42.00	28.0	2.	0.22
ST 25X100 ER25	25.00	ER25	1.0	16.0	100.00	46.00	M16	42.00	28.0	2.	0.36
ST 20X 50 ER32 F	20.00	ER32	2.0	20.0	50.00	54.00	M12	50.00	36.0	2.	0.30
ST 20X100 ER32	20.00	ER32	2.0	20.0	100.00	54.00	M12	50.00	36.0	2.	0.40
ST 25X 50 ER32 F	25.00	ER32	2.0	20.0	50.00	52.00	M16X2	50.00	36.0	2.	0.32
ST 30X 50 ER32 F	30.00	ER32	2.0	20.0	50.00	52.00	M18X1.5	50.00	36.0	2.	0.39
ST 32X 50 ER32 F	32.00	ER32	2.0	20.0	50.00	52.00	M18X1.5	50.00	36.0	2.	0.42
ST 32X150 ER32	32.00	ER32	2.0	20.0	150.00	52.00	M18X1.5	50.00	36.0	2.	0.88
ST 40X 75 ER32 F	40.00	ER32	2.0	20.0	75.00	46.00	M22X1.5	50.00	44.0	2.	0.72
ST 25X 50 ER40 F	25.00	ER40	3.0	26.0	50.00	60.00	M16X2	63.00	45.0	2.	0.52
ST 30X 50 ER40 F	30.00	ER40	3.0	26.0	50.00	60.00	M18X1.5	63.00	45.0	2.	0.57
ST 32X 50 ER40 F	32.00	ER40	3.0	26.0	50.00	60.00	M18X1.5	63.00	45.0	2.	0.80
ST 40X 75 ER40 F	40.00	ER40	3.0	26.0	75.00	55.00	M22X1.5	63.00	45.0	2.	0.94
ST 50X 80 ER40 F	50.00	ER40	3.0	26.0	80.00	60.00	M28X1.5	63.00	54.0	2.	1.30
ST 50X 80 ER50 F	50.00	ER50	10.0	34.0	80.00	77.00	M36X1.5	78.00	58.0	2.	1.32

(1) Minimum diameter (2) Maximum diameter (3) Minimum overhang (4) Torque key size

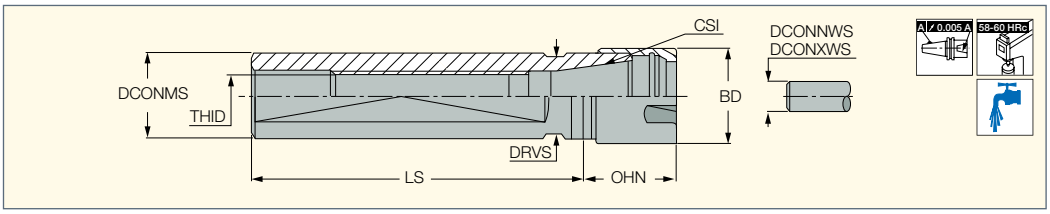
Spare Parts

Designation				
ST 16X 50 ER11 F	NUT ER11 UM	WRENCH ER11*	PRESET ER-JET 8X1.25*	
ST 20X 50 ER11 F	NUT ER11 UM	WRENCH ER11*	PRESET ER-JET 10X1.5*	
ST 20X100 ER11	NUT ER11 UM	WRENCH ER11*	PRESET ER-JET 10X1.5*	
ST 20X150 ER11	NUT ER11 UM	WRENCH ER11*	PRESET ER-JET 10X1.5*	
ST 20X 50 ER16 F	NUT ER16 TOP	WRENCH ER16*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 20X100 ER16	NUT ER16 TOP	WRENCH ER16*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 20X100 ER16 F	NUT ER16 TOP	WRENCH ER16*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 20X150 ER16	NUT ER16 TOP	WRENCH ER16*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 20X 50 ER20 F	NUT ER20 TOP	WRENCH ER20*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 25X100 ER20	NUT ER20 TOP	WRENCH ER20*	PRESET ER-JET 16X2*	PRESET ER-JET 16X2L*
ST 25X150 ER20	NUT ER20 TOP	WRENCH ER20*	PRESET ER-JET 16X2*	PRESET ER-JET 16X2L*
ST 20X 50 ER25 F	NUT ER25 TOP	WRENCH ER25*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 20X100 ER25	NUT ER25 TOP	WRENCH ER25*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 20X100 ER25 F	NUT ER25 TOP	WRENCH ER25*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 25X 50 ER25 F	NUT ER25 TOP	WRENCH ER25*	PRESET ER-JET 16X2*	PRESET ER-JET 16X2L*
ST 25X100 ER25	NUT ER25 TOP	WRENCH ER25*	PRESET ER-JET 16X2*	PRESET ER-JET 16X2L*
ST 20X 50 ER32 F	NUT ER32 TOP	WRENCH ER32*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 20X100 ER32	NUT ER32 TOP	WRENCH ER32*	PRESET ER-JET 12X1.75*	PRESET ER-JET 12X1.75L*
ST 25X 50 ER32 F	NUT ER32 TOP	WRENCH ER32*	PRESET ER-JET 16X2*	PRESET ER-JET 16X2L*
ST 30X 50 ER32 F	NUT ER32 TOP	WRENCH ER32*	PRESET ER-JET 18X1.5*	PRESET ER-JET 18X1.5L*
ST 32X 50 ER32 F	NUT ER32 TOP	WRENCH ER32*	PRESET ER-JET 18X1.5*	PRESET ER-JET 18X1.5L*
ST 32X150 ER32	NUT ER32 TOP	WRENCH ER32*	PRESET ER-JET 18X1.5*	PRESET ER-JET 18X1.5L*
ST 40X 75 ER32 F	NUT ER32 TOP	WRENCH ER32*	PRESET ER-JET 22X1.5*	PRESET ER-JET 22X1.5L*
ST 25X 50 ER40 F	NUT ER40 TOP	WRENCH ER40*	PRESET ER-JET 16X2*	PRESET ER-JET 16X2L*
ST 30X 50 ER40 F	NUT ER40 TOP	WRENCH ER40*	PRESET ER-JET 18X1.5*	PRESET ER-JET 18X1.5L*
ST 32X 50 ER40 F	NUT ER40 TOP	WRENCH ER40*	PRESET ER-JET 18X1.5*	PRESET ER-JET 18X1.5L*
ST 40X 75 ER40 F	NUT ER40 TOP	WRENCH ER40*	PRESET ER-JET 22X1.5*	PRESET ER-JET 22X1.5L*
ST 50X 80 ER40 F	NUT ER40 TOP	WRENCH ER40*	PRESET ER-JET 28X1.5*	
ST 50X 80 ER50 F	NUT ER50 UM	WRENCH ER50*		

* Optional, should be ordered separately

Straight Shank

ST-ER-MF (mini flat)
DIN 6499 ER Mini Collet Chucks with Cylindrical Shanks and a Clamping Flat for Swiss-Type CNC Lathes



Designation	DCONMS	CSI	LS	DCONNWS[6]	DCONXWS[7]	OHN[8]	THID	BD	DRVS[9]	kg
ST 16X 38 ER11 MF [1]	16.00	ER11	38.00	0.5	7.0	18.50	M8X1	16.00	14.0	0.05
ST 16X 50 ER11 MF	16.00	ER11	50.00	0.5	7.0	18.50	M8X1	16.00	13.0	0.07
ST 16X140 ER11 MF	16.00	ER11	140.00	0.5	7.0	18.50	M8X1	16.00	14.0	0.18
ST 16X 35 ER16 MF [1]	16.00	ER16	35.00	0.5	10.0	36.00	M8X1	22.00	17.0	0.12
ST 20X 50 ER16 MF [2]	20.00	ER16	50.00	0.5	10.0	26.00	M12X1	22.00	17.0	0.10
ST 20X 70 ER16 MF [2]	20.00	ER16	70.00	0.5	10.0	26.00	M12X1	22.00	17.0	0.17
ST 20X120 ER16 MF [2]	20.00	ER16	120.00	0.5	10.0	26.00	M12X1	22.00	17.0	0.19
ST 20X140 ER16 MF [2]	20.00	ER16	140.00	0.5	10.0	26.00	M12X1	22.00	17.0	0.40
ST 22X 38 ER16 MF [1]	22.00	ER16	38.00	0.5	10.0	26.00	M12X1	22.00	19.0	0.10
ST 22X 70 ER16 MF [1]	22.00	ER16	70.00	0.5	10.0	26.00	M12X1	22.00	19.0	0.16
ST 22X100 ER16 MF [1]	22.00	ER16	100.00	0.5	10.0	28.00	M12X1	22.00	19.0	0.27
ST 22X 80 ER20 MF [1]	22.00	ER20	80.00	1.0	13.0	39.00	M12X1	28.00	21.0	0.21
ST 22X 70 ER25 MF [1]	22.00	ER25	70.00	1.0	16.0	47.00	M12X1	35.00	27.0	0.25
ST 25X 65 ER16 MF	25.00	ER16	65.00	0.5	10.0	28.00	M12X1	22.00	22.0	0.22
ST 25X100 ER20 MF [3]	25.00	ER20	100.00	1.0	13.0	28.00	M14X1	28.00	22.0	0.15
ST 25X154 ER20 MF [3]	25.00	ER20	154.00	1.0	13.0	28.00	M14X1	28.00	22.0	0.40
ST 25X 75 ER25 MF [4]	25.00	ER25	75.00	1.0	16.0	48.00	M14X1	35.00	27.0	0.36
ST 25X145 ER25 MF [3]	25.00	ER25	145.00	1.0	16.0	36.00	M14X1	35.00	27.0	0.08
ST 32X 70 ER25 MF [5]	32.00	ER25	70.00	1.0	16.0	30.00	M18X1	35.00	27.0	0.35

[1] For Star machines
[2] For Citizen machines
[3] For Tornos-Bechler machines
[4] For Manurhin machines
[5] For Schutte machines
[6] Minimum diameter
[7] Maximum diameter
[8] Minimum overhang
[9] Torque key size

Spare Parts

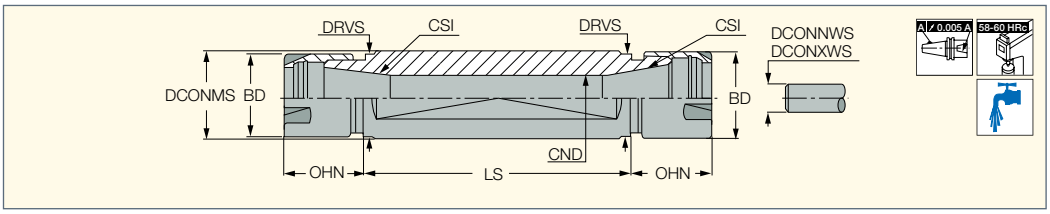
Designation			
ST 16X 38 ER11 MF	NUT ER11 MINI	WRENCH ER11 MINI*	PRESET ER-JET 8X1*
ST 16X 50 ER11 MF	NUT ER11 MINI	WRENCH ER11 MINI*	PRESET ER-JET 8X1*
ST 16X140 ER11 MF	NUT ER11 MINI	WRENCH ER11 MINI*	PRESET ER-JET 8X1*
ST 16X 35 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 8X1*
ST 20X 50 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 20X 70 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 20X120 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 20X140 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 22X 38 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 22X 70 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 22X100 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 22X 80 ER20 MF	NUT ER20 MINI	WRENCH ER20 MINI*	PRESET ER-JET 12X1*
ST 22X 70 ER25 MF	NUT ER25 MINI	WRENCH ER25 MINI*	PRESET ER-JET 12X1*
ST 25X 65 ER16 MF	NUT ER16 MINI	WRENCH ER16 MINI*	PRESET ER-JET 12X1*
ST 25X100 ER20 MF	NUT ER20 MINI	WRENCH ER20 MINI*	PRESET ER-JET 14X1*
ST 25X154 ER20 MF	NUT ER20 MINI	WRENCH ER20 MINI*	PRESET ER-JET 14X1*
ST 25X 75 ER25 MF	NUT ER25 MINI	WRENCH ER25 MINI*	PRESET ER-JET 14X1*
ST 25X145 ER25 MF	NUT ER25 MINI	WRENCH ER25 MINI*	PRESET ER-JET 14X1*
ST 32X 70 ER25 MF	NUT ER25 MINI	WRENCH ER25 MINI*	PRESET ER-JET 18X1*

* Optional, should be ordered separately

Straight Shank

ST-ER-MF-D (double-ended)

Double-Ended Mini Collets with Cylindrical Shanks and a Clamping Flat



Designation	DCONMS	LS	CSI	DCONNWS[3]	DCONXWS[4]	BD	CND	OHN[5]	DRVS[6]	kg
ST 16X 50 ER11 MF D	16.00	50.00	ER11	0.5	7.0	16.00	7.5	18.50	14.0	0.07
ST 20X 30 ER11 MF D [1]	20.00	30.00	ER11	0.5	7.0	16.00	7.5	18.50	17.0	0.09
ST 20X 50 ER11 MF D [1]	20.00	50.00	ER11	0.5	7.0	16.00	7.5	18.50	17.0	0.13
ST 20X 55 ER16 MF D [1]	20.00	55.00	ER16	0.5	10.0	22.00	10.5	25.00	17.0	0.12
ST 22X 55 ER16 MF D [2]	22.00	55.00	ER16	0.5	10.0	22.00	10.5	28.00	19.0	0.17
ST 22X 75 ER16 MF D [2]	22.00	75.00	ER16	0.5	10.0	22.00	10.5	28.00	19.0	0.21
ST 25X 62 ER16 MF D	25.00	62.00	ER16	0.5	10.0	22.00	10.5	28.00	22.0	0.23
ST 32X 55 ER20 MF D [2]	32.00	55.00	ER20	1.0	13.0	28.00	13.5	28.00	27.0	0.34
ST 32X 75 ER20 MF D [2]	32.00	75.00	ER20	1.0	13.0	28.00	13.5	28.00	27.0	0.44

[1] For Citizen machines
[2] For Star machines
[3] Minimum diameter
[4] Maximum diameter
[5] Minimum overhang
[6] Torque key size

Spare Parts

Designation		
ST 16X 50 ER11 MF D	NUT ER11 MINI	WRENCH ER11 MINI*
ST 20X 30 ER11 MF D	NUT ER11 MINI	WRENCH ER11 MINI*
ST 20X 50 ER11 MF D	NUT ER11 MINI	WRENCH ER11 MINI*
ST 20X 55 ER16 MF D	NUT ER16 MINI	WRENCH ER16 MINI*
ST 22X 55 ER16 MF D	NUT ER16 MINI	WRENCH ER16 MINI*
ST 22X 75 ER16 MF D	NUT ER16 MINI	WRENCH ER16 MINI*
ST 25X 62 ER16 MF D	NUT ER16 MINI	WRENCH ER16 MINI*
ST 32X 55 ER20 MF D	NUT ER20 MINI	WRENCH ER20 MINI*
ST 32X 75 ER20 MF D	NUT ER20 MINI	WRENCH ER20 MINI*

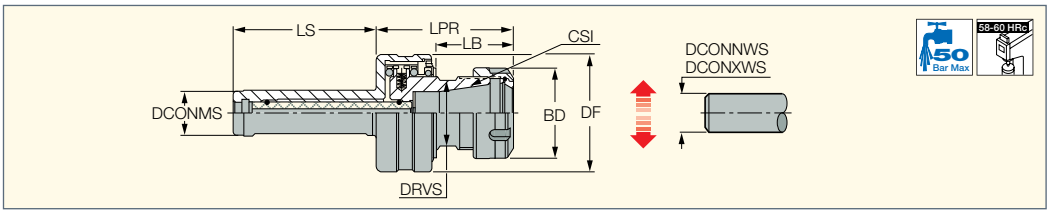
* Optional, should be ordered separately



Straight Shank GFI

GFI ST-ER

Floating Reamer DIN 6499
Collet Chucks with Cylindrical Shanks with a Clamping Flat



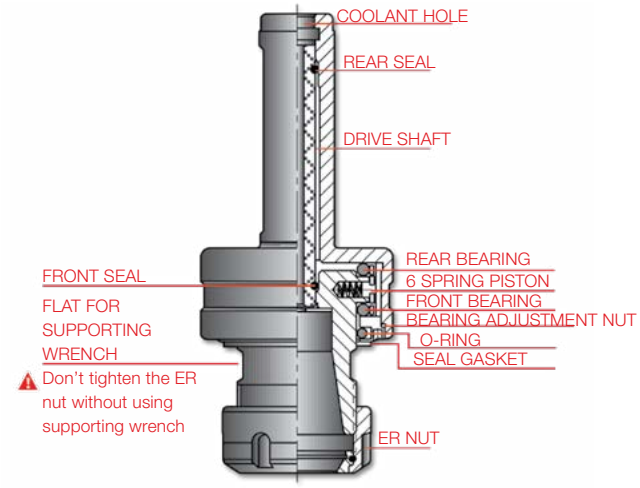
Designation	DCONMS	CSI	DCONNWS(3)	DCONXWS(4)	LS	LPR	LB	BD	DF	RFI	DRVS(5)	kg
GFI ST20 ER20 (1)	20.00	ER20	1.0	13.0	65.00	55.50	31.0	34.00	50.00	1.00	22.0	0.56
GFI ST25 ER32 (2)	25.00	ER32	2.0	20.0	80.00	76.90	45.9	50.00	65.00	1.60	36.0	1.20

- Maximum 2000 RPM!

(1) Radial float from center
(2) Minimum diameter
(3) Maximum diameter
(4) Torque key size
(5) Torque key size

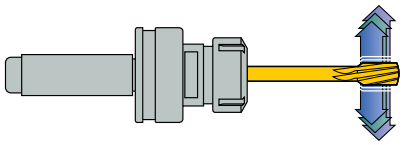
GFI ER - Floating Reamer Collet Chuck

Floating chuck - adjusts the misalignment between the reamer and workpiece hole to ensure the same accuracy as the reamer itself.



Application:

The **GFI** floating chuck is a unique holder that compensates for the radial misalignment existing in reaming operations carried out on vertical and horizontal machine tools.



Features:

Radial self-floating mechanism compensates for misalignment between the reamer and workpiece to ensure the same tolerance as the reamer itself. The special self-centering mechanism eliminates tapered and oversized bores.

Advantages:

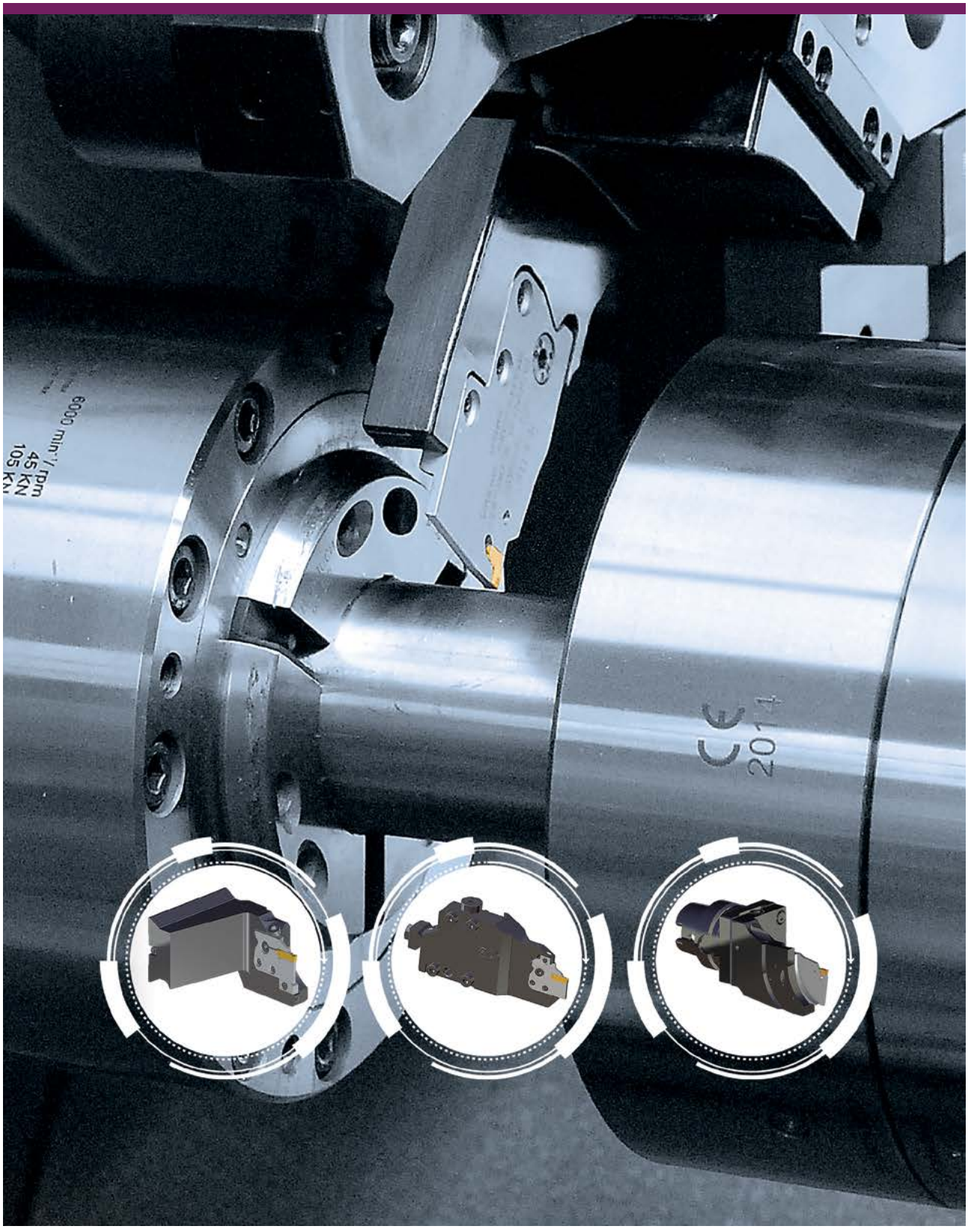
Unique ball bearing and axle drive shaft structure enables vertical and horizontal machining.
Precise and efficient clamping with ER spring collets or ER Coolit collets.

Spare Parts

Designation		
GFI ST20 ER20	NUT ER20 TOP	WRENCH ER20*
GFI ST25 ER32	NUT ER32 TOP	WRENCH ER32*

* Optional, should be ordered separately

MODULAR-GRIP ADAPTATIONS



Modular-Grip Adaptations

Modular Adaptation Systems for **Turning Lathes** and **Multi-Spindle** Machine Tools Carrying ISCAR's MODULAR-GRIP Adapters Featuring Directed Internal Coolant Channels

Product Features

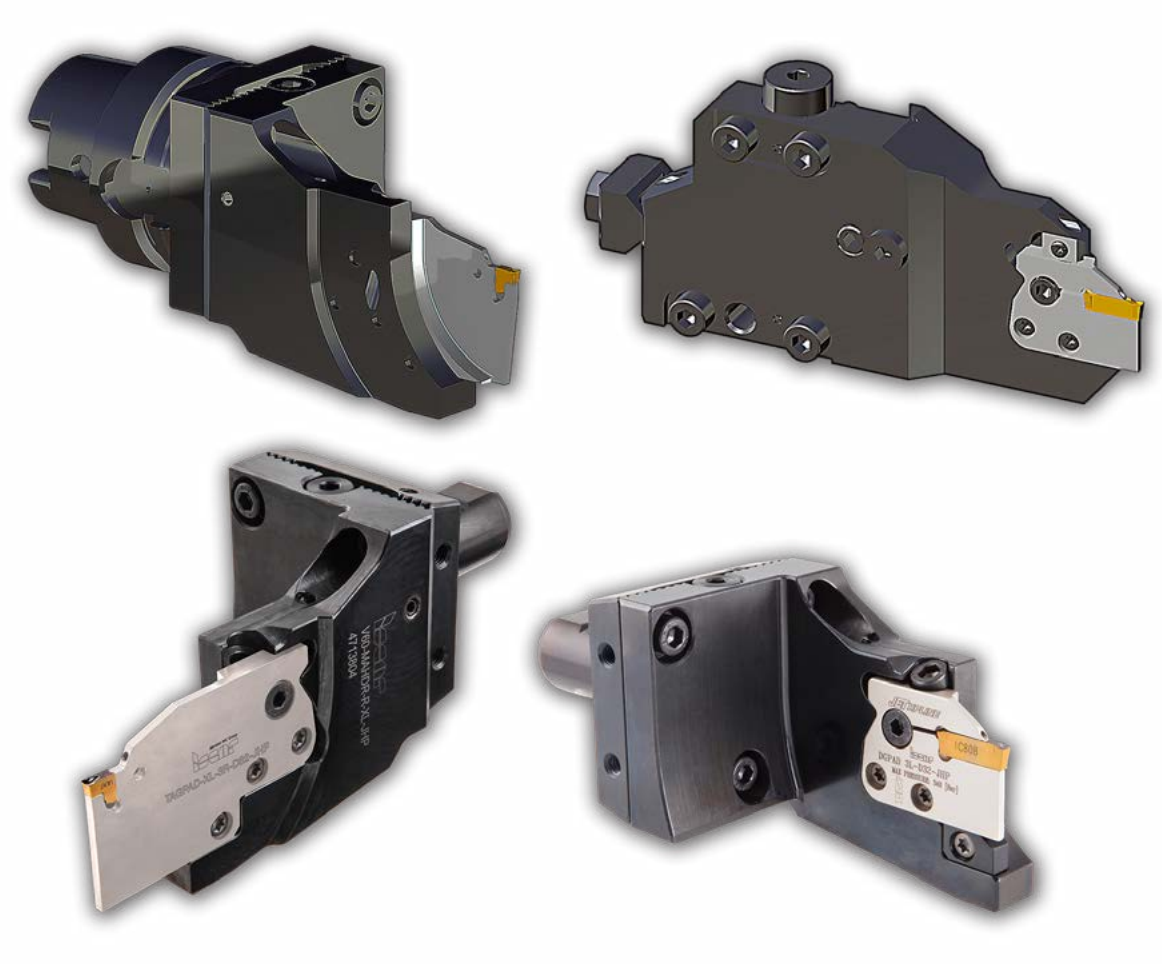
- The unique combination of a rigid tool and efficient coolant improves the insert's tool life, surface finish and part straightness
- Designed for high-pressure coolant up to 150 Bar and also very efficient when using low coolant pressure of 7-10 Bar
- No coolant tubes involved, which means no obstruction for chip evacuation
- Each adapter can carry several types of MODULAR-GRIP blades
- Excellent tool location repeatability after blade replacement for fast setup
- Easy and user-friendly mounting

Available adapters for the following specific machines:

- STAR
- DOOSAN / HAAS
- MAZAK
- DMG MORI
- BIGLIA / EUROTECH
- MIYANO
- NAKAMURA-TOME
- INDEX ABC
- TRAUB
- OKUMA
- TSUGAMI

Multi-Spindle machine tools

- INDEX CNC
- Schütte
- Göltenbodt



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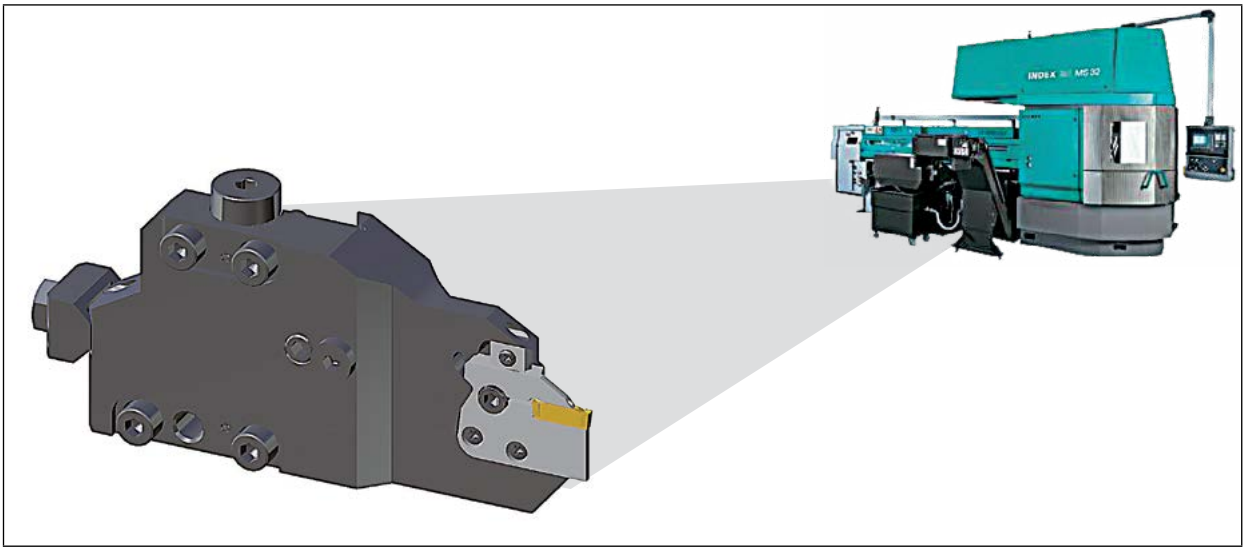
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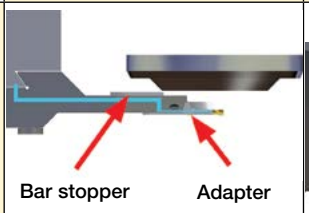
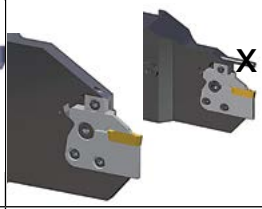
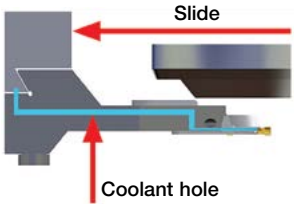
ISCAR Modular System for Multi-Spindle Machines

MODULAR-GRIP . JETCUT

Toolholder Systems for INDEX CNC Multi-Spindle Machines with MODULAR-GRIP Adaptation and Directed Internal Coolant



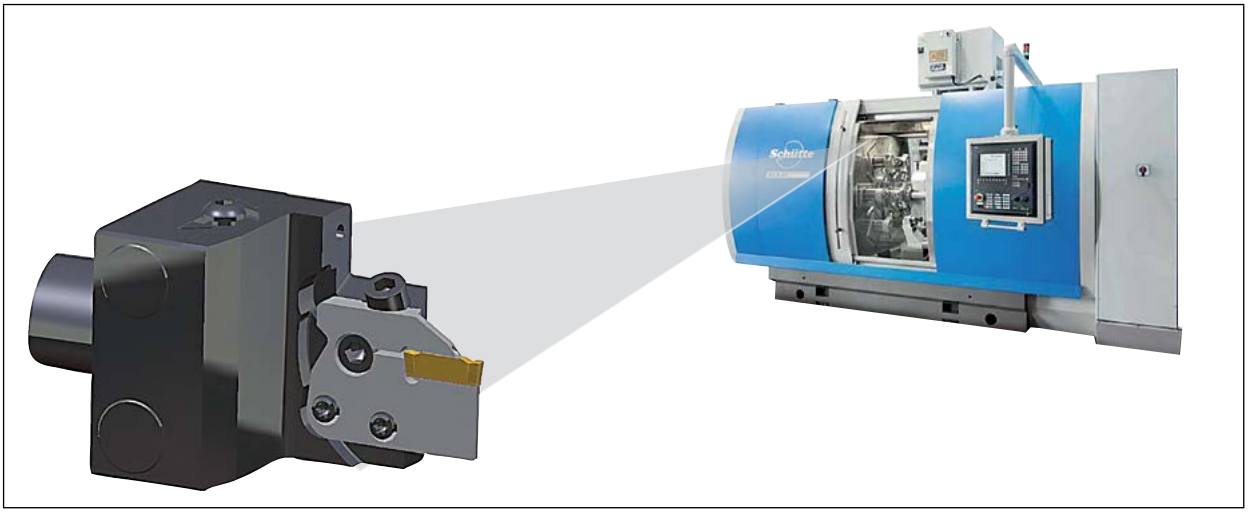
Features and Benefits of Directed Internal Coolant

	Customized to the Work Space	No Coolant Tube	Coolant Connection through the Slide	Easy Indexing
Features:				
Benefits:	• High-end stability due to optimized holder design • No interfering contour with the sub-spindle • Reduced setup time due to fixed adapter length • Exchangeable bar stopper	• Chips do not accumulate in the work space (no coolant tube/ hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)	• No tube/hose in the work space • Reduced setup time as there are no tube/ hoses to be installed	• Easy handling due to clamping screw accessible from the side • Stable screw clamping

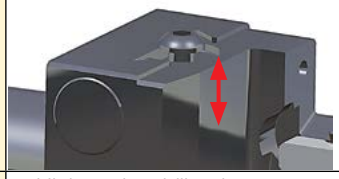
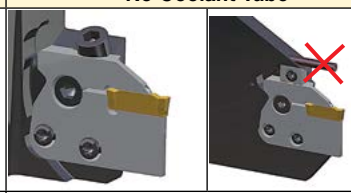
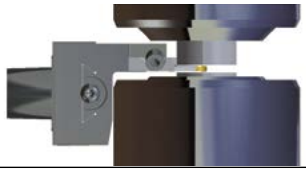
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ISCAR Modular System for Multi-Spindle Machines

Toolholder Systems for Schütte CNC Multi-Spindle Machines with MODULAR-GRIP Adaptation and Directed Internal Coolant



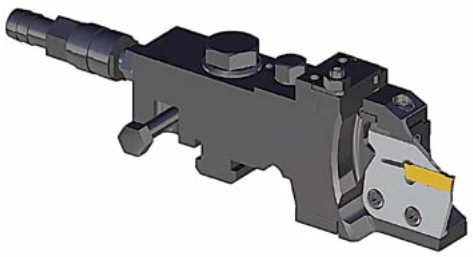
Features and Benefits of Directed Internal Coolant

	Adjustable Center Height	No Coolant Tube	Optimized Holder Design
Features			
Benefits	• High-end stability due to optimized holder design • No interfering contour with the sub-spindle • Reduced setup time due to fixed adapter length • Exchangeable bar stopper	• Chips do not accumulate in the work space (no coolant tube/hoses required) • Reliable coolant supply due to fixed flow orientation (no free coolant nozzle)	• Low risk of collision • Customized for outer diameter of the sub-spindle • Slim design • Short bar overhang

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ISCAR Modular System for Multi-Spindle Machines

Toolholder Systems for Göltenbodt GWS Multi-Spindle Machines with MODULAR-GRIP Adaptation and Directed Internal Coolant

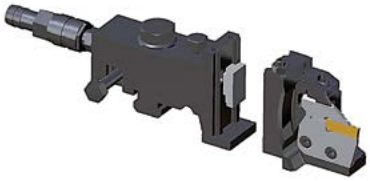
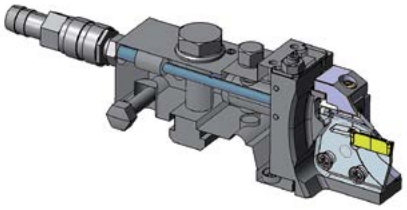
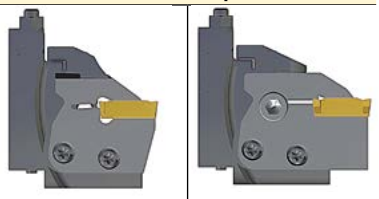


GWS

For various common multi-spindle machines such as:

Gildemeister	MORI-SAY.	INDEX	TORNOS and others
			

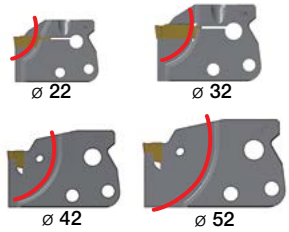
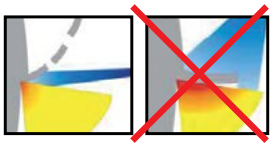
Features and Benefits of Directed Internal Coolant

	Matches intermediate holders with internal coolant	Coolant connection directly from the intermediate holder	Flexible system due to different adapters
Features			
Benefits	• Low investment • Easy switching to toolholders with internal coolant	• Chips do not accumulate in the work space (no coolant tube/hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle) • Uninterrupted work space	• Variable tool length due to different adapters • Tool length can be adjusted to the travel slide

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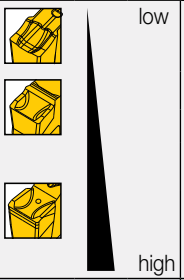
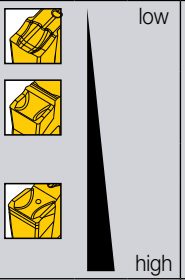
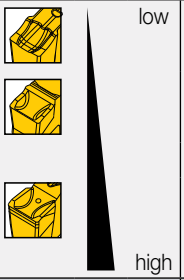
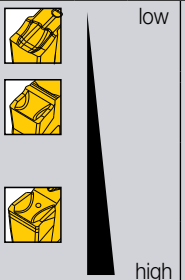
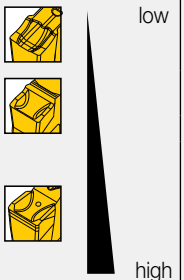
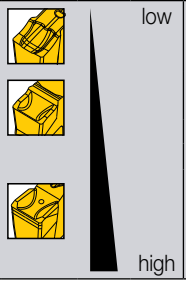
Adapters with Internal Coolant

Modular-Grip Adapters with Directed Internal Coolant

	Extremely Stable	Coolant Connection from the Holder into the Adapter	Coolant / lubrication in the cutting zone	Vario System
Features				
Benefits	• Adapters designed for common bar diameters • Reduced vibration due to strong adapter body • Strong clamping force by screw clamping	• Chips do not accumulate in the work space (no coolant tube/hose required) • No tube/hoses to be removed in case of tool breakage • Free work space	• Increased tool life • Improved process safety • Better chip control	• Different cutting systems can be used. Grooving and turn-groove operations can be performed with the same holder • Extremely flexible

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Tool Selection for INDEX CNC Multi-Spindle Machines

Machine	Toolholder	Width	Adapter		Insert		Geometry / Feed	Tough ↔ Hard		
			DGPAD	TAGPAD	TAG	DGN		IC830	IC5400	IC808
 Index MS16	MS16- JHP	1,5 mm	DGFH MS16-1.5D16-JHP		DGN 150..J			•	•	•
		2 mm	DGFH MS16-1.5D16-JHP		DGN 2002					
 Index MS18	MS18- 22-MG- JHP	2 mm	DGPAD 2L-D22-JHP		DGN 2002			•	•	•
 Index MS22	MS18- 22-MG- JHP	2 mm	DGPAD 2L-D22-JHP		DGN 2002			•	•	•
 Index MS32	MS32- 40-MG- JHP	2 mm	DGPAD 2L-D32-JHP		DGN 2002			•	•	•
		3,1 mm	DGPAD 3L-D32-JHP		DGN 3102					
 Index MS40	MS32- 40-MG- JHP	2 mm		TAGPAD 2L-D42-JHP		TAG N2		•	•	•
		3 mm		TAGPAD 3L-D42-JHP		TAG N3				
 Index MS52	MS32- 40-MG- JHP oder MS52-MG-JHP	2 mm		TAGPAD 2L-D52-JHP		TAG N2		•	•	•
		3 mm		TAGPAD 3L-D52-JHP		TAG N3				

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Tool Selection for Schütte CNC Multi-Spindle Machines SCX

System Size	Toolholder	Intermediate holder	Width	Adapter		Insert		Geometry / Feed	Tough ↔ Hard		
				DGPAD	TAGPAD	TAG	DGN		IC830	IC5400	IC808
											
 SCX-32	C3 DT30/2-L23	DT30/2 MAHDR-SCX-D80-JHP	2 mm	DGPAD 2L-D32-JHP		DGN 2002		LF  MF  C  low high	•	•	•
	C4 DT30/2-L23		3,1 mm	DGPAD 3L-D32-JHP		DGN 3102					
 SCX-46	C3 DT30/2-L23	DT30/2 MAHDR-SCX-D80-JHP	2 mm	TAGPAD 2L-D52-JHP		TAG N2		LF  MF  C  low high	•	•	•
	C4 DT30/2-L23		3 mm	TAGPAD 3L-D52-JHP		TAG N3					



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Tool Selection for Göltenbodt GWS Systems

System Size	Max. Diameter	Width of Cut (W)	Length L	Toolholder Right Hand	Toolholder Left Hand	Adapter DGPAD	Adapter TAGPAD	Insert TAG	Insert DGN	Geometry / Feed	Tough ↔ Hard IC830	IC5400	IC808
 GWS02	20 mm	2 mm	51 mm	MS-ES02012-GWS-MG-JHP		DGPAD 2R/ L-D20-GWS-JHP*		DGN 2002		LF, MF, C; low → high	•	•	•
			59 mm	MS-ES02013-GWS-MG-JHP									
	32 mm	2 mm	59,5 mm	MS-ES02012-GWS-MG-JHP		DGPAD 2R/ L-D32-JHP*							
			67,5 mm	MS-ES02013-GWS-MG-JHP									
		3,1 mm	59,5 mm	MS-ES02012-GWS-MG-JHP		DGPAD 3R/ L-D32-JHP*		DGN 3102					
			67,5 mm	MS-ES02013-GWS-MG-JHP									
 GWS09	20 mm	2 mm	61 mm	MS-ES09003-GWS-MG-JHP		DGPAD 2R/ L-D20-GWS-JHP*		DGN 2002		LF, MF, C; low → high	•	•	•
	32 mm	2 mm	59,5 mm	MS-ES09003-GWS-MG-JHP		DGPAD 2R/ L-D32-JHP*							
		3,1 mm	59,5 mm	MS-ES09003-GWS-MG-JHP		DGPAD 3R/ L-D32-JHP*		DGN 3102					
	42 mm	2 mm	62,6 mm	MS-ES09003-GWS-MG-JHP		TAGPAD 2R/ L-D42-JHP*		TAG N2					
		3 mm	62,4 mm	MS-ES09003-GWS-MG-JHP		TAGPAD 3R/ L-D42-JHP*		TAG N3					
	52 mm	2 mm	67,6 mm	MS-ES09003-GWS-MG-JHP		TAGPAD 2R/ L-D52-JHP*		TAG N2					
		3 mm	67,4 mm	MS-ES09003-GWS-MG-JHP		TAGPAD 3R/ L-D52-JHP*		TAG N3					
 GWS41	20 mm	2 mm	59 mm	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP	DGPAD 2R/ L-D20-GWS-JHP*		DGN 2002		LF, MF, C; low → high	•	•	•
	32 mm	2 mm	67,5 mm	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP	DGPAD 2R/ L-D32-JHP*							
		3,1 mm	67,5 mm	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP	DGPAD 3R/ L-D32-JHP*		DGN 3102					
	42 mm	2 mm	70,6 mm	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP	TAGPAD 2R/ L-D42-JHP*		TAG N2					
		3 mm	70,4 mm	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP	TAGPAD 3R/ L-D42-JHP*		TAG N3					
	52 mm	2 mm	75,6 mm	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP	TAGPAD 2R/ L-D52-JHP*		TAG N2					
		3 mm	75,4 mm	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP	TAGPAD 3R/ L-D52-JHP*		TAG N3					

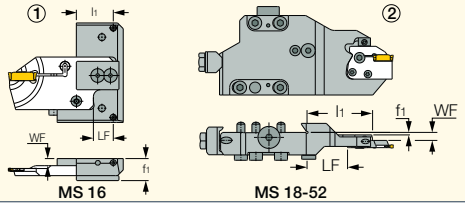
*Selection of right hand or left hand adapter see page 759

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INDEX JETCUT
MODULAR GRIP

MS##-##-MG-JHP

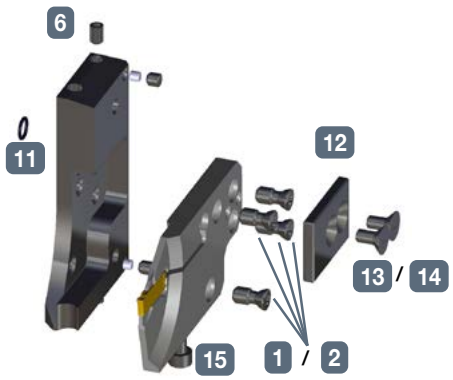
Toolholders for INDEX CNC Multi-Spindle Machines with Internal Coolant Supply for MODULAR-GRIP Adapters



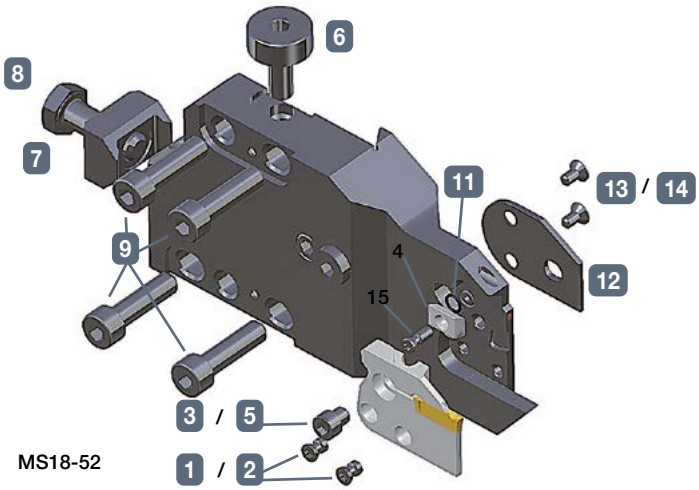
Designation	LF	l1	WF	f1	Fig.	Adapter	Adapter2
MS 16-JHP	14.00	26.00	5.00	15.5	1	DGFH MS16-1.5D16-JHP	-
MS 18/22-MG-JHP	46.20	67.00	13.60	8.1	2	DGPAD 2L-D22-JHP	-
MS 18/22-MG-JHP L-69.7	24.20	48.00	13.60	8.0	2	DGPAD 2L-D22-JHP	-
MS 32/40-MG-JHP	45.00	69.80	13.50	8.0	2	DGPAD 2/3L-D32-JHP	TAGPAD 2/3-D42-JHP
MS 32/40-MG-JHP-5.1	45.00	69.80	13.50	8.0	2	DGPAD 2/3L-D32-JHP	TAGPAD 2/3-D42-JHP
MS 32C-HUBVERL-MG-JHP	74.50	99.30	13.50	8.0	2	DGPAD 2/3L-D32-JHP	TAGPAD 2/3L-D32-JHP
MS 40-6/8-MG-JHP	55.00	79.80	13.50	8.0	2	TAGPAD 2/3L-D42-JHP	DGPAD 2/3L-D42-JHP
MS 40-6/8-MG-JHP-7.1	55.00	79.80	13.50	8.0	2	TAGPAD 2/3L-D42-JHP	DGPAD 2/3L-D42-JHP
MS 52-MG-JHP	46.60	-	4.50	-	2	TAGPAD 2/3-D52-JHP	-

• For user guide, see pages 750-756 • All trademarks and logos are the property of their respective companies

For tools, see pages: CGPAD-JHP (282) • DGPAD-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-JHP (500) • TGPAD-JHP (271)



MS16



MS18-52

Spare Parts MS##-##-MG-JHP

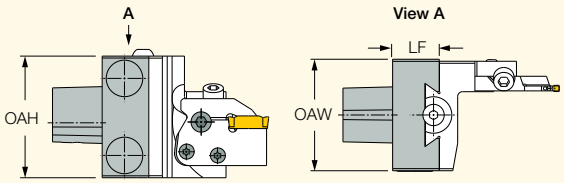
No.	Designation	MS16-JHP	MS18/22-MG-JHP	MS32/40-MG-JHP
1	Screw	SR M5-04451-L10.5	SR 16-212-L7.5	SR 16-212-L7.5
2	Key	T-20/5	T-20/5	T-20/5
3	Screw		SR M6X6DIN6912-5112367	SR M6X6DIN6912-5112367
4	Wedge		KEIL 12X30DEG-5112247	KEIL 12X30DEG-5112247
5	Key		HW 5.0	HW 5.0
6	Screw	SR M4x6 DIN913 45H	WN99-08.0010.0	WN99-08.0010.0
7	Wedge		WN-11.0012.0	W00014.0017
8	ZI screw		ISO 4017-DIN 933 M8X30	ISO 4017-DIN 933 M10X30
9	Screw		SR M6X20DIN912 12.9	SR M8X30DIN912
10	Coolant Tube*		ROHR M4X1-40	ROHR M4X1-40
11	O-Ring	OR 5X1N	OR 5X1N	OR 5X1N
12	Bar stopper	W00019.0064	PLATTE-MS18-22-5112868	PLATTE-MS18-22-5112868
13	Screw	DIN7991-M4X8-8.8	DIN7991-M4X8-8.8	DIN7991-M4X8-8.8
14	Key	HW 2.5	HW 2.5	HW 2.5
15	Screw	SR M4x30DIN912	SR 34-535	SR 34-535

No.	Designation	MS32/40-MG-JHP-5.1	MS52-MG-JHP
1	Screw	SR 16-212-L7.5	SR 16-212-L7.5
2	Key	T-20/5	T-20/5
3	Screw	SR M6X6DIN6912-5112367	SR M6X6DIN6912-5112367
4	Wedge	KEIL 12X30DEG-5112247	KEIL 12X30DEG-5112247
5	Key	HW 5.0	HW 5.0
6	Screw	WN99-08.0010.0	WN99-08.0010.0
7	Wedge	W00014.0017	WN-11.0014.0
8	ZI screw	ISO 4017-DIN 933 M10X30	ISO 4017-DIN 933 M10X30
9	Screw	SR M8X30DIN912	
10	Coolant Tube*	ROHR M4X1-40	ROHR M4X1-40
11	O-Ring	OR 5X1N	OR 5X1N
12	Bar stopper	PLATTE-MS18-22-5112868	PLATTE-MS18-22-5112868*
13	Screw	DIN7991-M4X8-8.8	DIN7991-M4X8-8.8*
14	Key	HW 2.5	HW 2.5
15	Screw	SR 34-535	SR 34-535

* Optional, please order separately.
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Schütte CAMFIX
MODULAR-GRIP

C#-DT##/2-L23
Toolholder with CAMFIX Adaptation on DT for SCHUTTE Machine Tools

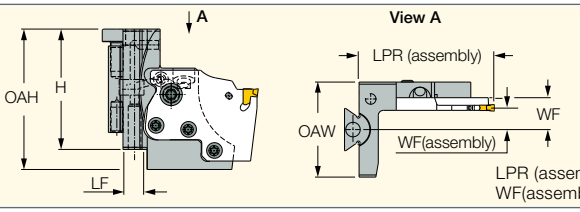


Designation	OAH	OAW	LF
C3 DT20/2-L23*	57.00	45.00	23.50
C3 DT30/2-L23	60.00	55.00	23.50
C4 DT30/2-L23	60.00	55.00	23.50

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Schütte MODULAR-GRIP

DT##/2 MAHD#-#-XL-JHP
Intermediate Holder with DT Adaptation for MODULAR-GRIP Adapters on SCHUTTE Machine Tools



Designation	H	OAW	LF	WF	OAH
DT20/2 MAHDL-L-XL-JHP	57.0	45.00	9.10	4.50	66.50
DT20/2 MAHDN-L-XL-JHP	57.0	45.00	9.10	6.50	66.50
DT20/2 MAHDR-L-XL-JHP	57.0	45.00	9.10	15.10	66.50
DT30/2 MAHDR-L-XL-JHP	57.0	55.00	9.10	20.10	65.85
DT30/2 MAHDR-R-XL-JHP	57.0	55.00	9.10	21.50	65.85

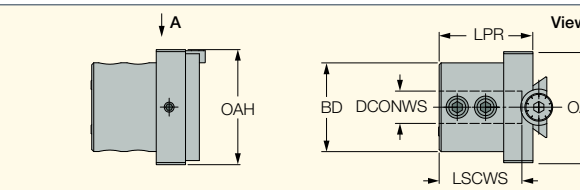
• All trademarks and logos are the property of their respective companies

Spare Parts

Designation							
DT##/2 MAHD#-#-XL-JHP	SUPPORT MG-XL-5113377	T-20/5	SR M5-04451	HW 5.0	SR M5X5 DIN913 TL360	OR 5X1N	HW 2.5

Schütte
MODULAR-GRIP

DT30/2 ##L70WN
Intermediate Holder with DT30 Adaptation for Boring Bars on SCHUTTE Machine Tools

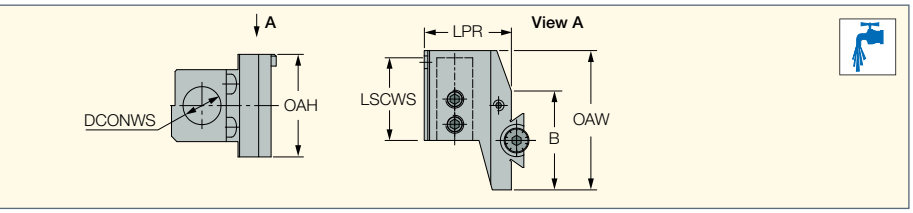


Designation	OAH	OAW	DCONWS	BD	LPR	LSCWS
DT30/2 16L70WN	57.00	55.00	16.00	44.00	46.50	41.00
DT30/2 20L70WN	57.00	55.00	20.00	48.00	46.50	41.00

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Schütte
MODULAR-GRIP

DT30/2 ADR-##-20-55
Intermediate Holder with DT30 Adaptation for Boring Bars on SCHUTTE Machine Tools



Designation	OAH	OAW	DCONWS	LPR	B	LSCWS
DT30/2 ADR-20-55	57.00	65.00	20.00	45.50	55.0	41.00
DT30/2 ADR-Z0-20-55	57.00	77.50	20.00	48.50	55.0	46.00

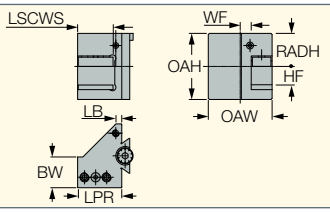
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Schütte MODULAR-GRIP

DT30/2 ASH# 16/20-1-35080

Intermediate Holder with DT30 Adaptation for Square Shank Tools on SCHUTTE Machine Tools



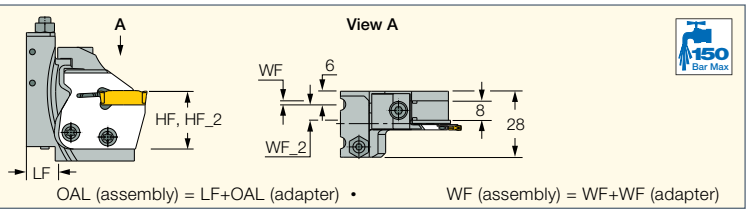
Designation	HF	WF	LPR	OAH	LB	RADH	BW	OAW	LSCWS
DT30/2 ASHR/L 16/20-1-35080	16.0	9.50	38.00	57.00	5.00	28.50	26.50	55.00	32.00

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Göltenbodt Innovation and Precision.
MODULAR-GRIP

MS-ES#####-GWS-MG-JHP

Toolholders for Goltenbodt GWS Systems with Internal Coolant Supply for MODULAR-GRIP Adapters



Designation	LF	WF	WF_2	HF[1]	HF_2[2]
MS-ES02012-GWS-MG-JHP	14.00	2.00	6.00	24.0	27.0
MS-ES02013-GWS-MG-JHP	22.00	2.00	6.00	24.0	27.0
MS-ES09003-GWS-MG-JHP	14.00	2.00	6.00	24.0	30.0
MS-ES41008-GWS-MG-JHP	22.00	2.00	6.00	24.0	27.0
MS-ES41009-GWS-MG-JHP	22.00	2.00	6.00	24.0	27.0

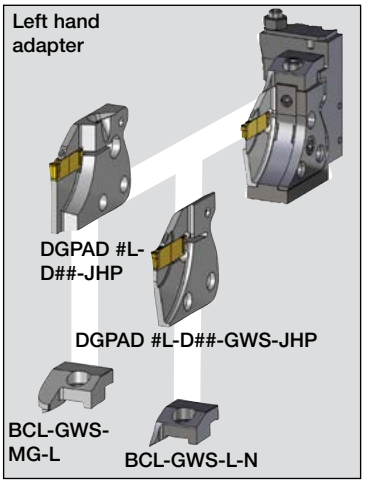
• For user guide, see pages 750-756 • All trademarks and logos are the property of their respective companies

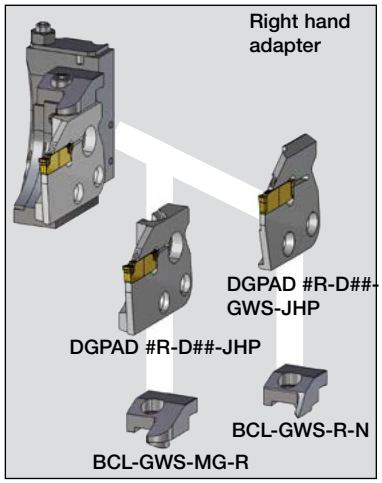
[1] Center height adjustment for GWS43

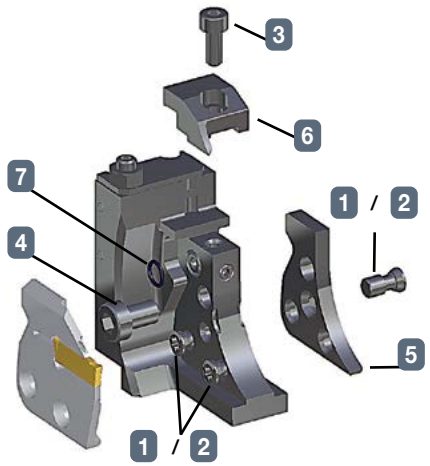
[2] Center height adjustment for GWS60

For tools, see pages: CGPAD-JHP (282) • DGPAD-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-JHP (500) • TGPAD-JHP (271)

Wedge Selection Guide (must be ordered separately)







Spare Parts MS-ES#####-GWS-MG-JHP

No.	Designation	MS-ES02012-GWS-MG-JHP	MS-ES02013-GWS-MG-JHP	MS-ES09003-GWS-MG-JHP	MS-ES41008-GWS-MG-JHP	MS-ES41009-GWS-MG-JHP
1	Screw	SR 16-212-L9.5	SR 16-212-L9.5	SR 16-212-L9.5	SR 16-212-L9.5	SR 16-212-L9.5
2	Key	T-20/5	T-20/5	T-20/5	T-20/5	T-20/5
3	Screw	DIN912-M4X10-12.9	DIN912-M4X10-12.9	DIN912-M4X10-12.9	DIN912-M4X10-12.9	DIN912-M4X10-12.9
4	Screw	SR M6X6-DIN6912-10.9	SR M6X6-DIN6912-10.9	SR M6X6-DIN6912-10.9	SR M6X6-DIN6912-10.9	SR M6X6-DIN6912-10.9
5	Dummy	GWS Dummy	GWS Dummy	GWS Dummy	GWS Dummy	GWS Dummy
6	Wedges*					
7	O-Ring	OR 5X1N	OR 5X1N	OR 5X1N	OR 5X1N	OR 5X1N

* Should be ordered separately

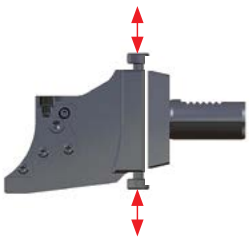
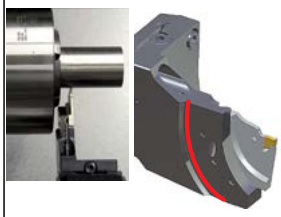
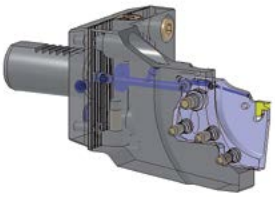
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ISCAR Modular System for Turning Lathes

Toolholder System with Machine-Specific Adaptations for Turning Lathes



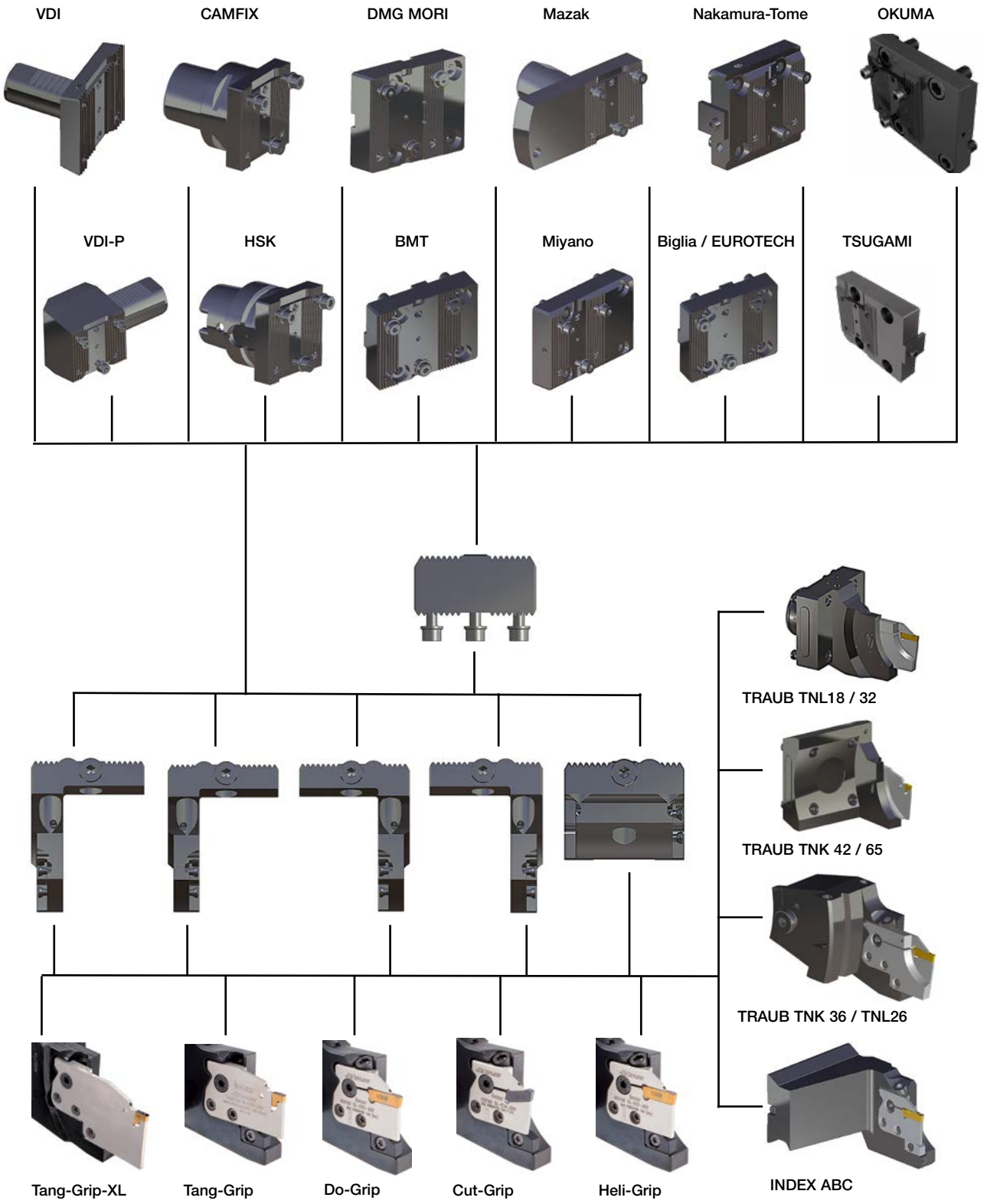
Features and Benefits of Machine-Specific Toolholder Systems

	Flexible Vario System	Adjustable Center Height	Optimized Holder Design	No Coolant Tubes / Hoses
Features:				
Benefits:	• Uniform intermediate holders and adapters on different machine adaptations • Low tool stock • Modular design	• Optimal tool life due to adjustable center height • Reliable tool life • Turret malpositions can be balanced	• Long tool life due to reduced bar overhang, less vibrations • Slim design • Low risk of collision • Suitable for any machine-specific clamping interface	• Chips do not accumulate in the work space (no coolant tube / hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

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ISCAR Modular System for Turning Lathes

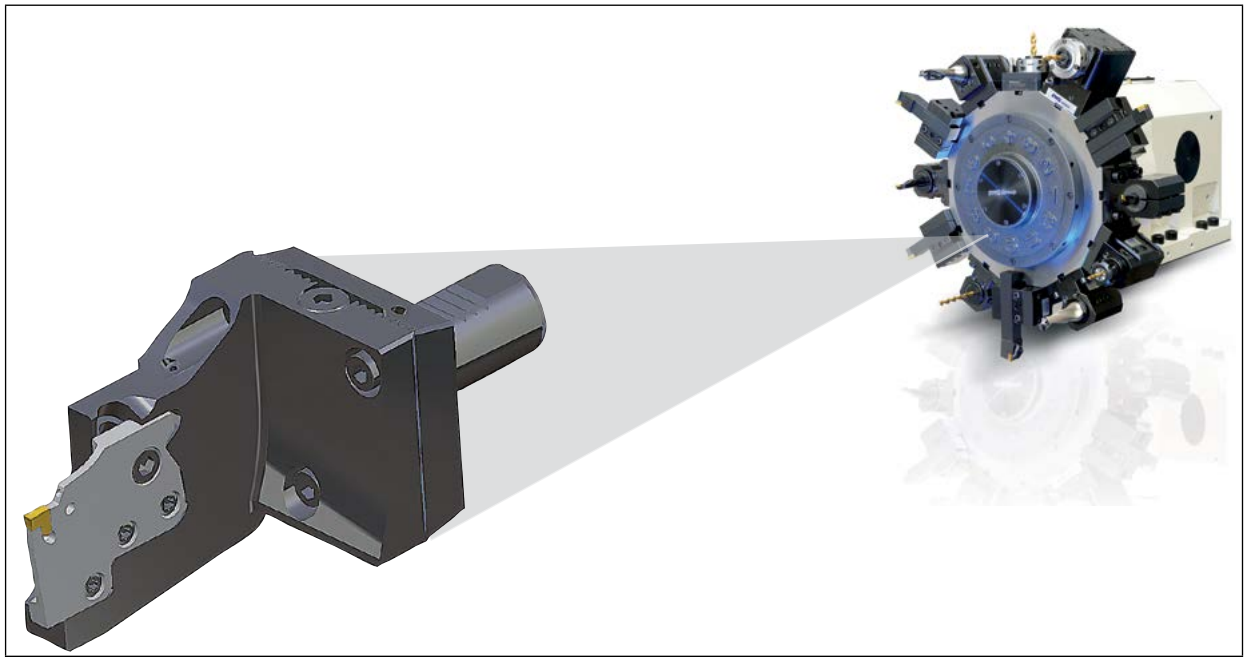
System Overview



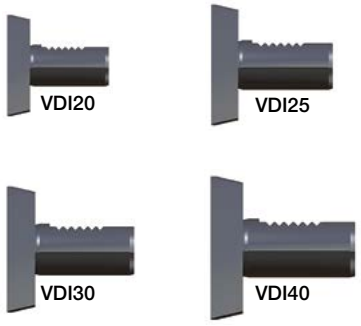
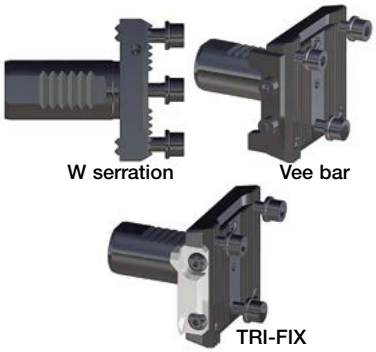
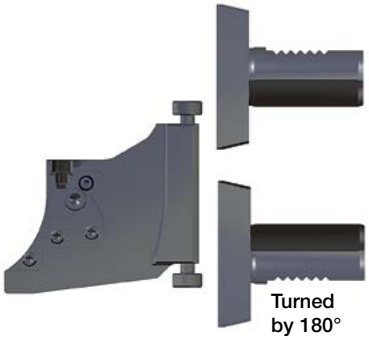
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ISCAR Modular System for Turning Lathes

Toolholder System for Star Turrets with VDI and MODULAR-GRIP-XL Adaptations and Directed Internal Coolant



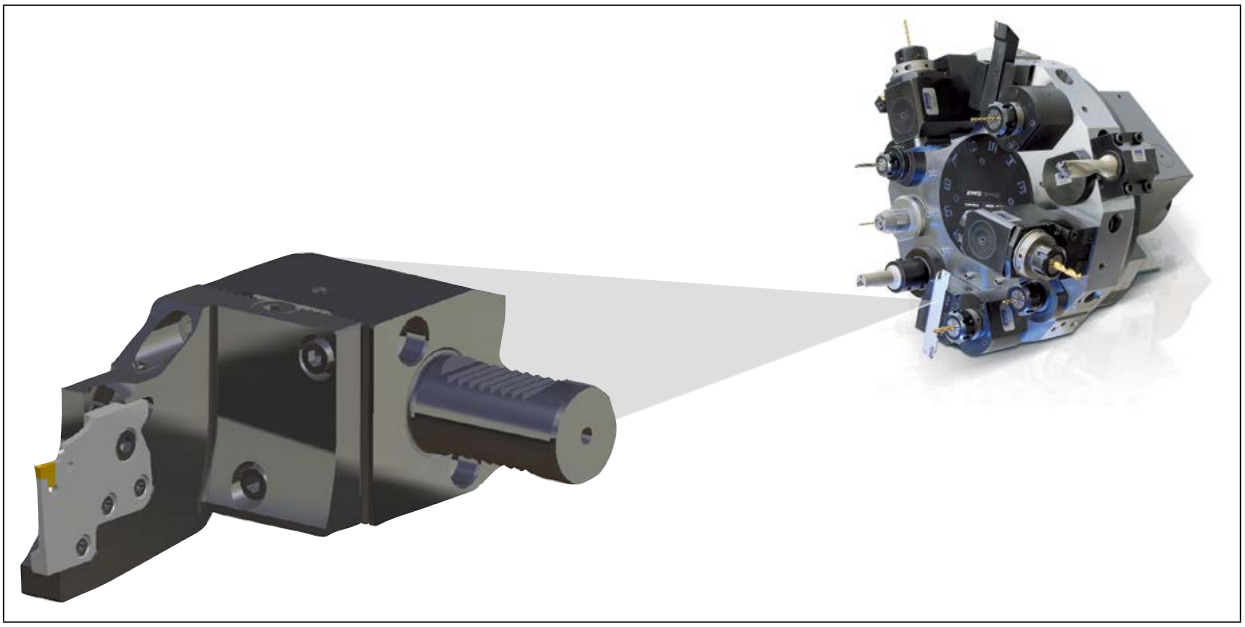
Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Alignment Systems	VDI shank can be rotated by 180°
Features:			
Benefits:	• DIN69880 (ISO 10889-1) • VDI20 • VDI25 • VDI30 • VDI40	• Extremely stable, torsion resistant and high-end precision	• The serration can be mounted at the top or bottom • Double-serration is not necessary

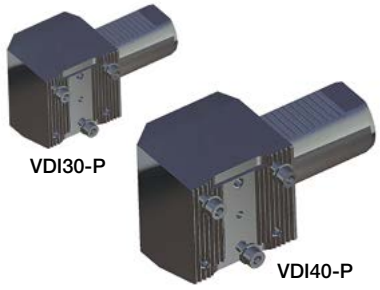
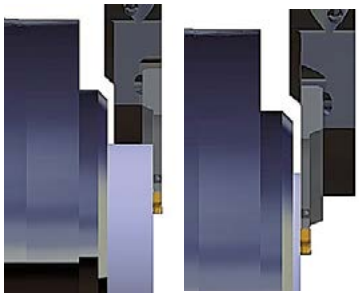
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ISCAR Modular System for Turning Lathes

Toolholder System for Disc-Type Turrets with VDI and MODULAR-GRIP-XL Adaptations and Directed Internal Coolant



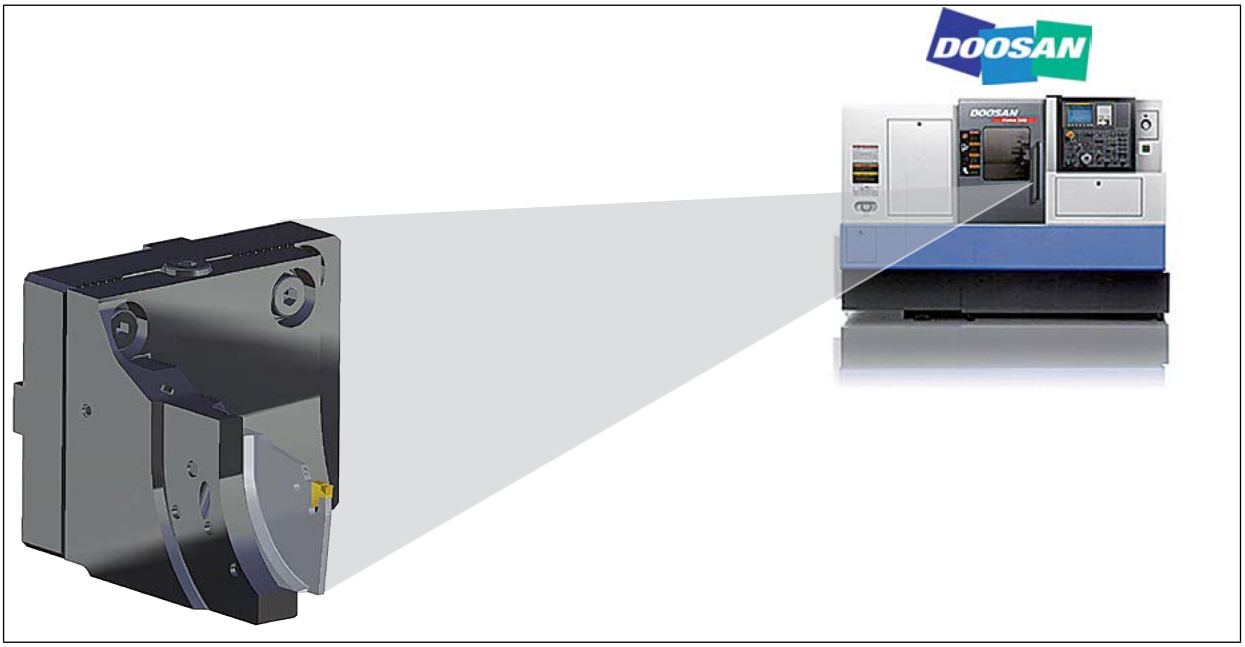
Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Parting Next to Main Spindle or Sub-Spindle	Reliable Processes
Features:	 VDI30-P VDI40-P		
Benefits:	• DIN69880 (ISO 10889-1) • VDI30-P • VDI40-P	• Low risk of collision due to optimized tool design • Parting next to main spindle or sub-spindle depending on component length	• Chips do not accumulate in the work space (no coolant tube / hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

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ISCAR Modular System for Turning Lathes

Toolholder System for DOOSAN / HAAS Machines with BMT and MODULAR-GRIP-XL Adaptations and Directed Internal Coolant



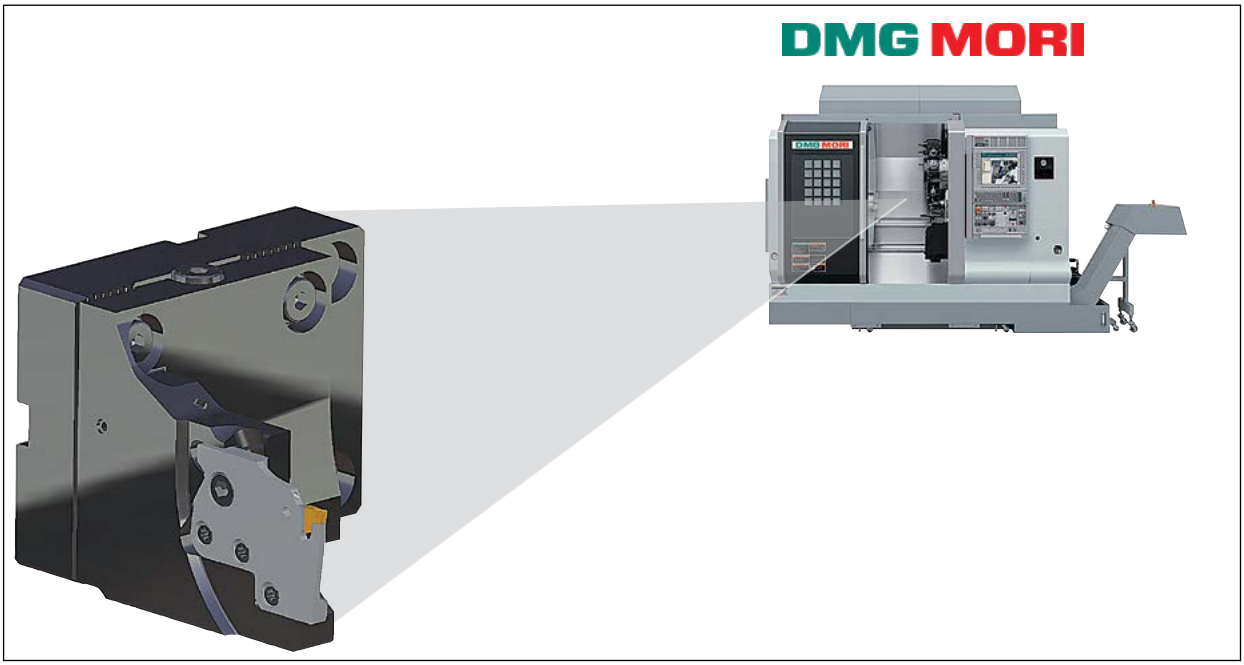
Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Holder Turning Ability 180°	Reliable Processes
Features:			
Benefits:	• BMT (Base Mounted Turret) • BMT45 • BMT55 • BMT65	• Tool can be mounted on the left or right of the turret • Extremely flexible due to few elements	• Chips do not accumulate in the work space (no coolant tube / hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

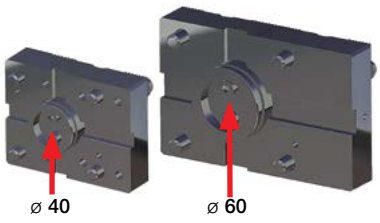
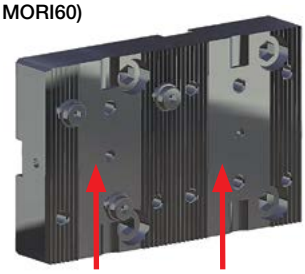
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ISCAR Modular System for Turning Lathes

Toolholder System for **DMG MORI** Machines with MODULAR-GRIP-XL
Adaptation and Directed Internal Coolant



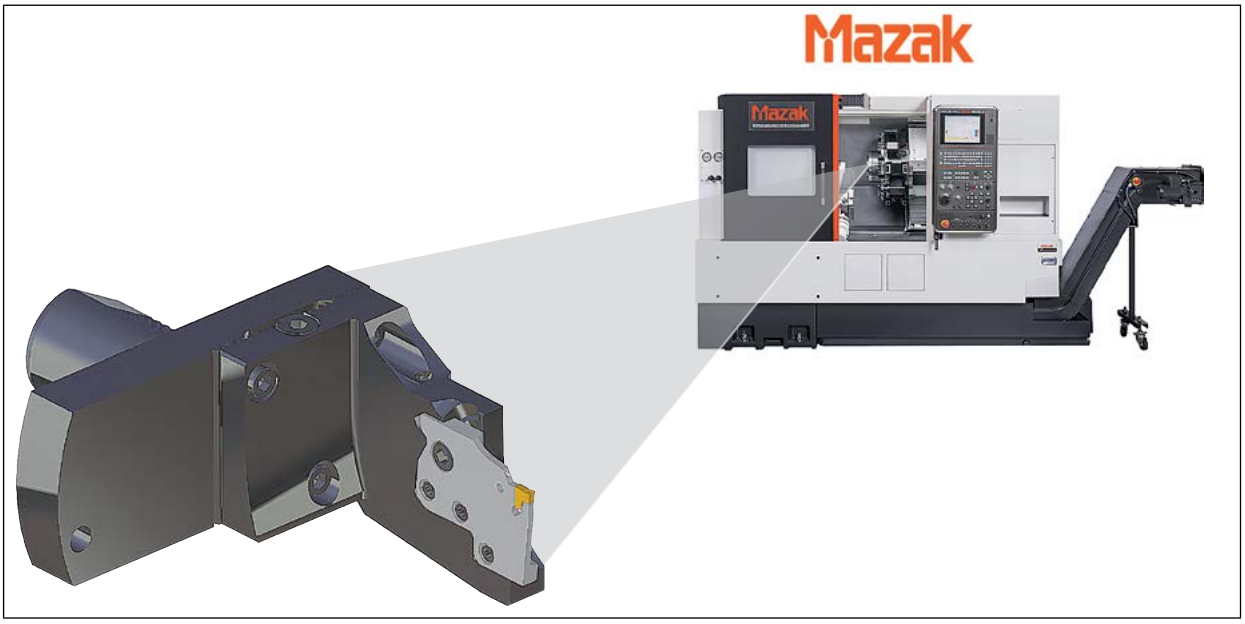
Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Two Pockets for Intermediate Holders	Reliable Processes
Features:	MORI40 MORI60  ø 40 ø 60	(For MORI60)  1. pocket next to (main) spindle 2. pocket next to (sub-) spindle	
Benefits:	• DMG MORI turrets for NZ machines • MORI40 • For NL machines • MORI60	• Intermediate holder can be mounted on the left or right side of the turret • Modular flexibility due to few elements	• Chips do not accumulate in the work space (no coolant tube/hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

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ISCAR Modular System for Turning Lathes

Toolholder System for MAZAK Machines with MODULAR-GRIP-XL Adaptation and Directed Internal Coolant



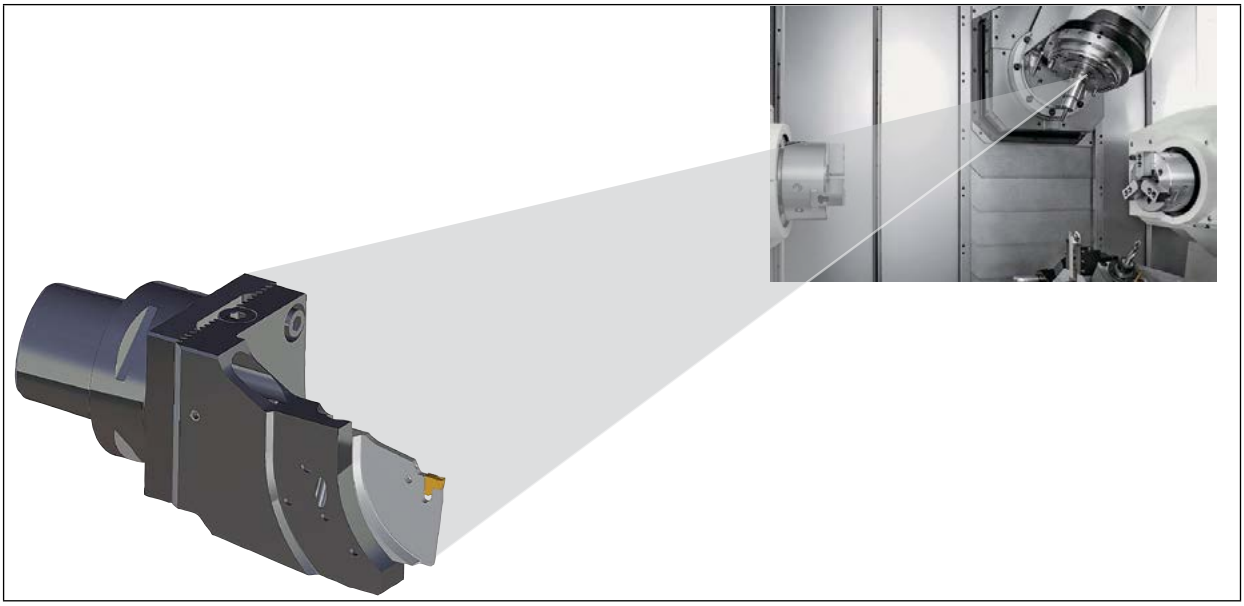
Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Adaptation Features	Reliable Processes
Features:	 MA4016E MA4020E MA4020T MA5020E MA4016T	 MA####E MA####T	
Benefits:	• For Mazak Quick Turn, Hyper Quardrex and Multiplex machines • MA4016E • MA4020E • MA5020E • MA4016T • MA4020T	• Suitable for any common Mazak adaptations	• Chips do not accumulate in the work space (no coolant tube / hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

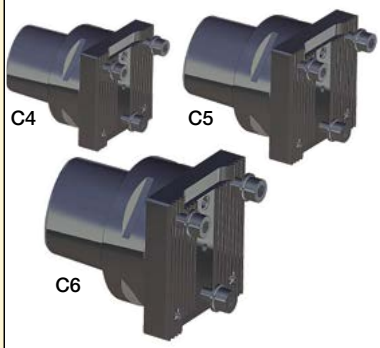
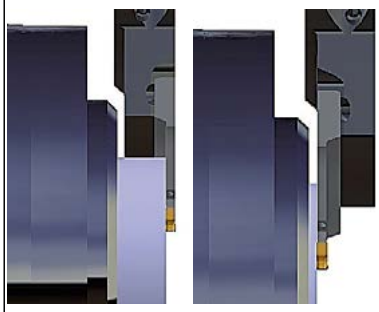
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ISCAR Modular System for Turning Lathes

Toolholder System for Machines with CAMFIX MODULAR-GRIP-XL
Adaptations and Directed Internal Coolant



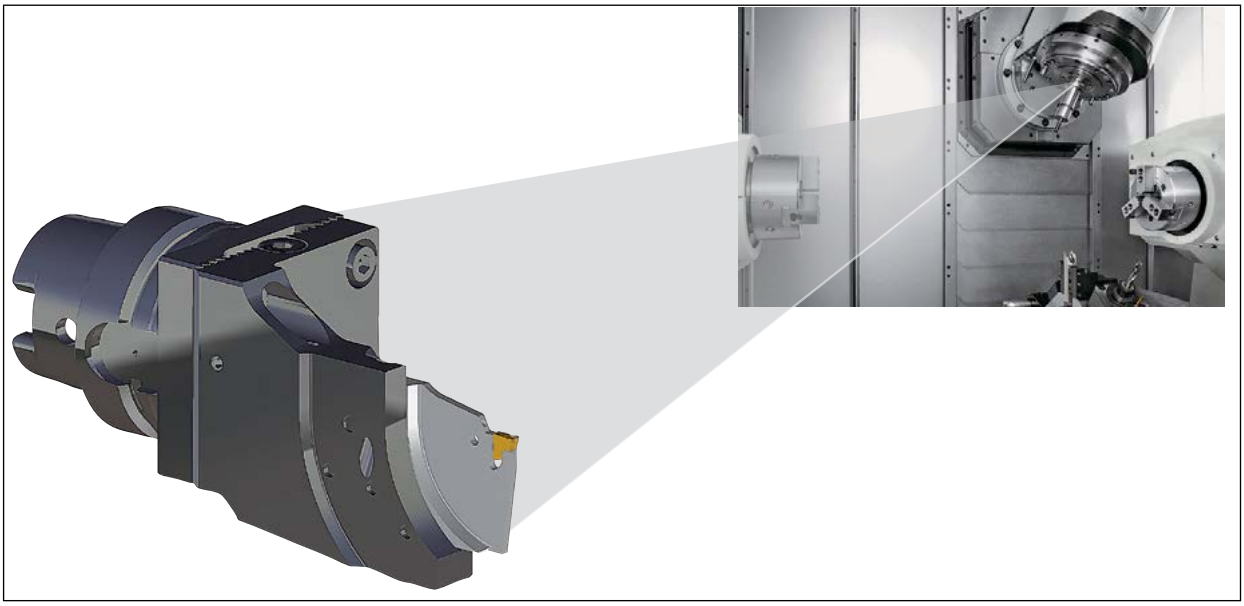
Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Parting Next to Main Spindle and Sub-Spindle	Reliable Processes
Features:			
Benefits:	• For CAMFIX turrets and for turn-mill centers with a CAMFIX ISO26623-1 milling spindle • C4 • C5 • C6	• Low risk of collision due to optimized tool design • Parting next to main spindle or sub-spindle depending on the component length	• Chips do not accumulate in the work space (no coolant tube / hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

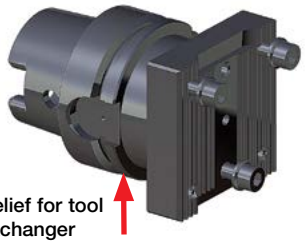
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ISCAR Modular System for Turning Lathes

Toolholder Systems for Turn-Mill Centers with HSK Shank and MODULAR-GRIP-XL Adaptation and Directed Internal Coolant



Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Relief for Automatic Tool Changers	Reliable Processes
Features:	 HSK T 40 HSK T 63	 Relief for tool exchanger	
Benefits:	• For HSK T turrets and for turn-mill centers with HSK T milling spindles • HSK T 40 • HSK T 63	• Tools can be used on machines with an automatic tool exchanger	• Chips do not accumulate in the work space (no coolant tube / hose required) • Reliable coolant supply due to fixed flow orientation (no flexible coolant nozzle)

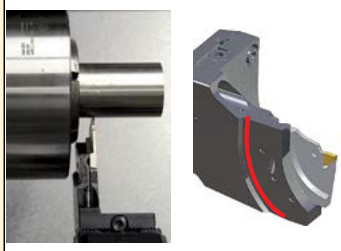
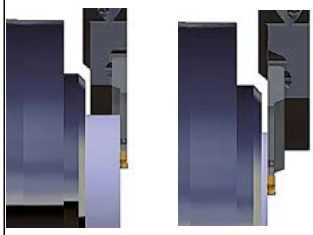
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ISCAR Modular System for Turning Lathes

Toolholder Systems for Biglia / EUROTECH, MIYANO and NAKAMURA TOME with MODULAR-GRIP-XL Adaptation and Directed internal Coolant

Toolholder Systems for Biglia / EUROTECH, Miyano and Nakamura Tome		
Biglia / EUROTECH	Miyano	Nakamura-Tome
		
• Holder for Biglia / EUROTECH turrets • BI40 • BI55	• Holder for MIYANO turrets • MI40 • MI45 • MI55	• Holder for NAKAMURA-TOME turrets • NT55 • NT65

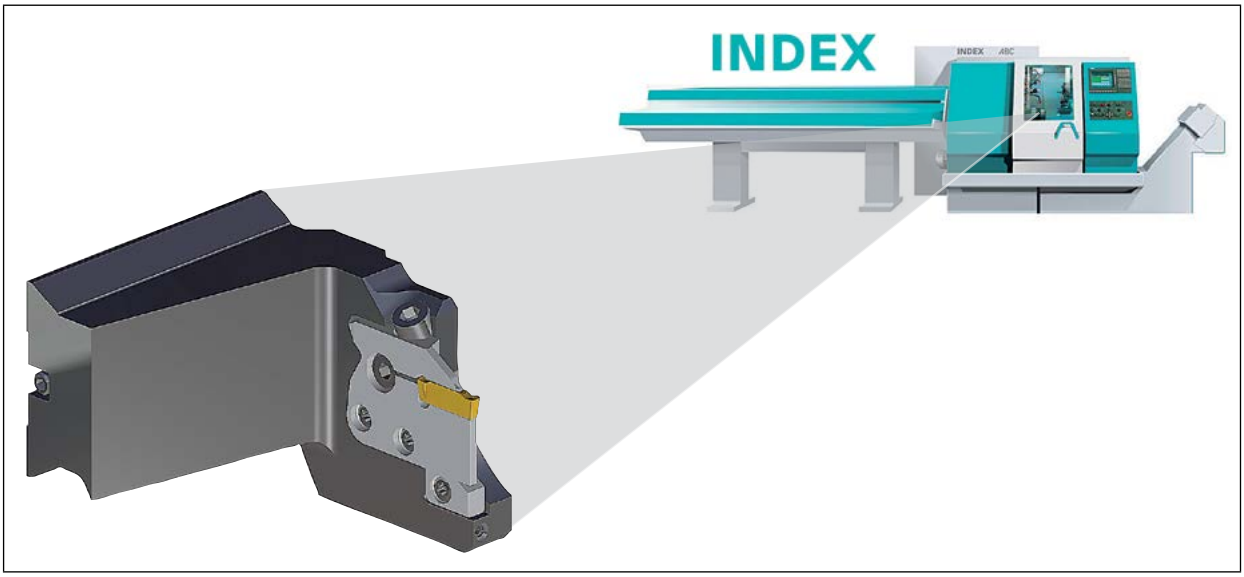
Features and Benefits of Machine-Specific Toolholder Systems

	Optimized Holder Design	Parting Next to Main Spindle and Sub-Spindle	Reliable Processes
Features:			
Benefits:	• Long tool life due to small bar overhang and less vibrations • Slim design • Low risk of collision • Suitable for any machine-specific clamping device	• Low risk of collision due to optimized tool design • Parting next to main spindle or sub-spindle depending on the correspondent length	• Chips do not accumulate in the work space (no coolant tube / hose required) • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

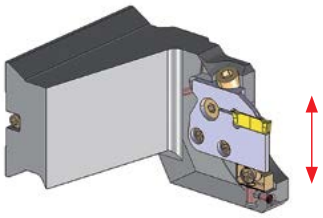
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ISCAR Modular System for Turning Lathes

Toolholder System for **INDEX ABC** Machines with MODULAR-**GRIP-XL**
Adaptation and Directed Internal Coolant



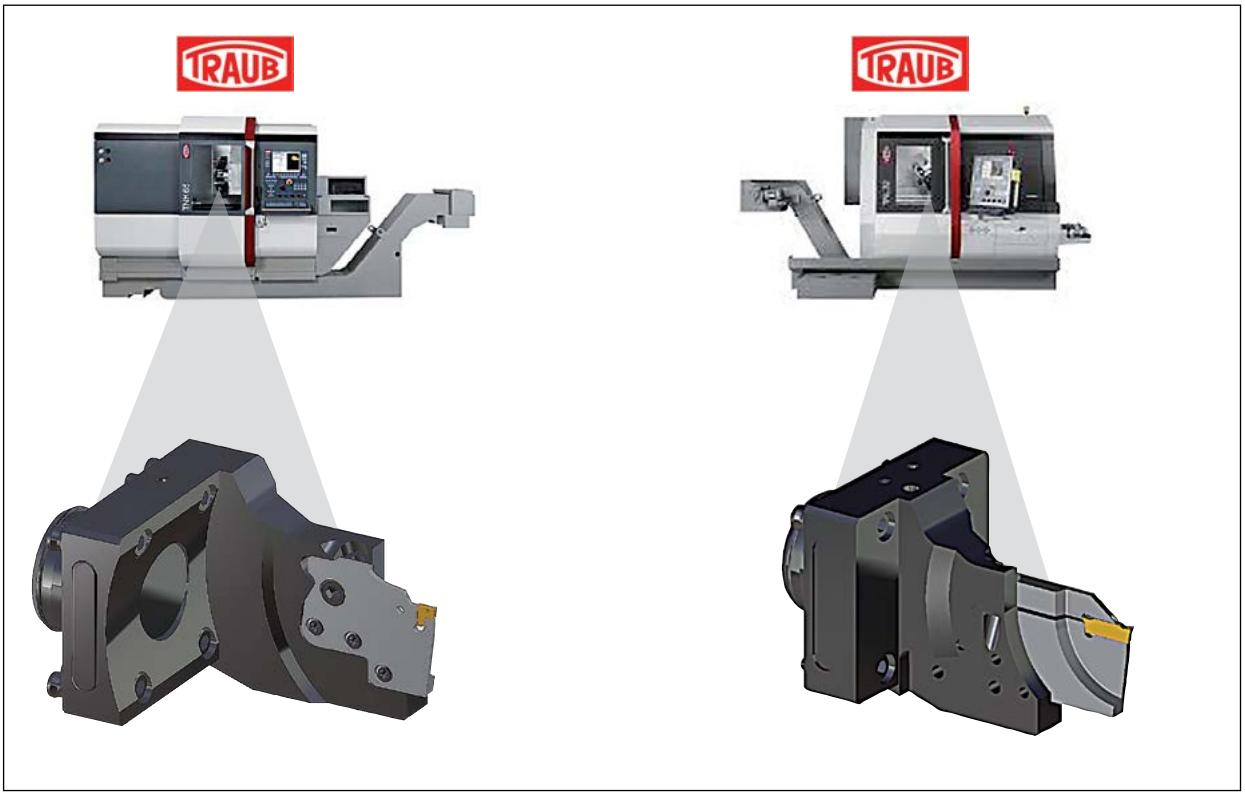
Features and Benefits of Machine-Specific Toolholder Systems

	Adaptation Sizes	Height Adjustment +0.2 mm	Machine Optimized Tool Design
Features:			
Benefits:	• For Index ABC machines turret 2 • Prismatic adaptation	• Mismatch of turrets can be adjusted • Extremely long tool life due to exact center height	• Extremely long tool life due to very stable tool design • Reduced vibrations due to reduced bar overhang • Reliable coolant supply due to fixed flow orientation (no adjustable coolant nozzle)

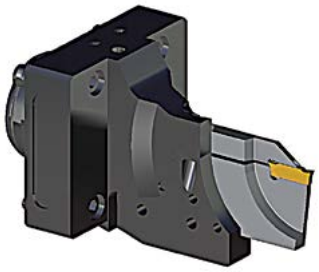
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ISCAR Modular System for Turning Lathes

Toolholder System for **Integral Shank 45** with MODULAR-**GRIP-XL**
Adaptation and Directed Internal Coolant



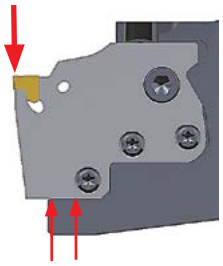
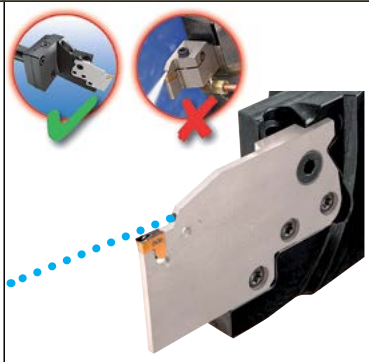
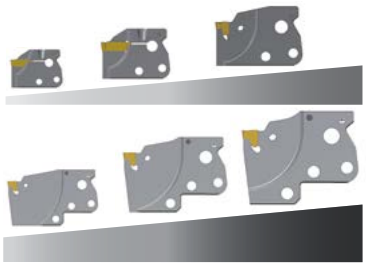
Features and Benefits of Machine-Specific Toolholder Systems

	TNK 36 / TNL 26	TNL 18 / TNL 32	TNK 42 / TNK 65
Features:			
Benefits:	• Dovetail connection for Traub TNK36 and TNL26 Machines • Tools are suitable for parting and grooving applications • Suitable for any machine-specific clamping device	• Integral shank 45 for Traub TNL18 and TNL32 • Tools are suitable for parting and grooving applications • Suitable for any grooving systems with directed internal coolant	• Low risk of collision due to machine-specific tool design • Tool is suitable for parting and grooving applications • Suitable for any machine-specific clamping device

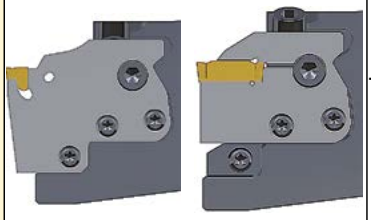
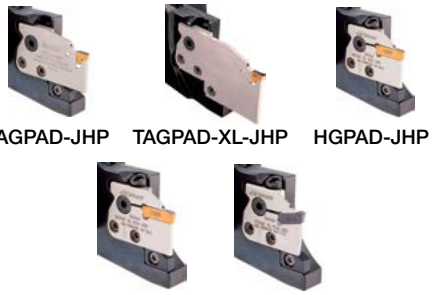
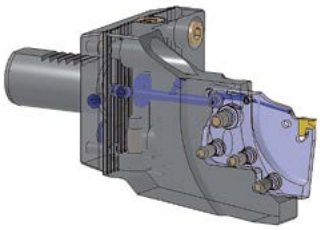
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Adapters with internal coolant

Features and Benefits of Machine-Specific Toolholder Systems

	Extremely Stable	Coolant Directly to the Cutting Zone	Additional External Diameters
Features:			
Benefits:	• Very long tool life as the cutting forces are directly transmitted to the intermediate holder • Very rigid due to additional clamping screw in the Modular-Grip-XL adapters pocket • Less vibrations due to rigid tool design	• Reliable tool life due to fixed flow orientation (no adjustable coolant nozzle) • Chips do not accumulate in the work space (no coolant tube / hose required) • Very efficient due to small distance between coolant exit and cutting zone	• Long tool life due to reduced vibrations by reinforced tool body • Suitable for all popular bar diameters

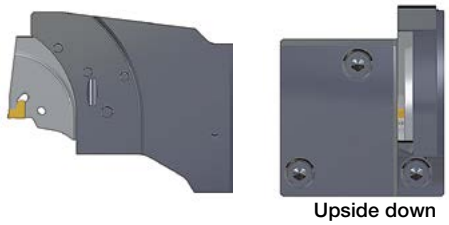
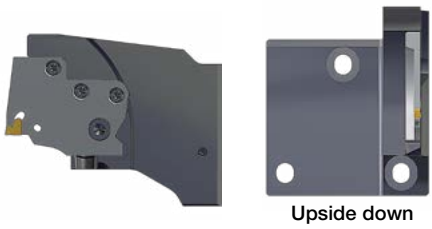
Features and Benefits of Machine-Specific Toolholder Systems

	MODULAR-GRIP/ MODULAR-GRIP-XL	Vario System	Coolant Connection from the Turret into the Cutting Zone
Features:		 TAGPAD-JHP TAGPAD-XL-JHP HGPAD-JHP DGPAD-JHP CGPAD-JHP	
Benefits:	• Very flexible due to compatibility with existing adapter systems • Modular-Grip and Modular-Grip-XL adapters can be mounted • High rigidity using Modular-Grip adapters by additional support	• Very flexible • Suitable for any JHP grooving systems • Direct cooling for grooving and turn-groove operations • A variety of options with a single holder	• Fast setup, less downtime • Chips do not accumulate in the work space • Easy handling, low risk of error

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ISCAR Modular System for Turning Lathes

Tool Design Overview

L-R	#### MAHDL-R-XL-JHP 	 Upside down
R-L	#### MAHDR-L-XL-JHP  Upside down	
R-R	#### MAHDR-R-XL-JHP  Upside down	
L-L	#### MAHDL-L-XL-JHP 	 Upside down

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ISCAR Modular System for Turning Lathes

Tool Selection

Example:

VDI30 M A H D R - L XL-JHP

- **VDI30** — Machine interface
- **R** — Turning direction at the main spindle
- **L** — Position of the adapter pocket

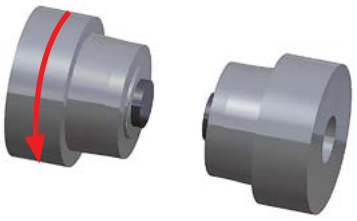
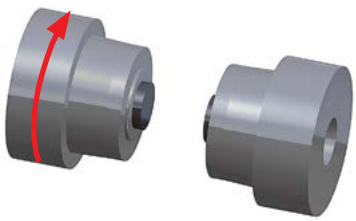
1 Defined Machine Adaptations

Type	VDI	VDI with W-serration	VDI with Vee-bar	VDI for disc type turret	BMT	DMG MORI	MAZAK	CAMFIX	HSK T	Biglia / EUROTECH	Miyano	Nakamura-Tome
Size	VDI20	VDI25W	VDI25V	VDI30-P	BMT45	MORI40	MA4016E	C4	HSK T 40	BI40	MI40	NT45
	VDI25	VDI30W	VDI30V	VDI40-P	BMT55	MORI60	MA4020E	C5	HSK T 63	BI55	MI45	NT55
	VDI30	VDI40W	VDI40V		BMT65		MA5020E	C6			MI55	NT65
	VDI40						MA4016T					
							MA4020T					

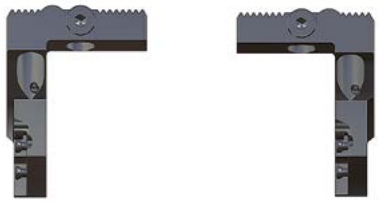
For details on adaptation please see technical information (starting at page 775).

2 Defined Turning Direction at the Main Spindle

View through the spindle into the work space

Right-Turn Direction M3 in CNC program	Left-Turn Direction M4 in CNC program
	

3 Position of the Adapter Pocket

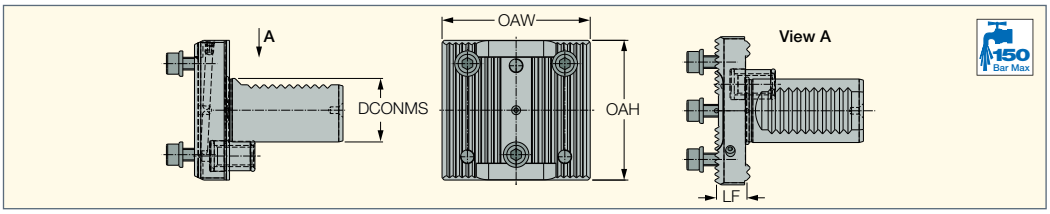
Adapter on the Right	Adapter on the Left
	

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VDI MODULAR-GRIP

VDI#### V##-JHP

Toolholders for Star Turrets with VDI Adaptation and Internal Coolant Supply for MODULAR-GRIP-XL Adapters



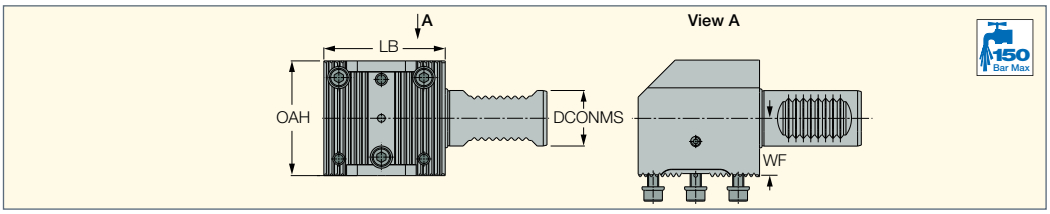
Designation	DCONMS	OAW	OAH	LF	Align.
VDI20 V60-JHP	20.00	60.00	56.00	28.75	-
VDI25 V60-JHP	25.00	60.00	61.20	12.75	-
VDI25TF V60-JHP	25.00	60.00	61.20	12.75	TriFix
VDI25V V60-JHP	25.00	60.00	61.20	12.75	V-Bar
VDI25W V60-JHP	25.00	60.00	61.20	13.40	W-toothing
VDI30 V60-JHP	30.00	70.00	66.00	13.75	-
VDI30TF V60-JHP	30.00	70.00	66.00	13.75	TriFix
VDI30V V60-JHP	30.00	70.00	66.00	13.75	V-Bar
VDI30W V60-JHP	30.00	70.00	66.00	14.40	W-toothing
VDI40 V85-JHP	40.00	85.00	82.00	15.75	-
VDI40TF V85-JHP	40.00	85.00	82.00	15.75	TriFix
VDI40V V85-JHP	40.00	85.00	82.00	15.75	V-Bar
VDI40W V85-JHP	40.00	85.00	82.00	16.35	W-toothing

• For user guide, see pages 760-774

VDI MODULAR-GRIP

VDI##-P V60-JHP

Toolholders for Disc - Type Turrets with VDI Adaptation and Internal Coolant Supply for MODULAR-GRIP-XL Adapters



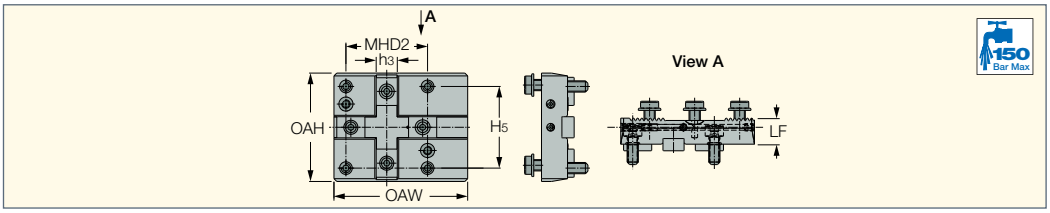
Designation	DCONMS	LB	OAH	WF	WB
VDI30-P V60-JHP	30.00	65.60	62.00	30.75	63.00
VDI40-P V60-JHP	40.00	65.60	80.00	34.75	70.50

• For user guide, see pages 760-774

DOOSAN HAAS JETCUT

BMT## V85-JHP

Toolholders for BMT Turrets with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



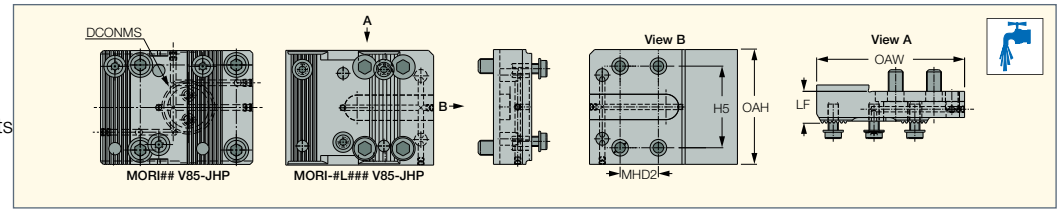
Designation	OAW	OAH	LF	H5	MHD2	h3
BMT45 V85-JHP	95.00	77.00	17.45	58.00	58.0	15.0
BMT55 V85-JHP	103.50	84.00	20.75	64.00	64.0	15.0
BMT65 V85-JHP	114.50	98.00	25.75	73.00	70.0	18.0
BMT75 V85-JHP	120.00	112.00	29.25	90.00	90.0	25.0

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DMG MORI JETCUT

MORI## V85-JHP

Toolholders for DMG MORI Turrets with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



Designation	OAW	OAH	LF	H5	MHD2	DCONMS
MORI-DL151 V85-JHP	116.00	90.00	24.25	64.00	30.0	-
MORI-SL200 V85-JHP	126.00	100.00	24.25	76.00	35.0	-
MORI40 V85-JHP	111.00	83.00	25.75	62.00	70.0	39.90
MORI60 V85-JHP	172.00	109.30	29.25	84.00	94.0	59.90

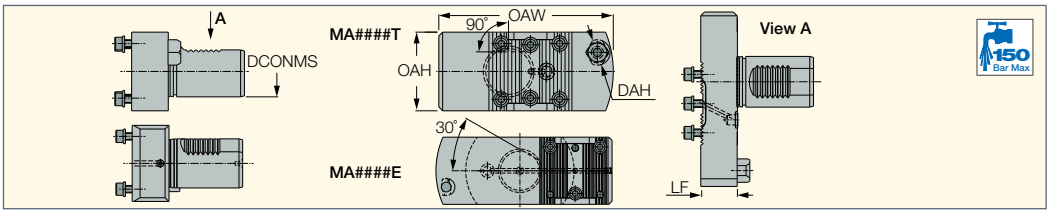
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Mazak JETCUT

MA##### V##-JHP

Toolholders for Mazak Turrets with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



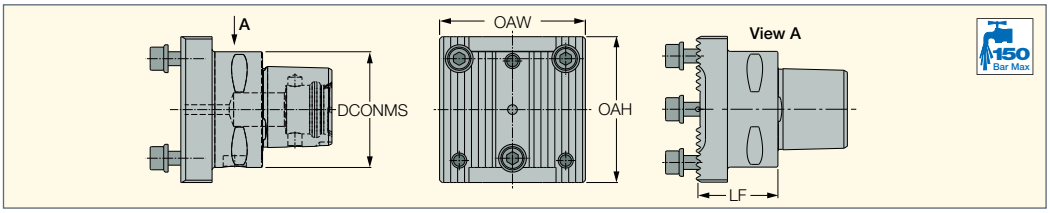
Designation	DCONMS	DAH	OAW	OAH	LF
MA4016T V60-JHP	40.00	16.00	132.50	62.00	28.15
MA4020T V60-JHP	40.00	20.00	137.50	62.00	28.15
MA4016E V60-JHP	40.00	16.00	162.50	62.00	29.25
MA4020E V60-JHP	40.00	20.00	170.00	62.00	29.25
MA5020E V85-JHP	50.00	20.00	168.50	100.00	45.75

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- For user guide, see pages 760-774

MODULAR-GRIP CAMFIX

C#-V60-JHP

Toolholders for CAMFIX Adaptations with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



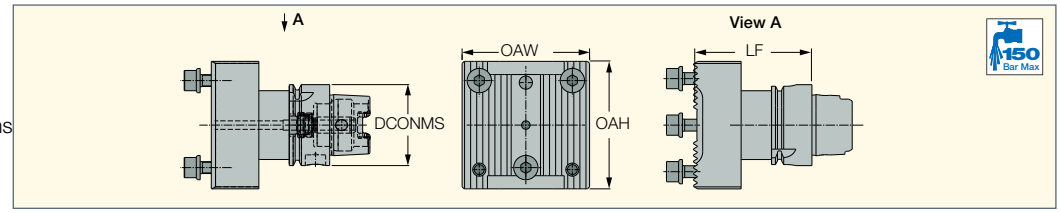
Designation	DCONMS	OAW	OAH	LF
C4 V60-JHP	40.00	63.00	63.00	34.55
C5 V60-JHP	50.00	63.00	63.00	34.55
C6 V60-JHP	63.00	63.00	63.00	36.55

- For user guide, see pages 760-774

MODULAR-GRIP HSK

HSK T ## V60-JHP

Toolholders for HSK-T Adaptations with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



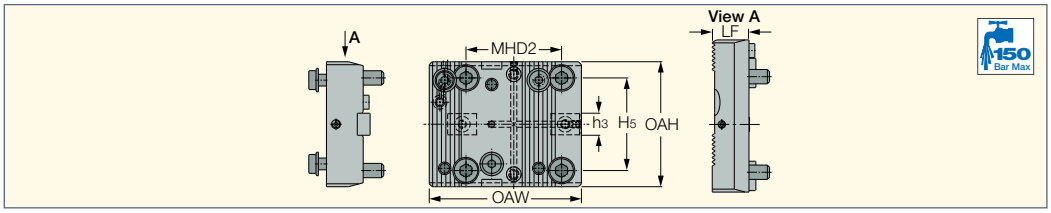
Designation	DCONMS	OAW	OAH	LF
HSK T 40 V60-JHP	40.00	63.00	63.00	57.75
HSK T 63 V60-JHP	63.00	63.00	63.00	57.75

- For user guide, see pages 760-774

Biglia EUROTECH JETCUT

BI## V##-JHP

Toolholders for Biglia / EUROTECH Adaptation with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



Designation	OAW	OAH	LF	H5	MHD2	h3
BI40 V60-JHP	83.00	70.00	20.75	50.00	50.0	12.0
BI55 V85-JHP	103.50	85.00	24.25	63.00	65.0	15.0

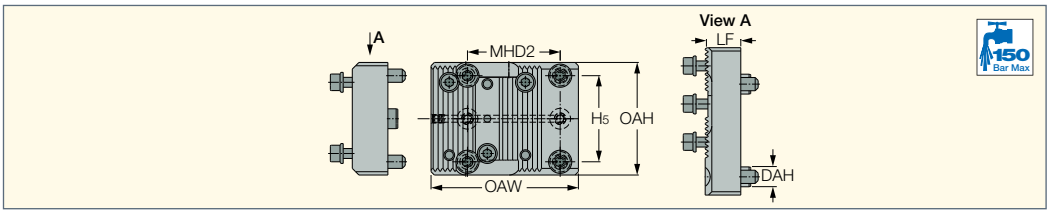
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Miyano JETCUT

MI## V60-JHP

Toolholders for Miyano Adaptation with Directed Internal Coolant for MODULAR-GRIP-XL Adapters



Designation	OAW	OAH	LF	H5	MHD2	DAH
MI40 V60-JHP	89.00	68.00	20.75	52.00	56.0	12.00
MI45 V60-JHP	102.00	72.00	13.95	56.00	68.0	12.00
MI55 V60-JHP	104.00	91.00	15.25	75.00	60.0	12.00

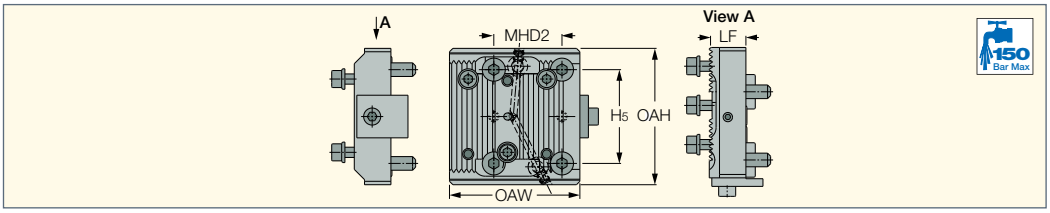
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Nakamura-Tome

JETCUT

NT## V60-JHP

Toolholders for Nakamura-Tome Adaptation with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



Designation	OAW	OAH	LF	H5	MHD2
NT45 V60-JHP	76.50	80.00	20.75	55.00	40.0
NT55 V60-JHP (1)	87.50	86.00	20.75	60.00	50.0
NT65 V60-JHP	99.50	100.00	20.75	71.00	69.0

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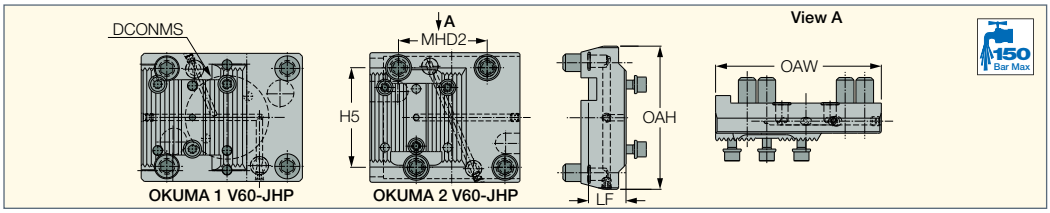
(1) Suitable for CMZ machines

OKUMA

MODULAR-GRIP

OKUMA # V60-JHP

Toolholders for OKUMA Adaptation with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



Designation	OAW	OAH	LF	H5	MHD2	DCONMS
OKUMA 1 V60-JHP	107.00	85.00	19.25	65.00	80.0	55.40
OKUMA 2 V60-JHP	110.00 (1)	95.00	24.25	73.00	65.0	-

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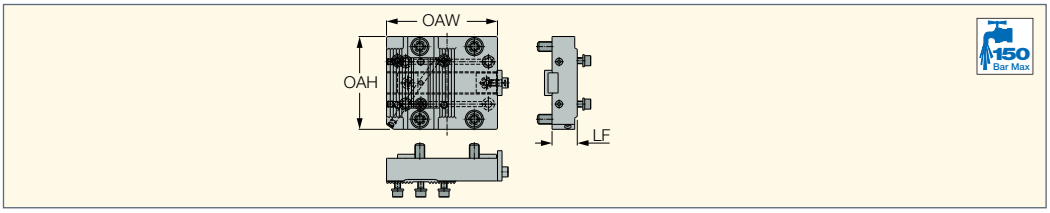
(1) also available in 100.00 mm

TSUGAMI Rem Sales, LLC

MODULAR-GRIP

TSU-M08 V60-JHP

Base Holders for TSUGAMI Adaptation with Internal Coolant for MODULAR-GRIP-XL Adapters



Designation	OAW	OAH	LF
TSU-M08-SY V60-JHP	110.00	92.00	25.00

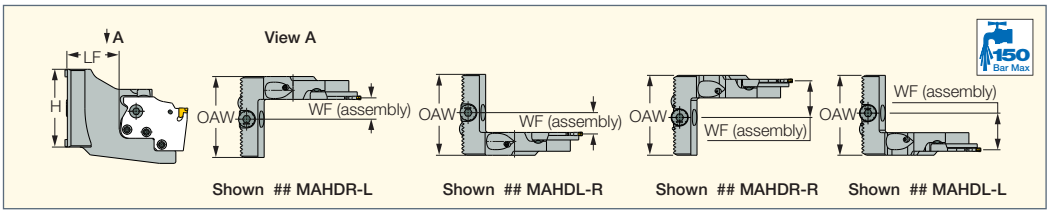
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MODULAR-GRIP JETCUT

V## MAHD#-#-XL-##-JHP

Intermediate Holders for ISCAR Modular System Holders with Directed Internal Coolant for MODULAR-GRIP-XL Adapters

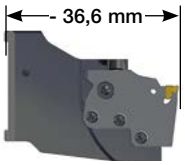


Designation	CSI	H	OAW	LF	WF
V60 MAHDL-L-XL-JHP	V60	62.0	64.50	42.65	29.60
V60 MAHDL-L-XL-SH-JHP	V60	62.0	64.50	18.65	32.80
V85 MAHDL-L-XL-JHP	V85	83.0	85.00	43.65	38.10
V85 MAHDL-L-XL-LH-JHP	V85	83.0	85.00	69.15	38.10
V60 MAHDL-R-XL-JHP	V60	62.0	64.50	42.65	17.00
V60 MAHDL-R-XL-LH-JHP	V60	62.0	64.50	69.15	17.00
V60 MAHDL-R-XL-SH-JHP	V60	62.0	64.50	18.65	20.20
V85 MAHDL-R-XL-JHP	V85	83.0	85.00	43.65	25.50
V85 MAHDL-R-XL-LH-JHP	V85	83.0	85.00	69.15	25.50
V85 MAHDL-R-XL-SH-JHP	V85	83.0	85.00	26.65	25.50
V60 MAHDR-L-XL-JHP	V60	62.0	64.50	42.65	17.00
V60 MAHDR-L-XL-LH-JHP	V60	62.0	64.50	69.15	17.00
V60 MAHDR-L-XL-SH-JHP	V60	62.0	64.50	18.65	20.20
V85 MAHDR-L-XL-JHP	V85	83.0	85.00	43.65	25.50
V85 MAHDR-L-XL-LH-JHP	V85	83.0	85.00	69.15	25.50
V85 MAHDR-L-XL-SH-JHP	V85	83.0	85.00	26.65	25.50
V60 MAHDR-R-XL-JHP	V60	62.0	64.50	42.65	29.60
V60 MAHDR-R-XL-LH-JHP	V60	62.0	64.50	69.15	29.60
V60 MAHDR-R-XL-SH-JHP	V60	62.0	64.50	18.65	32.80
V85 MAHDR-R-XL-JHP	V85	83.0	85.00	43.65	38.10
V85 MAHDR-R-XL-LH-JHP	V85	83.0	85.00	69.15	38.10
V85 MAHDR-R-XL-SH-JHP	V85	83.0	85.00	26.65	41.30

- For user guide, see pages 760-774

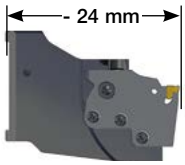
For tools, see pages: CGPAD-JHP (282) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGPAD-JHP (271) • TNFPAD-XL-JHP (569)

Short Design MAHD-XL-JHP



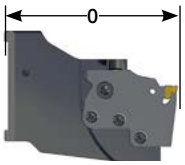
For machines without sub-spindle

Short Version ...-XL-SH-JHP

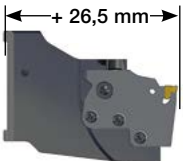


For machines with a small turret swing diameter

Standard Version ...-XL-JHP



Long Version XL-LH-JHP

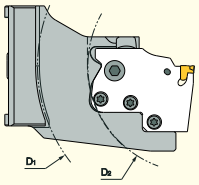


For machines with big sub-spindle diameter

Intermediate holder spare parts

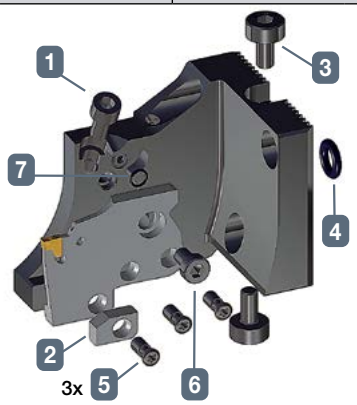
Designation	(1) Clamping Screw	(2) Dummy	(3) Height Adjustment Screw	(4) O-Ring	(5) Screw	(6) Screw	(7) O-Ring
V## MAHD#-#-XL-##-JHP	SR M6x16DIN912 12.9	Dummy-MG-XL-5113377	SR 14-0194-56113373	O RING 8x3 NBR 70	SR M5-04451	SR M6x10DIN6912	OR 5x1N

Tool dimensions with Adapter



L = Total tool length
D1= max. diameter of sub-spindle

Adapter	V## MAHD#-#- XL-SH-JHP		V## MAHD#-#- XL-JHP		V## MAHD#-#- XL-LH-JHP	
	D1	D2	D1	D2	D1	D2
DGPAD ...-D22-JHP	99	46	147	94	200	147
DGPAD ...-D32-JHP	99	46	147	94	200	147
TAGPAD ...-D42-JHP	104	52	152	100	205	153
TAGPAD ...-D52-JHP	114	62	162	110	215	163
TAGPAD-XL ...-D52-JHP	114	62	162	110	215	163
TAGPAD-XL ...-D65-JHP	127	70	175	118	228	171
TAGPAD-XL ...-D82-JHP	146	86	194	134	247	187
TAGPAD-XL ...-D102-JHP	170	107	218	155	271	208

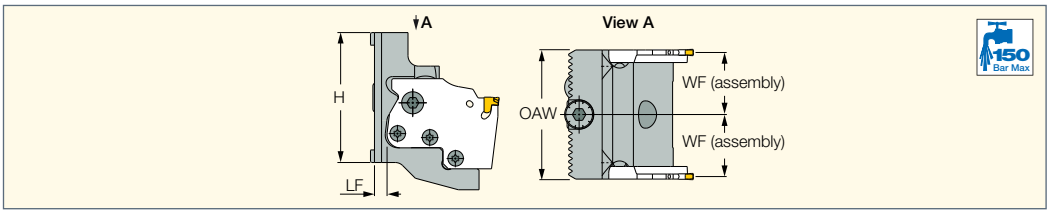


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MODULAR-GRIP
JETCUT

V## MAHD-XL-JHP

Intermediate Holders for ISCAR Modular System Holders with Directed Internal Coolant for MODULAR-GRIP-XL Adapters



Designation	CSI	H	OAW	LF	WF
V60 MAHD-XL-JHP	V60	62.0	61.60	6.05	29.50
V85 MAHD-XL-JHP	V85	85.0	85.00	6.05	41.30

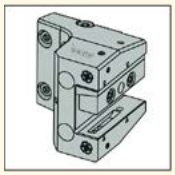
- For user guide, see pages 760-774

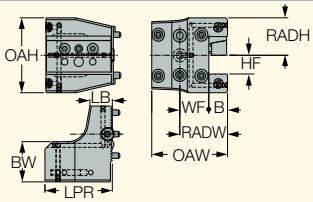
For tools, see pages: CGPAD-JHP (282) • DGPAD-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGPAD-JHP (271) • TNFPAD-XL-JHP (569)

TOOL BLOCKS

V-ASH-MC

Axially Oriented, Short, Right-Hand, Wedge Clamping Holders for Square Shank Tools



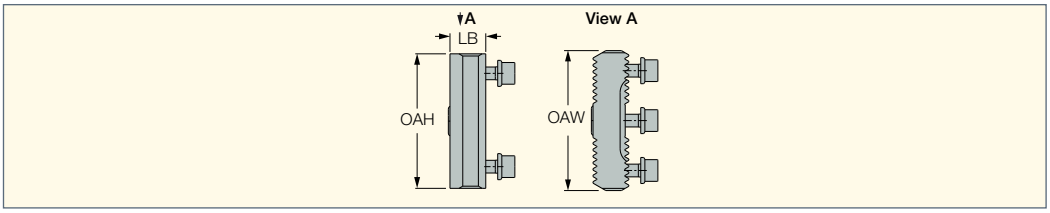


Designation	HF	WF	LPR	OAH	RADW	B	LB	RADH	BW	OAW
V60 ASH 20-MC	20.0	31.00	72.00	80.00	51.00	20.0	24.00	40.00	43.00	81.00
V60 ASH 25-MC	25.0	32.00	87.00	90.00	57.00	25.0	24.00	45.00	48.00	87.00
V85 ASH 25-MC	25.0	43.00	87.00	100.00	68.00	25.0	26.00	50.00	55.00	110.50
V85 ASHD 25-MC	25.0	43.00	87.00	100.00	68.00	25.0	26.00	50.00	55.00	110.50

MODULAR-GRIP

V## V##-L##

Spacer for ISCAR Modular System



Designation	CSI	OAH	OAW	LB
V60 V60-L15	V60	62.00	64.50	15.00
V60 V60-L30	V60	62.00	64.50	30.00
V85 V85-L30	V85	83.00	85.00	30.00

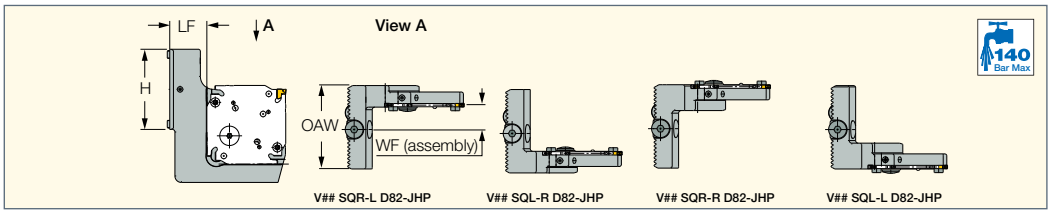
- For user guide, see pages 760-774

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LOGIQ F GRIP HIGH FEED GRIP HOLDER

V## SQ#-#-D82-JHP

Intermediate Holders for TANG-F-GRIP and DO-F-GRIP Square Type D82 Adapters Designed for Modular Tooling Systems



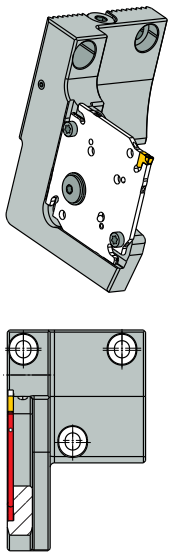
Designation	H	LF	OAW	WF[1]
V60 SQL-L-D82-JHP	62.0	34.70	64.50	28.95
V60 SQL-R-D82-JHP	62.0	34.70	64.50	15.35
V60 SQR-L-D82-JHP	62.0	34.70	64.50	18.85
V60 SQR-R-D82-JHP	62.0	34.70	64.50	32.45
V85 SQL-L-D82-JHP	83.0	34.70	85.00	40.95
V85 SQL-R-D82-JHP	83.0	34.70	85.00	27.35
V85 SQR-L-D82-JHP	83.0	34.70	85.00	27.35
V85 SQR-R-D82-JHP	83.0	34.70	85.00	40.95

(1) When 3mm width insert is used.

For tools, see pages: DGAQ (515) • DGAQ-JHP (515) • TGAQ (514) • TGAQ-JHP (513)

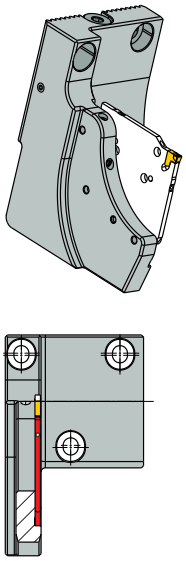
Identification Key

V60 SQL-L-D82-JHP



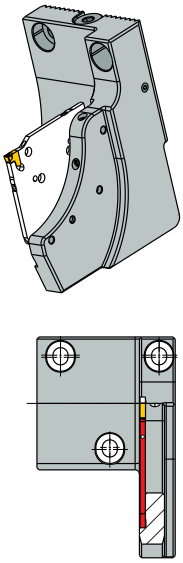
L- Holder (prism) orientation
L- Pocket side

V60 SQL-R-D82-JHP



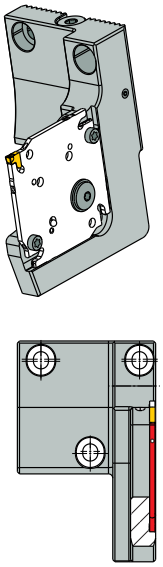
L- Holder (prism) orientation
R- Pocket side

V60 SQR-L-D82-JHP



R- Holder (prism) orientation
L- Pocket side

V60 SQR-R-D82-JHP



R- Holder (prism) orientation
R- Pocket side

Spare Parts

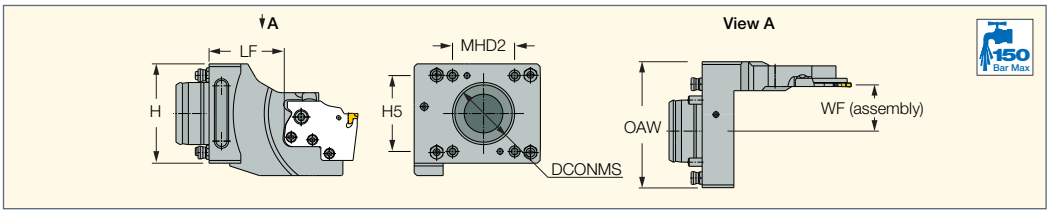
Designation					
V## SQ#-#-D82-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	O-RING 10X2 NBR	SIDE THRUST PIN 3mm	SR ISO 14580 M4X10



TRAUB JETCUT MODULAR-GRIP

TR45 MAHDR-#-XL-JHP

Toolholders for TRAUB TNK45 / TNK 65 Machines with Directed Internal Coolant for MODULAR-GRIP-XL Adapters



Designation	H	OAW	H5	MHD2	DCONMS	LF	WF
TR45 MAHDR-L-XL-JHP	72.0	91.50	55.00	45.0	45.00	54.40	33.50

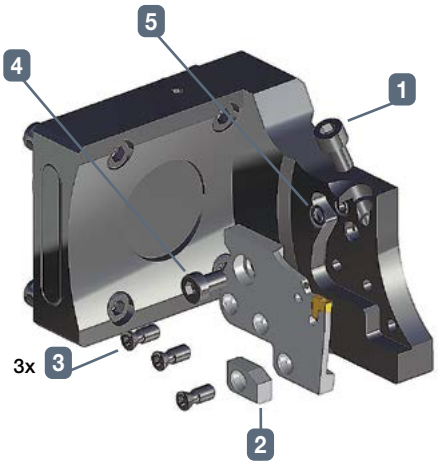
• All trademarks and logos are the property of their respective companies • For user guide, see pages 760-774

For tools, see pages: CGPAD-JHP (282) • DGPAD-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGPAD-JHP (271)

Spare Parts

Designation	(1) Clamping Screw	(2) Dummy
TR45 MAHDR-L-XL-JHP	SR M6x16DIN912 12.9	Dummy-MG-XL-5113377

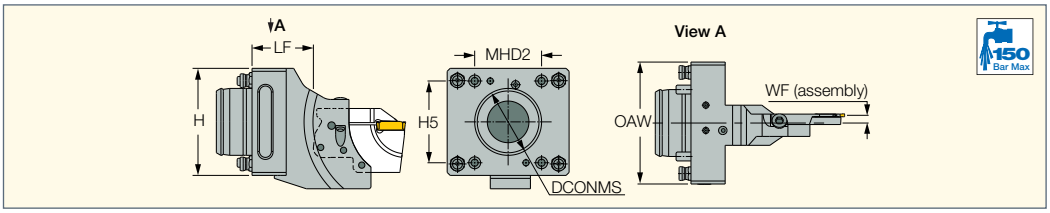
(3) Screw	(4) Screw	(5) O-Ring
SR M5-04451	SR M6x10DIN6912	OR 5x1N



TRAUB JETCUT MODULAR-GRIP

TR45TNL MAHDN-R-XL-JHP

Toolholders for TRAUB TNL16 to TNL18 / TNL32 Machines with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



Designation	H	OAW	H5	MHD2	DCONMS	LF	WF
TR45TNL MAHDN-R-XL-JHP	72.0	82.00	55.00	45.0	45.00	41.30	6.00

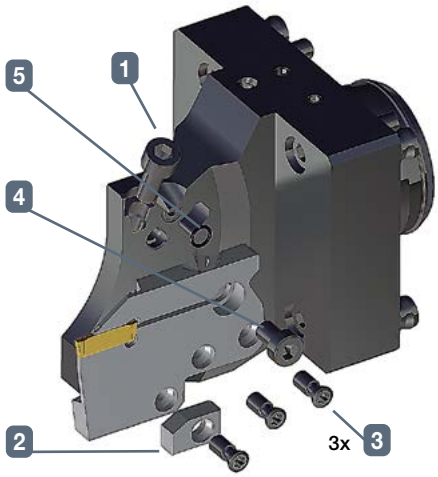
• All trademarks and logos are the property of their respective companies • For user guide, see pages 760-774

For tools, see pages: CGPAD-JHP (282) • DGPAD-XL-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-XL-JHP (500) • TGPAD-JHP (271)

Spare Parts

Designation	(1) Clamping Screw	(2) Dummy
TR45TNL MAHDN-R-XL-JHP	SR M6x16DIN912 12.9	Dummy-MG-XL-5113377

(3) Screw	(4) Screw	(5) O-Ring
SR M5-04451	SR M6x10DIN6912	OR 5x1N

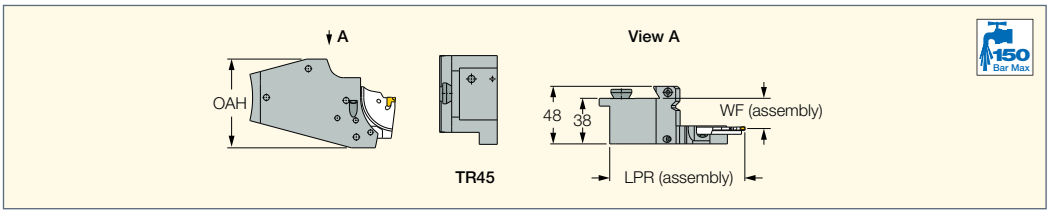


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TRAUB JETCUT MODULAR-GRIP

TR TNK36 MAHDL-R-XL-JHP

Toolholders for TRAUB TNK36 / TNL26 Machines with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



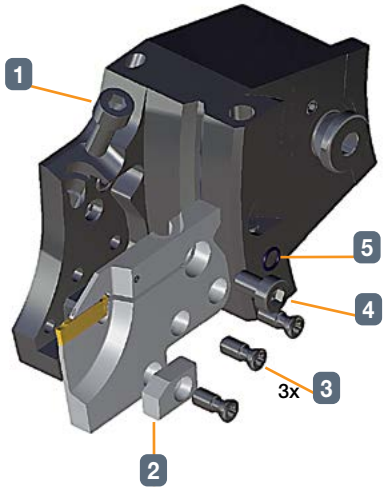
Designation	OAH	LPR	WF
TR TNK36 MAHDL-R-XL-JHP	74.00	91.50	24.50

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- For user guide, see pages 760-774

For tools, see pages: CGPAD-JHP (282) • DGPAD-XL-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-XL-JHP (500) • TGPAD-JHP (271)

Spare Parts

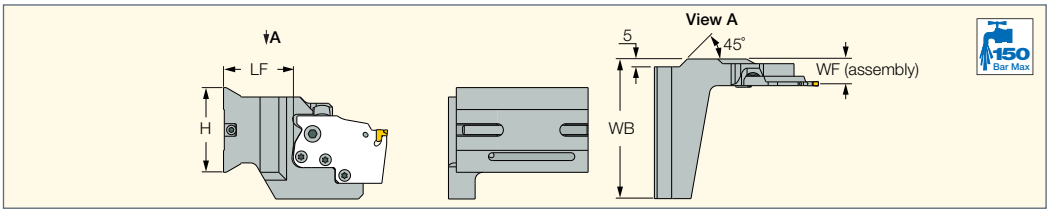
Designation	(1) Clamping Screw	(2) Dummy	(3) Screw	(4) Screw	(5) O-Ring
TR TNK36 MAHDL-R-XL-JHP	SR M6x16DIN912 12.9	Dummy-MG-XL-5113377	SR M5-04451	SR M6x10DIN6912	OR 5x1N



INDEX JETCUT MODULAR-GRIP

ABC MAHDR-#-XL-JHP

Toolholders for Index ABC Speedline with Internal Coolant Supply for MODULAR-GRIP-XL Adapters



Designation	H	WB	LF	WF
ABC MAHDR-L-XL-JHP	56.0	91.50	44.55	17.00

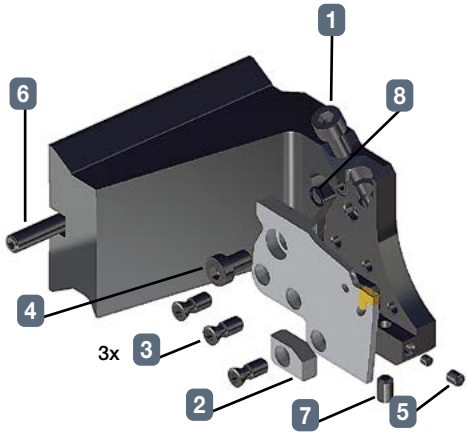
- All trademarks and logos are the property of their respective companies
- For user guide, see pages 760-774

For tools, see pages: CGPAD-JHP (282) • DGPAD-JHP (480) • DGPAD-XL-JHP (480) • HGPAD-JHP (267) • PCADR/L-JHP (317) • PCADRS/LS-JHP (317) • TAGPAD-JHP (500) • TAGPAD-XL-JHP (500) • TAGPAD-Y-JHP (519) • TGPAD-JHP (271) • TNFPAD-XL-JHP (569)

Spare Parts

Designation	(1) Clamping Screw	(2) Dummy	(3) Screw	(4) Screw	(5) Pin
ABC MAHDR-#-XL-JHP	SR M6x16DIN912 12.9	Dummy-MG-XL-5113377	SR M5-04451	SR M6x10DIN6912	SR M4x5DIN913 45H

Designation	(6) Stopper Screw	(7) Height Adjustment Screw	(8) O-Ring
ABC MAHDR-#-XL-JHP	DIN913-M6x80-45H	SR M5x8DIN913 45H	OR 5x1N



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MATERIALS



Member IMC Group

MATERIAL GROUPS

Based on ISO 513 and VDI 3323 standards

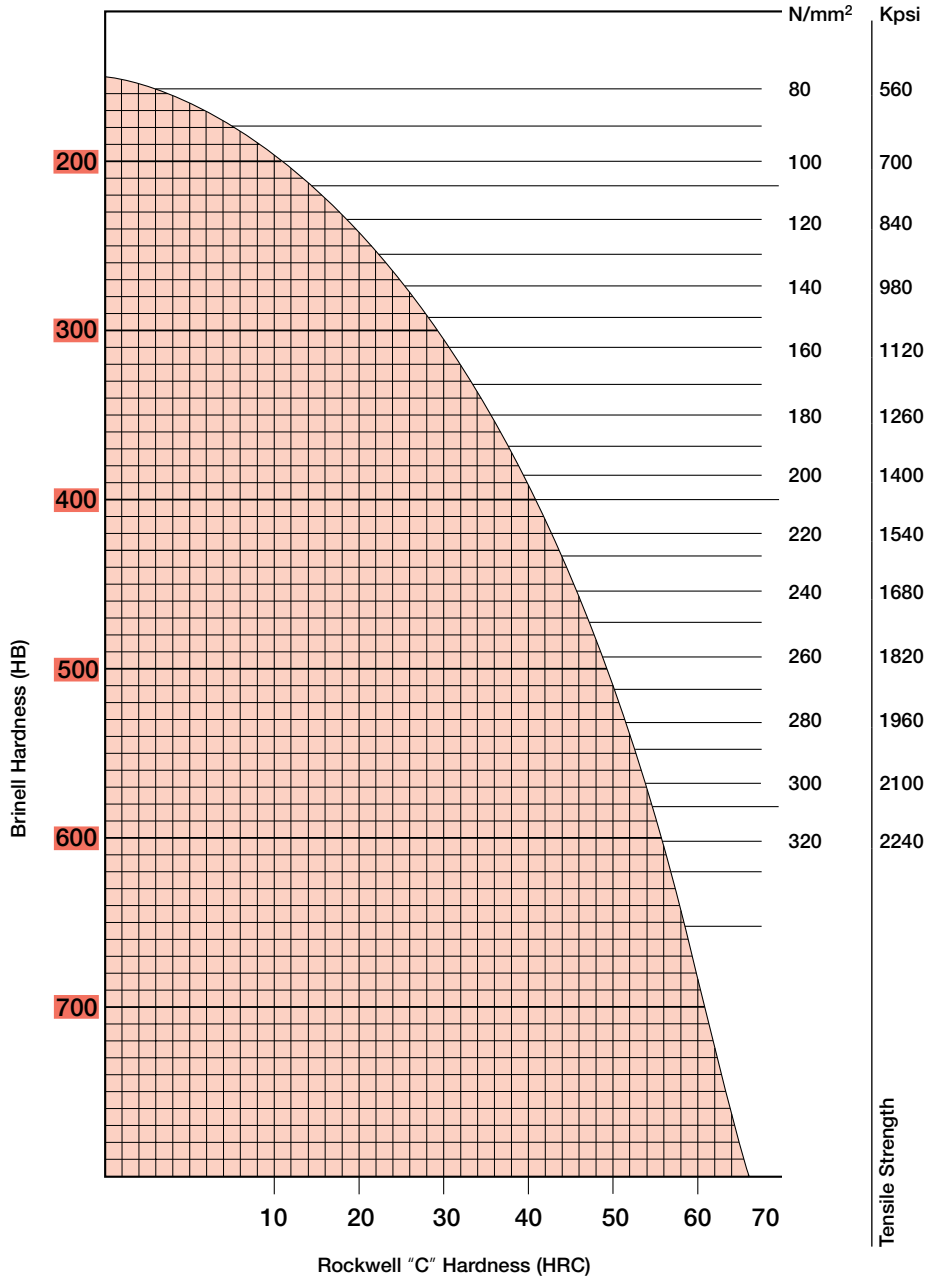
ISO	Material		Condition	Tensile Strength [N/mm²]	Kc1(1) [N/mm²]	mc(2)	Hardness HB	Material Group No.
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	1350	0.21	125	1
		≥ 0.25 %C	Annealed	650	1500	0.22	190	2
		< 0.55 %C	Quenched and tempered	850	1675	0.24	250	3
		≥ 0.55 %C	Annealed	750	1700	0.24	220	4
			Quenched and tempered	1000	1900	0.24	300	5
	Low alloy and cast steel (less than 5% of alloying elements)		Annealed	600	1775	0.24	200	6
			Quenched and tempered	930	1675	0.24	275	7
				1000	1725	0.24	300	8
				1200	1800	0.24	350	9
	High alloyed steel, cast steel and tool steel		Annealed	680	2450	0.23	200	10
			Quenched and tempered	1100	2500	0.23	325	11
	Stainless steel and cast steel		Ferritic/martensitic	680	1875	0.21	200	12
			Martensitic	820	1875	0.21	240	13
M	Stainless steel and cast steel		Austenitic, duplex	600	2150	0.20	180	14
K	Gray cast iron (GG)		Ferritic / pearlitic		1150	0.20	180	15
			Pearlitic / martensitic		1350	0.28	260	16
	Nodular cast iron (GGG)		Ferritic		1225	0.25	160	17
			Pearlitic		1350	0.28	250	18
	Malleable cast iron		Ferritic		1225	0.25	130	19
			Pearlitic		1420	0.3	230	20
N	Aluminum-wrought alloys		Not hardenable		700	0.25	60	21
			Hardenable		800	0.25	100	22
	Aluminum-cast alloys	≤12% Si	Not hardenable		700	0.25	75	23
			Hardenable		700	0.25	90	24
		>12% Si	High temperature		750	0.25	130	25
	Copper alloys	>1% Pb	Free cutting		700	0.27	110	26
			Brass		700	0.27	90	27
			Electrolytic copper		700	0.27	100	28
	Non metallic		Duroplastics, fiber plastics					29
			Hard rubber					30
S	High temperature alloys	Fe based	Annealed		2600	0.24	200	31
			Hardened		3100	0.24	280	32
		Ni or Co based	Annealed		3300	0.24	250	33
			Hardened		3300	0.24	350	34
			Cast		3300	0.24	320	35
	Titanium alloys		Pure	400	1160	0.24		36
			Alpha+beta alloys, hardened	1050	1245	0.24		37
H	Hardened steel		Hardened		4600		55 HRC	38
			Hardened		4700		60 HRC	39
	Chilled cast iron		Cast		4600		400	40
	Cast iron		Hardened		4500		55 HRC	41

Steel
Stainless Steel
Cast Iron
Non-ferrous
High Temp. and Titanium Alloys
Hardened Steel and Cast Iron

(1) Specific cutting force for 1 mm² chip section.
(2) Chip thickness factor.

MATERIAL GROUPS

Hardness Conversion Table



According to VDI 3323 Standard

Material Group No.	USA	Germany		U.K.	France	Sweden	Italy	Spain	Japan	Russia	EURONORM
	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
1	1020; G10200; K02301; K02595; K02596; K02597; K02598; K02599; K02702; K0300	1.0044	S275JR; St 44-2; Fe 430 B	EN 43 B; Fe 430 B FN; 43/25 HR; 43/25HS; 43 B; HFW4; HFS4; ERW 3	E 28-2	1411; 1412	Fe 430 B FN; Fe 430 B	AE 275 B; Fe 430 B FN	SN 400 B; SN 400 C; SN 490 B; SN 490 C; SS 400; STK 400; STKM 19 C; STKR 400; 19 C; SS 41; STK 41	St4ps; St4sp	S275JR
1		1.0050	E295; St 50-2; Fe 490-2; ST 50-2 G (E295+CR)	Fe 490-2 FN; 50 B	A 50-2	1550; 2172	Fe 490	A 490-2; Fe 490-2 FN	SS 490; SS 50	St5ps; St5sp	
1	K02404; K02702	1.0045	S355JR; Fe 510 B	50 B; 4360-50 B	E 36-2		Fe 510 B FN	AE 355 B	SN 400 B; SN 400 C; SN 490 B; SN 490 C; SS 490; SS 50		S355JR
1	K02702	1.0143	S275J0; St 44-3 U; Fe 430 C	43C; 4360-43C	E 28-3	1414-01	Fe 430 C FN	AE 275 D			S275J0
1		1.0130	P265S; SPH 265	164-400B LT 20	SPH 265; A 42 AP			SPH 265			P265S
1	A 619	1.0333	DC03G1; USt 3; USt 13	2 CR; 3 CR	E		FeP 02	AP 02	SPCD		DC03G1
1	K02601; K03000; A 573 Gr. 70; A 611 Gr.D	1.0144	S275J2G3 (S275J2); St 44-3 (Fe 430 D 1)	Fe 430 D1 FF; 4360-43 C; 4360-43 D	E 28-3; E 28-4	1411; 1412; 1414	Fe 430 B; Fe 430 C (FN); Fe 430 D (FF)	AE 275 D; Fe 430 D1 FF	SM 400 A; SM 400 B; SM 400 C; SS 400; STK 400; STKR 400; SM 41 A; SM 41 B; SM 41 C	St4kp; St4ps; St4sp	
1	1008; G10080; A 621	1.0330	DC01; DC 01; St 2; St 12	CR 4; CS 4	C; TC	1142	FeP 01; FeP 00	AP 11; FeP 01; AP 00	SPCC; CR 1		DC01 (FeP 05)
1	1015; G10150; K02401	1.0037	S235JR (Fe 360 B); St 37-2	Fe 360 B; 4360-40 B; ERW 3; CEW 3; 37/23 HR; 37/23 HS; 37/23 CR; 37/23 CS	E 24-2	1311	Fe 360 B; 1449 37/23 HR	AE 235 B; Fe 360 B	STKM 12 A; STKM 12 AC		
1		1.0035	S185 (Fe 310-0); St 33	Fe 310-0; 15 HR; 15 HS; 1449 15 HR; 1449 15 HS	A 33	1300	Fe 320	Fe 310-0; A 310-0	SGP; SS 330; SS 34	St0	S185
1	K02502	1.0034	E195; RSt 34-2	CEW 2; 34/20 HR; 34/20 HS; 34/20 CR; 1449 34/20CS	A 34-2 NE		Fe 330 BFN			St2ps; St2sp	E195
1		1.0334	DD12G1; UStW 23		2 C		FeP 12	AP 12	SPHD	10kp	
1	1006; G10060	1.0335	DD13; StW 24	1 CR; 1 CS; 1 HR; 2 HR; 2 HS; 2 CR; 2 CS	3 C		FeP 13	AP13	SPHE	08kp	DD13
1	A 620	1.0338	DC04; St 4; St 14	CR 1; CR 2	ES	1147	FeP 04	AP 04; FeP 04	SPCE; HR 4	08JuA	DC04 (FeP 04)

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
1	K01700; K02001; K02200; K02201; K02203; K02503; K02601; K02801	1.0345	P235GH; HI; H I	141-360; 151-360; 154-360; 161-360; 164-360	A 37 CP	1330; 1331	FeE 235; Fe 360 1 KW; Fe 360 1 KG; Fe 360 2 KW; Fe 360 2 KG	A 37 Grado RA II; A 37 Grado RC I	SGV 410; SGV 450; SGV 480; SPV 235; SPV 450; SPV 490; SGV 42; SGV 46; SGV 49; SPV 24; SPV 46; SPV 50		P235GH
1	1010; G10100	1.0301	C10; C 10	040 A 10; 045 M 10; En 2 A; En 2 A/1; En 2 B; En 32 A; 10 CS	C10RR; XC 10; C 10; AF 34 C 10		1 C 10; C 10	F.151; F.151.A	S 10C	10	C10
1		1.0149	S275JOH; St 44-3 U; RoSt 44-2	43 C; 4360-43C	E 28-3	1412-04	Fe 430 C	Fe 430 C; AE 275 C			S275JOH
1		1.0226	DX51D; St 02 Z	Z2	GC	1151 10	FeP 02 G	FeP 02 G	SGC C		
1	A 1011 (SS Grade 36 (230) Type 2); A1011 (SS Grade 36 (250) Type 1)	1.0114	S235JO; St 37-3 U; Fe 360 C	40 C; 4360-40C	E 24-3		Fe 360 C FN	AE 235 C	SS 330; SS 34		S235JO
1	A572-60	1.8900	S380N; StE 380	4360 55 E		2145	FeE 390 KG		S 25 C		S380N
1	A 572 Gr. 65	1.0060	E335; St 60-2 (Fe 590-2 B)	En 55 C; Fe 590-2-FN; 55 E; 4360-55 E	A 60-2	1650	Fe 590; Fe 60-2	A 590; Fe 590-2 FN	SM 570; SM 58	St6ps; St6sp	E335
1		1.0028	S250G1T; USt 34-2		A 34-2		Fe 330; Fe 330 B FU		SS 330; SS 34		
1	K01700; K02200; K02801	1.0112	P235S; SPH 235	164-360B LT20; 1501-164-360B LT20	A 37 AP; SPH 235		Fe 360 C	AE 235 C			P235S
1		1.0722	10SPb20; 10 SPb 20		10 PbF 2		CF 10 SPb 20	10 SPb 20; F.2122			10SPb20
1	1108; 1109; 1111; B1111; B 1111; G11080; G11090	1.0721	10S20; 10 S 20		10 F 2		CF 10 S 20	10 S 20; F. 2121			10S20
1	12L13; 12L14; 12 L 13; 12 L 14; G12134; G12144	1.0718	11SMnPb30; 9 SMnPb 28	230 M 07 Pb; En 1A Pb	S 250 Pb	1914	CF 9 SMnPb 28	F.210.C; F.210.M; 11 SMnPb 28; F.2112	SUM 22 L; SUM 23 L; SUM 24 L		11SMnPb30
1	1213; 1215; G12130; G12150	1.0715	11SMn30; 9 SMn 28	230 M 07; En 1 A	S 250	1912	CF 9 S 22	F.210.A; F.210.L; 11 SMn 28; F.2111	SUM 22		11SMn30
1	1020; 1023; G10200; G10230	1.1151	C22E; Ck 22	055 M 15; 070 M 20; En 3 A; En 3 C; En 2	XC 25; XC 18; 2 C 22	1450	C 20; C 25	F.1120; C 25 K	S 20 C; S 20 CK; S 22 C	20	C22E
1	A 1008 (HSLAS-F Grade 80 [550]); A 1011 (HLAS-F Grade 80 [550])	1.0986	S500MC; QStE 500 TM	60F55 HR; 60F55 HS; 60F55 CS	E 560 D; S 560 MC		FeE 560 TM				S500MC

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
1	A 1008 (HSLAS-F Grade 70 [480]); A 1008 (HSLAS Grade 70 [480] Class 1)	1.0984	S500MC; QStE 500 TM		E 490 D; S 490 MC	2662	FeE 490 TM				S500MC
1	A 1008 (HSLAS Grade 65 [450] Class 1); A 1008 (HSLAS Grade 65 [450] Class 2)	1.0982	S460MC; QStE 460 TM	1501-50F45; 50F45 HR; 50F45 HS; 50F45 CS							S460MC
1	A 1008 (HSLAS Grade 50 [340] Class 1); A 1008 (HSLAS Grade 50 [340] Class 2)	1.0976	S355MC; QStE 360 TM	46F40 HR; 46F40 HS; 46F40 CS	E 355 D	2642	FeE 355 TM				S355MC
1	A 1008 (HSLAS Grade 50 [340]); A 1008 (HSLAS Grade45 [310] Class 2); A 1011 (HSLAS-F Grade 50 [340])	1.0972	S315MC; QStE 300 TM	1501-40F30; 43F35 HR; 43F35 HS; 43F35 CS	E 315 D						
1	K01600; K02007; K02700; K02701; K02803; K02900; K03009; K03300; K11803; K12000; K12001; K12037	1.0562	P355N; StE 355	225-490A	FeE 355 KG N; E 355 R/FP; A 510 AP	2106	FeE 355; FeE 355 KG; FeE 355 KW	AE 355 KG; AE 355 DD	SM 490 A; SM 490 B; SM 490 C; SM 490 YA; SM 490YB STK 490 YB; STK 490; STK 500; SM 50 A; SM 50 B	15GF	P355N
1	1024; K03011; K03014; K12037; K12709	1.0570	S355J2G3 (S355J2); St 52-3 N (Fe 510 D1)			2132; 2134	fE 510	AE 355 D; Fe 510 D1 FF	SM 490 A; SM 490 B; SM 490 C; SM 490 YA; SM 490 YB; SM 520 B; SM 520 C; STK 490; STK 500; STKM 16 C	17GS; 17G1S	S355J2G3
1	K01600; K02302; K02700; K02701; K02803; K03301; K11803; K12037; K12609; A 299 (A); A 299 (B)	1.0566	P355NL1; TStE 355	225-490 A	A 510 FP	2107	Fe E 355 KT		SLA 365; STK 490; STK 500; SLA 37; STK 50; STK 51		P355NL1
1	K01600; K02007; K02701; K02803; K117803; K12001; K12037; K12609	1.0565	P355NH; WStE 355	225/490; 225-490 A; 500 Nb	A 510 AP	2106	FeE 355-2; FeE 355 KW				P355NH
1	K12037	1.0549	S355 NLH; TStE 355	50 EE		2135	Fe 510 D	FeE 355 KTM			S355 NLH

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
1	K12000	1.0553	S355JO; St 52-3 U; Fe 510 C	50 C; 4360-50C	E 36-3		Fe 510 C FN	AE 355 C	SCC 3		S355JO
1	A 252 (1); A 252 (2); A 252 (3)	1.0547	S355JOH; St 52-3 U	50 C; 4360-50C	TSE 355-3; E 36-3		Fe 510 C	AE 355 C; Fe 510 C			S355JOH
1	K02502	1.0036	S235JRG1; S235JR; Fe 360 B; USt 37-2	Fe 360 B FU; Fe 360 B FN		1311; 1312	Fe 360 B; Fe 360 C; Fe 360 D	AE 235 B; Fe 360 B		16D; St3Kp	
1	1020; 1022; 1023; G10200; G10220; G10230	1.0402	C22	055 M 15; 070 M 20; En 3 A; En 3 B; En 3 C; En 2; 22 HS; 22 CS	AF 42 C 20; XC 25; 1 C 22	1450	C 20; C 21	F.112; 1 C 22	S 20 C; S 22 C	20	C22; 2C/2D
1	K01701; K02505; K02704; K02801	1.0425	P265GH; H II	151-400; 154-400; 161-400; 164-400	A 42 CP; A 42 AP	1431; 1430; 1432	Fe 410 1 KW; Fe 410 1 KG; Fe 410 1 KT; Fe 410 2 KW; Fe 410 2 KG	A 42 Grado RC I; A 42 Grado RC II; F.6306; F.6307	SG 295; SGV 410; SGV 450; SGV 480; SPV 315; SPV 355; SG 30; SGV 42; SGV 46; SGV 49; SPV 32; SPV 36	16K; 20K	P265GH
1	A27 65-35	1.0443	HX300PD; H300PD; H 300 PD		E 23-45 M	1305					HX300PD
1	K12000; K12037	1.0546	S355NL; TStE 355	50 EE; 4360-50EE	E 355 FP	2135; 2135-01	FeE 355 KT	AE 355 Grado KT			
1	K12709	1.0545	S355N; StE 355	50 E; 4360-50E	E 355 R	2134	FeE 355 KG	AE 355 Grado KG	SM 490 A; SM 490 B; SM 490 C; SM 490 YA; SM 490 YB; SM 50 A; SM 50 B; SM 50 C; SM 50 YA; SM 50 YB		S355N
1	K02705; K02305; K12709	1.0539	S355NH; StE 335 N	S355NH	S355NH; TSE 355-4	2134-04	Fe 510 B	Fe 355 KGN			S355NH
1	1213; 1215; G12130; G12150	1.0715	11SMn30; 9 SMn 28	230 M 07; 220 M 07	S 250	1912	CF 9 S 22	F.210.A; F.210.L; 11 SMn 28; F.2111	SUM 22		11SMn30
1		1.0722	10SPb20; 10 SPb 20		10 PbF 2		CF 10 SPb 20	10 SPb 20; F.2122			10SPb20
1	1215; G12150; A 29 (1215); A 108 (1215); A 510 (1215); A 510 (1215); A 519 (1215); A 521 (1215)	1.0736	11SMn37; 9 SMn 36		S 300		CF 9 Mn 36	12 SMn 35; F.2113	SUM 25		11SMn37
1	12L14; 12 L 14; G12144	1.0737	11SMnPb37; 9 SMnPb 36		S 300 Pb	1926	CF 9 SMnPb 36	12 SMnPb 35; F.2114			11SMnPb37
1	1010; G10100	1.1121	C10E; Ck 10	040 A 10; 045 M 10; En 2 A; En 2 A/1; En 2 B; En 32 A	C10RR; XC 10	1265	2 C 10; 2 C 15; 1 C 10; C 10	C 10 k; F.1510	S 09 CK; S 10 C	08; 10	C10E

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
1	1015; 1017; G10150; G10170	1.1141	C15E; Ck 15	080 A 15; 080 M 15; En 32 C	XC 12; XC 15; XC 18	1370	1 C 15; C 15	C 16 k; F.1511; F.1110; C 15 k	S 15 C; S 15 CK	15	C15E
1	1020; G10200; K02301; K02595; K02596; K02597; K02598; K02599; K02702; K03000	1.0044	S275JR; St 44-2; Fe 430 B	En 43 B; Fe 430 B; 43/25 HR; 43/25 HS; 43 B; HFW 4; HFS 4; ERW 3; CEW 4; SAW 4	E 28 A; NFA 35-501 E 28	1411; 1412	Fe 430 B FN	AE 275 B; Fe 430 B FN	SN 400 B; SN 400 C; SN 490 B; SN 490 C; SS 400; STK 400; STKM 19 C; STKR 400; 19 C; SS 41; STK 41	St4ps; St4sp	S275JR
1		1.0250	S320GD; StE 320-3 Z		S 320 GD				SGC 440; SZAC 440; SZAH 440; SGLH 440		S320GD
1		1.0453	P265NL; P 265 NL								P265NL
1		1.0338	DC04; St 4; St 14	CR 1; CS 2	ES	1147	FeP 04	AP 04; FeP 04	SPCE; HR 4	08JuA	DC04
1											
1	K02001; K02601; K02701	1.0116	S235J2G3 (S235J2); St 37-3 N; Fe 360 D 1	Fe 360 D1 FF; 37/23 CR; 37/23 CS; 37/23 HR; 37/23 HS; 40 D; HFW 4; HFS 4	E 24-3; E 24-4; E 24-U	1312; 1313	Fe 360 C; D; Fe 360 C FN; Fe 360 D FF; Fe 37-2		SS 330; SS 34	16D; St3sp	S235J2G3
1	1015; 1017; G10150; G10170	1.0401	C15; C 15	080 A 15; 080 M 15; En32 C; 17 CS; 17 HS	C18RR; XC 18; C 18; AF 37 C 12	1350	1 C 15; C15; C16	F.111	S 15 C		C15
1		1.0347	DC03; RRSt; RRSt 13	CR2; CR3; CS3; 1449 3 CR; 1449 2 CR	E	1146	FeP 02; FeP 03	AP 02; AP02; FeP03	SPCD; CR 3	08Ju	DC03
1	K01500; K01702; K02401; K02502; K03000; A570.36	1.0038	S235JR; S235JRG2; RSt 37-2; Fe 360 B	Fe 360 B FU; 37/23 CR; 37/23 CS; 37/23 HR; 37/23 HS; HFW 3; HFS 3; 40 B	E 24-2 NE	1312	Fe 360 B FN	AE 235 B FN; AE 235 B FU; Fe 360 B FN; Fe 360 B FU	SS 330; SS 34	St3ps; St3sp	S235JR
1	J03001	1.0446	GE240; GS-45	A 1					230-450; 230-450 W	25L-3	GE240
2	1035; G10350	1.0501	C35G; C 35 G	080 M 30; En 5; 080 M 36	C 35; AF 55; 1 C 35; XC 38	1572; 1550	C 35; 1 C 35	F.113	S 35 C; S 35 CM		C35G
2	1035; G10350	1.1183	C35G; C 35 G; Cf 35	080 A 35	XC 38 TS	1572	C 36; C 38	F.1130; C 35 k	S 35 C; S 35 CM	35	C35G
2	1039; G10390	1.1157	40Mn4; 40 Mn 4		35 M 5					40G	
2	1040; G10400	1.0511	C40; C 40	En 8; 080 M 40	AF 60; C 40; 1 C 40		C 40; 1 C 40	F.114.A			C40
2	1045; 1045 H; 1042; G10450; H10450; G10420	1.1191	C45E; Ck 45	080 H 46; 080 M 46	C45RR; XC 45; XC 48 H-1	1672	C 45	F.1140; F.1142; C 45 k; C48 k	S 45 C; S 45 CM; S 48 C	45	C45E

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
2	1025; G10250	1.1158	C25E; Ck 25	070 M 26	2 C 25; XC 25		C 25	F.1120; C 25 k	S 25 C; S 28 C	25	C25E
2	1043; 1045; G10430; G10450	1.0503	C45; C 45	080 M 46	C 45; AF 65; C 45; 1 C 45	1650	C 45; 1 C 45	F.114	S 45 C; S 45 CM	45	C45
2	1050; 1055; G10500; G10550	1.1213	C53G; C53E; Cf 53		XC 48 TS		C 53		S 50 C; S 50 CM	50	
2	1140; G11400	1.0726	35S20; 35 S 20	212 M 36	35 MF 4	1957		F.210.G; 35 MnS 6; F.2131			35S20; 8M
2	1139; 1146; G11390; G11460	1.0727	46S20; 45 S 20		45 MF 4						46S20
2	K12000	1.0553	S355J0; St 52-3 U; Fe 510-C	50 C	E 36-3		Fe 510 C FN	AE 355 C	SCC 3		S355J0
2		1.0551	S355JRC								S355JRC
2	K02700; K02803; K03103; K03300; K12437	1.0473	P355GH; 19 Mn 6		A 52 CP	2101; 2102	Fe E 355-2	A 52 RC I, RA II	SGV 410; SGV 450; SGV 480		P355GH
2		1.0416	C18D; GS-38		20-400 M	1306					C18D
2	K12447	1.0577	S355J2; S355J2G4; Fe 510 D2		A 52 FP	2107		A 52 RB II; AE 355 D			
2	1049; 1050; G10490; G10500	1.1206	C50E; Ck 50	080 M 50	XC 50; 2 C 50	1674	C 50			50	C50E
2	1330; 1527; G13300; G15270	1.1170	28Mn6	150 M 19; En 14 A; En 14 B	20 M 5		C 28 Mn		SCMn 1	30G	28Mn6
2	1034; 1035; 1038; G10340; G10350; G10380; C 1034	1.1181	C35E; Ck 35	080 M 30; En 5; 080 M 36	XC35RR; XC32; XC 35; XC 38 H 2; XC 38 H 1; 2 C 35	1572	C 35	F.1130; C 35 k	S 35 C; S 35 CM; S 38 C	35	C35E
2		1.1180	C35R; Cm 35	080 A 35	XC 38 H 1 u; Cm 35		C 35	F.1135; C 35 k-1			C35R
2	1030; G10300	1.1178	C30E; Ck 30	080 M 30; En 5	XC 32		C 30	2 C 30	S 30 C; S 30 CM		C30E
2	1049; 1050; G10490; G10500	1.0540	C50	En 43 A; 080 M 50	C50	1674	C 50	1 C 50	S 50 C		C50
2	1536; G15360	1.1166	34Mn5					TO.B	SMn 433 H; SMn 433 HRCH; SMn 433 RCH; SMn 1 H		
2	1025; G10250	1.0406	C25	070 M 26	1 C 25		C 25; 1 C 25				
2		1.0723	15S22; 15 S 20	210 A 15; 210 M 15		1922		F.210F; F.210.F	SUM 32		
2		1.1730	C45U; C45W; C 45 U; C 45 U								C45U
3	1045; 1049; G10450; G10490	1.1201	C45R; Cm 45	080 M 46	3 C 45; XC 42 H 1; XC 48 H 1 u	1660	C 45	F.1145; F.1147; C 45 k-1; C 48 k-1	S 45 C; S 45 CM	45	C45R
3	1040; G10400	1.1186	C40E; Ck 40	080 M 40; En 8	2 C 40; XC 42 H 1		C 40		S 40 C	40	C40E

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3	1074; 1075; G10740; G10750	1.0614	C76D; C 76 D; D 75-2		XC 75		3 CD 75			75	C76D
3	1095; G10950	1.0618	C92D; C 92 D; D 95-2	95 HS; 95 CS	XC 90		3 CD 95				C92D
3	1086; G10860	1.0616	C86D; C 86 D; D 85-2	80 HS; 80 CS	XC 80		C 85; 3 CD 85				C86D
3		1.1165	G28Mn6; GS-30 Mn 5	A 5; A 6				30 Mn 5; AM 30 Mn 5; F.120.D; F.8211; F.8311	SCMn 2	27ChGSNMDTL; 30GSL	G28Mn6
3	K01700; K02001; K02200; K02201; A 516 Gr.70; A 515 Gr. 70; A 414 Gr.F; A 414 Gr.G	1.0481	P295GH; 17Mn4; 17 Mn 4	224-469 B	A 48 CP; A 48 AP	2102	Fe 295	A 47 RC I; RA II	SG 365; SGV 410; SGV 450; SGV 480; SPV 315; SG 37; SGV 42; SGV 46; SGV 49; SPV 32	14G2	P295GH
3	1043; 1045; G10430; G10450	1.0503	C45; C 45	080 M 46	C 45; AF 65; C 45; 1 C 45	1650	C 45; 1 C 45	F.114	S 45 C; S 45 CM		C45
3	1335; 1335 H; 1541; 1541 H; G13350; G15410; H13350; H15410	1.1167	36Mn5; 36 Mn 5	150 M 36	40 M 5; 35 Mn 5	2120		F. 1203-36 Mn 6; F. 8212-36 Mn 5	SMn 438; SMn 438H; SCMn 3	35G2; 35GL	36Mn5
3	1045; 1045 H; 1042; G10450; H10450; G10420	1.1191	C45E; Ck 45	089 H 46; 080 M 46	C45RR; XC 45; XC 48 H 1	1672	C 45	F.1140; F.1142; C 45 k; C 48 k	S 45 C; S 45 CM; S 48 C	45	C45E
3		1.1303	38MnVS6; 38 MnVS 6								38MnVS6
4	1055; G10550	1.0535	C55	070 M 55; En 9	C54; 1 C 55; AF 70; C 55	1655	C 55; 1 C 55	F.115	S 55 C; S 55 C-CSP; S 55 CM	55	C55
4	1055; G10550	1.1203	C55E; Ck 55	070 M 55; En 9	C50RR; XC 54; XC 50; 2 C 55; XC 55 H 1	1655	C 55	F.1150; C 55 K	S 55 C; S 55 C-CSP; S 55 CM	55	C55E
4	1060; G10600	1.0601	C60	060 A 62; En 43 D	C60; 1 C 60		C 60; 1 C 60		S 58 C; S 60-C-CSP; S 60 CM; S 65 C-CSP; S 65 CM	60; 60G	C60; 43D
4	1070; G10700	1.1231	C67S; Ck 67	060 A 67; 080 A 67; En 43 E	C68RR; XC 68	1770	C 67		S 70 C-CSP; S 70 CM	65GA; 68GA	C67S
4	1074; 1075; 1078; G10700; G10750; G10780	1.1248	C75S; Ck 75	060 A 78; 80	C75RR; XC 75	1774	C 75		S 75 CM	75A	C75S
4	1095; G10950	1.1274	C100S; Ck 101	95	C100RR; XC 100	1870	C 100		SK 95 -CSP		C100S
4	W112; W1; T72301	1.1563	C125U; C 125 W		Y2 120; C120E3U		C 120 KU	F.5123; C 120	SK 120; SK 120 M; SK 2; SK 2 M; TC 120	U12-1	C125U

Material Group No.	USA	Germany		U.K.	France	Sweden	Italy	Spain	Japan	Russia	EURONORM
	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
4	1086; G10860	1.1269	C80S; Ck 85; C 85 E		C90RR; XC 90		C 85		SK 85-CP	85A	C80S
4	1055; G10550	1.1209	C55R; Cm 55	070 M 55; En 9	3 C 55; XC 55 H 1		C 55	F.1155; C 55 k-1			C55R
4	1074; 1075; G10740; G10750	1.0605	C75	060 A 78	C 75		C 75			75	
4	1070; G10700	1.0603	C67	060 A 67; 080 A 67; En 43 E; 1449 70 HS	C68; XC 65		C 67		S 70 C-CSP; S 70 CM		C67
4		1.1219	C56E2; Cf 54						C56E2; S55C		C56E2
5	1055; G10550	1.1220	C56D2; C 56 D 2		C 56 D 2						C56D2
5		1.1217	C90S; C 90 S	CS95	C90RR; XC 90; XC90; C90E2U				SK 95		C90S
5	1060; 1064; G10600; G10640	1.1221	C60E; Ck 60	060 A 62; 070 M 60; En 43 D	C60RR; XC 60; X 65; 2 C 60	1678	C 60		S 58 C; S 60 C-CSP; S 60 CM; C 65 C-CSP; C 60 CM	60GA	C60E
5	1055; G10550	1.1203	C55E; Ck 55	070 M 55; En 9	C50RR; XC 54; XC 50; XC 55 H 1; 2 C 55	1655	C 55	F.1150; C 55 k	S 55 C; S 55 C-CSP; S 55 CM	55	C55E
6	9260; G92600	1.5028	65Si7; 65 Si 7		60 S 7				50 P 7; SUP 6; SUP 6 M; SUP 7; SWOSM	60S2G	
6	9260 H; H92600; 9260; G92600	1.5027	60Si7	251 A 60; 251 H 60	60 S 7		60 Si 7	F.144.B; F.1441		60S2	
6	9255; G92550	1.5026	56Si7; 56 Si 7; 55Si7; 55 Si 7	251 A 58; En 45 A	55 S 7	2085; 2090	55 Si 7	F.144; F.144.A; 56 Si 7; F.1440		55S2; 60S2	565Si7; 55Si7
6	9255; G22550	1.5025	51Si7; 51 S 7		50S7; 51 Si 7		48 Si 7; 50 Si 7	F.145.B			51Si7
6		1.5024	46Si7		45 S 7; Y 46 S 7; 46 SI 7			F.1451			46Si7
6	G50986; ASTM Grade E50100; ASTM Grade G15116; SAE E50100	1.3501	100Cr2; 100 Cr 2	GCr6; B00040; GCr4	100C2					SchCh4	
6	K21390; K21590; ASTM A 182 F22	1.7380	10CrMo9-10; 10 CrMo 9 10	622; 622-490; 622/515; 622/690	12 CD 9-10; 10 CD 9.10	2218	12 CrMo 9 10	TU.H	SCMQ4E; SCMV 4; SFVA F 22.A; SFVA F 22.B; SFVCM F22B; STBA 24; STFA 24; STPA 24	12Ch8	10CrMo9-10
6	O2; T31502	1.2842	90MnCrV8; 90 MnCrV 8	BO 2; BO2	90 MnV 8; 90 MV 8		90 MnVCr 8 KU	90 MnCrV 8; F.5229			90MnCrV8
6		1.2550	60WCrV7; 60 WCrV 7	BS1; BS 1	55 WC 20	2710	55 WCrV 8 KU; 58 WCr 9 KU	60 WCrSiV 8; F.5242			60WCrV7
6		1.2241	51CrMnV4; 51 CrV 4; 50 CrV 4								
6	L2; T61202	1.2210	115CrV3; 115 CrV 3		100 C 3		107 CrV 3 KU	F.520.L; F.5125			115CrV3

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
6		1.2419	105WCr6; 105 WCr 6	105WC 13	105 WCr 5; 105 WC 13	2140	107 WCr 5 KU	F.5233; 105 WCr 5	SKS 2; SKS 2 M; SKS 3; SKS 31	ChW1G; ChWG	105WCr6
6	4820; 5120; 5120H; G48200; G51200; H51200	1.7147	20MnCr5; 20 MnCr 5	150 M 19	20 MC 5	2172	20 MnCr 5; Fe52	F.150.D	SMnC 420 H; SMnC 420 RCH; SMnC 21 H	18ChG	20MnCr5
6	9255; G92550	1.0904	55Si7; 55 Si 7	250A53	55 S 7	2085	55 Si 8	56 Si 7			
6	9254; G92550	1.0904	55Si7; 55 Si 7	250 A 53	55 S 7	2090					
6	9262; G95620	1.0961	HDT 450 F; S340 MGC		60 SC 6		60 SiCr 8	60 SiCr 8; F.1442		60S2; 55S2; 50ChFA	
6	4135; 4137; 4135H; 4137H; G41350; G41370; H41350; H41370	1.7220	34CrMo4; GS34 CrMo 4; G34 CrMo 4	708 A 30	34 CD 4; 34CrMo4RR; 35 CD 4;	2234	34 CrMo 4 KB; 35 CrMo 4	35 CrMo 4 DF; F.125.A; F.125.B; F.1254; F.1250	SCM 435 H; SCM 435 HRCH; SCM 435 M; SCM 435 RCH; SCM 435TK; SCM 3 H; STKS 3	35ChM; AS38ChGM	34CrMo4
6		1.5120	38MnSi4; 38 MnSi 4								
6	L3; T61203	1.2067	102Cr6; 102 Cr 6; 100Cr6	BL 3; BL3	100Cr6RR; 100 C 6; 100Cr6; Y 100 C 6		102 Cr 6 KU	F.5230; 100 Cr 6	SUJ 2	Ch	102Cr6
6	L1	1.2108	90CrSi5; 90 CrSi 5			2092	105 WCr 5				90CrSi5
6	P20; T51620	1.2330	35CrMo4; 35 CrMo 4	708 A 37	34 CD 4	2234	35 CrMo 4				35CrMo4
6	O1; T31501	1.2510	100MnCrW4; 100 MnCrW 4	BO1; BO0; BO 1; BO 0	90MnWCrV5; 90 MWCV 5; 8 MO 8	2140	95 MnWCr 5 KU; 10 WCr 6	F.522.A; F.5220; 95 MnCrW5; 105 WCr 5	SKS 31		100MnCrW4
6	S1; T41901	1.2542	45WCrV7; 45 WCrV 7	BS1; BS 1	45 WCrV 8; 45 WCrV 20	2710	45 WCrV 8 KU	F.524; F.5241; 45 WCrSi 8		5ChW25F	45WCrV7
6	L6; T61206	1.2713	55NiCrMoV6; 56NiCrMoV6; 55 NiCrMoV 6; 56 NiCrMoV 6	BH 224; BH 225	55 NCDV 7			F.520.S	SKT 4	5ChNM	55NiCrMoV6
6		1.2721	50NiCr13		55 NCV 6	2550		F.528			
6	E52100; G52986	1.3505	100Cr6; 100 Cr 6	2 S.135; 535 A 99	100Cr6RR; 100 C 6; 100Cr6	2258	100 Cr 6	F.131; 100 Cr 6; F.1310	SUJ 2; SUJ 4	SchCh 15	100Cr6
6	K11820; K12020; K12320; A204 Grade A; A182 Grade F1	1.5415	16Mo3; 15 Mo 3	1503-243 B	15 D 3	2912; 16Mo3	16 Mo 3 KG; 16 Mo 3 KW; 16 Mo 5 KG; 16 Mo 5 KW	F. 2601; 16 Mo 3	STBA 12; STFA 12; STPA 12		
6	4422; G44220; J12522	1.5419	G20Mo5; 20Mo4; GS-22 Mo 4	245; B 1; B1					SCPH 11		G20Mo5
6	A 350-LF 5; K13050; K21703; K22103	1.5622	14Ni6; 14 Ni 6		16 N 6		14 Ni 6 KG; 14 Ni 6 KT	F.2641; 15 Ni 6			14Ni6
6	3415	1.5732	14NiCr10; 14 NiCr 10		14 NC 11		16 NiCr 11	15 NiCr 11	SNC 415; SNC 415 H; SNC 415 M	12ChN3A	14NiCr10

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
6	3310; 3310 RH; 3312; 3316; 9315; E 3310; E 3316; E9315; G33106	1.5752	15NiCr13; 14NiCr14; 15 NiCr 13; 14NiCr14	655 M 13; 655 H 13; En 36 A	10 NC 12; 12 NC 15; 14 NC 12; 16 NC 12; 16 NCD 13			15 NiCr 11; F.1540	SNC 815 H; SNC 815 HRCH; SNC 815 RCH; SNC 22 H		15NiCr13
6		1.7262	15CrMo5; 15 CrMo 5		12 CD 4			12 CrMo 4; F.150.J; F155; F.1551	SCM 415 H; SCM 415 HRCH; SCM 415 M; SCM 415 RCH; SCM 415 TK; SCM 21 H		15CrMo5
6		1.6587	17CrNiMo6; 17 CrNiMo 6	820A16	18 NCD 6			14 NiCrMo 13			
6	9310; 9310H; 9310 RH; E 9310 H; G93106; H93100; H93106	1.6657	14NiCrMo13-4; 14 NiCrMo 13 4	832 H 13; 832 M 13; S.157; En 36 C	16 NCD 13		15 NiCrMo 13; 16 NiCrMo 12	14 NiCrMo 13; 14 NiCrMo 13-1; F.1560; F.1569			
6	5015; G50150	1.7015	15Cr3; 15 Cr 3	523 M 15	12 C 3; 15Cr2RR; 15 C 2				SCr 415; SCr 415 H; SCr 415 HRCH; SCr 415 RCH; SCr 21 H	15Ch	15Cr3
6	5132; 5132 H; G51320; H51320	1.7033	34Cr4; 34 Cr 4	530 A 32; 530 H 32; 530 M 32	32 C 4		34 Cr 4; 34 Cr KB	35 Cr 4; F.8221	SCr 430; SCr 430 H; SCr 430 HRCH; SCr 430 RCH; SCr 2 H	35Ch	34Cr4
6	5140; 5140 H; 5140 RH; G51400; H51400	1.7035	41Cr4; 41 Cr 4	530 A 40; 530 M 40; 530 H 40; En 18	42 C 4		41 Cr 4; 41 Cr 4 KB	41 Cr 4 DF; F.1211; F.1202	SCr 440; SCr 440 H	40Ch	41Cr4
6	5140; G51400	1.7045	42Cr4; 42 Cr 4	530 A 40	42 C 4 TS	2245	41 Cr 4	42 Cr 4	SCr 440		
6	5115; 5117; G51150; G51170	1.7131	16MnCr5; 16 MnCr 5	527 M 17; 590 H 17; 590 M 17	16MnCr5RR; 16 MC 5	2173	16 MnCr 5	F.1516		18ChG	16MnCrS5
6		1.7139	16MnCrS5; 16 MnCrS 5		BGH 7139; BOHLER E 411; VW 4221; OPEL QS1916; PROCONS 7139; E411; SES	2127					16MnCrS5
6	5155; 5155 H; 5150; G51550; H51550; G51600	1.7176	55Cr3; 55 Cr 3	525 A 58; 525 A 60; En 48	55 C 3; 55Cr3	2253	55 Cr 3	F.1431	SUP 9; SUP 9 A; SUP 9 M	50ChGA	55Cr3
6	4142; G41420	1.7223	41CrMo4; 41 CrMo 4		MOC 2; V320		41 CrMo 4	42 CrMo 4	SNB 22-1	40ChFA	
6	4140; 4140 H; 4140 RH; 4142; 4142 H; 4145; G41400; H41400; G41420; H41420; K14248; K14047	1.7225; 1.7227	42CrMo4; 42CrMo4V; 42 CrMo 4; 42 CrMo 4 V	708 M 40; 709 M 40; En 19; En 19 A	42 CD 4; 40 CD 4; 42CrMo4RR	2244; 42CrMo4	42 CrMo 4; 38 CrMo 4 KB; 41 CrMo 4	TO.D; TU.L	SCM 440 H; SCM 440 HRCH; SCM 440 M; SCM 440 RCH; SCM 440 TK; SNB 7 Class 2; SCM 4 H; SNB 22-1	40ChFA	42CrMo4

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
6	4147; 4147 H; 4150; 4150 H; 8650; 8650 H; G41470; G41500; G86500; H41470; H41500; H86500	1.7228	50CrMo4; 50 CrMo 4	708 M 40; 708 A 47		2512	653 M 31		SCM 445 H; SCM 445 HRCH; SCM 445 RCH; SCM 5 H		50CrMo4
6	8620; G86200	1.7321	20MoCr4; 20 MoCr 4			2625				BGH 7321; E320; SIQUAL 7321	20MoCr4
6	K11547; K11562; K11564; K11757; K11789; K12052; ASTM A182 F12	1.7335	13CrMo4-5; 13 CrMo4 4	620; 620-440; 620-470; 620-540; 621	15 CD 4-05	2216	14 CrMo 3; 14CrMo4 5	TU.E; TU.F; F.2631; 14 CrMo 4 5	SCMV 2; SFVA 12; STBA 22; STFA 22; STPA 20; STPA 22	12ChM; 15ChM	13CrMo4-5
6	K21390; K21590; ASTM A182 F22	1.7380	10CrMo9-10; 10 CrMo 9 10; GS-12CrMo9-10; GS-12 CrMo 9 10; G 12 CrMo9-12	622; 622-490; 622/515; 622/690; 1502-622	12 CD 9-10; 10 CD 9.10	2218	12 CrMo 9; 12 CrMo 10	TU.H	SCMQ 4 E; SCMV 4; SFVA F 22 A; SFVA F 22 B; SFVCM F 22 B; STBA 24; STFA 24; STPA 24	12Ch8	10CrMo9-10
6		1.7715	14MoV6-3; 14 MoV 6 3	1503-660-440				13 MoCrV 6			
6	E71400; K24065; K24728; A355 Class A	1.8509	41CrAlMo7-10; 41CrAlMo7; 41 CrAlMo 7	905 M 39; En 41 B	40 CAD 6.12	2940	41 CrAlMo 7	F.174; 41 CrAlMo 7; F1740	SACM 645; SACM 1	38Ch2MJuA	41B
6		1.6566	17NiCrMo6-4								17NiCrMo6-4
6	P20+S	1.2312	40CrMnMoS8-6		40 CMD 8 S						
6		1.7149	20MnCrS5; 20 MnCrS 5								20MnCrS5
6	P20+Ni	1.2738	40CrMnNiMo8-6-4; 40 CrMnNiMo 8 6 4		40 CMND 8					40Ch2GNM	40CrMnNiMo8-6-4
6		1.2311	40CrMnMo7; 40 CrMnMo 7		40 CMD 8		35 CrMo 8 KU	F.5302			40CrMnMo7
6		1.7238	49CrMo4; 49 CrMo 4								
6	4150; G41500	1.7701	52CrMoV4; 51CrMoV4; 51 CrMoV 4		51 CDV 4; 51CrMoV4		51 CrMoV 4				51CrMoV4
6		1.7337	16CrMo4-4; 16 CrMo 4 4				A 18 CrMo 45 KW		SCM 415 M; SCM 415; STBA 22; SFVA F12		
6		1.7242	16CrMo4; 16 CrMo 4		15 CD 3.5		18 CrMo 4	F.1550; 18 CrMo 4	SCM 418 H; SCM 418 HRCH; SCM 418 RCH; SCM 418 TK		16CrMo4
6	4419; 4419 H; 4520; G44190; H44190; G45200; K11522; K11820; K12020; K12023; K12320; K12821	1.5423	16Mo5				16 Mo 5 KG; 16 Mo 5 KW	TU.D; F.2602	SB 450 M; SB 480 M; SB 46 M SB 49 M		
6										30ChGSA	

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
6	HY-80; HY 80; HY80; K31820; MIL-S-21952										
6				605 M 36; En 16; En 16T							
7	4130; 4130 H; 4130 RH; G41300; H41300	1.7218	25CrMo4; 25 CrMo 4; GS-25 CrMo 4; G 25 CrMo 4	708 A 25	25 CD 4	2225	25 CrMo 4; 25 CrMo KB	F.222; F.1256	SCM 420 TK; SCM 430 M; SCM 430 RCH; SCM 430 TK; STKS 1	20ChM; 30ChM	25CrMo4
7		1.8070	21CrMoV5-11; 21 CrMoV 5 11				35 NiCr 9				
7		1.7755	GS-35 CrMoV 10 4; G35 CrMoV 10-4								
7		1.7733	24CrMoV5-5		20 CDV 6		21 CrMoV 5 11				
7	4340; 4340 H; 9850; G43400; G98500; H43400; K23028	1.6565	40NiCrMo6; 40 NiCrMo 6	817 M 40; En 24				F.1275; 40 NiCrMo 7	SNB 24-1; SNB 24-2; SNB 24-3; SNB 24-4; SNB 24-5; SNCM 439 RCH	40Ch2N2MA	40NiCrMo6
7	8640; 8640 H; 8740; 8740 H; 8742; G86400; G87400; G87420; H86400; H87400; K11640	1.6546	40NiCrMo2-2; 40 NiCrMo 2 2		40 NCD 2; 40 NCD TS		40 NiCrMo 2; 40 NiCrMo 2 KB	40 NiCrMo 2 DF; F.1205; F.1204; TO.E	SNCM 240; SNCM 240 RCH	38ChGNM	
7	8617; 8617 H; 8620; 8620 H; 8620 RH; 8617; G86170; G86200; H86170; H86200; K12147	1.6523	20NiCrMo2-2; 21NiCrMo2; 21 NiCrMo 2	805 H 20; 805 M 20; 806 M 20; En 362	20 NCD 2	2506	20 NiCrMo 2	20 NiCrMo 2; 20 NiCrMo 3-1; F.1522; F.1534	SNCM 220; SNCM 220 H; SNCM 220 HRCH; SNCM 220 M; SNCM 220 RCH; SNCM 21 H	20ChGNM	20NiCrMo2-2
7		1.5755	31NiCr14; 31 NiCr 14	653 M 31	18 NC 13						
7	3135	1.5710	36NiCr6; 36 NiCr 6	640 A 35	35 NC 6				SNC 236		36NiCr6
7	4340; G43400; 4337; G43370	1.6582	34CrNiMo6; 34 CrNiMo 6	816 M 6; 817 M 40	34 CrNiMo 8; 35 NCD 6	2541	35 NiCrMo 6 KB	F.1272		38Ch2N2MA	34CrNiMo6
7		1.8519	31CrMoV9; 31 CrMoV 9							30Ch3MF	31CrMoV9
7	8630	1.6545	30NiCrMo2-2; 30 NiCrMo 2 2		30 NCD 2		30 NiCrMo 2 KB				
7	4340; G43400	1.6580	30CrNiMo8	823 M 30	30 CND 8; 30 NCD 8			30 CrNi Mo 8	SNCM 431		
7	K01907	1.5217	20MnV6; 20 MnV 6 N	55 C; GR 55; Grade 55	20MV6; TS E 455 4; TU E 455 4						20MnV6; S460
7	300M; 4340M; K44220	1.6928	41SiNiCrMoV7-6	S 155							
8		1.8523	40CrMoV13-9; 39CrMoV13-9; 39 CrMoV 13 9	897 M 39			36 CrMoV 12				40CrMoV13-9
8		1.8515	31CrMo12; 31 CrMo 12	722 M 24	30 CD 12	2240	32 CrMo 12	F.1712; F.124.A			31CrMo12; 40B

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
8		1.8161	58CrV4; 58 CrV 4								
8		1.7361	32CrMo12; 32 CrMo 12	722 M 24	30 CD 12	2240	30 CrMo 12	F.124.A			32CrMo12
8	9840; G98400	1.6511	36CrNiMo4; 36 CrNiMo 4	817 M 37; 816 M 40	40 NCD 3; 35 NCD 5		39 NiCrMo 4; 39 NiCrMo 4 KB	F.128; F.1280; 35 NiCrMo 4	SUP 10	40ChGNM; 40ChN2MA	36CrNiMo4
8	6145; 6150; 6150 H; G61500; H61500	1.8159	51CrV4; 50CrV4; 50 CrV 4	735 A 50; 735 A 51; 735 H 51; 735 M 50; En 47	50CrV4RR; 50 CV 4; 51 CV 4	2230	50 CrV 4	F.143; F.143.A; 51 CrV 4; F.1430	SUP 10; SUP 10-CSP; SUP 10 M	50ChFA; 50ChGFA	51CrV4
8	3435	1.5736	36NiCr10; 36 NiCr 10		30 NC 11				SNC 631; SNC 631 H; SNC 631 M		
8	A128 Grade A; J91109; J91129; J91139; J91149	1.3401; 1.3403	X120Mn12; X 120 Mn 12; G-X120 Mn 12	BW 10	Z 120 M 12	2183	GX 120 Mn 12	F.240.A; F.240.A1; AM-X 120 Mn 12; F.8251	SCMnH 1; SCMnH 11	110G13L	
8	4142; G41420	1.2332	47CrMo4	708 M 40	42 CD 4	2244	42 CrMo 4	42 CrMo 4	SCM; SCM 440		47CrMo4
8	4140 H; 4140 RH; 4140 HT		42CrMo4+QT								
8											
8											
8		1.8705	21MnCr6-5								
8											
9		1.6659	31NiCrMo13-4	830 M 31		2534		F.270			
9		1.5864	35NiCr18								
9											
9											
9											
9		1.8715	17MnCr5-3								17MnCr5-3
10	K71340; K81340	1.5662	X8Ni9	1501-509; 1501-510; 502-650; 509-690	9 Ni; Z 8 N 09		X 10 Ni 9; X 12 Ni 09	F.2645; XBNi 09	SL9N520; SL9N590; STBL 690; STPL 690; SL9N53; SL9N60; STBL 70; STPL 70		X8Ni9
10	2515; A2515; 2517; E2517; K41583	1.5680	X12Ni5; 12Ni19;		Z 18 N 5; Z 10 N 05; 5 Ni				SL5N590; SL5N60		X12Ni5
10	D4; T30404; D6; T30406	1.2436	X210CrW12; X 210 CrW 12	BD6	Z 200 CD 12; Z 210 CW 12-01; X210CrW12-1	2312	X 215 CrW 12 1 KU	F.5213; X210 CrW 12	SKD 2		X210CrW12
10	H13; T20813	1.2344	X40CrMoV5-1; X40 CrMoV 5 1	BH 13	X 40 CrMoV 5; Z 40 CDV 5	2242	X 40 CrMoV 5 1 1 KU	F.5318; X 40 CrMoSiV 5	SKD 61	4Ch5MF1S	X40CrMoV5-1
10	A2; T30102	1.2363	X100CrMoV5; X100CrMoV5-1; X 100 CrMoV 5 1	BA 2	X 100 CrMoV 5; Z 100 CDW 5	2260	X 100 CrMoV 5 1 KU	F.536; F.5227; X 100 CrMoV 5	SKD 12		X100CrMoV5
10	H21; T20821	1.2581	X30WCrV9-3; X30WCrV9 3	BH 21	Z 30 WCV 9		X 30 WCrV 9 3 KU	F.5323; X 30 WCrV 9	SKD 5	3Ch2W8F	X30WCrV9-3; X30WCrV9 3
10		1.2601	X165CrMoV12; X 165 CrMoV 12			2310	X165CrMoW 12KU				X165CrMoV12
10		1.2316	X36CrMo17; X38CrMo16								X38CrMo16
10	M2; T11302	1.3343	HS6-5-2; HS 6-5-2; S 6-5-2	BM 2; BM2	Z 85 WDCV 06-05-04-02; 6-5-2; HS6-5-2	2722		F.550.A; F.5604	SKH 51	R6M5	HS6-5-2

Material Group No.	USA	Germany		U.K.	France	Sweden	Italy	Spain	Japan	Russia	EURONORM
	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
10	H11; T20811	1.2343	X37CrMoV5-1; X38CrMoV5-1	BH 11	Z 38 CDV 5; X38CrMoV		X 37 CrMoV 5 1 KU	F.520.G; F.5137; X 37 CrMoSiV 5	SKD 6	4Ch5MFS	X37CrMoV5-1
10	H12; T20812	1.2606; 1.2605	X37CrMoW5-1; X 37 CrMoW 5 1; X35CrWMoV5; X 35 CrWMoV 5	BH 12	Z 35 CWDV 5; X35CrWMoV5		X 35 CrMoW 05 KU	F.537	SKD 62	5ChNM	X37CrMoW5-1; X35CrWMoV5
10	D2; T30402	1.2379	X153CrMoV12; X155CrVMo12-1; X155 CrVMo 12 1	BD 2	X 160 CrMoV 12; Z 160 CDV 12	2310	X 155 CrVMo 12 1 KU	F.520.A	SKD 10; SKD 11		X153CrMoV12
10		1.2085	X33CrS16; X 33 CrS 16		Z 35 V CD 17.S						X33CrS16
10		1.2162	21MnCr5; 21 MnCr 5		20 MC 5						21MnCr5
10		1.2767	X45NiCrMo4; 45NiCrMo16; X 45 NiCrMo 4		45 NCD 16		40 NiCrMoV 8 KU				X45NiCrMo4
10		1.2764	X19NiCrMo4; X 19 NiCrMo 4; GX19NiCrMo4								X19NiCrMo4
10	D3; T30403	1.2080	X210Cr12; X 210 Cr 12	BD 3	X200Cr12; Z 200 C 12		X 205 Cr 12 KU	F.521; F.5212; X 210 Cr 12	SKD 1	Ch12	X210Cr12
10		1.2367	X38CrMoV5-3; X 38 CrMoV 5 3								X38CrMoV5-3
10		1.6957	27NiCrMoV15-6; 26NiCrMoV14-5; 26 NiCrMoV 14 5								
10	501; 502; S50100; S50200; K41545	1.7362	X12CrMo5; X 11 CrMo 5; 12CrMo19-5; 12 CrMo 19 5					F.240.B; TU.J	SCMV 6; SFVA F 5 A; SFVA F 5 B; SFVA F 5 C; SFVA 5 D; SNB 5 Class 1; STBA 29; STFA 25; STPA 25		X12CrMo5
11	M33; T11333; M34; T11334	1.3249	HS2-9-2-8; S 2-9-2-8	BM 34				2-9-2-8; F.5611			
11	M41; T11341	1.3246	HS7-4-2-5; S 7-4-2-5		Z 110 WKCDV 07-05-04-04-02			F.5615; HS 7-4-2-5			HS7-4-2-5
11	M42; T11342	1.3247	HS2-10-1-8; S 2-10-1-8	BM 42	Z 110 DKCWV 09-08-04-02-01; 2-9-1-8; HS2-9-1-8	2716	HS 2-9-1-8	F.5617; HS 2-10-1-8	SKH 59		HS2-10-1-8
11		1.3207	HS10-4-3-10; S 10-4-3-10	BT 42	Z 130 WKCDV 10-10-04-04-03; 10-4-3-10; HS10-4-3-10		HS 10-4-3-10	F.550.B; F.5553; HS 10-4-3-10	SKH 57	R12F3K10M3-SCh	HS10-4-3-10
11	T15; T12015	1.3202	HS12-1-4-5; S 12-1-4-5	BT 15	HS12-1-4-5		HS 12-1-5-5	F.5563; HS 12-1-5-5		R13F4K5	
11		1.3243	HS6-5-2-5; S 6-5-2-5	BM 35	6-5-2-5; 6-5-2-5 HC; HS6-5-2-5; HS6-5-2-5HC; Z 85 WDKCV 06-05-05-04-02; Z 90 WDKCV 06-05-05-04-02	2723	HS 6-5-2-5	F.550.C; F.5613; HS 6-5-2-5	SKH 55	R6M5K5	HS6-5-2-5
11	M7; T11307	1.3348	HS2-9-2; S 2-9-2		Z 100 DCWV 09-04-02-02; 2-9-2; HS2-9-2	2782	HS 2 9 2	F.5607; HS 2-9-2	SKH 58		HS2-9-2
11	T4; T12004	1.3255	HS18-1-2-5; S 18-1-2-5	BT 4	Z 80 WKCV 19-05-04-01; HS 18-1-1-5		HS 18-1-1-5	F.5530; HS 18-1-1-5	SKH 3		HS18-1-2-5

Material Group No.	USA	Germany		U.K.	France	Sweden	Italy	Spain	Japan	Russia	EURONORM
	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
11	T1; T12001	1.3355	HS18-0-1; S 18-0-1	BT 1	18-0-1; HS 18-0-1; Z 80 WCV 18-04-01	2750	HS 18-0-1	F.5520; HS 18-0-1	SKH 2	R18	HS18-0-1
11											
11											
11											
11											
11											
11											
11			X10NiMoCrV6								
12	430 F; S43020	1.4104	X12CrMoS17; X 12 CrMoS 17		Z 13 CF 17	2383	X 10 CrS 17	F.3413	SUS 430 F		X12CrMoS17
12	S31500	1.4417	GX2CrNiMoN25-7-3			2376					GX2CrNiMoN 25-7-3
12		1.4742	X10CrAlSi18; X10CrAl18		Z 12 CAS 18			F.3113; X 10 CrAl 18	SUS 21	15Ch18SJu	X10CrAlSi18
12		1.4724	X10CrAlSi13; X10CrAl13; X 10 CrAl 13				X 10 CrAl 12	F.3152; X 10 CrAl 13		10Ch13SJu	X10CrAlSi13
12	434; S43400	1.4113	X6CrMo17-1; X 6 CrMo 17 1	434 S 17	Z 8 CD 17-01	2325		F.3116	SUS 434		X6CrMo17-1
12	HNV-6; HNV6; S65006	1.4747	X80CrNiSi20; X 80 CrNiSi 20	443 S 65	Z 80 CSN 20-02		X 80 CrSiNi 20	F.320B	SUH 4		
12	446; S44600	1.4762	X10CrAlSi25; X10CrAl24; X 10 CrAl 24		Z 10 CAS 24	2322		F.3154	SUH 446		X10CrAlSi25
12	EV 8; S63008	1.4871	X53CrMnNiN21-9; X 53 CrMnNiN 21 9	349 S 52	Z 52 CMN 21-9 Az		X 53 CrMnNiN 21 9	F.3217	SUH 35, SUH 36	55Ch20G9AN4	X53CrMnNiN21-9
12		1.4001	X7Cr14; X 7 Cr 14; G-X 7 Cr 13		Z 8 C 13 FF				SUS 4105		X7Cr14
12	440 B; S44003	1.4112	X90CrMoV18		X 89 CrMoV 18-1			SUS 440B			X90CrMoV18
12	410 S; 403; S41008; S40300	1.4000	X6Cr13; X 6 Cr 13	403 S 17	Z 8 C 12	2301	X 6 Cr 13	F.3110	SUS 403; SUS 403 FB; SUS 410 S	08Ch13	X6Cr13
12	410; S41000; S41001; CA-15	1.4006	X12Cr13; GX12Cr13; X 12 Cr 13; X 10 Cr 13	410 S 21; ANC 1 grade A; En 56 A	Z 10 C 13; Z 13 C 13	2302	X 12 Cr 13 KG; X 12 Cr 13 KW	F.3401	SUS 410; SUS 410 FB; SUS 410 TB; SUS 410 TKA; SUS 410 TKC; SUS F 410-A; SUS F 410-B; SUS F 410-C	12Ch13; 15Ch13L	X13Cr13
12	405; S40500	1.4002	X6CrAl13; X 6 CrAl 13	405 S 17	Z 8 CA 12		X 6 CrAl 13	F.3111	SUS 405; SUS 405 TB; SUS 405 TP		X6CrAl13
12	416; S41600	1.4005	X12CrS13; X 12 CrS 13	416 S 21; En 56 AM	Z 11 CF 13	2380	X12 CrS 13	F.3411	SUS 416		X12CrS13
12		1.4015	X8Cr17								
12	430; S43000	1.4016	X6Cr17; X 6 Cr 17	430 S 17; 430 S 15; 430 S 18	Z 8 C 17	2320	X 8 Cr 17	F.310.D; F.3113	SUS 430; SUS 430 TB; SUS 430 TKA; SUS 430 TKC; SUS 430 TP	12Ch17	X6Cr17
12		1.4027	GX20Cr14	ANC 1 grade B; ANC 1 grade C; 420 C 24; 420 C 29	Z 20 C 13 M				SCS 2	20Ch13L	

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
12	420 F; S42020	1.4028	X30Cr13; X 30 Cr 13	420 S 37; 420 S 45; En 56 C; En 56 D	Z 33 C 13 Cl; Z 33 C 13; Z 30 C 13	2304	X 30 Cr 13	F.3403	SUS 420 F; SUS 420 J 2; SUS 420 J 2-CSP; SUS 420 J 2 FB; SUS 420 J 2 TKA	30Ch13	X30Cr13
12		1.4086	GX120Cr29; G-X 120 Cr 29	452 C 11							
12		1.4340	GX40CrNi27-4; G-X 40 CrNi 27 4								
12		1.4720	X20CrMo13; X 20 CrMo 13								
12	439; 430 Ti; S43035; S43036; XM 8	1.4510	X3CrTi17; X 6 CrTi 17		Z 4 CT 17		X 6 CrTi 17	F.3115; X 5 CrTi 17	SUS 430 LX; SUS 430 LXTB; SUS XM8TB	08Ch17T	X3CrTi17
12	446-1	1.4749	X18CrN28		Z 12 C 25						X18CrN28
12		1.4511	X3CrNb17; X 6 CrNb 17		Z 4 CNb 17		X 6 CrNb 17	F.3122; X 5 CrNb 17	SUS 430 LX; SUS 430 LXTB		X3CrNb17
12	409; S40900	1.4512	X2CrTi12; X 6 CrTi 12	LW 19; 409 S 19	Z 3 CT 12		X 6 CrTi 12	F.3121	SUH 409 L; SUS 409 LTB; SUS 409 TB		X2CrTi12
12		1.4418	X4CrNiMo16-5-1; X 4 CrNiMo 16 5		Z 6 CND 16-04-01	2387					X4CrNiMo16-5-1
12	420; S42000	1.4021	X20Cr13; X 20 Cr 13	420 S 37; 420 S 29; En 56 C	Z 20 C 13 Cl; Z 20 C 13	2303	X 20 Cr 13	F.310.J; F.3402	SUS 420 J 1; SUS 420 J 1 FB; SUS 420 J 1 TKA	20Ch13	X20Cr13
13	420; S42000; S42080	1.4031	X39Cr13; X 38 Cr 13		Z 40 C 14 Cl; Z 40 C 14	2304	X 40 Cr 14	F.3404; X40 Cr 13	SUS 420 J 2	40Ch13	X39Cr13
13		1.4922	X20CrMoV11-1; X20CrMoV12-1; X 20 CrMoV 12 1	BS 762		2317	X 20 CrMoNi 12 01				X20CrMoV11-1; X20CrMoV12-1
13		1.4923	X22CrMoV12-1; X21CrMoNiV12-1; X 22 CrMoV 12 1								X22CrMoV12-1; X21CrMoNiV12-1
13	420; S42000	1.4021	X20Cr13; X 20 Cr 13	420 S 37; 420 S 29; En 56 C	Z 20 C 13 Cl; Z 20 C 13	2303	X 20 Cr 13	F.310.J; F.3402; X 20 Cr 13	SUS 420 J 1; SUS 420 J 1 FB; SUS 420 J 1 TKA	20Ch13	X20Cr13
13	420; S42000	1.4034	X46Cr13; X 46 Cr 13		Z 44 C 14 Cl; Z 44 C 14; Z 38 C 13 M		X 40 Cr 14	F.3405; X 40 Cr 13		40Ch13	X46Cr13
13	431; S43100	1.4057	X17CrNi16-2; X 20 CrNi 17 2; X 22 CrNi 17	431 S 29; En 57	Z 15 CN 16.02 Cl; Z 15 CN 16-02	2321	X16 CrNi 16	F.313; F.3427; X 19 CrNi 17 2	SUS 431; SUS 431 FB	14Ch17N2; 20Ch17N2	X17CrNi16-2
13	CA 6-NM; S41500; J91540	1.4313	X3CrNiMo13-4; X 4 CrNi 13 4		Z 6 CN 13-04; Z 6 CN 13-4; Z 4 CND 13.4 M	2384					X3CrNiMo13-4
13		1.4122	X39CrMo17-1; X 35 CrMo 17				X 39 CrMo 17-1				X39CrMo17-1
13	422; S42200	1.4935	X20CrMoWV12-1; X 20 CrMoWV 12 1								X20CrMoWV12-1
13	HNV 3; S65007	1.4718	X45CrSi9-3; X 45 CrS 9 3; G-X 45 CrNi 9 3	401 S 45; En 52	Z 45 CS 9		X 45 CrSi 8	F.322; F.3220	SUH 1	40Ch9S2; 4Ch9S2	X45CrSi9-3
13		1.2083; 1.2083 ESR	X40Cr14; X 42 Cr 13		X40Cr14; Z 40 C 14	2314	X 41 Cr 13 KU	F.5263; X 40 Cr 13	SUS 420 J 2		X40Cr14
13	CA 6-NM; J91540	1.4317	GX4CrNi13-4; G-X 5 CrNi 13 4	425 C 11; 425 C 12	Z 4 CND 13 4 M		GX 6 CrNi 13 04		SCS 6; SCS 6X		GX4CrNi13-4
13	S13800; XM-13	1.4534	X3CrNiMoAl 13-8-2; X 3 CrNiMoAl 13 8 2	FE-PM1503							X3CrNiMoAl 13-8-2

Material Group No.	USA	Germany		U.K.	France	Sweden	Italy	Spain	Japan	Russia	EURONORM
	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
14	15-5PH; 15-5 PH; XM-12; S15500; J92110	1.4545; 1.4545.9	X5CrNiCuNb15-5		Z 7 CNU 15-05						X5CrNiCu15-3
14	329; S31260; S32900	1.4460	X3CrNiMo27-5-2; X 4 CrNiMo 27 5 2		Z 3 CND 25-07 Az; Z 5 CND 27-05 Az	2324		F.3552; F.3309; X 8 CrNiMo 27-05; X 8 CrNiMo 26 6	SUS 329 J 1; SUS 329 J 1 FB; SUS 329 J 1 TB; SUS 329 J 1 TP	10Ch26N5M	X3CrNiMo27-5-2
14	321; S32100	1.4541	X6CrNiTi18-10	321 S 31; LW 18; LW 24; LWCF 18; LWCF 24; 321 S 12; 321 S 50; 321 S 51; 321 S 50-490; 1010; 1115	Z 6 CNT 18-10	2337	X 6 CrNiTi 18 11; X 6 CrNiTi 18 11 KG; X 6 CrNiTi 18 11 KW; X 6 CrNiTi 18 11 KT	F.332; F.3523; X 6 CrNiTi 18 10	SUS 321	06Ch18N10T; 08Ch18N10T; 09Ch18N10T; 12Ch18N10T	X6CrNiTi18-10
14		1.4425	X2CrNiMo18-13-3								
14	316; 316H; 316 H; S31600; S31609	1.4401	X5CrNiMo17-12-2; X 5 CrNiMo 18 10	316 S 31; 316 S 33; 316 S 17; 316 S 19; 316 S 40; 316 S 41; 845	Z 6 CND 17-11; Z 6 CND 17-11-02-FF; Z 7 CND 17-11-02; Z 7 CND 17-12-02	2347	X 5 CrNiMo 17 12; X 5 CrNiMo 17 12 KG; X 5 CrNiMo 17 12 KW	F.310.A; F.3534; X 5 CrNiMo 17 12 2	SUS 316; SUS 316 A; SUS 316 FB; SUS 316 HFB; SUS 316 HTB; SUS 316 HTP; SUS 316 TB; SUS 316 TBS	08Ch16N11M3	X5CrNiMo17-12-2
14		1.4821	X20CrNiSi25-4		Z20CNS25.04						X20CrNiSi25-4
14	J92701	1.4312	GX10CrNi18-8	ANC 3 grade A; ANC 3 A; 302 C 25	Z 10 CN 18.9 M				SCS 12; SCS 13A	10Ch18N9L	
14	J92605; J93005	1.4823	GX40CrNiSi27-4; G-X 40 CrNiSi 27 4						SCH 11 X		GX40CrNiSi27-4
14		1.4585	GX7CrNiMoCuNb18-18; G-X 7 CrNiMoCuNb 18 18				X 6 CrNiMoTi 17 12				
14	347; J92640; J82710	1.4552	GX5CrNiNb19-11; G-X 5 CrNiNb 18 9	347 C 17; 821 grade Nb	Z 4 CNNb 19.10 M; Z 6 CNNb 18.10 M			AM-X 7 CrNiNb 20 10; F.8413	SCS 21; SCS 21 X		GX5CrNiNb19-11
14		1.4500	GX7NiCrMoCuNb25-20; G-X 7 NiCrMoCuNb 25-20		23 NCDU 25.20 M						
14	304; S30400	1.4301	X5CrNi18-10; X 5 CrNi 18 9	304 S 15; 304 S 31; LW 13; LW 15; LW 21; LWCF 13; LWCF 15; 302 S 17; 304 S 16; 304 S 17; 304 S 40	Z 4 CN 19-10 FF; Z 5 CN 17-08; Z 6 CN 18-09; Z 7 CN 18-09	2333; 2332	X 5 CrNi 18 10; X 5 CrNi 18 10 KG; X 5 CrNi 18 10 KW; X 5 CrNi 18 10 KT	F.3504; X 5 CrNi 18 10	SUS 304; SUS 304 A; SUS 304-CSP; SUS 304 FB; SUS 304 TB; SUS 304 TBS; SUS 304 TKA; SUS 304 TKC	08Ch18N10	X5CrNi18-10
14	304L; 304 L; S30403; J92500; J92600	1.4306; 1.4309	X2CrNi19-11; GXCrNi19-11	304 S 11; LW 20; LWCF 20; S.536; T.74; 304 C 12; 305 S 11	Z 1 CN 18-12; Z 2 CN 18-10; Z 3 CN 19.10 M; Z 3 CN 18-10; Z 3 CN 19-11; Z 3 CN 19-11 FF	2352	X 3 CrNi 18 11; X 2 CrNi 18 11; GX 2 CrNi 19 10	F.310.G; F.3503; X 2 CrNi 19 10; AM-X 2 CrNi 19 10; F.8412	SCS19	03Ch18N11	X2CrNi19-11; GXCrNi19-11
14	304H; 304 H; CF-8; J92590; J92600; J92650; J92710	1.4308	GX5CrNi19-10; G-X 6 CrNi 18 9	304 C 15	Z 6 CN 18.10 M; Z 6 CN 19.9 M			AM-X 7 CrNi 20 10; F.8411	SCS 13; SCS 13 A; SCS 13 X	07Ch18N9L	GX5CrNi19-10; 58E

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
14	J92701	1.4312	GX10CrNi18-8; G-X 10 CrNi 18 8	ANC 3 grade A; ANC 3 A; 3025 S 25	Z 10 CND 18.9 M				SCS 12	10Ch18N9L	GX10CrNi18-8
14	S32304	1.4362	X2CrNiN23-4; X 2 CrNiN 23 4		Z 3 CN 23-04 Az	2327					X2CrNiN23-4
14	201; S20100	1.4372	X12CrMnNiN17-7-5		Z 12 CMN 17-07 Az				SUS 201		X12CrMnNiN 17-7-5
14	316; S31600	1.4436	X3CrNiMo17-13-3; X 5 CrNiMo 17 13 3	316 S 31; 316 S 33; LW 23; LWCF 23; 316 S 19; 316 S 40; 316 S 41; 1.4436	Z 6 CND 18-12-03; Z6 CND 18-13; Z 7 CND 18-12-03	2343	X 5 CrNiMo 17 13; X 8 CrNiMo 17 13	F.3538; X 5 CrNiMo 17 13 3	SUS 316; SUS 316 A; SUS 316 FB; SUS 316 TB; SUS 316 TBS; SUS 316 TKA; SUS 316 TKC; SUS 316 TP		X3CrNiMo17-13-3
14	316L; 316 L; S31603; J92700; J92800	1.4404	X2CrNiMo17-12-2; X2CrNiMo17-13-2; X 2 CrNiMo 17 12 2; X 2 CrNiMo 17 13 2	316 S 11; 316 S 13; 316 S 14; 316 S 30; S.161; S.537; T.75	Z 2 CND 17-12; Z 3 CND 17-11-02; Z 3 CND 17-12-02; Z 3 CND 17-12-02 FF; Z 3 CND 18-12-03	2348	X 2 CrNiMo 17 12	F.310.K; F.3533; F.3537	SUS 316 L; SUS 316 LFB; SUS 316 LTBS; SUS 316 LTP; SUS 316 F 316 L		X2CrNiMo17-13-2
14	316LN; 316 LN; S31653	1.4406	X2CrNiMoN17-11-2; X2CrNiMoN17-12-2; X 2 CrNiMoN 17 12 2	316 S 61; 316 S 63	Z 2 CND 17-11 Az		X 2 CrNiMoN 17 12	F.3542; X 2 CrNiMoN 17 12 2	SUS 316 LN; SUS F 316 LN		X2CrNiMoN 17-11-2
14	CF-8M; J92900	1.4408	GX5CrNiMo 19-11-2; G-X 6 CrNiMo 18 10	ANC 4 grade B; ANC 4 B; 316 C 16; 845 grade B				AM-X 7 CrNiMo 20 10; F.8414	SCS 14; SCS 14 A; SCS 14 X	07Ch18N10G2S2M2L	GX5CrNiMo 19-11-2
14	S32750	1.4410	X2CrNiMoN25-7-4; X 10 CrNiMo 18 9		Z 5 CND 25-06 Az	2328					X2CrNiMoN 25-7-4
14	316LN; 316 LN; S31563	1.4429	X2CrNiMoN17-13-3; X 2 CrNiMoN 17 13 3	316 S 63; 1.4429	Z 3 CND 17-12 Az	2375	X 2 CrNiMoN 17 13	F.3543; X 2 CrNiMoN 17 13 3	SUS 316 LN; SUS F 316 LN		X2CrNiMoN 17-13-3
14	316L; 316 L; S31603; J92800	1.4435	X2CrNiMo18-4-3; X 2 CrNiMo18 14 3	316 S 13; 316 S 11; 316 S 14; 316 S 31; LW 22; LWCF 22; 845 B	Z 3 CND 17-12-03; Z 3 CND 18-14-03	2353	X 2 CrNiMoN 17 13; X 2 CrNiMoN 17 13 KG; X 2 CrNiMoN 17 13 KW	F.3533-X2 CrNiMo 17 13 2	SUS 316 L; SUS 316 LFB; SUS 316 LTBS; SUS 316 LTP; SUS F 316 L	O3Ch17N14M3	X2CrNiMo18-4-3
14	S31726	1.4439	X2CrNiMoN17-13-5; X 2 CrNiMoN 17 13 5		Z 3 CND 18-14-05 Az			F.3544; X 2 CrNiMoN 17 13 5			X2CrNiMoN 17-13-5
14	317; S31700	1.4449	X3CrNiMo18-12-3	317 S 16			X 5 CrNiMo 18 15		SUS 317; SUS 317 TB; SUS 317 TP; SUS F 317		X3CrNiMo18-12-3
14	329; S31260; S32900	1.4460	X3CrNiMoN27-5-2; X 4 CrNiMoN 27 5 2		Z 5 CND 27-05 Az; Z 3 CND 25-07 Az	2324		F.3552; F.3309; X 8 CrNiMo 27-05; X 8 CrNiMo 26 6	SUS 329 J 1; SUS 329 J 1 FB; SUS 329 J 1 TB; SUS 329 J 1 TP	10Ch26N5M	X3CrNiMoN27-5-2
14	S31803; S31260; S32900	1.4462	X2CrNiMoN22-5-3; X 2 CrNiMoN 22 5 3	318 S 13; 1.4462	Z 2 CND 24-08 Az; Z 3 CND 25-06-03 Az; Z 3 CND 25 -05 Az	2377			SUS 329 J 3 L; SUS 329 J 3 LTB; SUS 329 J 3 LTP		X2CrNiMoN22-5-3
14	631; 17-7PH; 17-7 PH; S17700	1.4568; 1.4564; 1.4504	X7CrNiAl17-7; X 7 CrNiAl 17 7	301 S 81	Z 9 CNA 17-07; Z 8 CNA 17-07	2388		X 2 CrNiMo 17 12	SUS 631; SUS 631 J 1; SUS 631-CSP	09Ch17N7Ju1	X7CrNiAl17-7
14	443; 444; S44300; S44400	1.4521	X2CrMoTi18-2; X 2 CrMoTi 18 2		Z 3 CDT 18-02; Z 3 CDT 18-2	2326		F.3123; X 2 CrMoTiNb 18 2	SUS 444; SUS 444 TB; SUS 444 TP		X2CrMoTi18-2
14	904L; 904 L; N08904	1.4539	X1NiCrMoCu25-20-5; X 1 NiCrMoCuN 25 20 5	904 S 13	Z 2 NCDU 25-20	2562					X1NiCrMoCu 25-20-5

Material Group No.	USA	Germany		U.K.	France	Sweden	Italy	Spain	Japan	Russia	EURONORM
	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
14	630; 17-4PH; 17-4 PH; S17400	1.4542	X5CrNiCuNb16-4; X 5 CrNiChNb 17 4		Z 7 CNU 15-05; Z 7 CNU 16-04; Z 7 CNU 17-04				SUS 630; SUS 630 FB; SUS F 630		X5CrNiCuNb16-4
14	S31254	1.4547	X1CrNiMoN20-18-7			2378					X1CrNiMoN 20-18-7
14	631; 17-7PH; 17-7 PH; S17700	1.4568	X7CrNiAl17-7; X 7 CrNiAl 17 7	301 S 81	Z 9 CNA 17-07; Z 8 CNA 17-07	2388		X 2 CrNiMo 17 12	SUS 631; SUS 631 J 1; SUS 631-CSP	09Ch17N7Ju1	X7CrNiAl17-7
14	316 Ti; S31635	1.4571	X6CrNiMoTi17-12-2; X 6 CrNiMoTi 17 12 2	320 S 31; 320 S 18	Z 6 CNDT 17-12	2350	X 6 CrNiMoTi 17 12; X 6 CrNiMoTi 17 12 KG; X 6 CrNiMoTi 17 12 KW	F.310.B; F.3535; X 6 CrNiMoTi 17 12 2	SUS 316 Ti; SUS 316 TiTB; SUS 316 TiTP	08Ch16N11M3T; 08Ch17N13M2T; 10Ch17N13M2T	X6CrNiMoTi 17-12-2
14	309S; 309 S; 309; S30908; S30900	1.4833	X12CrNi23-13; X 7 CrNi 23 14	309 S 24	Z 15 CN 23-13; Z 15 CN 24-13		X 6 CrNi 23 14		SUS 309 S; SUS 309 S TB; SUS 309 S TP		X12CrNi23-13
14	S30415	1.4891	X4CrNiSiN18-10; X 4 CrNiSiN 18 10			2372					X4CrNiSiN 18-10
14	S30815	1.4893	X9CrNiSiNCe21-11-2; X 8 CrNiSiN 21 11			2368					X9CrNiSiNCe 21-11-2
14	304H; 304 H; S30409; S30480	1.4948	X6CrNi18-10; X6CrNi18-11; X 6 CrNi 18 11;	304 S 50; 304 S 51; 801 grade A	Z 5 CN 18-09				SUS 302		X6CrNi18-10
14		1.4581	GX5CrNiMoNb19-11-2; G X 5 CrNiMoNb 18 10	ANC 4 grade C; ANC 4 C; 318 C 17; 845 grade Nb	Z 4 CNDNb 18.12 M		GX 6 CrNiMoNb 20 11		SCS 22		GX5CrNiMoNb 19-11-2
14	303; S30300	1.4305	X8CrNiS18-9; X 10 CrNiS 18 9	303 S 31	Z 8 CNF 18-09	2346	X 10 CrNiS 18 09	F.310.C; F.3508; X 10 CrNiS 18-09	SUS 303	30Ch18N11	X8CrNiS18-9; 58M
14	304L; 304 L; S30403	1.4306	X2CrNi19-11; X 2 CrNi 19 11	304 S 11; LW14; LW 20; LWCF 14; LWCF 20; S.536; T.74; 304 C 12; 304 S 11	Z 1 CN 18-12; Z 3 CN 18-10; Z 3 CN 19-11; Z 3 CN 19-11 FF	2352	X 2 CrNi 18 11; X 3 CrNi 18 11	F.310.G; F.3503; X 2 CrNi 18 10	SUS 304 L; SUS 304 LFP; SUS 304 LTB; SUS 304 LTBS; SUS 304 LTP; SUS F 304 L	03Ch18N11	X2CrNi19-11
14	301; J 230; S30100; S30200	1.4310	X10CrNi18-8; X 12 CrNi 17 7	301 S 21; 301 S 22	Z 11 CN 17-08; Z 11 CN 18-08; Z 12 18-09	2331	X 12 CrNi 17 07	F.3517; X 2 CrNiN 18 10	SUS 301; SUS 301-CSP; SUS 302; SUS 302 FB	12Ch18N9	X10CrNi18-8
14	304LN; 304 LN; S30453	1.4311	X2CrNiN18-10; X 2 CrNiN 18 10	304 S 61	Z 3 CN 18-10 Az; Z 3 CN 18-07 Az	2371	X 2 CrNiN 18 11	F.3541; X 2 CrNiN 18 10	SUS 304 LN; SUS F 304 LN		X2CrNiN18-10
14	304B1; 304B2; 304B3; 304 B1; 304 B2; 304 B3; S30461; S30462; S30463	1.4350	X5CrNi18-9	304 S 31	Z 6 CN 18.09	2332; 2333	X 5 CrNi 18 10	F.3551			58E
14	317L; 317 L; S31703	1.4438	X2CrNiMo18-15-4; X2 CrNiMo 18 16 4	317 S 12	Z 2 CND 19-15-04; Z 3 CND 19-15-04	2367	X 2 CrNiMo 18 16	F.3539; X2 CrNiMo 18 16 4	SUS 317 L; SUS 317 LFB; SUS 317 LTB; SUS 317 LTP; SUS F 317 L; SUS Y 317 L		X2CrNiMo18-15-4

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
14	321H; 321 H; S32109	1.4878	X12CrNiTi18-10; X 12 CrNiTi 18-9	321 S 31	Z 6 CNT 18-10	2337	X 6 CrNiTi 18.11	F.3553	SUS 321; SUS 321 HFB; SUS 321 HTB; SUS 321 HTP; SUS 321 TKA; SUS 321 TP; SUS F 321; SUS Y 321		X12CrNiTi18-10; 58B
14	347; 348; S34700; S34800	1.4550	X6CrNiNb18-10; X 6 CrNiNb 18 10	347 S 31; ANC 3 grade B; ANC 3 B; 347 S 20; 347 S 40; 347 S 50; 347 S 51	Z 6 CNNb 18-10	2338	X 6 CrNiNb 18 11; X 6 CrNiNb 18 11 KG; X 6 CrNiNb 18 11 KW; X 6 CrNiNb 18 11 KT	F.3524; X 6 CrNiNb 18 10	SUS 347; SUS 347 FB; SUS 347 HTB; SUS 347 TB; SUS 347 TKA; SUS 347 TP; SUS F 347	08Ch18N12B	X6CrNiNb18-10; 58F;
14	318; S31803	1.4583	X10CrNiMoNb18-12; X 10CrNiMoNb 18 12		Z 6 CNDNb 18-12		X 6 CrNiMoNb 20 11				
14	310H; 310 H; 310S; 310 S; S31008; S31009	1.4845	X8CrNi25-21; X 12 CrNi 25 21	310 S 16; 310 S 24; 310 S 25; 310 S 31	Z 8 CN 25-20; Z 12 CN 25-20; Z 12 CN 26-21	2361	X 6 CrNi 25 20 (X 6 CrNi 25 20)	F.331	SUS 310 S; SUS 310 FB; SUS 310 STG; SUS 310 STP; SUS310 TB; SYS Y 310 S	10Ch23N18; 20Ch23N18	X12CrNi25-21
14		1.4465; 1.4466	X1CrNiMoN25-22-2; X 2 CrNiMoN 25 22 7								X1CrNiMoN 25-22-2
14	309; S30900	1.4828	X15CrNiSi20-12; X 15 CrNiSi 20 12	309 S 24	Z 9 CN 24-13; Z 17 CNS 20-12		X 16 CrNi 23 14	F.3312; X 15 CrNiSi 20-12	SUH 309; SUS 309 TB; SUS 309 TP	20Ch20N14S2	58C; X15CrNiSi20-12
14	HK; J94203; J94204; J94224	1.4848	GX40CrNiSi25-20; G-X 40 CrNiSi 25 20	310 C 40; 310 C 45			G X 40 CrNi 26 20	AM-X 40 CrNi 25 20; F.8452	SCH 21; SCH 22; SCH 22 X		GX40CrNiSi25-20
14	HK 30; J93503; J94003; J94013; HH	1.4837; 1.4848+Nb	GX40CrNiSi25-12; G-X 40 CrNiSi 25 12	309 C 30			G X 35 CrNi 25 12		SCH 13; SCH 13 A; SCH 13 X; SCH 17; SCS 17	40Ch24N12SL	GX40CrNiSi25-12
14	310; 314; S3100; S31400; S31500	1.4841	X15CrNiSi25-21; X 15 CrNiSi 25 20	314 S 25	Z 15 CNS 25-20		X 16 CrNiSi 25 20	F.3310; X 15 CrNiSi 25-20	SUH 310; SUS 310 TB; SUS Y 310	20Ch25N20S2	X15CrNiSi25-21
14		1.4849	GX40NiCrSiNb38-19; G-X 40 NiCrSi 38 18								GX40NiCrSiNb 38-19
14	S32760; SA351/995; 25Cr-7Ni-Mo-N	1.4501	X2CrNiMoCuWN25-7-4	1.4501	Z 3 CNDU 25-06 Az						X2CrNiMoCuWN 25-7-4
14	348; S34800	1.4546	X5CrNiNb18-10	2 S.130; 2 S.143; 3 S.144; 3 S.145; S.525; S.527							
14		1.4544; 1.4544.9		S.524; S.526; 2 S 129	Z 10 CNT 18-11; 9160/C 63; 9160C201		X 6 CrNiTi 18 11			08Ch18N12T	FE-PA 13
14		1.6900	X12CrNi18-9; X 12 CrNi 18 9								
14		1.4829	X12CrNi22-12; X 12 CrNi 22 12								
14		1.4882	X50CrMnNiNbN21-9		Z 50 CMNNb 21.09						X50CrMnNiNbN 21-9
14	316N; 316 N; J92804	1.4409	GX2CrNiMo19-11-2; G-X 2 CrNiMo 19 11 2		Z 3 CND 19.10 M		GX2 CrNiMo 19 11	AM-X 2 CrNiMo 19 11; F.8415	SCS 16 A; SCS 16 AX SCS 16 AXN		GX2CrNiMo 19-11-2
14	304L; 304 L J92500; J92620	1.4309	GX2CrNi19-11	304 C 12	Z 3 CN 19.10 M		GX 2 CrNi 19 10	AM-X 2 CrNi 19 10; F.8412	SCS 19; SCS 19 A		GX2CrNi19-11

Material Group No.	USA	Germany		U.K.	France	Sweden	Italy	Spain	Japan	Russia	EURONORM
	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
15	A48 25 B; Class 25; No 25 B	0.6015	EN-GJL-150; GG 15; EN-JL 1020	Grade 150	Ft 15 D; R 15 D	01 15-00	G 14; G 15	FG 15	FC 15; FC 150	SCh 15	EN-GJL-150; EN-JL 1020
15	A48-30 B; Class 30, No.30 B	0.6020	EN-GJL-200; GG 20; EN-JL 1030	Grade 220	Ft 20 D	01 20-00	G 20; Gh 190	FG 20	FC 20; FC 200	SCh 20	EN-GJL-200; EN-JL 1030
15	A48-20 B; Class 20; No 20 B	0.6010	EN-GJL-100; GG 10; EN-JL 1010		Ft 10 D	01 10-00	G 10	FG 10	FC 10; FC 100	SCh10	EN-GJL-100; EN-JL 1010
16	A48-45 B; Class 45; No 45 B	0.6030	EN-GJL-300; GG 30; EN-JL 1050	Grade 300	Ft 30 D	01 30-00	G 30	FG 30	FC 30; FC 300	SCh 30	EN-GJL-300; EN-JL 1050
16	A48-50 B; Class 50; No 50 B	0.6035	EN-GJL-350; GG 35; EN-JL 1060	Grade 350	Ft 35 D	01 35-00	G 35	FG 35	FC 35; FC350	SCh 35	EN-GJL-350; GG 35; EN-JL 1060
16	A48-60 B; Class 60; No 60 B	0.6040	EN-JLZ; GG 40	Grade 400	Ft 40 D	01 40-00				SCh 40	EN-JLZ
16	A48-40 B; Class 40; No 40 B	0.6025	EN-GJL-250; GG 25; EN-JL 140	Grade260	Ft 25 D	01 25-00	G 25	FG 25	FC 25	SCh 25	EN-GJL-250; EN-JL 140
17		0.7033	EN-GJS-350-22-LT; GGG 35.3	350/22 L 40	FGS 370-/17	0717-15	GS 370-17	FNG 38-17	FCD 350-22L	VCh42-12	EN-GJS-350-22-LT
17	60-40-18; A536 60-40-18	0.7043	EN-GJS-400-18; EN-GJS-400-18-LT; GGG-40.3; EN-GJS-400-18A-LT	370/7; SNG 370/17	FGS 370-17	0717-15	GSO 400-12			VCh 42-2	EN-GJS-400-18; EN-GJS-400-18-LT; EN-GJS-400-18A-LT
17	60-40-18; A536 60-40-18	0.7040	EN-GJS-400-15; EN-JS 1030; GGG-40	420/12; SNG 420/12	FCS 400-12	0717-02	GS 400-12	FGE 38-17	FCD 40	VCh 42-12	EN-GJS-400-15; EN-JS 1030
17	65-45-12; A536 65-45-12	5.3107	EN-GJS-450-10	450/10; SNG 450/10	FGS 450-10		GS 400-12	FGE 42-12	FCD450	VCh 45	EN-GJS-450-10
18	65-45-12; A536 65-45-12	0.7050	EN-GJS-500-7; EN-GJS-500-7A; EN-JS 1050; GGG-50	500/7	FGS 500-7	0727-02	GS 500/7	FGE 50-7	FCD 50; FCD 500; FCD 500-7	VCh 50-2	EN-GJS-500-7; EN-GJS-500-7A; EN-JS 1050
18	80-55-06; A536 80-55-06	0.7060	EN-GJS-600-3; EN-GJS-600-3A; EN-JS 1060; GGG-60	600/3	FGS 600-3	0732-03	GS 600/3	FGE 60-2	FCD 60; FCD 600; FCD 600-3		
18		0.7652	GGG-NiMn 13 7	S-NiMn 13 7	S-NM 13 7	07 32-03	GGG 60	GGG 60			
18	100-70-03; A536 100-70-03	0.7070	EN-GJS-700-2; EN-JS 1070; GGG-70	700/2; SNG700/2	FGS 700-2	0737-01	GS 700-2	FGE 70-2	FCD 70; FCD 700; FCD 700-2	VCh 70-2	EN-GJS-700-2; EN-JS 1070
18	A439 Type D-2	0.7660	GGG-NiCr 20 2	S-NiCr 20 2	S-NC 20-2						
18	A439 Type D-2 B	0.7661	GGG-NiCr 20 3	S-NiCr 20 3	S-NC 20 3						
19	A47-32510; A47 Class 32510; A47 Grade 32510; 32510	0.8135	EN-GJMB-350-10; EN-JM 1130; GTS-35-10; GTS-35	B 340/12; 310 B340/12	MN 35-10; A32-702 MN 350-10	0810	B 35-10	GTS 35; 36114 Type A	FCMB 340; G5703 FCMB 340	KCh 35-10	EN-GJMB-350-10; EN-JM 1130
19	A47-35018, A47 Class 35018; A47 Grade 35018				MN 380-18; A32-702 MN 380-18					KCh 37-12	
19	A47-22010; A47 Class 22010; A47 Grade 22010; UNS F22200			B 32-10; 6681 B 32-10					FCMB 310	KCh 33-8	
20	A220-50005; A220 Class 50005; A220 Grade 50005	0.8155	EN-GJMB-550-4; EN-JM1160; GTS-55-04	P 55-04; P 510/4	MP 60-3; A32-703 MP 60-3; Mn 550-4	0856-00	P 55-04	Type C; 36116 Type C	FCMP 540	KCh 55-4; KCh60-3	EN-GJMB-550-4; EN-JM1160

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
20	A220-70003; A220 Class 70003; A220 Grade 70003	0.8165	EN-GJMB-650-2; EN-JM1180; GTS-65-02	P 65-02; 6681 P 65-02; P 570/3	Mn 650-3	0862-030	GMN 65		FCMP 590	KCh 63-3	EN-GJMB-650-2; EN-JM1180
20	A220-70003; A220 Class 70003; A220 Grade 70003	0.8170	EN-GJMB-700-2; EN-JM1190; GTS-70-02	P 70-2; 6681 P 70-2; P 690/2	MP 70-2; A 32-703 MP 70-2; Mn 700-2	0862-03	P 70-2; GMN 70	36116 Type A	FCMP 690	KCh 70-2	EN-GJMB-700-2; EN-JM1190
20	A220-45006; A220 Class 45006; A220 Grade 45006 A220-45008; A220 Class 45008; A220 Grade 45008	0.8145	EN-GJMD-450-6; EN-JM1140; GTS-45-06; GTS-45	P 45-06; 6681 P 45-06	MP 50-5; A32-703 MP 50-5	0854-00	P 45-06	Type E; 36116 Type E		KCh 45-7	EN-GJMD-450-6; EN-JM1140
20	A220-80002; A220 Class 80002; A220 Grade 80002			P 70-2	MN 700-2	854			FCMP 70; FCMP 700	KCh 80-1.5	
20	A220-90001; A220 Class 90001; A220 Grade 90001										
20	A220-60004; A220 Class 60004; A220 Grade 60004										
20	A220-40010; A220 Class 40010; A220 Grade 40010					0852-00					
20		0.8040	EN-GJMW-400-5; GTW-40-05	W 40-05	MB 400-5		W 40-05	36113 Type A	FCMW 370		EN-GJMW-400-5; EN-JM1030
20		0.8035	EN-GJMW-350-4; GTW-35-04	W 35-04	MB 35-7		W 35-04	36113 Type B	FCMW 330		EN-GJMW-350-4; EN-JM1010
21	AA5005; AA5006; A95005; A95006; 5005; 5005A; 5006	3.3315	AlMg1; AlMg1C	N41	A G0-6	144106	L3350		A5005	1510; AMg1	AlMg1C; 5005A
21	AA1050; A91050; 1050; 1050A	3.0255	Al99,5; Al99.5	1B	A5	14407	9001/2	L-3051		AD0	Al99.5; Al99,5; 1050A
21	AA1200; A91200 ; 1200; 1200A	3.0205	Al99,0; Al99.0; Al99	1C	A4	144010	Al99.0	L-3001	A1200	A0	Al99.0; AL99,0; 1200
22	AA2017; A92017; 2017; 2017A	3.1325; 3.1124	AlCu2,5Si(A); AlCu2.5Si(A); AlCuMg1		A-U4G			L-3120		V65	AlCu2,5Si(A); AlCu2.,5Si(A); 2017A
22		3.2315	AlMgSi1	H30	A-SGM0.7	144312	9006/4	L-3453		AD35	AlSiMgMn; 6082
22		3.4345	AlZnMgCuO,5; AlZnMgCuO.5								AlZnMgCu0.5; AlZnMgCu0,5; 7022
22		3.1655	AlCu6BiPb; AlCuBiPb	FC1	A-U5PbBi	144355	9002/5	L-3192	A2011		AlCu6BiPb; 2011
22	AA7075; A97075; 7075	3.4365; 3.4364	AlZn5,5MgCu; AlZn5.5MgCu; AlZnMgCu1,5; AlZnMgCu1.5	7075; L95; L96	A-Z5GU		9007/2	L-3710	A7075	B95	AlZn5.5MgCu; AlZn5,.5MgCu; AW-7075; 7075

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
22	AA2024; A92024; 2024	3.1355; 3.1354	AlCuMg2	2024; 2L97	A-U4G1		9002/4; 3583	L-3140	A2024	D16	AlCu4Mg1; 2024
22		3.4335	AlZn4,5Mg1; AlZn4.5Mg1	H17	A-Z5G	144425	9007/1	L-3741			AlZn4.5Mg1; AlZn4,5Mg1; 7020
22	AA6061; A96061; 6061	3.3211; 3.3214	AlMg1SiCu	H20	A-GSUC		9006/2	L-3420	A6061	AD33	EN AW-6061; EN AW-AlMg1SiCu; AlMg1SiCu
23		3.3261	G-AlMg5Si; GK-AlMg5Si; AlMg5Si; VDS 245	LM5		144163				AL13	EN AC-51400; EN AC-AlMg5Si; G-AlMg5Si; AlMg5Si
23		3.2982	GD-AlSi12(Cu); G-AlSi12(Cu); AlSi12(Cu); VDS 231 D		A-S12U		3048				EN AC-47100; EN AC-AlSi12C; G-AlSi12Cu; AlSi12Cu; AlSi12Cu1(Fe)
23	520.0; AA 520.0; A05200				A-G10S		3056	L-2310	AC7B	A18	
23	222.0; AA 222.0; A02220			LM12			3041	L-2110			
23	518.0; AA 518.0; A05180	3.3292	G-AlMg9; GD-AlMg9; AlMg9; VDS 349								EN AC-51200; EN AC-AlMg9; G-AlMg9; AlMg9
23	203.0; AA 203.0; A02030	3.1754	G-AlCu5Ni1,5; G-AlCu5Ni1.5		AU5NKZr						
23	ER4047; A94047	3.2585	SG-AlSi12	4047A; NG2		144262					SG-AlSi12; EL-AlSi12
23	712.0; AA 712.0; A07120		G-AlZn10Si8Mg; GK-AlZn10Si8Mg; AlZn10Si8Mg; VDS 108		A-Z5GF		3602				EN AC-71100; EN AC-AlZn10Si8Mg; G-AlZn10Si8Mg; AlZn10Si8Mg
23	514.0; 514.1; AA 514.0; AA 514.1; A05140; A05141	3.3561	G-AlMg5; GK-AlMg5; AlMg5; EN AC-51300; VDS 244		A-G6		3058	L-2331		AL28; AMg5Mz;	EN AC-51300; EN AC-AlMg5; G-AlMg5; AlMg5
23	B413.0; AA B413.0; A24130; B213.0; AA 213.0; A22130	3.2581; 3,2582	G-AlSi12; GK-AlSi12; GD-AlSi12; AlSi12	LM6	A-S13	144261	4514	L-2520	AC3		EN AC-44200; EN AC-AlSi12; G-AlSi12; GD-AlSi12; AlSi12
23		3.2211	G-AlSi11; GK-AlSi11; AlSi11								EN AC-44000; EN AC-AlSi11; G-AlSi11
23	A444.0; AA A444.0; A14440									AK7	
23		3.3541	G-AlMg3; GK-AlMg3; GF-AlMg3; AlMg3; VDC 244	H20	A-G3T	144224	3059	L-2341	ADC6		EN AC-51100; EN AC-AlMg3; G-AlMg3; AlMg3
24	515.0; AA 515.0; A05150	3.3241	G-AlMg3Si; GK-AlMg3Si; GF-AlMg3Si; AlMg3Si; AlMg3Si1								G-AlMg3Si1; AlMg3Si
24		3.2373	G-AlSi9Mg; GK-AlSi9Mg; AlSi9Mg		A-S9G		3051		AC4A	AK9	G-AlSi9Mg; AlSi9Mg

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
24	A356.0; AA A356.0; A13560; A356.2; AA A356.2; A13562	3.2371	G-AlSi7Mg; GK-AlSi7Mg; GF-AlSi7Mg; AlSi7Mg	2L99	A-S7G03			L-2651	AC4CH	AL9	G-AlSi7Mg; AlSi7Mg
24	204.0; AA 204.0; A02040	3.1371	G-AlCu4TiMg; GK-AlCu4TiMg; GF-AlCu4TiMg; AlCu4TiMg		AU5GT			L-2140	AC1B		EN AC-21000; EN AC-AlCu4TiMg; G-AlCu4TiMg
24	A333.0; AA A333.0; A13330	3.2161	G-AlSi8Cu3; GK-AlSi8Cu3			144163				AL13	EN AC-AlSi8Cu3; EN AC-AlSi8Cu3; G-AlSi8Cu3
24	380.0; AA 380.0; A03800	3.2163	G-AlSi9Cu3; GD-AlSi9Cu3; AlSi9Cu3; VDS 226	LM24	A-S9U3	144252	3610	L-2630	AC4B	AK8M3; AK8	EN AC-46200; EN AC-AlSi8Cu3; G-AlSi9Cu3; AlSi8Cu3
24	365.0; AA 365.0; A03650		G-AlSi10MnMg								EN AC-43500; EN AC-AlSi10MnMg; G-AlSi10MnMg
24	319.0; AA 319.0; A03190	3.2151	G-AlSi6Cu4; GK-AlSi6Cu4; AlSi6Cu4; VDS 225	LM21	A-S5UZ	144230	7369/4	L-2620	AC2B	AK5M	EN AC-45000; EN AC-AlSi6Cu4; G-AlSi6Cu4; AlSi6Cu4
24		3.2383	G-AlSi10MgCu; GK-AlSi10MgCu; G-AlSi10Mg(Cu); GK-AlSi10Mg(Cu); AlSi10MgCu; AlSi10Mg(Cu)		A-S10UG						
24		3.2381; 3.2385	G-AlSi10Mg; GK-AlSi10Mg; GD-AlSi10Mg; AlSi10Mg; VDS 239		A-S10G	144253					EN AC-43000; EN AC-AlSi10Mg; G-AlSi10Mg; AlSi10Mg
24		3.1841	G-AlCu4Ti; AlCu4Ti							AL19	EN AC-21100; EN AC-AlCu4Ti; G-AlCu4Ti; AlCu4Ti
25	390.0; AA 390.0; A03900		G-AlSi17Cu4Mg	LM30		4282					EN AB-48100; EN AC-48100; G-AlSi17Cu4Mg; AlSi17Cu4Mg
25	393.0; AA 393.0; A03930		G-AlSi20CuMgNi; AlSi20CuMgNi	LM29						AK21M2N2	
25			G-AlSi18Cu1MgNi; AlSi18Cu1MgNi	LM28							
26	C36000	2.0375	CuZn36Pb3	CZ124	CuZn36Pb3		12167		C3600; C3601; C3602		CuZn36Pb3; CW603N
26	C83810	2.1098	CuSn3Zn8Pb5-C; G-CuSn2ZnPb	LG1							CuSn3Zn8Pb5-C
26	C83600	2.1096; 2.1096.01	CuSn5Zn5Pb5-C; G-CuSn5ZnPb; Rg 5	LG2	CuPb5Sn5Zn5; UE5; U-E 5 Pb 5 Z 5	5204-15			H5111; H2203	BrO5Ts5S5	CuSn5Zn5Pb5-C
26	C93200	2.1090	CuSn7Zn4Pb7-C; G-CuSn7ZnPb; GC-CuSn7ZnPb; GZ-CuSn7ZnPb; Rg 7	GC 493K	CuSn7Pb6Zn4; UE7; U-E 7 Z 5 Pb 4						CuSn7Zn4Pb7-C
26	C93800	2.1182	CuSn7Pb15-C; G-CuPb15Sn; GC-CuPb15Sn; GZ-CuPb15Sn	LB1	U-Pb15E8; U-Pb 15 E8			C-3300			CuSn7Pb15-C; CC496K
26	C93700	2.1176	CuSn10Pb10-C; G-CuPb10Sn; GC-CuPb10Sn; GZ-CuPb10Sn	LB2	U-Pb10						CuSn10Pb10-C
27	C22000	2.0230	CuZn10; Ms90	CZ101	U-Z10; CuZn10		P-CuZn10; P-OT90		C2200	L90	CuZn10; CW501L

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
27	C86200; SAE 430A	2.0596	CuZn34Mn3Al2Fe1-C; G-CuZn34Al2; GK-CuZn34Al2; GZ-CuZn34Al2	HTB 1	U-Z36N3; CuZn19Al6Y20				HBSC4; H5102/class 3; H5102/class 4	LTs23A; LTs23A6Zh3MTs2	CuZn34Mn3Al2 Fe1-C; CC764S
27	C27200	2.0335	CuZn36; Ms64	CZ108	U-Z36; CuZn 36		C 2700			L63	CuZn36; CW507L
27	C27400	2.0321	CuZn37; Ms63	CZ108			P-CuZn37; P-OT63		C2720	L63	CuZn37; CW508L
27	C86400	2.0592	CuZn35Mn2Al1Fe1-C; G-CuZn35Al1; GK-CuZn35Al1; GZ-CuZn35Al1; G-Ms60	HTB 1					HBSC1; CAC301		CuZn35Mn2Al1 Fe1-C; CC765S
27	C46400	2.0530	CuZn38Sn1As; CuZn38Sn1	CZ112			P-CuZn39Sn1		C4640	LO60-1	CuZn38Sn1As; CW717R
27	C23000; 85Cu-15Zn	2.0240	CuZn15 ; CuZn 15	CZ102	U-Z15; CuZn15	5112-02; 5112-04; 5112-05			C2300		CuZn15; CW502L
27	C24000; 80Cu-20Zn	2.0250	CuZn20; CuZn 20; Ms80	CZ103	CuZn20	5114-02; 5114-04; 5114-05			C2400		CuZn20; CW503L
27	C26000; CA260	2.0265	CuZn30; CuZn 30	CZ106	CuZn30				C2600		CuZn30; CW505L
28	C63000	2.0966	CuAl10Ni5Fe4; CuAl 10 Ni 5 Fe 4	CA 104	U-A10N; CuAl9Ni5Fe3		P-CuAl10Ni5Fe5		C6301	BrAD; BrAZhN10-4-4; N10-4-4	CuAl10Ni5Fe4; CW307G
28	C90700	2.1050	CuSn10-C; G-CuSn 10; SnBz10	CT1	CuSn8						CuSn10-C; CC480K
28	C90800; C91700	2.1052; 2.1052.01; 2.1052.04; 2.1052.03	CuSn12-C; G-CuSn12; GZ-CuSn12; SnBz12, Gbz12	PB2	UE12P				CAC502C; PBC2C		CuSn12-C; CC483K
28	C95800; C95810	2.0975	G-CuAl10Fe5Ni5-C; G-CuAl 10 Ni; NiAlBz-F60		CuAl10Fe5Ni5 Y70				CAC703C		CC333G
28	C11000	2.0060	Cu-ETP; E-Cu57; E Cu 57	C101	Cu-B		Cu-DHP	C11020	C1100	M1	Cu-ETP; E-Cu57; CW004A
28	C81500	2.1292	G-CuCrF 35	CC1-FF	U-Cr0.8Zr						
28	C10300	2.0070	Cu-HCP; Cu-PHC; SE-Cu						C103	LS60-2	Cu-HCP; CW020A; Cu-PHC; CW021A
28	C10100; C10200	2.0040	Cu-OF; OF-Cu	C103; C110	Ci-c1; Cu-c2			C-1120	C1011; C1020	M0b	Cu-OF; CW008A
28	C86550	2.0590	G-CuZn40Fe; G-SoMsF30								G-CuZn40Fe
28	C18100; C18150	2.1293	CuCr1Zr; CuCrZr	CC102	U-C1Z; U-Cr0.8Zr						CuCr1Zr; CW106C
28	C11000; C12200	2.0090	Cu-DHP; E-Cu58; E Cu 58 SF-Cu	C106	Cu-B				C1100; C1220	M1f	Cu-DHP; E-Cu58; CW024A
28	C95500	2.0971	CuAl9Ni3Fe2		UA9					BrA10Zh4N4L	
28	C61000	2.0920	CuAl8; Cu Al 8		CuAl8					BrA7	CuAl8
29											
29											
30											
30											
31	330; N08330	1.4864	X12NiCrSi35-16; X12NiCrSi36-16; X12 NiCrSi 36 16	NA 17; INCOLOY alloy DS	Z 20 NCS 33-16; Z 12 NCS 37-18; Z 12 NCS 35-16			F.3313	SUH 330		

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
31	N08002; N08004; N08005; N08030	1.4865	GX40NiCrSi38-19 GX40NiCrSi38-18; G-X40 NiCrSi38 18	330 C 11; 330 C 40; 331 C 40			GX 50 NiCr 39 19		SCH 15; SCH 16		GX40NiCrSi38-18
31		1.4558	X2NiCrAlTi32-20; X2 NiCrAlTi 32 20	NA 15					NCF 800		X2NiCrAlTi32-20
31	N08031	1.4562	X1NiCrMoCu32-28-7; X1 NiCrMoCu 32 28 7								X1NiCrMoCu 32-28-7
31		1.4958	X5NiCrAlTi31-20; X5 NiCrAlTi 31 20	NA 15					NCF 800 H; NCF 718		X5NiCrAlTi31-20
31	N08811	1.4959	X8NiCrAlTi32-21; X8 NiCrAlTi 32 21	NA 15; NA 15 H	Z 8 NC 33-21; Z 10 NC 32-21						X8NiCrAlTi32-21
31	N08028	1.4563	X1NiCrMoCu31-27-4; X1 NiCrMoCu 31 27 4		Z 2 NCDU 31-27; Z 1 NCDU 31-27-03	2584				EK77; ChN30MDB	X1NiCrMoCu 31-27-4
31	B 163; N08800; N08810; N08332; N08811	1.4876	X10NiCrAlTi32-21; X10NiCrAlTi32-20; X10 NiCrAlTi 32 20	NA 15; NA 15 H	Z 10 NC 32-21; Z 8 NC 33-21			F.3314; F.3545	NCF 800; NCF 800 TB; NCF 800 TP		X10NiCrAlTi32-21
32	S590; J 467	1.4977	X40CoCrNi20-20; X40 CoCrNi 20 20		Z 42 CNKDWNb						
32	660; S66286	1.4980	X6NiCrTiMoVB25-15-2; X5NiCrTi26-15 X6 NiCrTiMoVB 25 15 2; X5 NiCrTi 26 15	HR 51; HR 52	Z 3 NCT 25; Z 6 NCTDV 25.15 B						X6NiCrTiMoVB 25-15-2; X5NiCrTi26-15
32		1.4943; 1.4944	X4NiCrTi25-15; X5NiCrTi26-15	HR 51	Z 6 NCTDV 25-15 B	2570					X4NiCrTi25-15; X5NiCrTi26-15
32	661; R30155	1.4971	X12CrCoNi21-20; X12 CrCoNi 21 20								X12CrCoNi21-20
32	Haynes 556; R30556										
33	Incoloy 825; N08825;	2.4858	NiCr21Mo	NA 16	NC 21 Fe DU					ChN38VT	
33	Hastelloy C-4; N06455	2.4610	NiMo16Cr16Ti								
33	Nimonic 75; N06075; AMS 5715	2.4630; 2.4951	NiCr20Ti	HR 5; HR 203-4	NC 20 T						
33	Inconel 625; N06625; AMS 5666	2.4856	NiCr22Mo9Nb	NA 21	NC 22 FeDNb						
33	Inconel 690; N06690	2.4642	NiC29Fe		NC 30 Fe						
33	Monel 400; N04400	2.4360; 2.4361	NiCu30Fe	NA 13	NU 30						
33	Hastelloy X; N06002; 5390A; AMS 5754; AMS 5536	2.4603; 2.4665	NiCr30FeMo; NiCr22Fe18Mo; NiCr21Fe18Mo9	HR 6	NC 22 FeD						
33	Inconel 617; N06617; AMS 5887	2.4663a	NiCr23Co12Mo		NC 14 K 9 T 5 DWA						
33	Nimonic 90; N07090; AMS 5829	2.4632; 2.4969	NiCr20Co18Ti; NiCr 20 Co 18 Ti	HR 2; HR202; HR 402; HR 501; HR 502; HR 503	Z 8 NCDT 42						NiCr20Co18Ti
33	Haynes 214; NO7214	2.4646	NiCr16Al								
33	Rene 41; N07041; AMS 5712; AMS 5713	2.4973	NiCr19Co11MoTi; NiCr 19 CoMo		NC 19 KDT						
33	Hastelloy B2; N10665	2.4617; 2.4616; 2.4615	NiMo28; EL-NiM29; SG(UP)-NiMo27						YNiMo-7		NiMo28

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
33	Udimet L-605; R30605	2.4964	CoCr20W15Ni								
33	Monel R-405; N04405	2.4360; 2.4361	NiCu30Fe	NA 13	NU 30						
33	Inconel 600; N06600; AMS 5665	2.4816	NiCr15Fe8; NiCr 15 Fe	NA 14	NC 16 FeT					ChN78T	NiCr15Fe8
33	Inconel 601; N06601	2.4851	NiCr23Fe15A; NiCr 23 Fe		N C 23 FeA					ChN60Yu	NiCr23Fe15A
33	Nimonic 263; N07263; AMS 5872; AMS 5886	2.4650	NiCo20Cr20MoTi; NiCo 20 Cr 20 MoTi MoTi	HR 10; HR 206; HR 404	NCK 20 D						NiCo20Cr20MoTi
34	Haynes 188; Jetalloy 209; R30188; AMS 5772	2.4964	CoCr22W14Ni		KC22WN						
34	Monel K-500; N05500	2.4375	NiCu30Al3Ti; NiCu 30 Al	NA 18	NU 30 AT						NiCu30Al3Ti
34	Inconel 718; N07718; AMS 5596; AMS 5589	2.4668	NiCr19Nb5Mo3; NiCr 19 NbMo; NiCr19Fe19Nb5Mo3	HR 8	NC 19 Fe Nb						NiCr19Nb5Mo3
34		2.4955	NiFe25Cr20NbTi; NiFe 25 Cr 20 NbTi		NiFe25Cr20NbTi						NiFe25Cr20NbTi
34	Incoloy 925; N09925	2.4670									
34	Nimonic 901; N09901; AMS 5660; AMS 5661	2.4662	NiFe35Cr14MoTi; NiCr13Mo6Ti3; NiCr 13 Mo 6 Ti 3		Z8 NCDT 42						
34	Udimet 500; N07500; AISI 684	2.4983	NiCr18Co18MoAlTi		NCK 19 DAT						NiCr18Co18MoAlTi
34	Nimonic 80A; N07080	2.4631; 2.4952	NiCr20TiAl; NiCr 20 TiAl	HR 401; HR 601	NC 20 TA				NCF 80 A	ChN77TYuR; ChN56VMTYu	NiCr20TiAl
34	Jetalloy 209; AMS 5772		CoCr22W14Ni		KC 22 WN						
34	Altemp S-816	2.4989	CoCr20Ni20W							Altemp S-816	
34	MAR-M 246	2.4675	NiCr23Mo16Cu; NiCr 23 Mo 16 Cu								NiCr23Mo16Cu
34	Inconel 722; N07722; AMS 5411										
34	Waspaloy; N07001; AISI 685; AMS 5704; AMS 5706; AMS 5708; AMS 5544	2.4654	NiCr20Co13Mo4Ti3AL; NiCr 19 Co 14 Mo 4 Ti		NC 20 K 14						NiCr20Co 13Mo4Ti3AL
34	Rene 80				NC14 K9 T5 DWA						
35	5388C; N30002; CW-12MW;	2.4883	G-NiM16CrW								
35	N7M; N-7M; N30007	2.4685	G-NiMo28		ND 30 M						
35	N12MV; N-12MV; N30012	2.4882; 9.4810; 2.4810/9.4810	G-NiMo30								
35	Nimocast PK24; N13100; AMS 5397	2.4674	G-NiCo15Cr10AlTiMo	HC 204	NK 15 CAT						
35	Jethete M-252; N07252; AMS 5551	2.4916	G-NiCr19Co; G-NICR 19 Co								

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
35	Nimocast 713; N07713; AMS 5391; Inconel 713LC	2.4670	G-NiCr13Al6MoNb	HC 203	NC 13 AD						
35	M-35-1; N214135	2.4365; 2.4365/9.4365	G-NiCu40Nb						NiCuC		
36	Titanium Grade 1; R50250; ASTM GR. 1	3.7024; 3.7025	Ti 1; Ti 99.8	TA1	T-35		Ti1-Type 1	Ti-PO1	Class 2; Gr-1	VT1-00	Ti 99.8
36	Titanium Grade 2; R50400; AMS 4902; AMS 4941; AST M Gr. 2	3.7034; 3.7035; 3.7036	Ti 2; Ti 99.7	TA2; TA3; TA4; TA5	T-40		Ti1-Type 2	Ti-PO2	Class 2; Gr-2	VT1-0	Ti 99.7
36	Titanium Grade 3; R50500; ASTM Gr. 3	3.7055; 3.7056	Ti 3; Ti 99.6	DTD 5023, DTD 5273	T-50		Ti1-Type 3		Class 3; Gr-3		Ti 99.6
36	Titanium Grade 4; R50700; ASTM Gr. 4	3.7064; 3.7065; 3.7066	Ti 4; Ti 99.5	TA7; TA8; TA9	T-60		Ti1-Type 4		Class 4; Gr-4		Ti 99.5
36	Titanium Grade 7; R52400; Ti-0.15Pd	3.7235					Ti2Pd-Type 7		Class 13; Gr-13		
37	Titanium Grade 5; R56400; Ti-6Al-4V	3.7165; 3.7164	Ti6Al4V	TA10; TA11; TA12; TA13; TA 28; TA56; Ti-Al-V	TA6V; T-A 6 V; Ti-P.63		TiAl6V4-Type 5	Ti-P63	Class 6 0; Gr 6 0; SAT-64	VT6	Ti6Al4V
37	Titanium Grade 6Al-2Sn-4Zr-2Mo; R54620; 6Al-2Sn-4Zr-2Mo	3.7145; 3.7144	TiAl6Sn2Zr4Mo2							VT25	TiAl6Sn2Zr4Mo2
37		3.7175; 3.7174	TiAl6V6Sn2								
37	Titanium Grade 9; R56320; Ti-3Al-2.5V	3.7195; 3.7194	Ti6Al2.5V				TiAl3V2.5-Type 9		Class 6 1; Gr 6 1	PT-3V	Ti6Al2.5V
37		3.7124	TiCu2	TA 21; TA22; TA23; TA24	T-U2			Ti-P11			
37		3.7185; 3.7184	Ti4Al4Mo2Sn; TiAl4Mo4Sn4Si0.5	TA45; TA46; TA47; TA48; TA49; TA50; TA57	T-A4DE			Ti-P68			
37	Titanium Grade 6; R54520; Ti-5Al-2.5Sn	3.7115.1; 3.7115	TiAl5Sn2.5; TiAl 5 Sn 22	TA14; TA17	T-A5E; Ti-P.65				SAT-525	VT5-1	TiAl5Sn2.5
37	R56410; Ti-10V-2Fe-3Al										
37	Titanium grade 23; R56401; Ti-6Al-4V-ELI		Ti6Al4V ELI	TA11			TiAl6V4ELI-Type 5.1		Class 6 1; Gr 6 1		
37										VST 5553	Ti5Al5V5Mo3Cr; Ti-5Al-5V-5Mo-3Cr
37	Ti-4Al-3Mo-1V				T-A4D3V					VT14	
37										VT22	

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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
38		1.2762	75CrMoNiW6-7; 75 CrMoNiW 6 7								75CrMoNiW6-7
38	W1; T72301	1.1625	C80W2; C 80 W2	BW 18				F.520.U; F.5107; C 80	SK 75; SK 85; SK 85 M; SK 5; SK 5 M; SK 6	U8-1	C80W2
38	W110; T72301	1.1545	C105U; C 105 W 1; C 105 U		C 105 E 2 U; Y1 105; C105E2U	1880	C 100 KU	F.515; F.516	SK 105; SK 3; TC 105	U10A-1; U10A-2; U11-1	C105U
38		1.6746	32NiCrMo14-5; 32 NiCrMo 14-5	832 M 31	35 NCD 14			F.1262-32 NiCrMo 12			32NiCrMo14-5
38	W210; T72302	1.2833	100V1; 100 V 1	BW 2	C 105 E 2 UV 1; Y1 105 V; 100 V 2		102 V 2 KU		SKS 43		100V1
38	6145; 6150; 6150 H; G61500; H61500	1.8159	51CrV4; 50CrV4; 50 CrV 4	735 A 50; 735 A 51; 735 H 51; 735 M 50; En 47	50CrV4RR; 50 CV 4; 51 CV 4	2230	50 CrV 4	F.143; F.143.A; 51 CrV 4; F.1430	SUP 10; SUP 10-CSP; SUP 10 M	50ChFA; 50ChGFA	51CrV4
38	P20; T51620	1.2330	35CrMo4; 35 CrMo 4	708 A 37	34 CD 4	2234	35 CrMo 4				35CrMo4
38											
38											
38											
38											
38		1.8721	26MnCr6-3								26MnCr6-3
38											
38											
38											
38		1.2083; 1.2083 ESR	X40Cr14; X 42 Cr 13		X40Cr14; Z 40 C 14	2314	X 41 Cr 13 KU	F.5263; X 40 Cr 13	SUS 420 J 2		X40Cr14
38	300M; 4340M; K44220	1.6928	41SiNiCrMoV7-6								S 155
38										30ChGSA	
39	A2; T30102	1.2363	X100CrMoV5; X100CrMoV5-1; X 100 CrMoV 5 1	BA 2	X 100 CrMoV 5; Z 100 CDW 5	2260	X 100 CrMoV 5 1 KU	F.536; F.5227; X 100 CrMoV 5	SKD 12		X100CrMoV5
39	D2; T30402	1.2379	X153CrMoV12; X155CrVMo12-1; X155 CrVMo 12 1	BD 2	X 160 CrMoV 12; Z 160 CDV 12	2310	X 155 CrVMo 12 1 KU	F.520.A	SKD 10; SKD 11		X153CrMoV12
39	D3; T30403	1.2080	X210Cr12; X 210 Cr 12	BD 3	X200Cr12; Z 200 C 12		X 205 Cr 12 KU	F.521; F.5212; X 210 Cr 12	SKD 1	Ch12	X210Cr12
39	L3; T61203	1.2067	102Cr6; 102 Cr 6; 100 Cr 6	BL 3; BL3	100Cr6RR; 100 C 6; 100Cr6; Y 100 C 6		102 Cr 6 KU	F.5230; 100 Cr 6	SUJ 2	Ch	102Cr6
39	M1; H41; T11301; T20841	1.3346	HS2-9-1; S 2-9-1	BM 1	HS 2-8-1; Z 85 DCWV 08-04-02-01						HS2-9-1
39	T1; T12001	1.3355	HS18-0-1; S 18-0-1	BT 1	18-0-1; HS 18-0-1; Z 80 WCV 18-04-01	2750	HS 18-0-1	F.5520; HS 18-0-1	SKH 2	R18	HS18-0-1
39	O2; T31502	1.2842	90MnCrV8; 90 MnCrV 8	BO 2; BO2	90 MnV 8; 90 MV 8		90 MoVCr 8 KU	90 MnCrV 8; F.5229			90MnCrV8
39	H13; T20813	1.2344	X40CrMoV5-1; X40 CrMoV 5 1	BH 13	X 40 CrMoV 5; Z 40 CDV 5	2242	X 40 CrMoV 5 1 1 KU	F.5318; X 40 CrMoSiV 5	SKD 61	4Ch5MF1S	X40CrMoV5-1
39											
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	AISI/SAE/ UNS/ ASTM/AA	Werkstoff	DIN	BS	AFNOR	SS	UNI	UNE	JIS	GOST	EN
39	440C; S44004; S44025	1.4125	X105CrMo17; X105 CrMo 17		Z 100 CD 17 Cl; Z 100 CD 17				SUS 440 C	95Ch18; 110Ch18M-SChD	X105CrMo17
40	A 532 III A 25% Cr	0.9650	G-X 260 Cr 27	Grade 3 D		0466-00				ChWG	
40	Ni-Hard 4	0.9630	G-X 300 CrNiSi 9 5 2								
40	Ni-Hard 1	0.9625	G-X 330 NiCr 4 2	Grade 2 B		0513-00					
40	A 532 III A 25% Cr	0.9655	G-X 300 CrMo 27 1	Grade 3 E						20Ch25N20S2	
40	Ni-Hard 2	0.9620	G-X 260 NiCr 4 2	Grade 2 A		0512-00					
41	A532 IID20%CrMo-LC	0.9645; 5.5609	G-X 260 CrMoNi 20 2 1	Grade 3C							EN-GJN-HV600(XCr23)
41	A532 IIC15%CrMo-HC	0.9635; 0.9640	G-X 300 CrMo 15 3; G-X 300 CrMoNi 15 2 1	Grade 3A; Grade 3B							EN-GJN-HV600(XCr14)

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