

Complete Machining Solutions

Non-Rotating Tool Lines

Turning • Grooving • Threading • Parting

Metric Version Catalog 2019



INSERTS

TOOLS

GRADES

ISO
TURNING

GROOVING

PARTING

FACE
GROOVING

TOOL
BLOCKS

THREADING

TOOL
HOLDERS

GRADES



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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GRADES

Member IMC Group

Complete Machining Solutions
TURNING TOOLS & INSERTS

Complete Machining Solutions
TURNING TOOL HOLDERS

Complete Machining Solutions
TURNING MATERIALS AND GRADES

Complete Machining Solutions
ISO TURN TOOLS AND INSERTS

START

START

START

START

START

Complete Machining Solutions

ISOTURN TOOLS AND INSERTS



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ISOTURN TOOLS

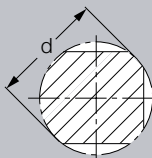


Toolholder Identification System

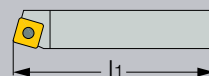
1. Boring Bar

- S** Steel Shank
- A** Coolant through Steel Shank
- C** Solid Carbide Shank
- E** Coolant through Carbide Shank

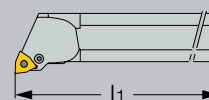
2. Bar Diameter



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
		X = Special



Toolholder

M	W	L	N	R
----------	----------	----------	----------	----------

4	5	6	7	8
---	---	---	---	---

Boring Bar

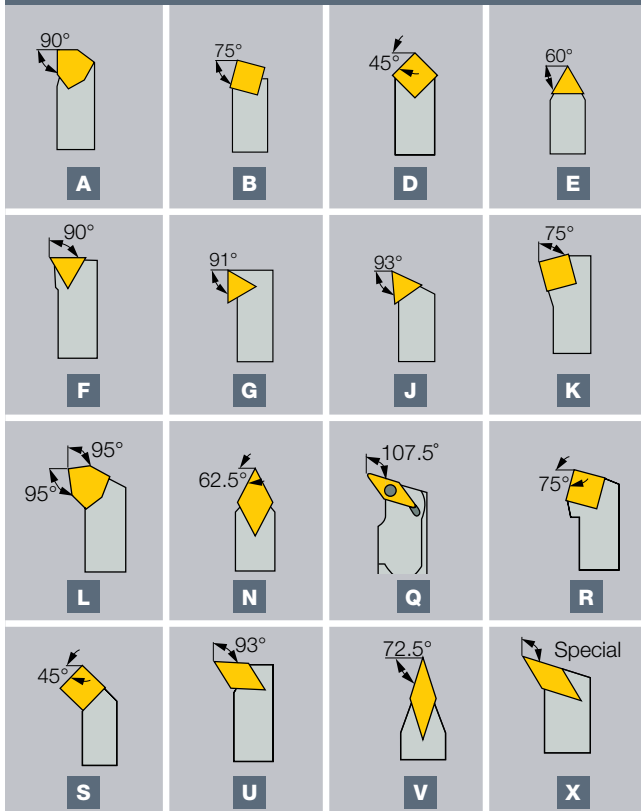
S	25	S
----------	-----------	----------

1	2	3
---	---	---

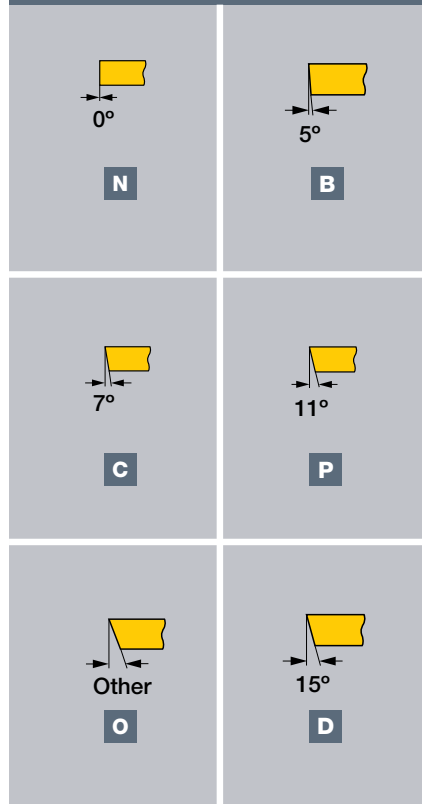
M	W	L	N	R
----------	----------	----------	----------	----------

4	5	6	7	8
---	---	---	---	---

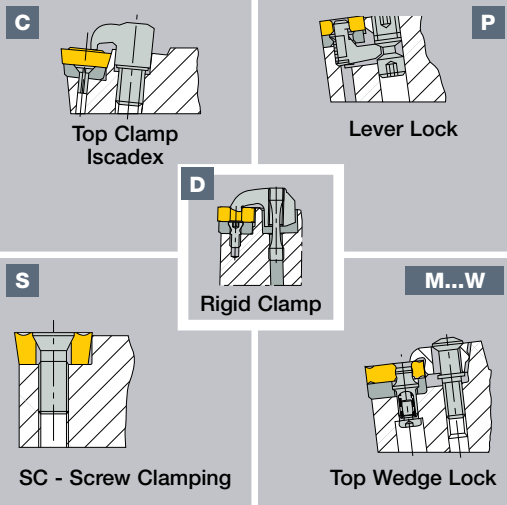
6. Approach Angle



7. Insert Clearance Angle

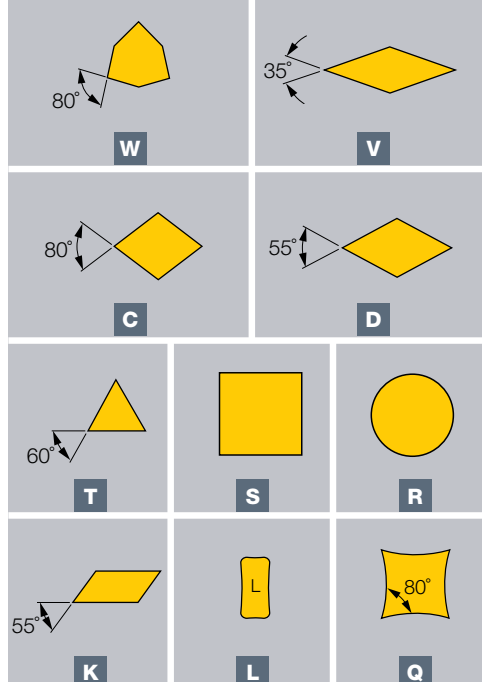


4. Clamping System

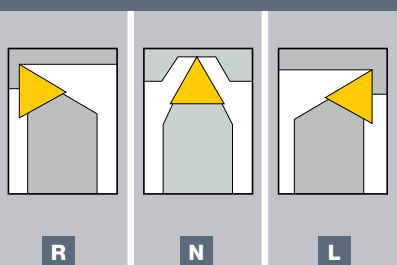


25	25	M	-	08	W
9	10	3		11	12
			-	08	W
				11	12

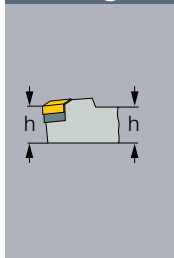
5. Insert Shape



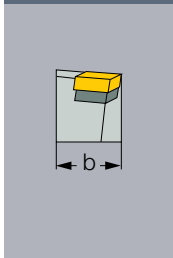
8. Hand of Tool



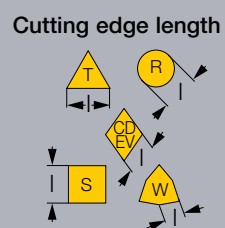
9. Shank Height



10. Shank Width

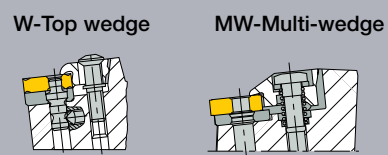


11. Insert Size

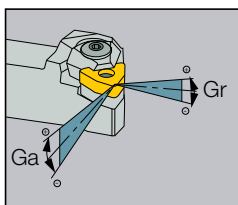


Axial Ga and Radial Gr Rake angles

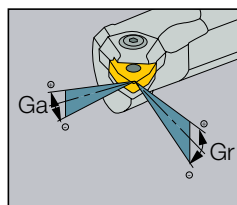
12. Wedge Lock



S- for Swiss-type machines



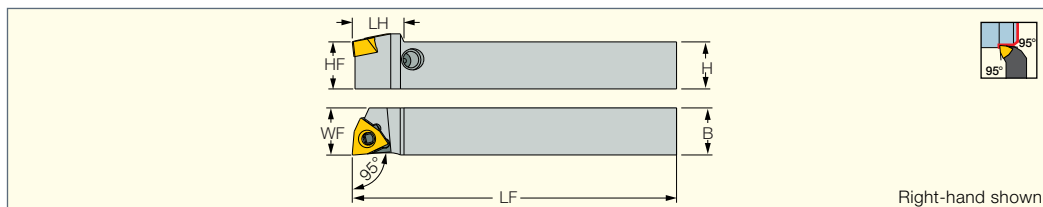
Toolholder



Boring Bar

ISOTURN**PWLNLR/L-S**

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



Right-hand shown

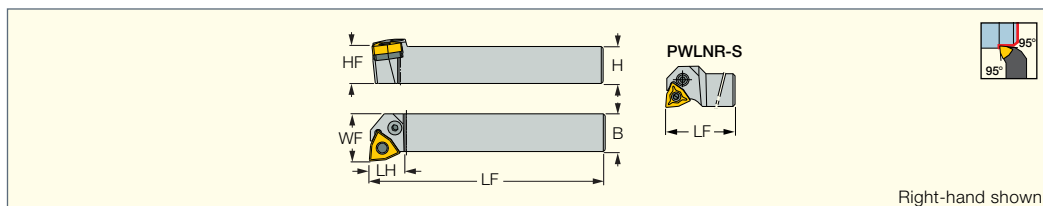
Designation	H	HF	B	LF	LH	WF	Insert				
PWLNLR/L 1010X-04S	10.0	10.0	10.0	120.00	11.0	10.00	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PWLNLR/L 1212F-04S	12.0	12.0	12.0	80.00	11.0	12.00	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PWLNLR/L 1212X-04S	12.0	12.0	12.0	120.00	11.0	12.00	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PWLNLR/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 (117) • WNGP-F2P (115)

ISOTURN**PWLNLR/L**

Lever Lock External Turning
Tools Carrying the 80°
Negative Trigon Inserts



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLNLR/L 1616H-06	16.0	16.0	16.0	100.00	16.0	20.00	-6	-6	WN..06T3
PWLNLR/L 1616H-06S ⁽¹⁾	16.0	16.0	16.0	100.00	20.3	16.00	-6	-6	WN..06T3
PWLNLR/L 2020K-06	20.0	20.0	20.0	125.00	20.0	25.00	-6	-6	WN..06T3
PWLNLR/L 2525M-06	25.0	25.0	25.0	150.00	20.0	32.00	-6	-6	WN..06T3
PWLNLR/L 2020K-08	20.0	20.0	20.0	125.00	19.0	25.00	-6	-6	WN..0804
PWLNLR/L 2525M-08	25.0	25.0	25.0	150.00	20.5	32.00	-6	-6	WN..0804
PWLNLR/L 3232P-08	32.0	32.0	32.0	170.00	19.0	40.00	-6	-6	WN..0804

⁽¹⁾ Can be used on automatics

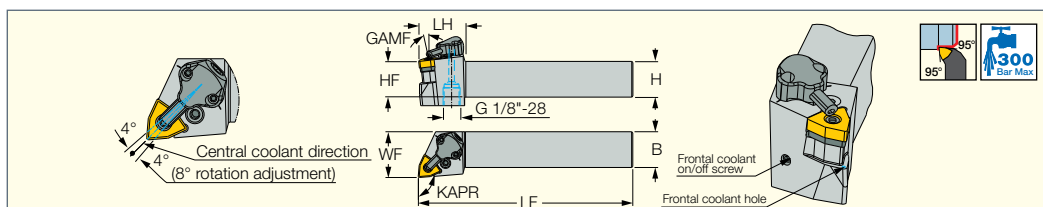
For inserts, see pages: WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-SF (119) • WNMG-NF (119) • WNMG-NM (122) • WNMG-WF (120) • WNMA/ WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • WNMG-CERMET (116)

Spare Parts

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

ISOTURN JETCUT**PWLNLR/L-08-JHP**

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLNLR/L 2525M-08-JHP	25.0	25.0	25.0	150.00	33.0	32.00	-6	-6	WNMG 0804..
PWLNLR/L 3232P-08-JHP	32.0	32.0	32.0	170.00	33.0	40.00	-6	-6	WNMG 0804..

• For user guide, see pages 68-74

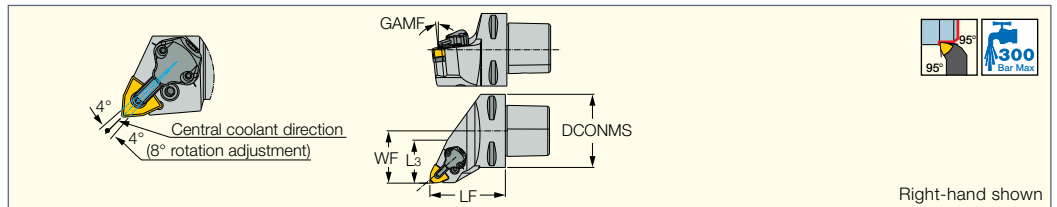
For inserts, see pages: WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMG-NM (122) • WNMG-WF (120) • WNMA/ WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

Spare Parts

Designation											
PWLNLR/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
PWLNLR 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
PWLNLR 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

C#-PWLNR/L-08-JHP

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



Designation	DCONMS	WF	LF	L ₃	GAMP	GAMF	Insert
C6 PWLNR/L-45065-08-JHP	63.00	45.00	65.00	37.00	-6	-6	WNMG 08..

• For user guide, see pages 68-74

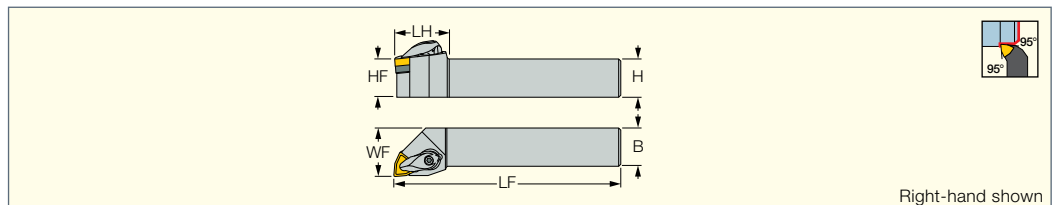
For inserts, see pages: WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

Spare Parts

Designation									
C6 PWLNL-45065-08-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
C6 PWLNR-45065-08-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

DWLNR/L

External 95° Lead Tools
Carrying the Negative
WNMG Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DWLNR/L 1616H-06	16.0	16.0	16.0	100.00	26.0	16.00	-6	-6	WNMG 0604
DWLNR/L 2020K-06	20.0	20.0	20.0	125.00	26.0	25.00	-6	-6	WNMG 0604
DWLNR/L 2525M-06	25.0	25.0	25.0	150.00	24.0	32.00	-6	-6	WNMG 0604
DWLNR/L 2020K-08	20.0	20.0	20.0	125.00	35.0	25.00	-6	-6	WNMG 0804
DWLNR/L 2525M-08	25.0	25.0	25.0	150.00	35.0	32.00	-6	-6	WNMG 0804
DWLNR/L 3232P-08	32.0	32.0	32.0	170.00	35.0	40.00	-6	-6	WNMG 0804

For inserts, see pages: WNMG-F3S (118) • WNMG-M3/4MW (123) • WNMG-M3/4PW (123) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-CERMET (116) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

Spare Parts

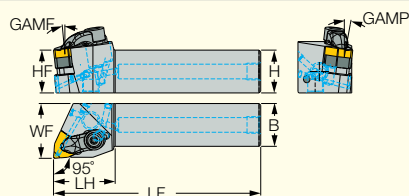
Designation									
DWLNR/L 1616H-06	RWT 322	RWT 3-2(a)*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 2020K-06	RWT 322	RWT 3-2(a)*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 2525M-06	RWT 322	RWT 3-2(a)*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 2020K-08	RWT 443	RWT 443-TNM(b)*	TWH 4(c)*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	
DWLNR/L 2525M-08	RWT 443	RWT 443-TNM(b)*	TWH 4(c)*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	
DWLNR/L 3232P-08	RWT 443	RWT 443-TNM(b)*	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 WNMG 0807... insert

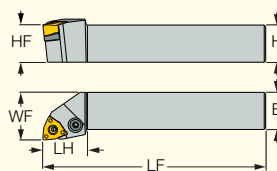
ISOTURN**JET RETURN**
RIGID CLAMP**DWLNRL/L-JHP-MC**Rigid Clamp Tools with Channels
for High Pressure Coolant
Carrying the 80° Trigon Inserts

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

For inserts, see pages: WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • WNMA/WNMA-WG (123) • WNMG-CERMET (116) • WNMG-F3M (118) • WNMG-F3P (115) • WNMG-F3S (118) • WNMG-GN (121) • WNMG-M3M (118) • WNMG-M3P (115) • WNMG-NF (119) • WNMG-NR (122) • WNMG-PP (120) • WNMG-TF (121) • WNMG-TNM (122) • WNMG-VL (119) • WNMG-WF (120) • WNMG-WG (120) • WNMM-NM (122) • WNMX-M3/4MW (123) • WNMX-M3/4PW (123)

Spare Parts

Designation						
DWLNRL 2020X-08-JHP-MC	RWT 443	LCGL-4JC SET	T-20/3	SR 14-506	OR 4X3 NBR70	PLG 1/8BSP TL360
DWLNRL 2020X-08-JHP-MC	RWT 443	LCGR-4JC SET	T-20/3	SR 14-506	OR 4X3 NBR70	PLG 1/8BSP TL360
DWLNRL 2525X-08-JHP-MC	RWT 443	LCGL-4JC SET	T-20/3	SR 14-506	OR 4X3 NBR70	PLG 1/8BSP TL360
DWLNRL 2525X-08-JHP-MC	RWT 443	LCGR-4JC SET	T-20/3	SR 14-506	OR 4X3 NBR70	PLG 1/8BSP TL360

HELITURN LD**PWLNRL/L-X**Lever Lock External Turning
Tools Carrying the HELITURN LD
WNMX or WNMG Trigon Inserts

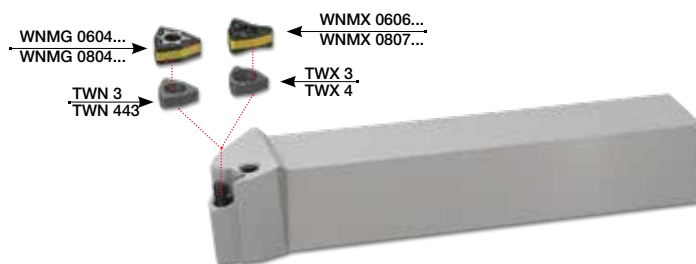
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLNRL/L 2020K-06X ⁽¹⁾	20.0	20.0	20.0	125.00	25.0	25.00	-6	-6	WNMX 0606, WNMG 0604
PWLNRL/L 2525M-06X ⁽¹⁾	25.0	25.0	25.0	150.00	25.0	32.00	-6	-6	WNMX 0606, WNMG 0604
PWLNRL/L 2020K-08X ⁽²⁾	20.0	20.0	20.0	125.00	30.0	25.00	-6	-6	WNMX 0807, WNMG 0804
PWLNRL/L 2525M-08X ⁽²⁾	25.0	25.0	25.0	150.00	30.0	32.00	-6	-6	WNMX 0807, WNMG 0804
PWLNRL 3232P-08X ⁽²⁾	32.0	32.0	32.0	170.00	30.0	40.00	-6	-6	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.

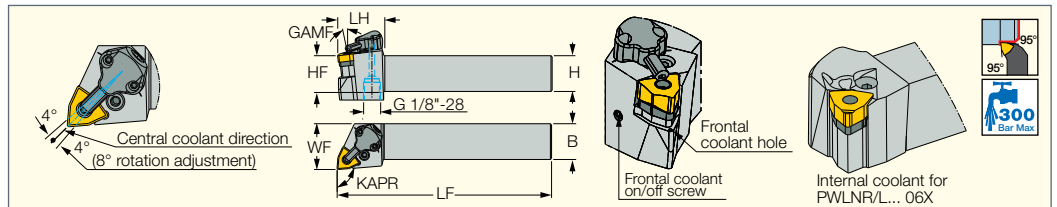
For inserts, see pages: WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMX-M3/4PW (123) • WNMG-F3M (118) • WNMG-M3M (118) • WNMX-M3/4MW (123) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

**Spare Parts**

Designation							
PWLNRL 2020K-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4
PWLNRL 2020K-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4
PWLNRL/L 2525M-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4
PWLNRL/L 2020K-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L
PWLNRL/L 2525M-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L
PWLNRL 3232P-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L

PWLNRL-X-JHP

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	KAPR	Insert
PWLNRL 2020K-06X-JHP ⁽¹⁾	20.0	20.0	20.0	125.00	25.0	25.00	-6	-6	95.0	WNMX 0606, WNMG 0604
PWLNRL 2525M-06X-JHP ⁽¹⁾	25.0	25.0	25.0	150.00	25.0	32.00	-6	-6	95.0	WNMX 0606, WNMG 0604
PWLNRL 2525M-08X-JHP ⁽²⁾	25.0	25.0	25.0	150.00	33.0	32.00	-6	-6	95.0	WNMX 0807, WNMG 0804
PWLNRL 3232P-08X-JHP ⁽²⁾	32.0	32.0	32.0	170.00	33.0	40.00	-6	-6	95.0	WNMX 0807, WNMG 0804

• For user guide, see pages 68-74

⁽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: WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMX-M3/4PW (123) • WNMG-F3M (118) • WNMG-M3M (118) • WNMX-M3/4MW (123) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

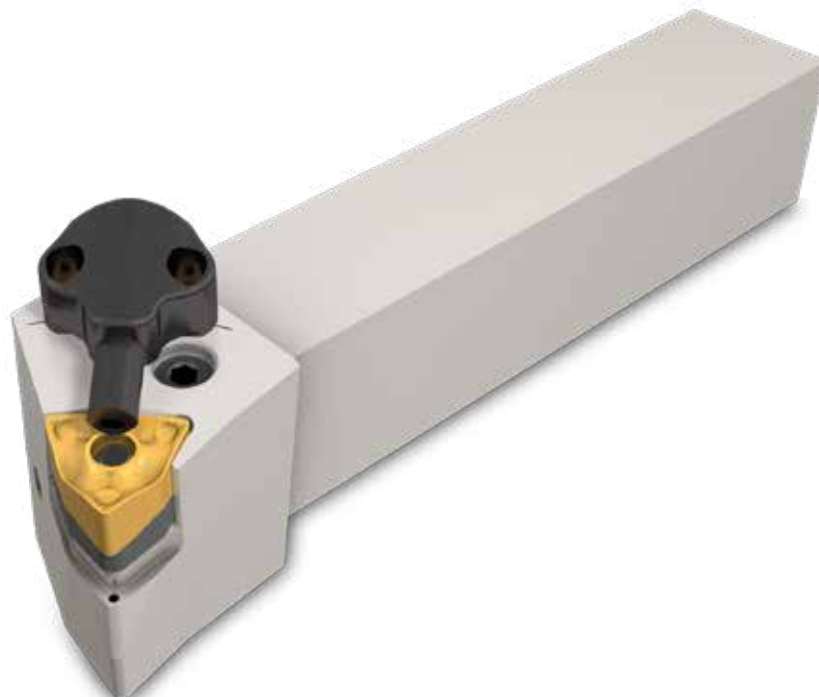
CU-CW-JHP

Screw: SR M3



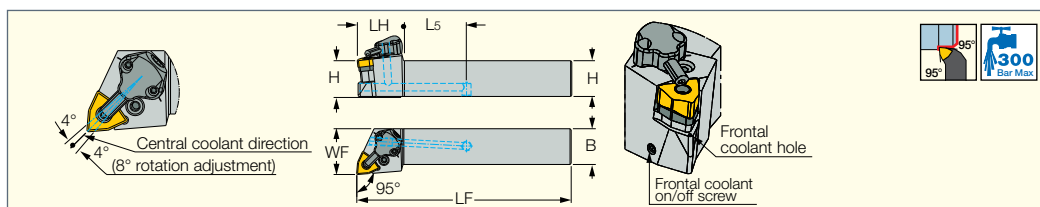
Spare Parts

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



HELITURN LD**JETCUT****PWLNRL/L-X-JHP-MC**

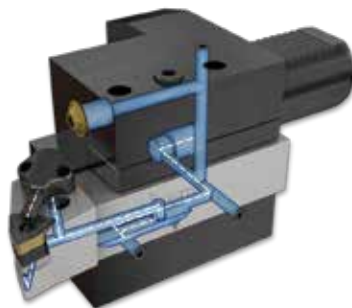
Lever Lock Tools with Bottom
Inlets for High Pressure Coolant
Channels Carrying HELITURN LD
WNMX and WNMG Trigon Inserts



Designation	H	HF	B	LF	LH	L5	WF	Insert
PWLNRL/L 2020X-06X-JHP-MC	20.0	20.0	20.0	97.00	27.0	29.00	25.00	WNMX 0606, WNMG 0604
PWLNRL/L 2525X-06X-JHP-MC	25.0	25.0	25.0	118.00	33.0	35.00	32.00	WNMX 0606, WNMG 0604
PWLNRL/L 2020X-08X-JHP-MC	20.0	20.0	20.0	97.00	27.0	29.00	25.00	WNMX 0807, WNMG 0804
PWLNRL/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 68-74

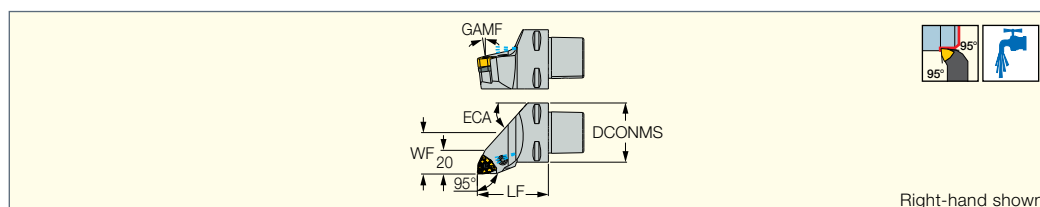
For inserts, see pages: WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMX-M3/4PW (123) • WNMG-F3M (118) • WNMG-M3M (118) • WNMX-M3/4MW (123) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-TNM (122) • WNMG-NF (119) • WNMG-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

**Spare Parts**

Designation											
PWLNRL/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	
PWLNRL/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	
PWLNRL/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
PWLNRL/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

HELITURN LD**CAMFIX****C#-PWLNRL/L-X**

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



Designation	DCONMS	WF	LF	ECA	GAMF	Insert
C4 PWLNRL/L-27050-06X ⁽¹⁾	40.00	27.00	50.00	45	6.0	WNMX 0606, WNMG 0604
C5 PWLNRL-25060-06X ⁽¹⁾	50.00	25.00	60.00	48	6.0	WNMX 0606, WNMG 0604
C4 PWLNRL/L-27050-08X ⁽²⁾	40.00	27.00	50.00	45	6.0	WNMX 0807, WNMG 0804
C5 PWLNRL/L-35060-08X ⁽²⁾	50.00	35.00	60.00	48	6.0	WNMX 0807, WNMG 0804

⁽¹⁾ Supplied with TWX 3 seat for WNMX 0606.. inserts and TWN 3 seat for WNMG 0604.. inserts.

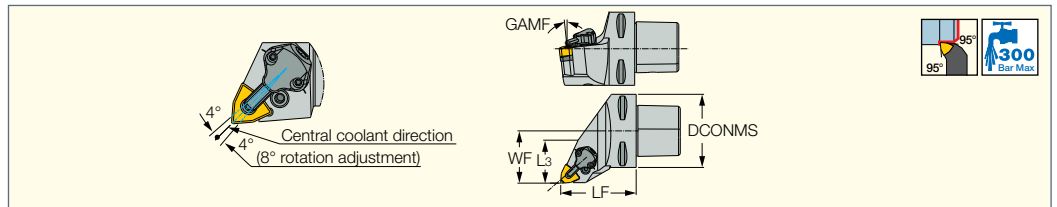
⁽²⁾ Supplied with TWX 4 seat for WNMX 0807.. inserts and TWN 443 seat for WNMG 0804.. inserts.

For inserts, see pages: WNMG-F3S (118) • WNMX-M3/4MW (123) • WNMX-M3/4PW (123) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-NF (119) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120)

Spare Parts

Designation								
C4 PWLNRL/L-27050-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	EZ 62	HW 2.5/5
C5 PWLNRL-25060-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	EZ 83	HW 2.5/5
C4 PWLNRL/L-27050-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 62	HW 3.0
C5 PWLNRL/L-35060-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 83	HW 3.0

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	GAMP	GAMF	Insert
C3 PWLNR-22045-06X-JHP ⁽¹⁾	32.00	45.00	22.00	26.00	-6	-6	WNMX 0606, WNMG 0604
C3 PWLNR-22045-08X-JHP ⁽²⁾	32.00	45.00	22.00	22.00	-6	-6	WNMX 0807, WNMG 0804
C4 PWLNR/L-27050-08X-JHP ⁽²⁾	40.00	50.00	27.00	22.00	-6	-6	WNMX 0807, WNMG 0804
C5 PWLNR/L-35060-08X-JHP ⁽²⁾	50.00	60.00	35.00	25.00	-6	-6	WNMX 0807, WNMG 0804
C6 PWLNR/L-45065-08X-JHP ⁽²⁾	63.00	65.00	45.00	37.00	-6	-6	WNMX 0807, WNMG 0804

• For user guide, see pages 68-74

⁽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: WNMG-F3S (118) • WNMX-M3/4MW (123) • WNMX-M3/4PW (123) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-PP (120) • WNMG-NF (119) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120)



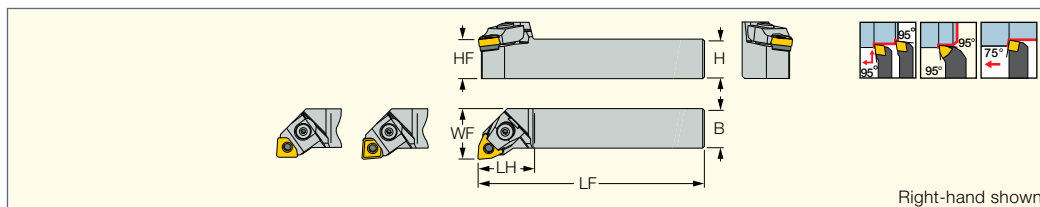
Spare Parts

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	T-8/5	HW 3.0
C4 PWLNR/L-27050-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	T-8/5	HW 3.0
C5 PWLNR/L-35060-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	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	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	T-8/5	HW 3.0



MULTI-WEDGE**MULNR/L-12MW**

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

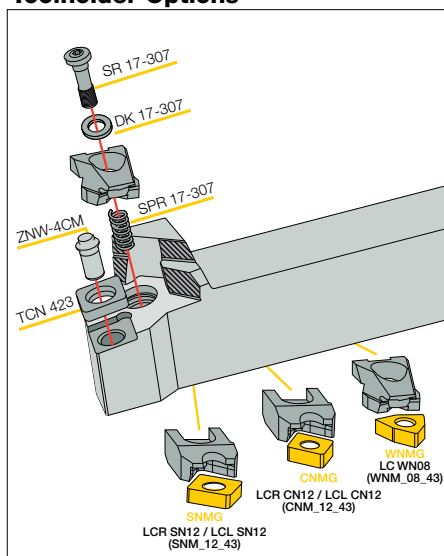


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
MULNR/L 2525M-12MW	25.0	25.0	25.0	150.00	35.0	32.00	6	6

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

For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • SNMG-F3S (154) • WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMN-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201) • CNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

Toolholder Options



Spare Parts

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

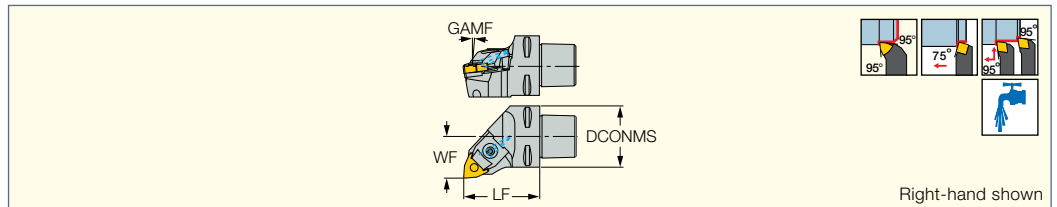
* Optional, should be ordered separately

MULTI-WEDGE

CAMFIX

C#-MULNR/L-MW

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



Right-hand shown

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

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

For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • SNMG-F3S (154) • WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW2 • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

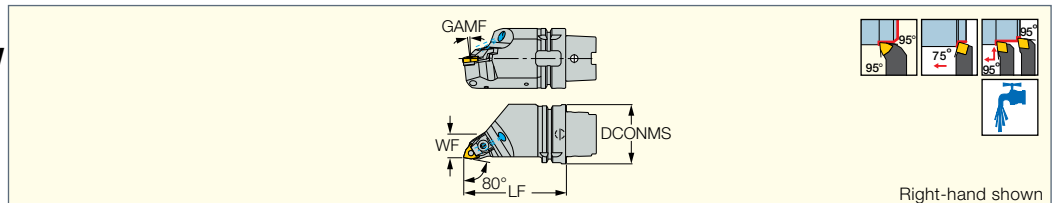
Spare Parts

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



Right-hand shown

Designation	DCONMS	LF	WF	GAMP	GAMF	Insert
HSK A63WH MULNR/L J12MW	63.00	110.00	25.00	-6	-6	W/C/SNMG 1204

• 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 676

For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • SNMG-F3S (154) • WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGA-Ceramic (196) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

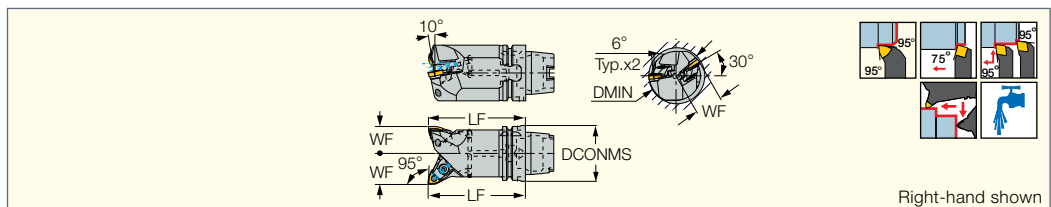
Spare Parts

Designation											
HSK A63WH MULNL J12MW	TCN 423	LCL CN12*	LCL SN12*	LC WN08	ZNW 4CM	SR 17-307	HW 3.0	DK 17-307	SPR 17-307	SR M4X8	EZ 104
HSK A63WH MULNR J12MW	TCN 423	LGR CN12*	LGR 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



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

• 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 676

For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • SNMG-F3S (154) • WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

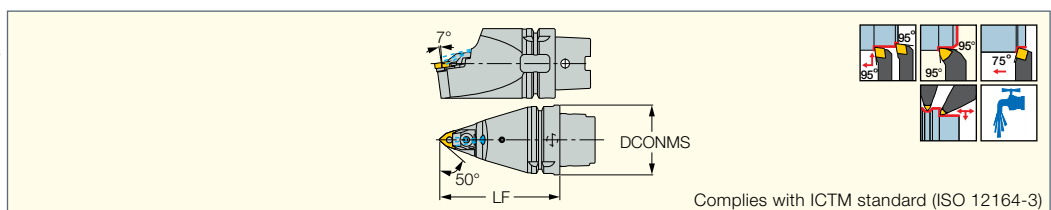
Spare Parts

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
the 80° Negative Rhombic or
Trigon or Square Inserts



Designation	DCONMS	LF	Insert
HSK A63WH MUMNN J12MW	63.00	110.00	W/C/SNMG 1204

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately). • For shank dimensions, see page 676

For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • SNMG-F3S (154) • WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

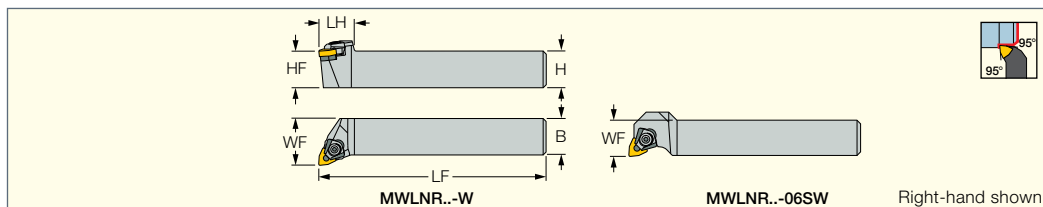
Spare Parts

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

MWLNR/L-W

Top Wedge Lock External Tools
Carrying the Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MWLNR/L 1616H-06SW	16.0	16.0	16.0	100.00	23.0	16.00	-6	-6	WNMG 06T3
MWLNR/L 2020K-06W	20.0	20.0	20.0	125.00	25.0	25.00	-6	-6	WNMG 06T3
MWLNR/L 2525M-06W	25.0	25.0	25.0	150.00	25.0	32.00	-6	-6	WNMG 06T3
MWLNR/L 2020K-08W	20.0	20.0	20.0	125.00	30.0	25.00	-6	-6	WNMG 0804
MWLNR/L 2525M-08W	25.0	25.0	25.0	150.00	30.0	32.00	-6	-6	WNMG 0804
MWLNR/L 3232P-08W	32.0	32.0	32.0	170.00	35.0	40.00	-6	-6	WNMG 0804

For inserts, see pages: WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-SF (119) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

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

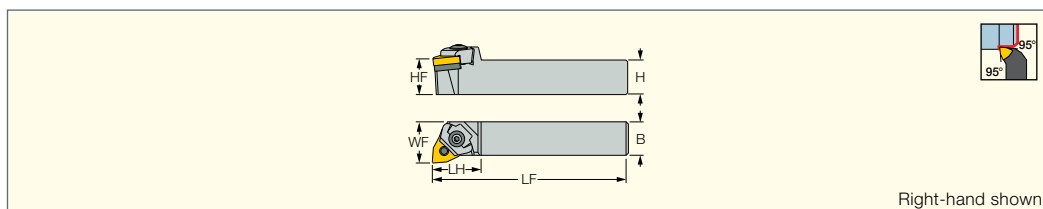
* Optional, should be ordered separately

(a) Use IWSN 3-2W optional seat for WNMG 0604.. inserts

(b) Use IWSN 433M optional seat for WNMG 0804...-TNM inserts

MWLNR/L-13W

Top Wedge Lock External
Toolholders for Large
Trigon Inserts



Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert
MWLNR/L 3232P-13W	32.0	32.0	32.0	170.00	45.0	40.00	-6	-6	WNMG 1306
MWLNR/L 4040R-13W	40.0	40.0	40.0	200.00	45.0	50.00	-6	-6	WNMG 1306

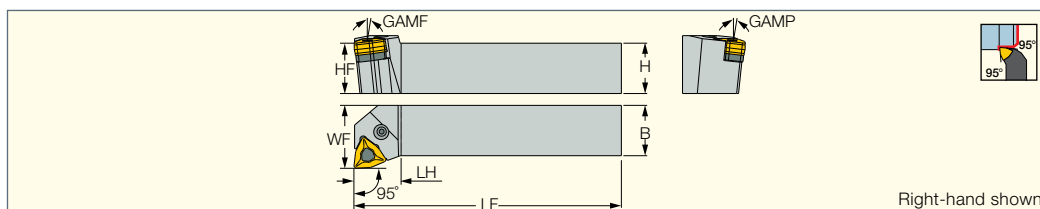
For inserts, see pages: WNMA/WNMA-WG (123) • WNMG-TNM (122)

Spare Parts

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

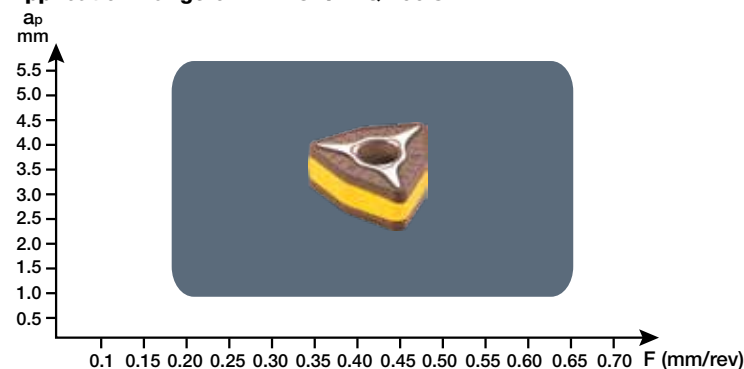
DOVE IQTURN
 HEAVY DUTY LINE

PWLOR/L-IQ

 Lever Lock and Dovetail
 Pocket Rigid Clamping Tools
 Carrying the 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	-6	WOMG 1007-IQ
PWLOR/L 3232P-10-IQ	32.0	32.0	32.0	170.00	30.0	40.00	-6	-6	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 (117) • WOMG-13-R3P-IQ (117)

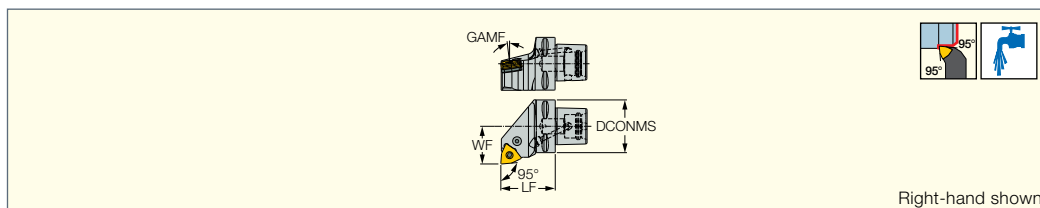
Application Range on PWLOR/L-IQ Tools

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

DOVE IQTURN
 HEAVY DUTY LINE

CAMFIX
C#-PWLOR/L-IQ

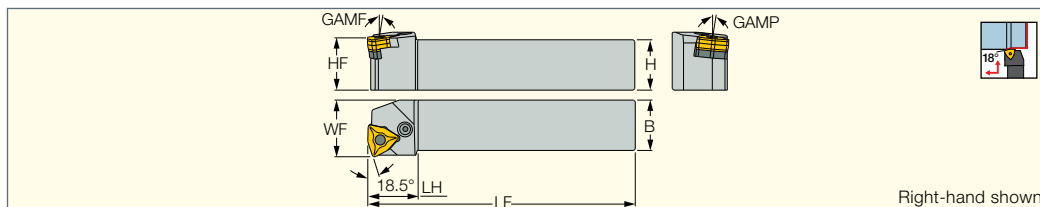
 Lever Lock and Dovetail Rigid
 Clamping Pocket with CAMFIX
 Shank Tools Carrying the Unique
 Double-Sided Trigon Inserts


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

For inserts, see pages: WOMG-13-R3P-IQ (117)

Spare Parts

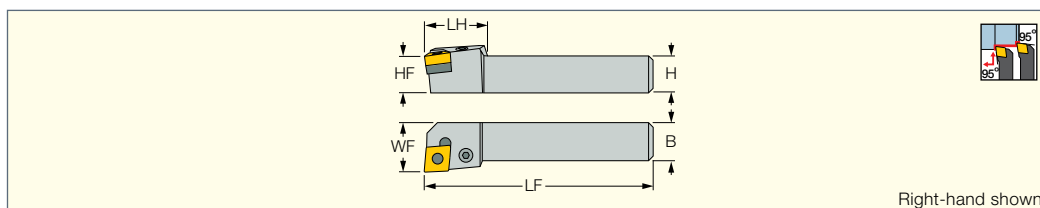
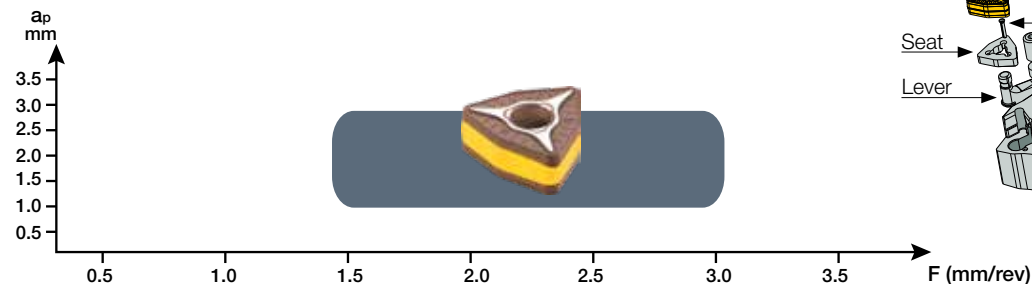
Designation						
C#-PWLOR/L-IQ	TWX 6-IQ	LCL 20C-NX	SR 10402352	HW 4.0	SP 5	SATZ-M10X1-M5



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	-6	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	-6	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	-6	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 (117)

Application Range on PWXOR/L-TF-IQ Tools


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLNR/L 2020K-12	20.0	20.0	20.0	125.00	27.5	25.00	-6	-6	CNMG 1204..
PCLNR/L 2525M-12	25.0	25.0	25.0	150.00	27.8	32.00	-6	-6	CNMG 1204..
PCLNR/L 3232P-12	32.0	32.0	32.0	170.00	27.6	40.00	-6	-6	CNMG 1204..
PCLNR/L 3232P-19	32.0	32.0	32.0	170.00	38.0	40.00	-6	-6	CNMG 1906..
PCLNR/L 4040S-25	40.0	40.0	40.0	250.00	47.0	50.00	-6	-6	CNMG 2509..
PCLNR 5050T-25	50.0	50.0	50.0	300.00	47.0	60.00	-6	-6	CNMG 2509..

For inserts, see pages: CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMG-R3P (125) • CNMG-M4PW (134) • CNMG-CERMET (125) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG-R3M (128) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG-NR (134) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG-MR (133) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMS-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

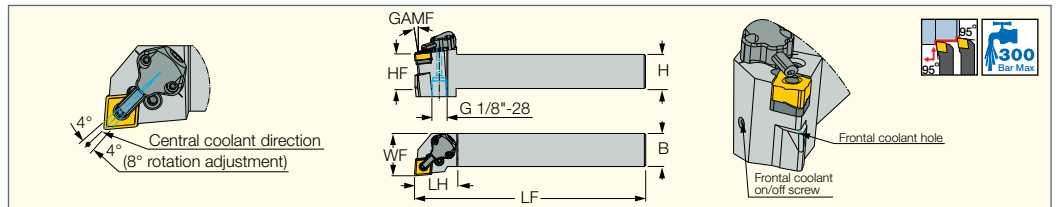
Spare Parts

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 the 80° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLNR/L 2525M-12-JHP	25.0	25.0	25.0	150.00	33.0	32.00	-6	-6	CNMG 1204
PCLNR/L 3232P-12-JHP	32.0	32.0	32.0	170.00	33.0	40.00	-6	-6	CNMG 1204

• For user guide, see pages 68-74

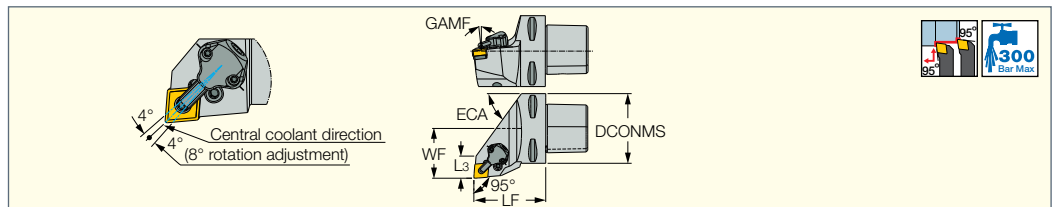
For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMS-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

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 the 80° Negative Rhombic Inserts



Designation	DCONMS	WF	LF	L3	ECA	GAMP	GAMF	Insert
C6 PCLNR/L-45065-12-JHP	63.00	45.00	65.00	20.00	54	-6	-6	CNMG 1204

• For user guide, see pages 68-74

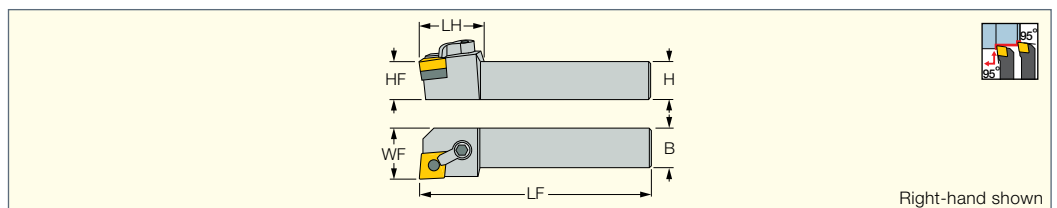
For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMS-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

Spare Parts

Designation									
C#-PCLNR/L-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 the 80° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MCLNR 2525M-16	25.0	25.0	25.0	150.00	30.0	32.00	-6	-6	CNMG 1606..
MCLNR 3232P-16	32.0	32.0	32.0	170.00	30.0	40.00	-6	-6	CNMG 1606..
MCLNL 3232P-19	32.0	32.0	32.0	170.00	35.0	40.00	-6	-6	CNMG 1906..

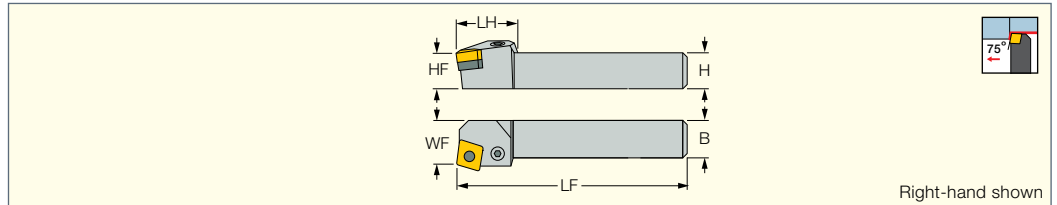
For inserts, see pages: CNMG-M3P (124) • CNMM-R3P (125) • CNMG-M3M (127) • CNMG-R3M (128) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMM-NR (134) • CNMG/CNGG-PP (131) • CNMG-MR (133) • CNMA (130)

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

PCBNR/L

Lever Lock Tools using the
100° Corner of CNMG Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCBNR/L 2525M-12	25.0	25.0	25.0	150.00	27.7	22.00	-6	-6	CNMG 1204..
PCBNR/L 3232P-19	32.0	32.0	32.0	170.00	37.0	27.00	-6	-6	CNMG 1906..
PCBNR 4040S-19	40.0	40.0	40.0	250.00	37.0	37.00	-6	-6	CNMG 1906..

For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG-R3M (128) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMM-NR (134) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG-MR (133) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMS-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195)

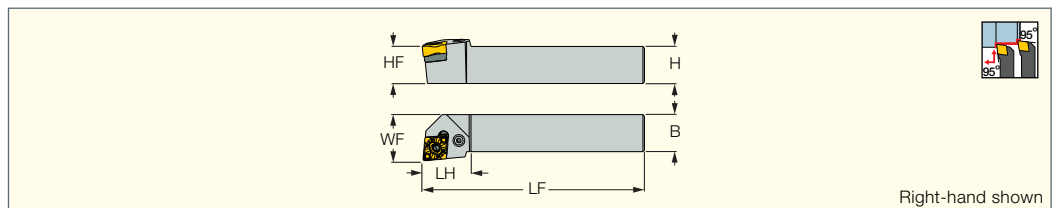
Spare Parts

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

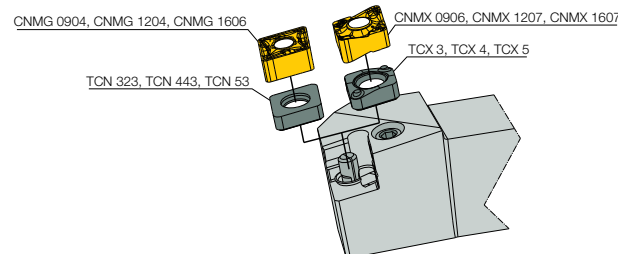
Lever Lock Tools Carrying
the CNMX/CNMG 80°
Rhombic Inserts



Designation	B	H	LF	LH	WF	GAMP	GAMF	Insert
PCLNR 1616H-09X	16.0	16.0	150.00	25.0	25.00	-6	-6	CNMX 0906 CNMG 0904
PCLNR/L 2020K-09X	20.0	20.0	125.00	25.0	25.00	-6	-6	CNMX 0906 CNMG 0904
PCLNR/L 2525M-09X	25.0	25.0	150.00	25.0	32.00	-6	-6	CNMX 0906 CNMG 0904
PCLNR/L 2020K-12X	20.0	20.0	125.00	31.0	25.00	-6	-6	CNMX 1207 CNMG 1204
PCLNR/L 2525M-12X	25.0	25.0	150.00	31.0	32.00	-6	-6	CNMX 1207 CNMG 1204
PCLNR/L 3232P-12X	32.0	32.0	170.00	32.0	40.00	-6	-6	CNMX 1207 CNMG 1204
PCLNR/L 3232P-16X	32.0	32.0	170.00	32.0	40.00	-6	-6	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.

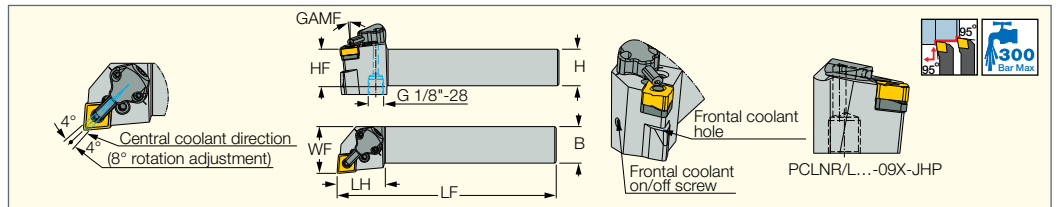
For inserts, see pages: CNGG-F3N (188) • CNGX-M3N (188) • CNMG-CERMET (125) • CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMX-M3/4PW (133) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG-R3M (128) • CNMX-M3/4MW (133) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG-MR (133) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMS-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)


Spare Parts

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

HELITURN LD**JETCUT****PCLNR/L-X-JHP**

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



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
PCLNR/L 1616H-09X-JHP	16.0	16.0	16.0	150.00	33.0	32.00	-6	-6	CNMX 0906, CNMG 0904
PCLNR/L 2020K-09X-JHP	20.0	20.0	20.0	125.00	33.0	32.00	-6	-6	CNMX 0906, CNMG 0904
PCLNR/L 2525M-09X-JHP	25.0	25.0	25.0	150.00	33.0	32.00	-6	-6	CNMX 0906, CNMG 0904
PCLNR/L 2525M-12X-JHP	25.0	25.0	25.0	150.00	33.0	32.00	-6	-6	CNMX 1207, CNMG 1204
PCLNR/L 3232P-12X-JHP	32.0	32.0	32.0	170.00	33.0	40.00	-6	-6	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 68-74

For inserts, see pages: CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMG-M3P (125) • CNMG-M3/4PW (133) • CNMG-M4PW (134) • CNMG-F3N (188) • CNMG-CERMET (125) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG-M3/4MW (133) • CNMG/CNMG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNMG-PP (131) • CNMG-VL (128) • CNMG/CNMG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMG-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

For holders, see pages: C#-ASHR/L-45-HPMC (675) • C#-ASHR/L-HPMC (675)

Spare Parts

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

^(a) For CNMX 0906.. (CNMX 34.) inserts

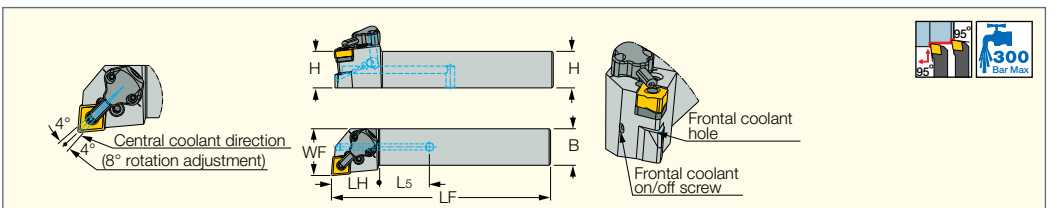
^(b) For CNMX 1207.. (CNMX 45.) inserts

^(c) For CNMG 0904.. (CNMG 33.) inserts

^(d) For CNMG 1204.. (CNMG 43.) inserts

HELITURN LD**JETCUT****PCLNR/L-X-JHP-MC**

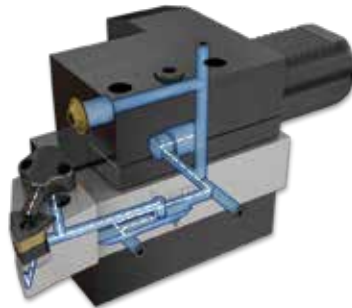
Lever Lock Tools with Bottom
Inlets for High Pressure Coolant
Channels Carrying the CNMX/
CNMG 80° Rhombic Inserts



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 68-74

For inserts, see pages: CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMG-M3P (125) • CNMG-CERMET (125) • CNGG-F3N (188) • CNMX-M3/4PW (133) • CNMG-M4PW (134) • CNMG-F3N (188) • CNMG-F3M (127) • CNMG-M3M (127) • CNMX-M3/4MW (133) • CNMG/CNMG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNMG-PP (131) • CNMG-VL (128) • CNMG/CNMG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMG-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

**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	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	CU-CW-JHP	SR M5X5 DIN913 TL360	T-8/5
PCLNR/L 2020X-12X-JHP-MC	TCX 4 ^(b)	TCN 443 ^(d)	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	SR M5X5 DIN913 TL360	HW 3.0 T-8/5
PCLNR/L 2525X-12X-JHP-MC	TCX 4 ^(b)	TCN 443 ^(d)	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	SR M5X5 DIN913 TL360	HW 3.0 T-8/5

^(a) For CNMX 0906.. (CNMX 34.) inserts

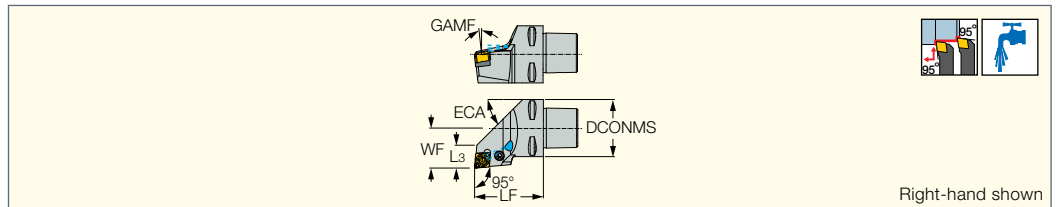
^(b) For CNMX 1207.. (CNMX 45.) inserts

^(c) For CNMG 0904.. (CNMG 33.) inserts

^(d) For CNMG 1204.. (CNMG 43.) inserts

C#-PCLNR/L-X

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



Right-hand shown

Designation	DCONMS	WF	LF	GAMF	L3	ECA	Insert
C4 PCLNR/L-27050-12X ⁽¹⁾	40.00	27.00	50.00	6.0	20.00	40	CNMX 1207, CNMG 1204
C5 PCLNR/L-35060-12X ⁽¹⁾	50.00	35.00	60.00	6.0	20.00	45	CNMX 1207, CNMG 1204
C6 PCLNR/L-45065-12X ⁽¹⁾	63.00	45.00	65.00	6.0	20.00	54	CNMX 1207, CNMG 1204
C4 PCLNR/L-27050-16X	40.00	27.00	50.00	6.0	21.00	40	CNMX 1607, CNMG 1606
C5 PCLNR/L-35060-16X	50.00	35.00	60.00	6.0	21.00	45	CNMX 1607, CNMG 1606
C6 PCLNR/L-45065-16X	63.00	45.00	65.00	6.0	21.00	54	CNMX 1607, CNMG 1606

⁽¹⁾ Supplied with TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts.

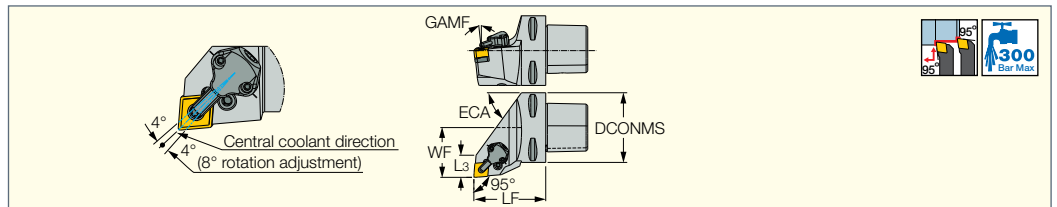
For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • CNMX-M3/4PW (133) • CNMX-M3/4MW (133) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG-R3M (128) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG-MR (133) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMS-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

Spare Parts

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

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	GAMP	GAMF	Insert
C3 PCLNR-22045-09X-JHP ⁽¹⁾	32.00	22.00	45.00	22.00	45	-6	-6	CNMX 0906, CNMG 0904
C4 PCLNR/L-27050-09X-JHP ⁽¹⁾	40.00	27.00	50.00	24.00	45	-6	-6	CNMX 0906, CNMG 0904
C5 PCLNR/L-35060-09X-JHP ⁽¹⁾	50.00	35.00	60.00	26.00	45	-6	-6	CNMX 0906, CNMG 0904
C4 PCLNR/L-27050-12X-JHP ⁽²⁾	40.00	27.00	50.00	18.00	54	-6	-6	CNMX 1207, CNMG 1204
C5 PCLNR/L-35060-12X-JHP ⁽²⁾	50.00	35.00	60.00	20.00	50	-6	-6	CNMX 1207, CNMG 1204
C6 PCLNR/L-45065-12X-JHP ⁽²⁾	63.00	45.00	65.00	20.00	54	-6	-6	CNMX 1207, CNMG 1204

• For user guide, see pages 68-74

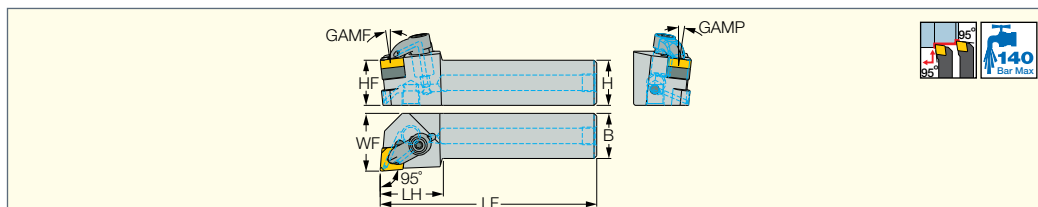
⁽¹⁾ Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts.

⁽²⁾ Supplied with TCX 4 seat for CNMX 1207.. inserts and TCN 443 seat for CNMG 1204.. inserts.

For inserts, see pages: CNGG-F3N (188) • CNGX-M3N (188) • CNMG-CERMET (125) • CNMG-F3S (128) • CNMX-M3/4MW (133) • CNMX-M3/4PW (133) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMS-12 (193) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

Spare Parts

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

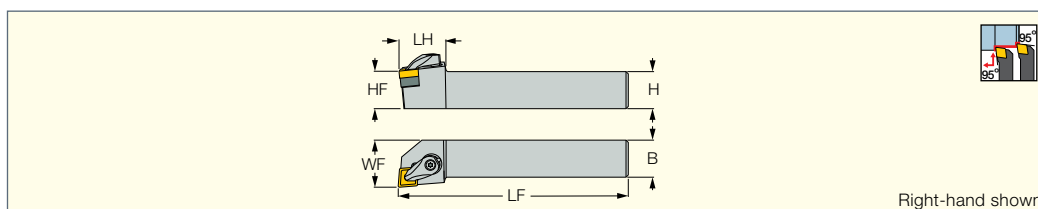
ISOTURN**JET RETURN**
RIGID CLAMP**DCLNR/L-JHP-MC**Rigid Clamp Tools with Channels
for High Pressure Coolant
Carrying the 80° Rhombic Inserts

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) (205) • CNGA-4 (CBN) (205) • CNGA-Ceramic (196) • CNGG-M4HF/M4HM (CBN) (206) • CNMA (130) • CNMA (PCD) (201) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMG-Ceramic (195) • CNMG-CERMET (125) • CNMG-F3M (127) • CNMG-F3P (124) • CNMG-F3S (128) • CNMG-GN (132) • CNMG-M3M (127) • CNMG-M3P (124) • CNMG-NF (129) • CNMG-NR (132) • CNMG-VL (128) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMG/CNGG-PP (131) • CNMG/CNGG-SF (129) • CNMG/CNGG-TF (131) • CNMM-M4PW (134) • CNMM-R3P (125)

Spare Parts

Designation						
DCLNL 2020X-12-JHP-MC	RCT 443	LCGL-4JC SET	T-20/3	PLG 1/8BSP TL360	OR 4X3 NBR70	SR 14-506
DCLNR 2020X-12-JHP-MC	RCT 443	LCGR-4JC SET	T-20/3	PLG 1/8BSP TL360	OR 4X3 NBR70	SR 14-506
DCLNL 2525X-12-JHP-MC	RCT 443	LCGL-4JC SET	T-20/3	PLG 1/8BSP TL360	OR 4X3 NBR70	SR 14-506
DCLNR 2525X-12-JHP-MC	RCT 443	LCGR-4JC SET	T-20/3	PLG 1/8BSP TL360	OR 4X3 NBR70	SR 14-506

ISOTURN**DCLNR/L**R-Clamp Tools with 95°
Lead Angle Carrying the 80°
Negative Rhombic Inserts

Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DCLNR/L-2020K-09X ⁽¹⁾	20.0	20.0	20.0	125.00	25.0	25.00	-6	-6	CNMG 0904 CNMX 0906
DCLNR/L-2525M-09X ⁽¹⁾	25.0	25.0	25.0	150.00	25.0	32.00	-6	-6	CNMG 0904 CNMX 0906
DCLNR/L 2020K-12 ⁽²⁾	20.0	20.0	20.0	125.00	35.0	25.00	-6	-6	CNMG 1204 CNMX 1207
DCLNR/L 2525M-12 ⁽²⁾	25.0	25.0	25.0	150.00	35.0	32.00	-6	-6	CNMG 1204 CNMX 1207
DCLNR/L 3232P-12 ⁽²⁾	32.0	32.0	32.0	170.00	35.0	40.00	-6	-6	CNMG 1204 CNMX 1207
DCLNR/L 2525M-16	25.0	25.0	25.0	150.00	36.0	32.00	-6	-6	CNMG 1606..
DCLNR/L 3232P-16	32.0	32.0	32.0	170.00	36.0	40.00	-6	-6	CNMG 1606..
DCLNR/L 3232P-19	32.0	32.0	32.0	170.00	42.0	40.00	-6	-6	CNMG 1906..
DCLNR/L 4040S-19	40.0	40.0	40.0	250.00	42.0	50.00	-6	-6	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-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMX-M3/4PW (133) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG-R3M (128) • CNMX-M3/4MW (133) • CNGG-F3N (188) • CNMG-CERMET (125) • CNGX-M3N (188) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMM-NR (134) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG-MR (133) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

Spare Parts

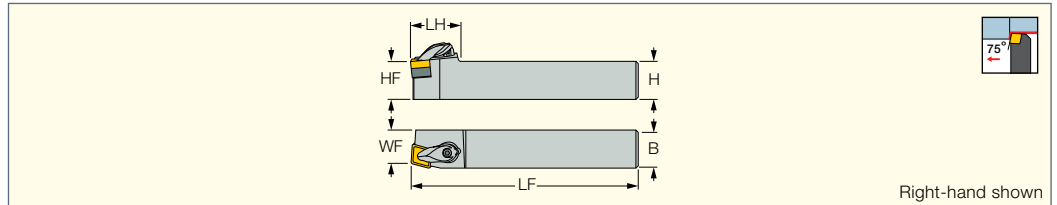
Designation										
DCLNL-2525M-09X	TCN 323	TCX 3	HW 2.5	SR RC3	LCGR-3	KSP 3				
DCLNR/L 2020K-12	RCT 443	TCH 4 ^(a) *		SR 14-506	LCGR-4		SR 10400270-25.5	T-15/5		
DCLNR/L 2525M-12	RCT 443	TCH 4 ^(a) *		SR 14-506	LCGR-4		SR 10400270-25.5	T-15/5		
DCLNR/L 3232P-12	RCT 443	TCH 4 ^(a) *		SR 14-506	LCGR-4		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) TCH 4 seat for CNMX 1207.. insert.

DCBNR/L

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DCBNR/L 2525M-12	25.0	25.0	25.0	150.00	36.0	22.00	-6	-8	CNMG 1204
DCBNR/L 3232P-19	32.0	32.0	32.0	170.00	42.0	27.00	-6	-6	CNMG 1906

For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG-R3M (128) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMM-NR (134) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG-MR (133) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195)

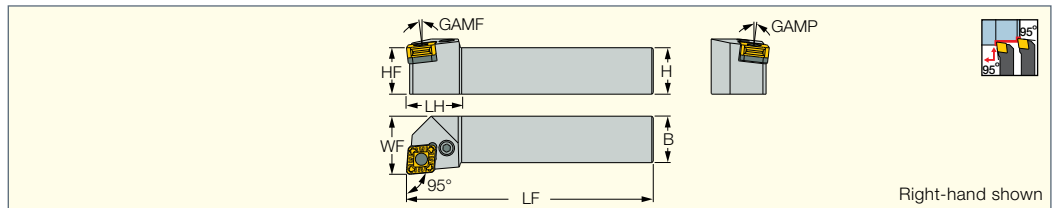
Spare Parts

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	

DOVE IQTURN
HEAVY DUTY LINE

PCLOR/L-IQ

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

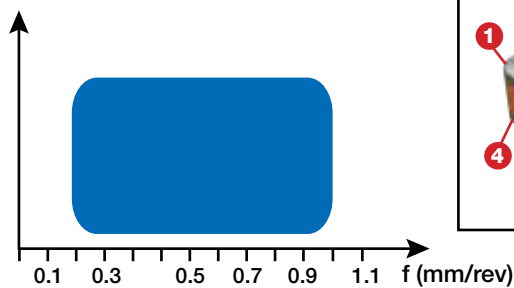
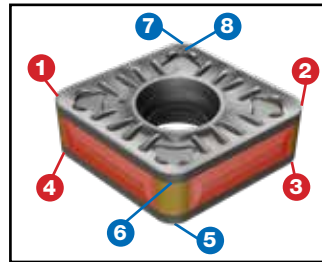
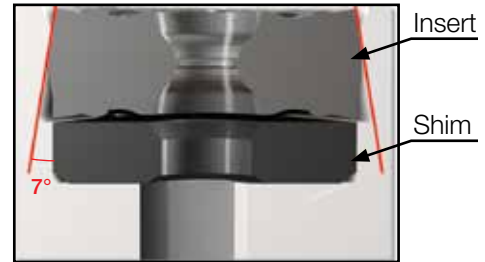


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLOR/L 3232P-16-IQ	32.0	32.0	32.0	170.00	33.0	40.00	-6	-6	COMG 1606
PCLOR/L 3232P-19-IQ	32.0	32.0	32.0	170.00	38.0	40.00	-6	-6	COMG 1906
PCLOR/L 4040S-19-IQ	40.0	40.0	40.0	250.00	38.0	50.00	-6	-6	COMG 1906
PCLOR/L 4040S-25-IQ	40.0	40.0	40.0	250.00	50.0	50.00	-6	-6	COMG 2509
PCLOR/L 5050T-25-IQ	50.0	50.0	50.0	300.00	50.0	60.00	-6	-6	COMG 2509

For inserts, see pages: COMG-R3P-IQ (126) • COMM-R3P-IQ (126)

New Dovetail □
OMG-R3P-IQ Inserts

D.O.C.


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

DOVETAIL Clamping

Spare Parts

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

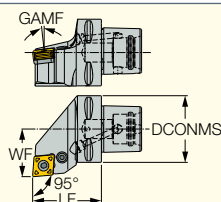
DOVE IQTURN
 HEAVY DUTY LINE

CAMFIX
C#-PCLOR/L-IQ

Lever Lock and Dovetail Pocket

Tools with CAMFIX Shanks

Carrying the Unique Double-Sided 80° Rhombic Inserts



Right-hand shown

Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C6 PCLOR/L-45065-16-IQ	63.00	45.00	65.00	-6	-6	COMG 1606
C6 PCLOR/L-45065-19-IQ	63.00	45.00	65.00	-6	-6	COMG 1906
C8 PCLOR/L-55080-19-IQ	80.00	55.00	80.00	-6	-6	COMG 1906
C8 PCLOR/L-55080-25-IQ	80.00	55.00	80.00	-6	-6	COMG 2509

For inserts, see pages: COMG-R3P-IQ (126) • COMM-R3P-IQ (126)

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	SPP 5-6
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	SPP 5-6

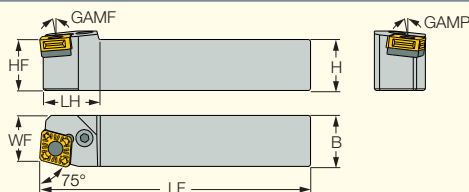
DOVE IQTURN
 HEAVY DUTY LINE

PCBOR/L-IQ

Lever Lock and Dovetail

Pocket Rigid Clamping Tools

Carrying the Unique Double-Sided 80° Rhombic Inserts



Right-hand shown

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	-6	COMG 1606
PCBOR/L 3232P-19-IQ	32.0	32.0	32.0	170.00	38.0	28.00	-6	-6	COMG 1906
PCBOR/L 4040S-19-IQ	40.0	40.0	40.0	250.00	38.0	37.00	-6	-6	COMG 1906
PCBOR/L 4040S-25-IQ	40.0	40.0	40.0	250.00	50.0	35.00	-6	-6	COMG 2509

For inserts, see pages: COMG-R3P-IQ (126) • COMM-R3P-IQ (126)

Spare Parts

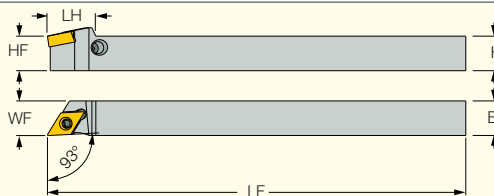
Designation					
PCBOR/L 3232P-16-IQ	TCX 5-IQ	SP 5	SR LCS 5-L25.5	LCL 16-NX	HW 3.0
PCBOR/L 3232P-19-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCBOR/L 4040S-19-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCBOR/L 4040S-25-IQ	TCX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0

ISOTURN
PDJNR/L-S

Lever-Lock Tools Carrying

the DNGP 0703.. Double-

Sided 55° Rhombic Inserts



Right-hand shown

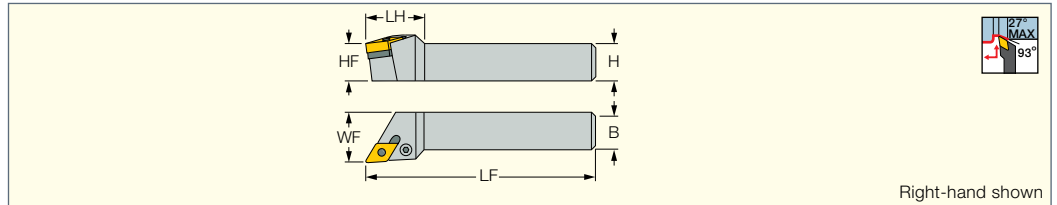
Designation	H	HF	B	LF	LH	WF	Insert					
PDJNR/L 1010X-07S	10.0	10.0	10.0	120.00	14.0	10.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2	PIN
PDJNR/L 1212F-07S	12.0	12.0	12.0	80.00	14.0	12.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2	PIN
PDJNR/L 1212X-07S	12.0	12.0	12.0	120.00	14.0	12.00	DNGP 07	SR 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 (135) • DNGP-F2P (134)

PDJNR/L

Lever Lock Tools Carrying the
55° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PDJNR/L 1616H-11	16.0	16.0	16.0	100.00	30.0	20.00	-6	-7	DNMG 1104
PDJNR/L 2020K-11	20.0	20.0	20.0	125.00	30.0	25.00	-6	-7	DNMG 1104
PDJNR/L 2525M-11	25.0	25.0	25.0	150.00	30.0	32.00	-6	-7	DNMG 1104
PDJNR/L 2020K-15	20.0	20.0	20.0	125.00	34.0	25.00	-6	-6	DNMG 1506
PDJNR/L 2525M-15	25.0	25.0	25.0	150.00	34.0	32.00	-6	-6	DNMG 1506
PDJNR/L 3232P-15	32.0	32.0	32.0	170.00	34.0	40.00	-6	-6	DNMG 1506

For inserts, see pages: DNMG-CERMET (137) • DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMG-WG (138) • DNMS-12 (192) • DNMA (140) • DNGA-Ceramic (197) • DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (CBN) (207)

Spare Parts

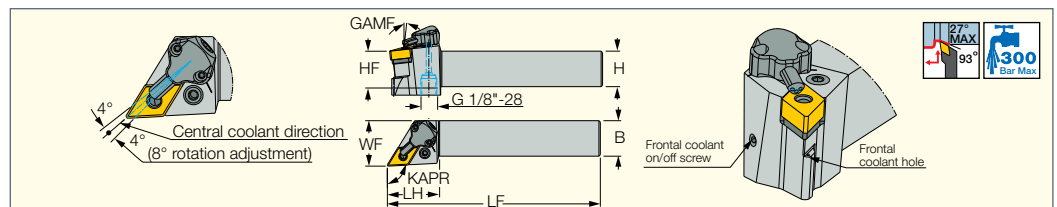
Designation							
PDJNR/L 1616H-11	TDN 322		SP 3	PN 3-4	LR 3D	SR 117-2014	HW 2.5/5
PDJNR/L 2020K-11	TDN 322		SP 3	PN 3-4	LR 3D	SR 117-2014	HW 2.5/5
PDJNR/L 2525M-11	TDN 322		SP 3	PN 3-4	LR 3D	SR 117-2014	HW 2.5/5
PDJNR/L 2020K-15	TDN 422	TDN 432(a)*	SP 4	PN 3-4	LR 4D	SR 117-2010	HW 3.0
PDJNR/L 2525M-15	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 the 55°
Negative Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	KAPR	Insert
PDJNR/L 2525M-11-JHP	25.0	25.0	25.0	150.00	36.0	32.00	-6	-6	93.0	DNMG 1104
PDJNR/L 2525M-15-JHP	25.0	25.0	25.0	150.00	36.0	32.00	-6	-6	93.0	DNMG 1506

• For user guide, see pages 68-74

For inserts, see pages: DNMG-CERMET (137) • DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMG-WG (138) • DNMS-12 (192) • DNMA (140) • DNGA-Ceramic (197) • DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (CBN) (207)

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

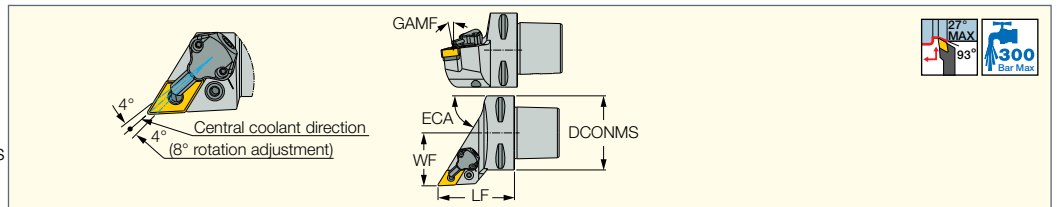
(a) Use for DNMG 1504.. inserts

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	GAMP	GAMF	ECA	Insert
C3 PDJNR-22045-11-JHP	32.00	22.00	45.00	-6	-6	58	DN.. 11..
C4 PDJNR/L 27050-11-JHP	40.00	27.00	55.00	-6	-6	58	DN.. 11..
C5 PDJNR/L 35060-11-JHP	50.00	35.00	60.00	-6	-6	58	DN.. 11..
C4 PDJNR/L 27055-15-JHP	40.00	27.00	55.00	-6	-6	58	DN.. 15..
C5 PDJNR/L 35060-15-JHP	50.00	35.00	60.00	-6	-6	58	DN.. 15..
C6 PDJNR/L 45065-15-JHP	63.00	45.00	65.00	-6	-6	58	DN.. 15..

• For user guide, see pages 68-74

For inserts, see pages: DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMG-WG (138) • DNMS-12 (192) • DNMA (140) • DNGA-Ceramic (197) • DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (CBN) (207) • DNMG-CERMET (137)

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 PDJNL 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
C5 PDJNR 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 PDJNL 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
C5 PDJNR 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 PDJNL 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
C6 PDJNR 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

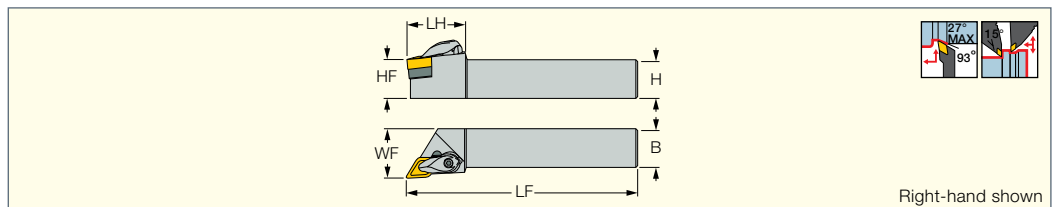
* Optional, should be ordered separately

(a) Use for DNMG 1504.. inserts

ISOTURN

DDJNR/L

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DDJNR/L 1616H-11	16.0	16.0	16.0	100.00	30.0	20.00	-7	-6	DNMG 1104
DDJNR/L 2020K-11	20.0	20.0	20.0	125.00	30.0	25.00	-6	-6	DNMG 1104
DDJNR/L 2525M-11	25.0	25.0	25.0	150.00	30.0	32.00	-6	-6	DNMG 1104
DDJNR/L 2020K-15	20.0	20.0	20.0	125.00	39.0	25.00	-6	-6	DNMG 1506
DDJNR/L 2525M-15	25.0	25.0	25.0	150.00	40.0	32.00	-6	-6	DNMG 1506
DDJNR/L 3232P-15	32.0	32.0	32.0	170.00	41.0	40.00	-6	-6	DNMG 1506

• For DNMG 1504... inserts use RDT 443 seat (ordered separately)

For inserts, see pages: DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-CERMET (137) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMG-WG (138) • DNMA (140) • DNGA-Ceramic (197) • DNGA-4 (CBN) (208) • DNMA (CBN) (207)

For holders, see pages: C#-ASHR/L-45-HPMC (675) • C#-ASHR/L-HPMC (675)

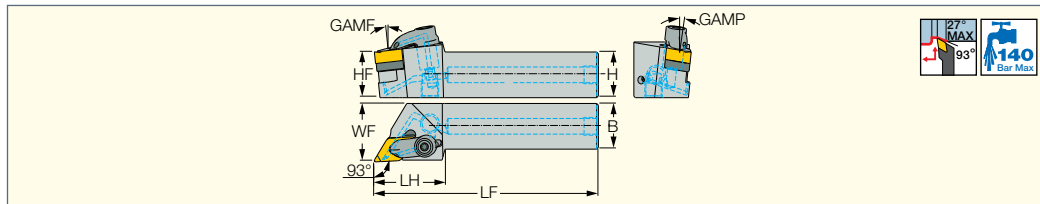
Spare Parts

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

DDJNR/L-JHP-MC

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



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

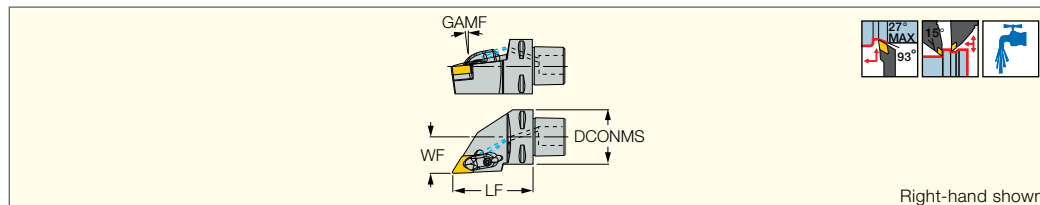
For inserts, see pages: DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGA-Ceramic (197) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (140) • DNMA (CBN) (207) • DNMG-CERMET (137) • DNMG-F3M (136) • DNMG-F3P (135) • DNMG-F3S (136) • DNMG-GN (140) • DNMG-M3M (136) • DNMG-M3P (135) • DNMG-NF (138) • DNMG-NR (140) • DNMG-PF (138) • DNMG-VL (139) • DNMG-WG (138) • DNMG/DNGG-PP (139) • DNMG/DNGG-SF (137) • DNMG/DNGG-TF (139) • DNMM-NM (141) • DNMM-R3P (141) • DNMX-M3P (141)

Spare Parts

Designation						
DDJNL 2020X-15-JHP-MC	RDT 433	LCGL-4JC SET	T-20/3	PLG 1/8BSP TL360	SR 14-506	OR 4X3 NBR70
DDJNR 2020X-15-JHP-MC	RDT 433	LCGR-4JC SET	T-20/3	PLG 1/8BSP TL360	SR 14-506	OR 4X3 NBR70
DDJNL 2525X-15-JHP-MC	RDT 433	LCGL-4JC SET	T-20/3	PLG 1/8BSP TL360	SR 14-506	OR 4X3 NBR70
DDJNR 2525X-15-JHP-MC	RDT 433	LCGR-4JC SET	T-20/3	PLG 1/8BSP TL360	SR 14-506	OR 4X3 NBR70

ISOTURN CAMFIX
C#-DDJNR/L

Tools with CAMFIX Exchangeable
Tapered Shanks Carrying the
Negative 55° Rhombic Inserts



Right-hand shown

Designation	DCONMS	WF	LF	Insert	GAMF							
C4 DDJNR/L-27060-15	40.00	27.00	60.00	DN..15	6.0	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506	EZ 62
C5 DDJNR/L-35060-15	50.00	35.00	60.00	DN..15	6.0	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506	EZ 83
C6 DDJNR/L-45065-15	63.00	45.00	65.00	DN..15	6.0	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506	EZ 104

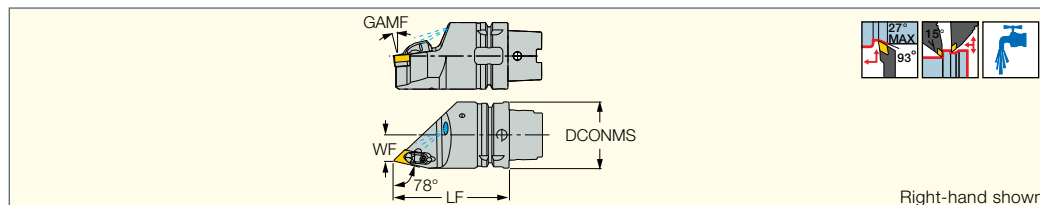
• Use RDT 443 seat for DN.. 1504.. inserts

* Optional, should be ordered separately

For inserts, see pages: DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMG-WG (138) • DNMA (140) • DNGA-Ceramic (197) • DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (CBN) (207) • DNMG-CERMET (137)

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	GAMF							
HSK A63WH DDJNR/L J15 (1)	63.00	110.00	25.00	DN.. 15	7.5	RDT 433	RDT 443*	SR 14-506	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 676

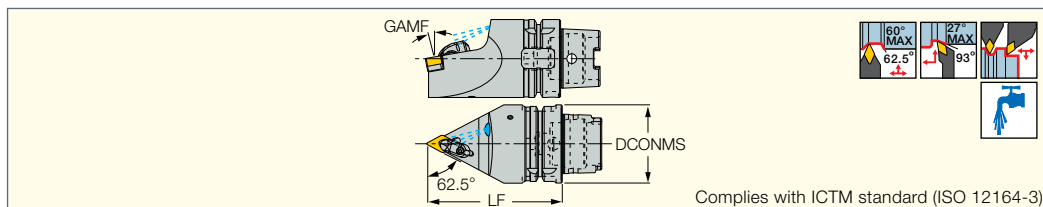
(1) RDT 443 for DN__ 1504.. insert.

* Optional, should be ordered separately

For inserts, see pages: DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMA (140) • DNGA-Ceramic (197) • DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (CBN) (207)

R-CLAMP HSK**HSK A63WH-DDNNN**

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



Designation	LF	Insert	DCONMS	GAMF							
HSK A63WH DDNNN J15 (1)	110.00	DN.. 15	63.00	10.0	RDT 433	RDT 443*	SR 14-506	LCGR-4	SR 10400270-25.5	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 676

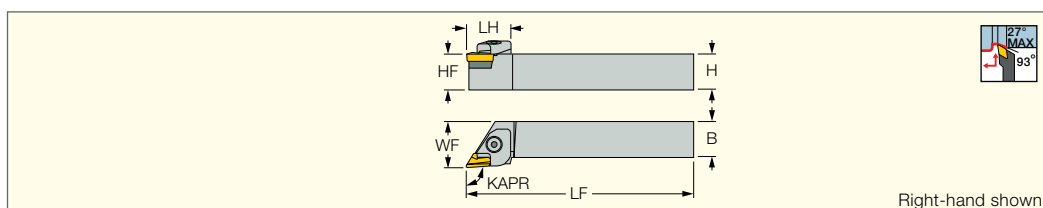
(1) RDT 443 for DN__ 1504.. insert.

* Optional, should be ordered separately

For inserts, see pages: DNMG-CERMET (137) • DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMG-WG (138) • DNMA (140) • DNGA-Ceramic (197) • DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (CBN) (207)

ISOTURN**CKJNR/L**

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



Designation	H	HF	B	LF	LH	WF	KAPR	GAMP	GAMF	Insert
CKJNR/L 2020K-16	20.0	20.0	20.0	125.00	32.0	25.00	93.0	-6	0	KNMX/KNUX 1604
CKJNR/L 2525M-16	25.0	25.0	25.0	150.00	32.0	32.00	93.0	-6	0	KNMX/KNUX 1604
CKJNR/L 3232P-16	32.0	32.0	32.0	170.00	32.0	40.00	93.0	-6	0	KNMX/KNUX 1604

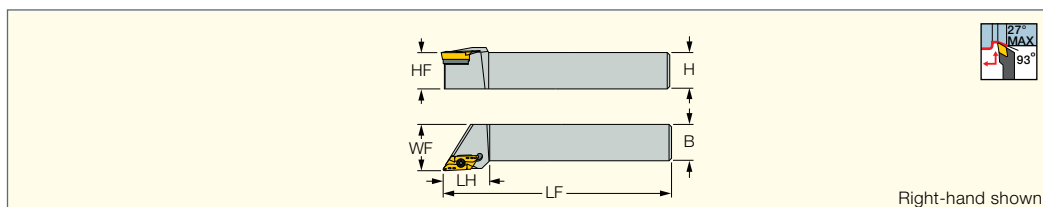
For inserts, see pages: KNMX (142) • KNUX (142)

Spare Parts

Designation								
CKJNL 2020K-16	CSK 1604 L	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KL	CLS 16K	HW 4.0
CKJNR 2020K-16	CSK 1604 R	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KR	CLS 16K	HW 4.0
CKJNL 2525M-16	CSK 1604 L	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KL	CLS 16K	HW 4.0
CKJNR 2525M-16	CSK 1604 R	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KR	CLS 16K	HW 4.0
CKJNL 3232P-16	CSK 1604 L	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KL	CLS 16K	HW 4.0
CKJNR 3232P-16	CSK 1604 R	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KR	CLS 16K	HW 4.0

ISOTURN**SKJNR/L**

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

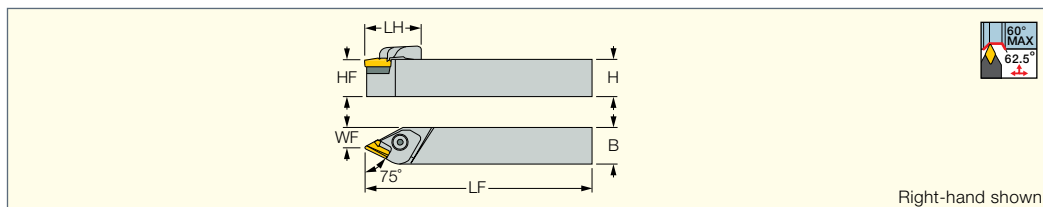


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SKJNR/L 2525M-16	25.0	25.0	25.0	150.00	32.0	32.00	-6	0	KNMX 1604	TKX 160310L	SR TC-3	HW 2.5	SR 16-236 P	T-15/5
SKJNL 3232P-16	32.0	32.0	32.0	170.00	32.0	40.00	-6	0	KNMX 1604	TKX 160310L	SR TC-3	HW 2.5	SR 16-236 P	T-15/5

For inserts, see pages: KNMX (142)

ISOTURN**CKNNR/L**

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
CKNNR/L 2525M-16	25.0	25.0	25.0	150.00	33.0	14.40	2.5	5.2	KNUX/KNMX 1604

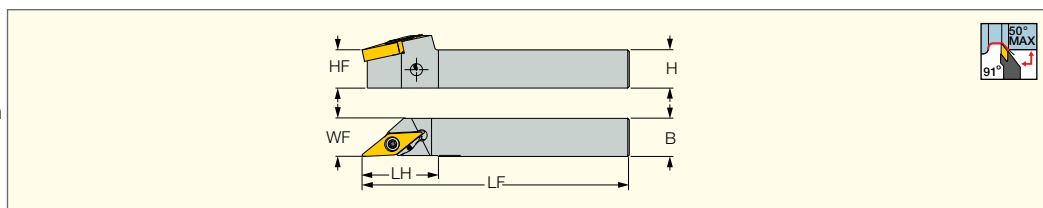
For inserts, see pages: KNMX (142) • KNUX (142)

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

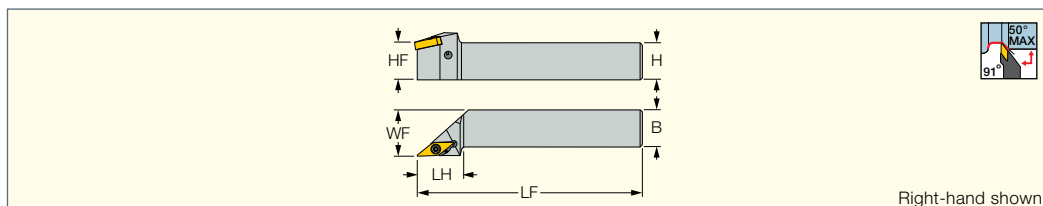


Designation	H	B	LF	LH	WF	GAMP	GAMF				
SVANR/L 1212K-12FS	12.0	12.0	125.00	25.4	12.20	-6	-12	AV 12	PA 12	SR 14-551	T-9/5
SVANR/L 1616K-12FS	16.0	16.0	125.00	25.4	16.20	-6	-12	AV 12	PA 12	SR 14-551	T-9/5

For inserts, see pages: VNMG-F3M (143) • VNMG-F3S (143) • VNMG-FNF-CERMET (144) • VNMG-SF (144) • VNMG/VNGG-NF (144) • VNMM-PP (145)

ISOTURN**SVJNR/L-F**

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



Right-hand shown

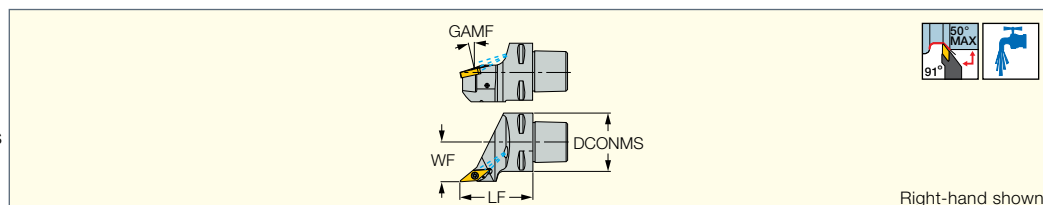
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert				
SVJNR/L 1616H-12F	16.0	16.0	16.0	100.00	25.0	20.00	-6	-12	VNMG 12T3	SR 14-551	T-9/5	AV 12	PA 12
SVJNR/L 2020K-12F	20.0	20.0	20.0	125.00	25.0	25.00	-6	-12	VNMG 12T3	SR 14-551	T-9/5	AV 12	PA 12
SVJNR/L 2525M-12F	25.0	25.0	25.0	150.00	25.0	32.00	-6	-12	VNMG 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 (143) • VNMG-F3S (143) • VNMG-FNF-CERMET (144) • VNMG-SF (144) • VNMG/VNGG-NF (144) • VNMM-PP (145)

ISOTURN CAMFIX**C#-SVJNR/L-F**

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



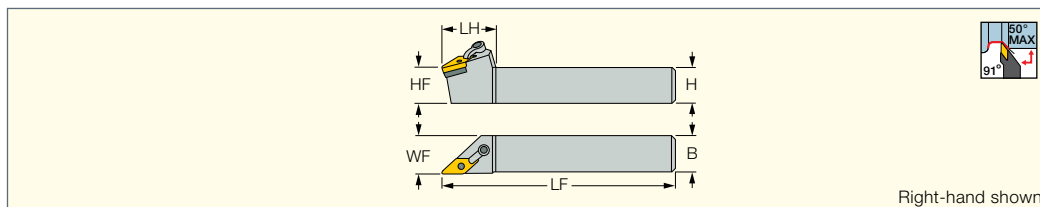
Right-hand shown

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

For inserts, see pages: VNMG-F3M (143) • VNMG-F3S (143) • VNMG-FNF-CERMET (144) • VNMG-SF (144) • VNMG/VNGG-NF (144) • VNMM-PP (145)

ISOTURN**MVJNR/L**

Pin and Clamp Tools Carrying the 35° Negative Rhombic Inserts



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MVJNR/L 2020K-16	20.0	20.0	20.0	125.00	41.0	25.00	-6	-10	VNMG 1604
MVJNR/L 2525M-16	25.0	25.0	25.0	150.00	41.0	32.00	-6	-10	VNMG 1604

For inserts, see pages: VNMG-F3M (143) • VNMG-F3P (142) • VNMG-M3M (143) • VNMG-TF (145) • YNMG-F3P (145) • VNMG/VNGG-NF (144) • VNMS-12 (193) • VNGA-Ceramic (198) • VNGA-2 (CBN) (209) • VNGA-4 (CBN) (210) • VNGG-M4HM (CBN) (210)

Spare Parts

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

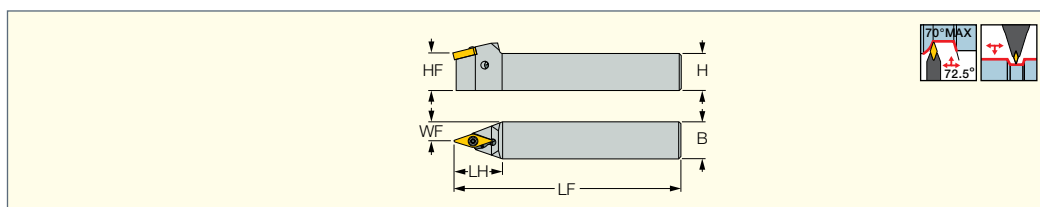
* Optional, should be ordered separately

(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 the 35° Negative Inserts

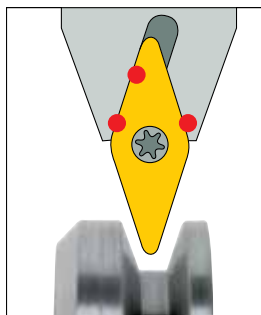
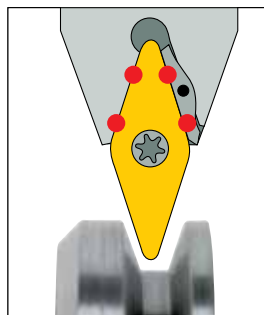


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert				
SVVNN 1616H-12F	16.0	16.0	16.0	100.00	26.0	8.00	0	-14	VNMG 12T3	SR 14-551	T-9/5	PA 12	AV 12
SVVNN 2020K-12F	20.0	20.0	20.0	125.00	26.0	10.00	0	-14	VNMG 12T3	SR 14-551	T-9/5	PA 12	AV 12
SVVNN 2525M-12F	25.0	25.0	25.0	150.00	26.0	12.50	0	-14	VNMG 12T3	SR 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 (143) • VNMG-F3S (143) • VNMG-FNF-CERMET (144) • VNMG-SF (144) • VNMG/VNGG-NF (144) • VNMM-PP (145)

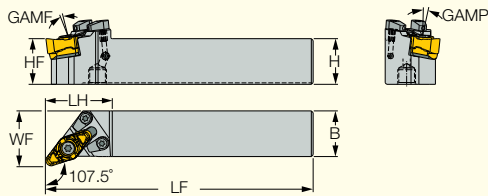
**4 contact points
ensure secure and
precise clamping**



**Conventional
Clamping**

SVHNR/L-JHP

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



Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert
SVHNR/L 2525M-22-AL-JHP	25.0	25.0	25.0	146.34	36.4	30.03	7.0	6.0	VNGU 22..

• For user guide, see pages 68-74

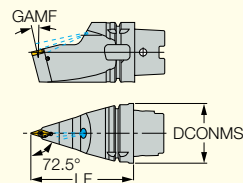
For inserts, see pages: VNGU-R3N (189)

Spare Parts

Designation							
SVHNR/L-JHP	TVX 2230	SR 14-591/L-SN	SW6-T-SH	BLD T20/S7	HW 3.0	SR TC-4	CH-1.9D-JHP-A SET

ISOTURN HSK
HSK A63WH-SVNN-F

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



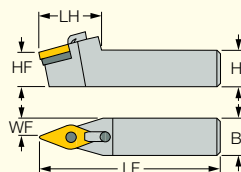
Designation	DCONMS	LF	Insert	GAMF					
HSK A63WH-SVNN-J12F	63.00	110.00	VNM. 12T3	14.0	SR 14-551	T-9/5	AV 12	PA 12	EZ 104

• 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 676

For inserts, see pages: VNMG-F3M (143) • VNMG-F3S (143) • VNMG-FNF-CERMET (144) • VNMG-SF (144) • VNMG/VNGG-NF (144) • VNMM-PP (145)

ISOTURN
MVVNN

Pin and Clamp Tools Carrying the
35° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MVVNN 2020K-16	20.0	20.0	20.0	125.00	48.0	10.00	-4.5	-14	VNMG 1604..
MVVNN 2525M-16	25.0	25.0	25.0	150.00	48.0	12.50	-4.5	-14	VNMG 1604..

For inserts, see pages: VNMG-F3M (143) • VNMG-F3P (142) • VNMG-M3M (143) • VNMG-TF (145) • YNMG-F3P (145) • VNMG/VNGG-NF (144) • VNMS-12 (193) • VNGA-Ceramic (198) • VNGA-2 (CBN) (209) • VNGA-4 (CBN) (210) • VNGG-M4HM (CBN) (210)

Spare Parts

Designation										
MVVNN 2020K-16	IVSN 322	IVSN 323(a)*	IYSN 322(b)*	NL 34-L	HW 2.0	CL 30-INJ	XNS 510	HW 4.0	HW 5/32"	HW 5/64"
MVVNN 2525M-16	IVSN 322	IVSN 323(a)*	IYSN 322(b)*	NL 34-L	HW 2.0	CL 30-INJ	XNS 510	HW 4.0	HW 5/32"	HW 5/64"

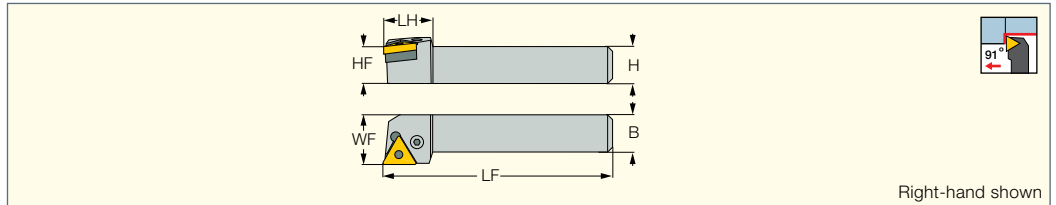
* Optional, should be ordered separately

(a) Use for VNMG 160412 inserts

(b) Use for YNMG inserts

ISOTURN**PTG NR/L**

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PTG NR/L 2020K-16	20.0	20.0	20.0	125.00	22.0	25.00	-6	-6	TNMG 16..
PTG NR/L 2525M-16	25.0	25.0	25.0	150.00	22.0	32.00	-6	-6	TNMG 16..
PTG NR/L 2525M-22	25.0	25.0	25.0	150.00	32.0	32.00	-6	-6	TNMG 2204
PTG NR 3232P-22	32.0	32.0	32.0	170.00	32.0	40.00	-6	-6	TNMG 2204

For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

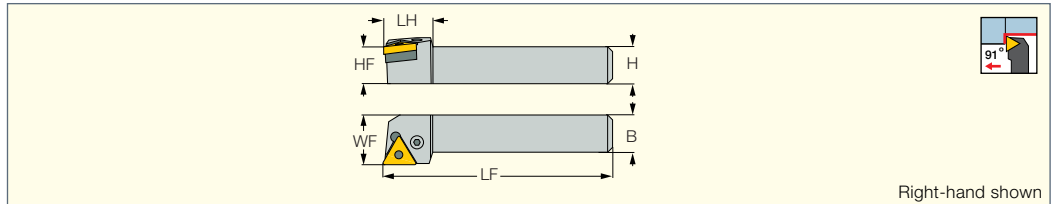
Designation							
PTG NR/L 2020K-16	TTN 322	TTN 332(a)*	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
PTG NR/L 2525M-16	TTN 322	TTN 332(a)*	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
PTG NR/L 2525M-22	TTN 422		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4
PTG NR 3232P-22	TTN 422		SP 4	LR 4	SR 117-2010	HW 3.0	PN 3-4

* Optional, should be ordered separately

(a) TTN 332 for inserts 3.18 mm thick

HELITURN LD**PTG NR/L-X**

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

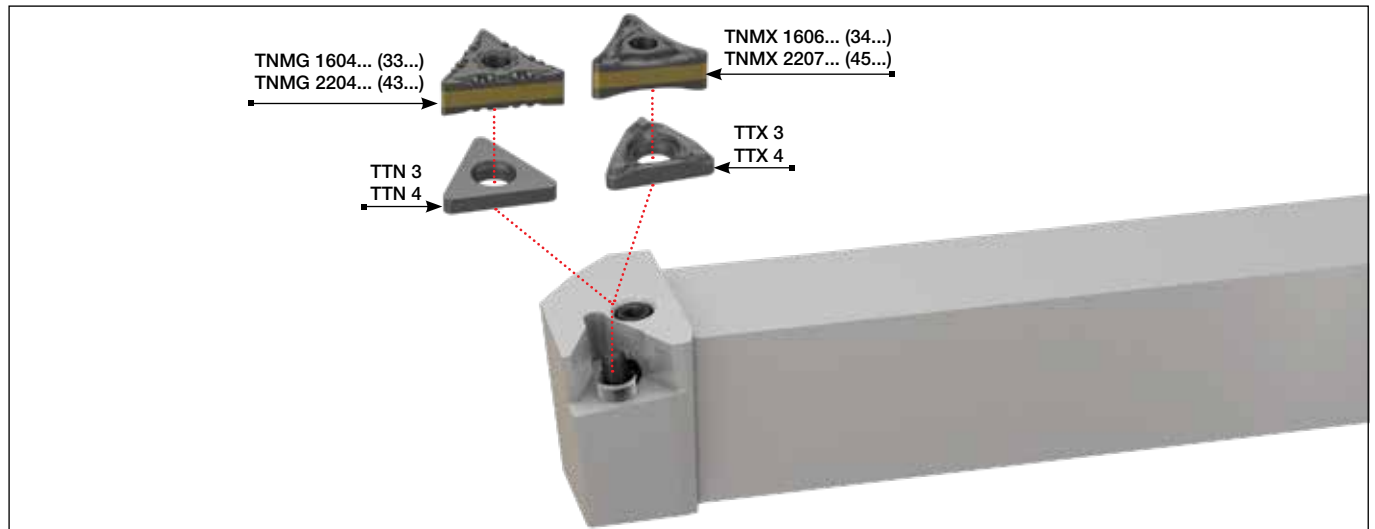


Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PTG NR/L 2020K-16X	20.0	20.0	20.0	125.00	20.0	25.00	-6	-6	TNMX 1606, TNMG 1604
PTG NR/L 2525M-16X	25.0	25.0	25.0	150.00	20.0	32.00	-6	-6	TNMX 1606, TNMG 1604
PTG NR/L 2525M-22X	25.0	25.0	25.0	150.00	32.0	32.00	-6	-6	TNMX 2207, TNMG 2204
PTG NR/L 3232P-22X	32.0	32.0	32.0	170.00	32.0	40.00	-6	-6	TNMX 2207, TNMG 2204

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

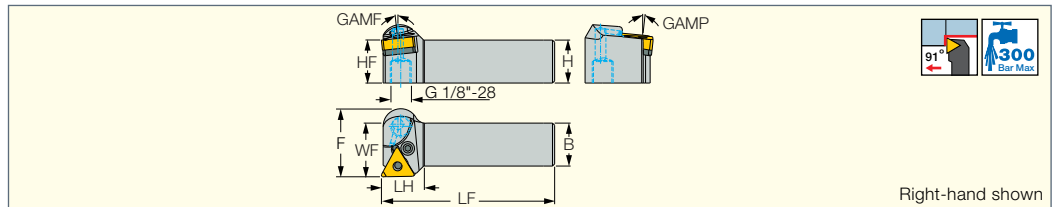
For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMX-M3/4PW (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMX-M3/4MW (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

**Spare Parts**

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

PTGNNR/L-X-JHP

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	F ₁	GAMP	GAMF	Insert
PTGNNR/L 2020K-16X-JHP	20.0	20.0	20.0	125.00	20.0	25.00	31.7	-6	6	TNMX 1606, TNMG 1604
PTGNNR/L 2525M-16X-JHP	25.0	25.0	25.0	150.00	20.0	32.00	-	-6	6	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 68-74

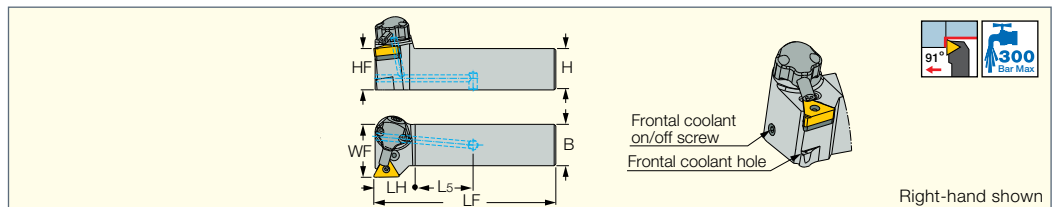
For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMX-M3/4PW (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMX-M3/4MW (147) • TNMG-TF (149) • TNMG-GN (150) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

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

PTGNNR/L-X-JHP-MC

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

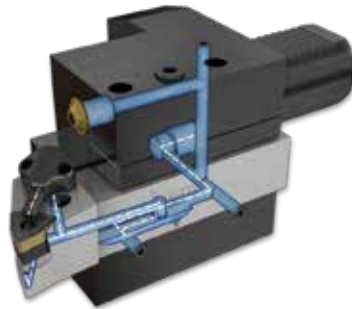


Right-hand shown

Designation	H	HF	B	LF	LH	L ₅	WF	Insert
PTGNNR/L 2020X-16X-JHP-MC	20.0	20.0	20.0	95.00	25.0	29.00	25.00	TNMX 1606, TNMG 1604
PTGNNR/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 68-74

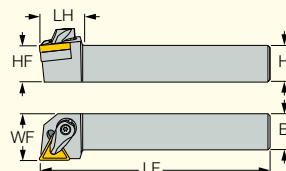
For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMX-M3/4PW (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMX-M3/4MW (147) • TNMG-TF (149) • TNMG-GN (150) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)


Spare Parts

Designation										
PTGNNR/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**DTGNR/L**

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DTGNR/L 2020K-16	20.0	20.0	20.0	125.00	25.0	25.00	-6	-6	TNMG 1604
DTGNR/L 2525M-16	25.0	25.0	25.0	150.00	25.0	32.00	-6	-6	TNMG 1604
DTGNR 2525M-22	25.0	25.0	25.0	150.00	32.0	32.00	-6	-6	TNMG 2204

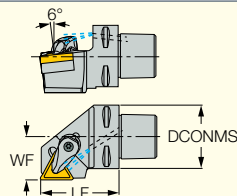
For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

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
the Negative Triangular Inserts



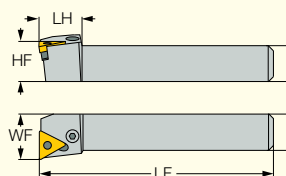
Right-hand shown

Designation	DCONMS	WF	LF	Insert						
C6 DTGNR/L-45065-22	63.00	45.00	65.00	TN.. 22	RTT 443	SR 14-506	LCGR-4	SR 10400270-25.5	T-15/5	EZ 104

For inserts, see pages: TNMG-F3S (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMA (151) • TNGA-Ceramic (199)

ISOTURN**PTFNR/L**

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PTFNR/L 2020K-16	20.0	20.0	20.0	125.00	20.0	25.00	-6	-6	TNMG 16..
PTFNR/L 2525M-16	25.0	25.0	25.0	150.00	20.0	32.00	-6	-6	TNMG 16..
PTFNR/L 2525M-22	25.0	25.0	25.0	150.00	26.0	32.00	-6	-6	TNMG 2204

For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

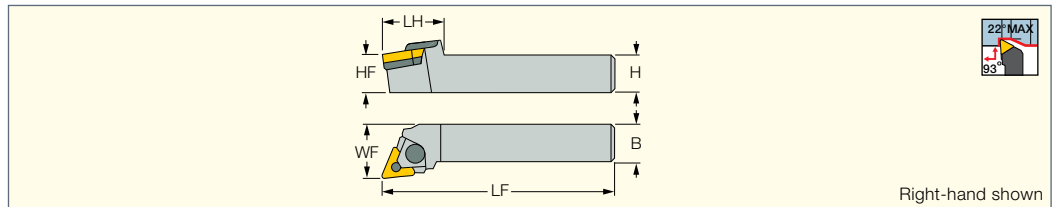
Designation							
PTFNR/L 2020K-16	TTN 322	TTN 332(a)*	LR 3	SR 117-2014	HW 2.5/5	SP 3	PN 3-4
PTFNR/L 2525M-16	TTN 322	TTN 332(a)*	LR 3	SR 117-2014	HW 2.5/5	SP 3	PN 3-4
PTFNR/L 2525M-22	TTN 422		LR 4	SR 117-2010	HW 3.0	SP 4	PN 3-4

* Optional, should be ordered separately

(a) TTN 332 for inserts 3.18 mm thick.

MTJNR/L-W

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MTJNR/L 1616H-16W-M	16.0	16.0	16.0	100.00	32.0	20.00	-6	-6	TNMG 1604
MTJNR/L 2020K-16W-M	20.0	20.0	20.0	125.00	32.0	25.00	-6	-6	TNMG 1604
MTJNR/L 2525M-16W-M	25.0	25.0	25.0	150.00	32.0	32.00	-6	-6	TNMG 1604
MTJNR/L 2525M-22W	25.0	25.0	25.0	150.00	38.0	32.00	-6	-6	TNMG 2204
MTJNR/L 3225P-22W	32.0	32.0	25.0	170.00	38.0	32.00	-6	-6	TNMG 2204

For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

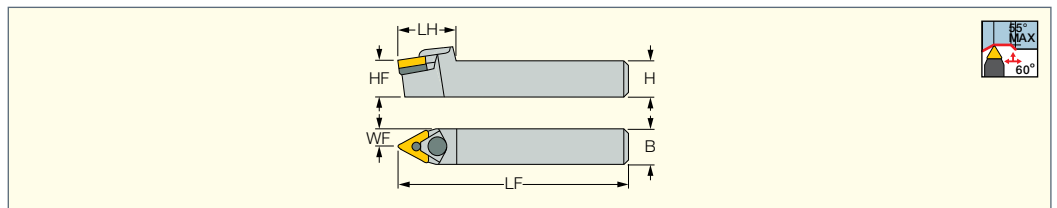
Designation								
MTJNR/L 1616H-16W-M	TTT 322N	TTT 332N(a)*	ZNW 3WNS		LC 291N CLAMP	E RING N	SR 17-317NS	HW 3.0
MTJNR/L 2020K-16W-M	TTT 322N	TTT 332N(a)*	ZNW 3WN	HW 2.5	LC 291N CLAMP	E RING N	SR 17-317N	HW 3.0
MTJNR/L 2525M-16W-M	TTT 322N	TTT 332N(a)*	ZNW 3WN		LC 291N CLAMP	E RING N	SR 17-317N	HW 3.0
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

MTENN-W

Neutral Wedge Lock Turning
Tools Carrying the Negative
Triangular Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MTENN 1618H-16W-M	16.0	16.0	18.0	100.00	32.0	9.00	0	-8	TNMG 1604
MTENN 2020K-16W-M	20.0	20.0	20.0	125.00	35.0	10.00	0	-8	TNMG 1604
MTENN 2525M-16W-M	25.0	25.0	25.0	150.00	32.0	12.50	0	-8	TNMG 1604
MTENN 2525M-22W	25.0	25.0	25.0	150.00	40.0	12.50	0	-8	TNMG 2204
MTENN 3232P-22W	32.0	32.0	32.0	170.00	40.0	16.00	0	-8	TNMG 2204

For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

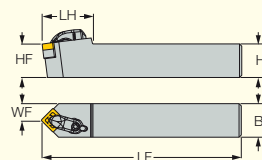
Designation								
MTENN 1618H-16W-M	TTT 322N	TTT 332N(a)*	ZNW 3WNS		LC 291N CLAMP	E RING N	SR 17-317NS	HW 3.0
MTENN 2020K-16W-M	TTT 322N	TTT 332N(a)*	ZNW 3WN		LC 291N CLAMP	E RING N	SR 17-317N	HW 3.0
MTENN 2525M-16W-M	TTT 322N	TTT 332N(a)*	ZNW 3WN		LC 291N CLAMP	E RING N	SR 17-317N	HW 3.0
MTENN 2525M-22W	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 the
ISO Negative SNMG Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DSDNN 2525M-12	25.0	25.0	25.0	150.00	38.0	12.80	0	-7	SNMG 1204
DSDNN 2525M-15	25.0	25.0	25.0	150.00	42.0	12.50	0	-8.5	SNMG 1506
DSDNN 3232P-19	32.0	32.0	32.0	170.00	44.0	16.00	0	-8.5	SNMG 1906

For inserts, see pages: SNMG-F3S (154) • SNMG-R3M (153) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMM-NR (157) • SNMG-PP (154) • SNMG-VL (154) • SNMG-EM-M/R (155) • SNMM-NM (157) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

Spare Parts

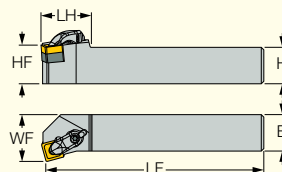
Designation									
DSDNN 2525M-12	RST 443	RST 443L SET(a)*	RST 443R SET(a)*	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5
DSDNN 2525M-15	RST 54			SR 10402265	LCGR-5		SR 10402267	KSP 5	HW 4.0
DSDNN 3232P-19	RST 634			SR 10402266	LCGR-6		SR 10402267	KSP 5	HW 4.0

* 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 the
ISO Negative SNMG Inserts



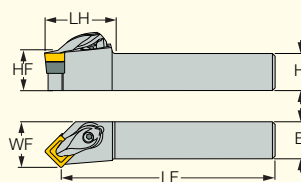
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
DSKNR/L 2525M-12	25.0	25.0	25.0	-	31.0	32.00	-4	-8	SNMG 1204	RST 443	T-15/5	SR 10400270-25.5	LCGR-4	SR 14-506

For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

ISOTURN**DSSNR/L**

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DSSNR/L 2020K-12 (1)	20.0	20.0	20.0	125.00	38.0	25.00	-5.5	-5.5	SNMG 1204
DSSNR/L 2525M-12 (1)	25.0	25.0	25.0	150.00	39.0	32.00	-5.5	-5.5	SNMG 1204
DSSNR/L 3232P-15	32.0	32.0	32.0	170.00	34.0	40.00	-5.5	-5.5	SNMG 1506
DSSNR/L 3232P-19	32.0	32.0	32.0	170.00	38.0	40.00	-5.5	-5.5	SNMG 1906

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

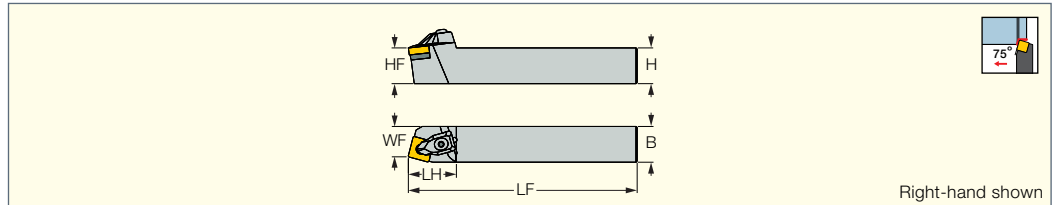
For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMM-NR (157) • SNMG-PP (154) • SNMG-R3M (153) • SNMG-VL (154) • SNMG-EM-M/R (155) • SNMM-NM (157) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

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

DSBNR/L

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DSBNR/L 2525M-12	25.0	25.0	25.0	150.00	38.0	22.00	-4	-7	SNMG 1204
DSBNL 3232P-12	32.0	32.0	32.0	170.00	38.0	27.00	-4	-7	SNMG 1204
DSBNR/L 2525M-15	25.0	25.0	25.0	150.00	40.0	22.00	-7.4	-4.3	SNMG 1506
DSBNR/L 3232P-19	32.0	32.0	32.0	170.00	43.0	27.00	-7.4	-4.3	SNMG 1906
DSBNR/L 4040S-19	40.0	40.0	40.0	250.00	43.0	37.00	-7.4	-4.3	SNMG 1906

For inserts, see pages: SNMG-F3S (154) • SNMG-R3M (153) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMM-NR (157) • SNMG-PP (154) • SNMG-VL (154) • SNMM-NM (157) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

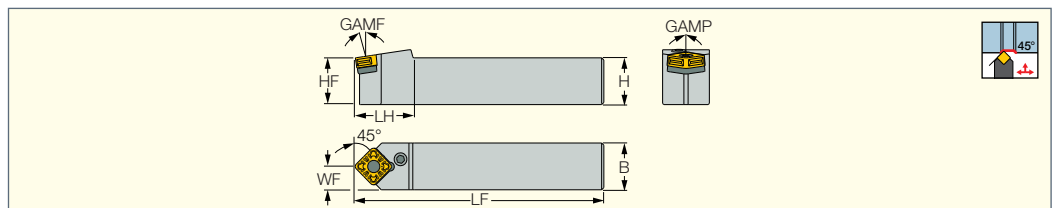
Spare Parts

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	

DOVE IQTURN
HEAVY DUTY LINE

PSDON-IQ

Lever Lock and Dovetail
Pocket Rigid Clamping Tools
Carrying the 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	-8.5	SOMG 1506
PSDON 3232P-19-IQ	32.0	32.0	32.0	170.00	39.5	17.00	0	-8.5	SOMG 1906
PSDON 4040S-19-IQ	40.0	40.0	40.0	250.00	39.5	21.00	0	-8.5	SOMG 1906
PSDON 4040S-25-IQ	40.0	40.0	40.0	250.00	51.5	21.00	0	-8.5	SOMG 2509
PSDON 5050T-25-IQ	50.0	50.0	50.0	300.00	51.5	26.00	0	-8.5	SOMG 2509

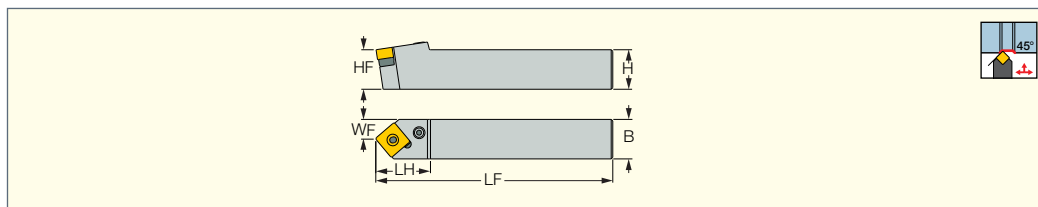
For inserts, see pages: SOMG-R3P-IQ (152)

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
PSDON 4040S-25-IQ	TSX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0
PSDON 5050T-25-IQ	TSX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0

ISOTURN**PSDNN**

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSDNN 2020K-12	20.0	20.0	20.0	125.00	27.0	10.00	0	-7	SNMG 1204/SNGA 1204
PSDNN 2525M-12	25.0	25.0	25.0	150.00	27.0	12.50	0	-7	SNMG 1204/SNGA 1204
PSDNN 3232P-19	32.0	32.0	32.0	170.00	41.0	16.00	0	-8.5	SNMG 1906
PSDNN 4040S-25 ⁽¹⁾	40.0	40.0	40.0	250.00	49.0	20.00	0	-8.5	SNMG 2507

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

For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMM-NR (157) • SNMG-EM-M/R (155) • SNMG-PP (154) • SNMG-R3M (153) • SNMG-VL (154) • SNMM-NM (157) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

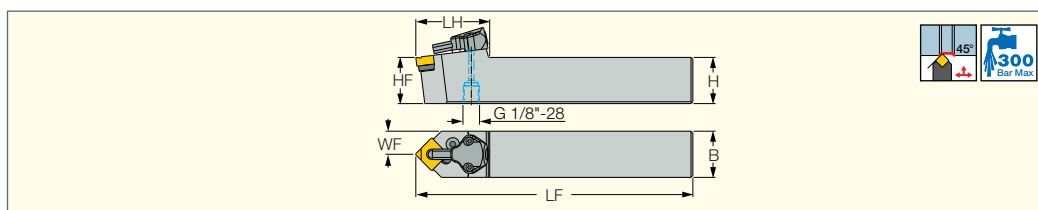
Spare Parts

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 the
ISO Negative SNMG Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSDNN 2525M-12-JHP	25.0	25.0	25.0	150.00	40.0	12.50	-7	0	SNMG 1204

• For user guide, see pages 68-74

For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-EM-M/R (155) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

Spare Parts

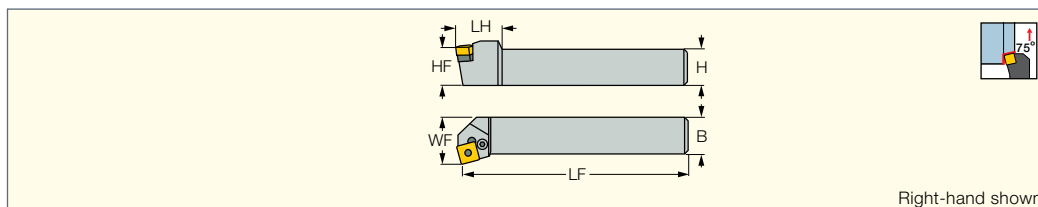
Designation									
PSDNN 2525M-12-JHP	TSN 423	TSN 423-PIN SET ^(a) *	SP 4	PN 3-4	LR 4	SR 117-2010	CU-CW-JHP	HW 3.0	T-8/5

* Optional, should be ordered separately

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

ISOTURN**PSKNR/L**

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSKNR/L 2525M-12	25.0	25.0	25.0	150.00	23.5	32.00	-6	-6	SNMG 1204/SNGA 1204

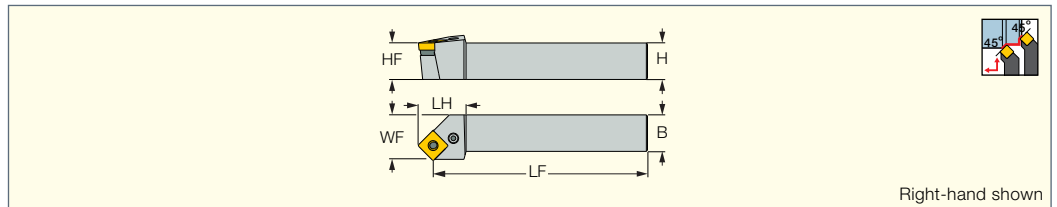
For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

Spare Parts

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

PSSNR/L

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSSNR/L 2020K-09	20.0	20.0	20.0	125.00	25.0	25.00	-5.5	-5.5	SNMG 0904
PSSNR/L 2525M-09	25.0	25.0	25.0	150.00	25.0	25.00	-5.5	-5.5	SNMG 0904
PSSNR/L 2020K-12	20.0	20.0	20.0	125.00	29.0	25.00	-5.5	-5.5	SNMG 1204
PSSNR/L 2525M-12	25.0	25.0	25.0	150.00	29.0	32.00	-5.5	-5.5	SNMG 1204
PSSNR/L 3232P-19	32.0	32.0	32.0	157.50	42.0	40.00	0	-8	SNMG 1906
PSSNR/L 4040S-19	40.0	40.0	40.0	237.50	42.0	50.00	0	-8	SNMG 1906
PSSNR/L 4040S-2507 (1)	40.0	40.0	40.0	234.00	53.0	50.00	0	-8	SNMG 2507

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

For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMM-NR (157) • SNMG-EM-M/R (155) • SNMG-PP (154) • SNMG-R3M (153) • SNMG-VL (154) • SNMM-NM (157) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

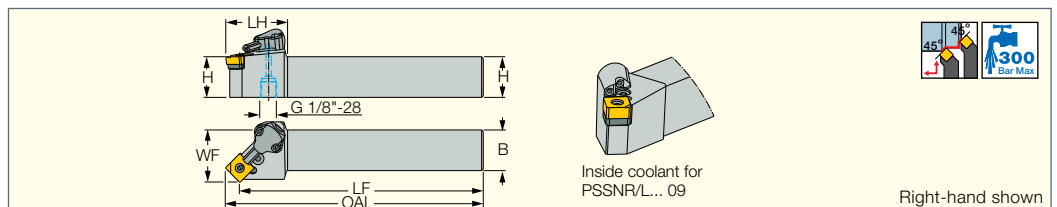
Spare Parts

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

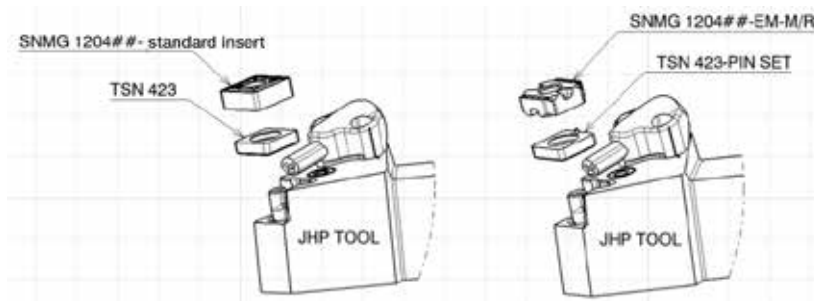


Right-hand shown

Designation	H	B	LF	LH	WF	GAMP	GAMF	OAL	Insert
PSSNR/L 2020K-09-JHP	20.0	20.0	125.00	35.0	25.00	-5.5	-5.5	131.40	SNMG 09..
PSSNR/L 2525M-12-JHP	25.0	25.0	150.00	38.0	32.00	-5.5	-5.5	158.40	SNMG 1204

• For user guide, see pages 68-74

For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-EM-M/R (155) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)


Spare Parts

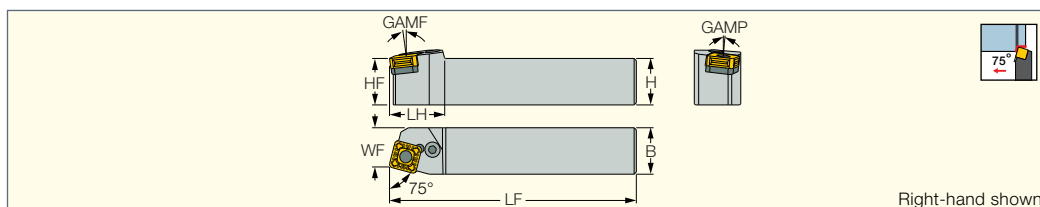
Designation										
PSSNR/L 2020K-09-JHP	TSN 323	TSN 333	SP 3	PN 3-3L	LR 3	SR 117-2014		CU-S-JHP	HW 2.5	
PSSNR/L 2525M-12-JHP	TSN 423	TSN 423-PIN SET (a)	SP 4	PN 3-4	LR 4	SR 117-2010	OR 6.4X0.9N	CU-S-JHP	HW 3.0	T-8/5

* Optional, should be ordered separately

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

DOVE IQTURN
 HEAVY DUTY LINE

PSBOR/L-IQ

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


Right-hand shown

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

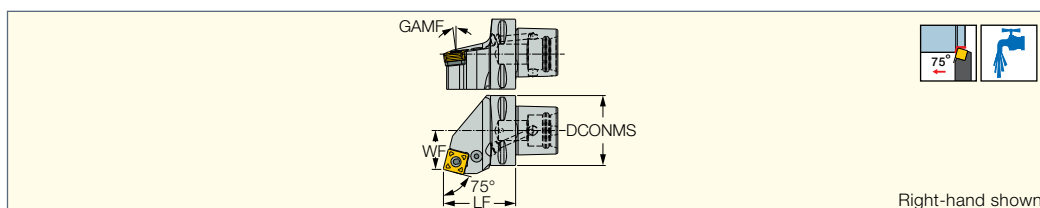
For inserts, see pages: SOMG-R3P-IQ (152)

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 IQTURN
 HEAVY DUTY LINE

CAMFIX
C#-PSROR/L-IQ

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


Right-hand shown

Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C6 PSROR/L-35065-15-IQ	63.00	35.00	65.00	-4.74	-7.46	SOMG 1506
C6 PSROR/L-35065-19-IQ	63.00	35.00	65.00	-4.74	-7.46	SOMG 1906
C8 PSROR/L-45080-19-IQ	80.00	55.00	80.00	-4.74	-7.46	SOMG 1906
C8 PSROR/L-45085-25-IQ	80.00	55.00	80.00	-4.74	-7.46	SOMG 2509

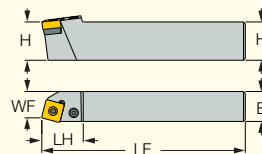
For inserts, see pages: SOMG-R3P-IQ (152)

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	

PSBNR/L

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSBNR/L 2020K-09	20.0	20.0	20.0	125.00	20.0	17.00	-6	-6	SNMG 0904
PSBNR/L 2525M-09	25.0	25.0	25.0	150.00	20.0	22.00	-6	-6	SNMG 0904
PSBNR/L 2525M-12	25.0	25.0	25.0	150.00	26.8	22.00	-6	-6	SNMG 1204
PSBNR/L 3232P-19	32.0	32.0	32.0	170.00	39.0	27.00	-6	-6	SNMG 1906
PSBNR/L 4040S-25 ⁽¹⁾	40.0	40.0	40.0	250.00	48.0	35.00	-6	-6	SNMG 2507

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

For inserts, see pages: SNMG-F3S (154) • SNMG-R3M (153) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMM-NR (157) • SNMG-PP (154) • SNMG-VL (154) • SNMM-NM (157) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

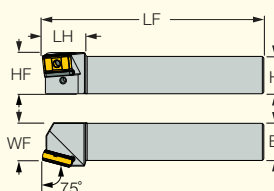
Spare Parts

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/L 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

HEAVY^{SUPER}TURN
PLBOR/L

Lever Lock Tools Carrying the
LOMX Tangentially Clamped
Super Heavy Turning Inserts



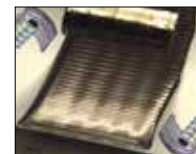
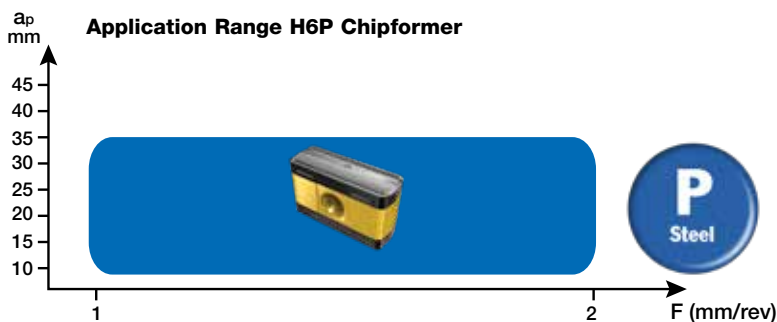
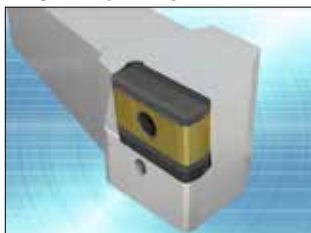
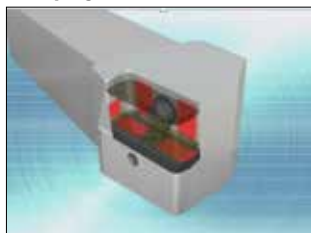
Right-hand shown

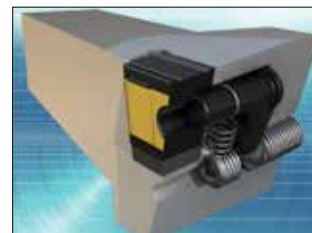
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PLBOR/L 5050T-40	50.0	50.0	50.0	300.00	60.0	50.00	-6	-6	LOMX 4022
PLBOR/L 6060V-40	60.0	60.0	60.0	400.00	60.0	60.00	-6	-6	LOMX 4022

For inserts, see pages: LOMX-H6P (158)

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

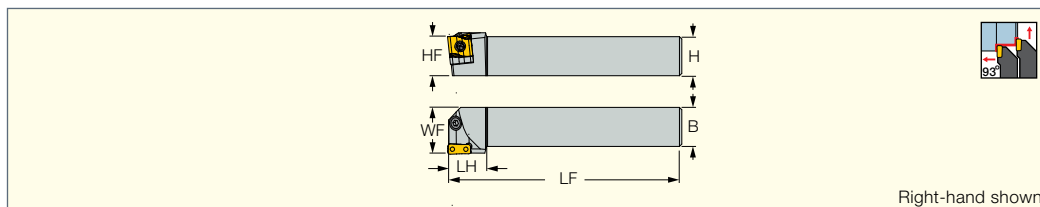
This tangentially clamped insert with 4 cutting edges is made from the tough grade IC8250. It can machine at up to 35 mm depth of cut and up to 2 mm/rev feed. The insert is clamped on a very rigid lever lock pocket equipped with a protective seat.


Application Range H6P Chipformer

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

PLANR/L-TANG

 Lever Lock Tools Carrying
 the LNMX.. Tangentially
 Clamped Inserts


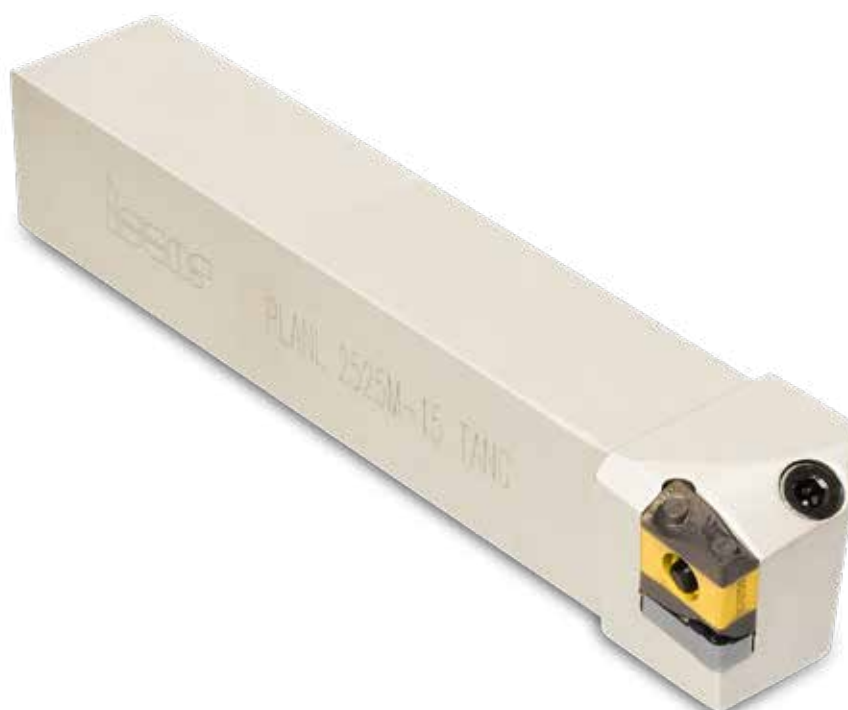
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PLANR/L 2525M-15 TANG	25.0	25.0	25.0	150.00	25.0	30.00	-6	-6	LNMX 1506..R/L
PLANR/L 3232P-15 TANG	32.0	32.0	32.0	170.00	32.0	37.00	-6	-6	LNMX 1506..R/L
PLANR/L 3232P-22 TANG	32.0	32.0	32.0	170.00	32.0	37.00	-6	-6	LNMX 2210..R/L
PLANR/L 4040R-22 TANG	40.0	40.0	40.0	200.00	40.0	47.00	-6	-6	LNMX 2210..R/L

For inserts, see pages: LNMX-HM (159) • LNMX-HT (158) • LNMX-WG (159)

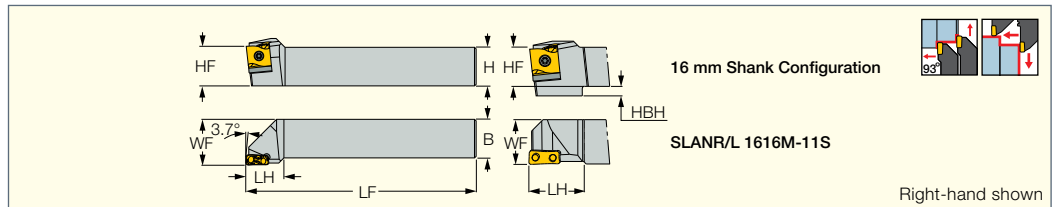

Spare Parts

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



SLANR/L-TANG

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



Designation	H	B	LF	LH	WF	GAMP	GAMF	Insert
SLANR/L 1616H-11 TANG	16.0	16.0	100.00	20.0	20.00	-6	-6	LNMX 1104..
SLANR/L 1616M-11S TANG	16.0	16.0	150.00	20.0	16.20	-6	-6	LNMX 1104..
SLANR/L 2020K-11 TANG	20.0	20.0	125.00	20.0	25.00	-6	-6	LNMX 1104..
SLANR/L 2525M-11 TANG	25.0	25.0	150.00	25.0	30.00	-6	-6	LNMX 1104..
SLANR/L 2020K-15 TANG	20.0	20.0	100.00	25.0	25.00	-6	-6	LNMX 1506..
SLANR/L 2525M-15 TANG	25.0	25.0	150.00	25.0	30.00	-6	-6	LNMX 1506..
SLANR/L 3232P-15 TANG	32.0	32.0	170.00	35.0	37.00	-6	-6	LNMX 1506..
SLANR/L 4040R-15 TANG	40.0	40.0	200.00	35.0	45.00	-6	-6	LNMX 1506..
SLANR/L 3232P-22 TANG	32.0	32.0	170.00	35.0	38.00	-6	-6	LNMX 2210..
SLANR/L 4040R-22 TANG	40.0	40.0	200.00	40.0	47.00	-6	-6	LNMX 2210..
SLANR/L 5050S-22 TANG	50.0	50.0	250.00	35.0	57.00	-6	-6	LNMX 2210..

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

For inserts, see pages: LNMX-HM (159) • LNMX-HT (158) • LNMX-WG (159)

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.

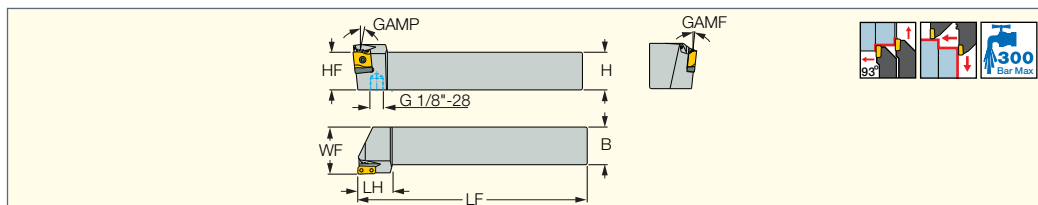
Spare Parts

Designation						
SLANL 1616H-11 TANG	TLN 11L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANL 1616M-11S TANG	TLN 11L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 1616H-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 1616M-11S TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANL 2020K-11 TANG	TLN 11L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 2020K-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANL 2525M-11 TANG	TLN 11L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 2525M-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANL 2020K-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 2020K-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANL 2525M-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 2525M-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANL 3232P-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 3232P-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANL 4040R-15 TANG	TLN 15L-HT					
SLANR/L 4040R-15 TANG		SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 4040R-15 TANG	TLN 15R-HT					
SLANL 3232P-22 TANG	TLN 22L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANR 3232P-22 TANG	TLN 22R-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANL 4040R-22 TANG	TLN 22L-HT					
SLANR/L 4040R-22 TANG		SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANR 4040R-22 TANG	TLN 22R-HT					
SLANL 5050S-22 TANG	TLN 22L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANR 5050S-22 TANG	TLN 22R-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH

HELITURN JETCUT

SLANR/L-15-TANG-JHP

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

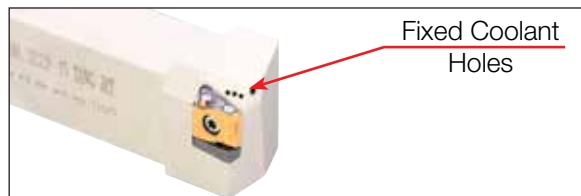


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SLANR/L 3232P-15 TANG-JHP	32.0	32.0	32.0	170.00	30.0	40.00	-6	-6	LNMX 1506

• ap max for facing 3.8 mm • For user guide, see pages 68-74

For inserts, see pages: LNMX-HM (159) • LNMX-HT (158) • LNMX-WG (159)

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



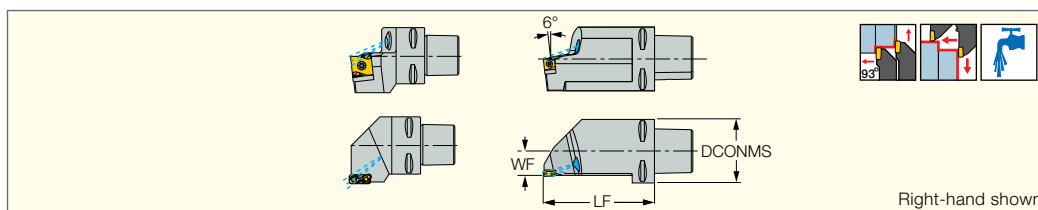
Spare Parts

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

HELITURN CAMFIX

C#-SLANR/L-TANG

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



Designation	DCONMS	LF	WF	GAMP	GAMF	Insert
C4 SLANR-27050-11 TANG	40.00	50.00	27.00	-6	-6	LNMX 1104..
C5 SLANR-35060-11 TANG	50.00	60.00	35.00	-6	-6	LNMX 1104..
C6 SLANR 25110-11 TANG (1)	63.00	110.00	25.00	-6	-6	LNMX 1104..
C4 SLANR/L-27050-15 TANG	40.00	50.00	27.00	-6	-6	LNMX 1506..
C5 SLANR/L-35060-15 TANG	50.00	60.00	35.00	-6	-6	LNMX 1506..
C6 SLANR/L 25110-15 TANG (1)	63.00	110.00	25.00	-6	-6	LNMX 1506..
C6 SLANR/L-45065-15 TANG	63.00	65.00	45.00	-6	-6	LNMX 1506..
C6 SLANR/L-45065-22 TANG	63.00	65.00	45.00	-6	-6	LNMX 2210..

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

(1) Designed for mill-turn machines

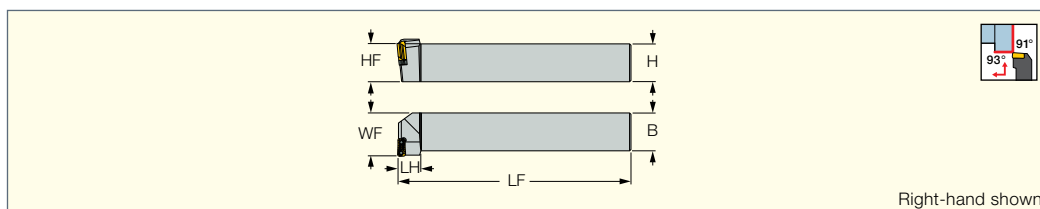
For inserts, see pages: LNMX-HM (159) • LNMX-HT (158) • LNMX-WG (159)

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

SLFNR/L-TANG

Tools Carrying the LNMX
Tangentially Clamped Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert ⁽¹⁾
SLFNR/L 2525M-15 TANG	25.0	25.0	25.0	150.00	20.0	30.00	-6	-6	LNMX 1506..L/R
SLFNR/L 3232P-15 TANG	32.0	32.0	32.0	170.00	20.0	37.00	-6	-6	LNMX 1506..L/R

• ap max for longitudinal turning is 5.8 mm

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

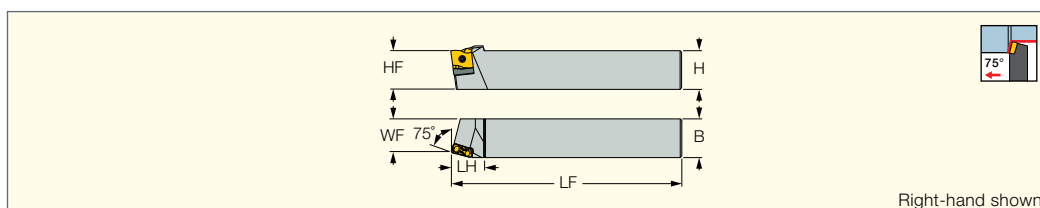
For inserts, see pages: LNMX-HM (159) • LNMX-HT (158) • LNMX-WG (159)

Spare Parts

Designation						
SLFNL 2525M-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLFNR 2525M-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLFNL 3232P-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLFNR 3232P-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH

SLBNR/L-TANG

External 75° Lead Tools
Carrying the Tangentially
Screw Clamped Inserts



Designation	H	B	LF	LH	WF	GAMP	GAMF	Insert
SLBNR/L 4040R-22 TANG	40.0	40.0	200.00	35.0	35.00	-7	-4	LNMX 2210..R/L

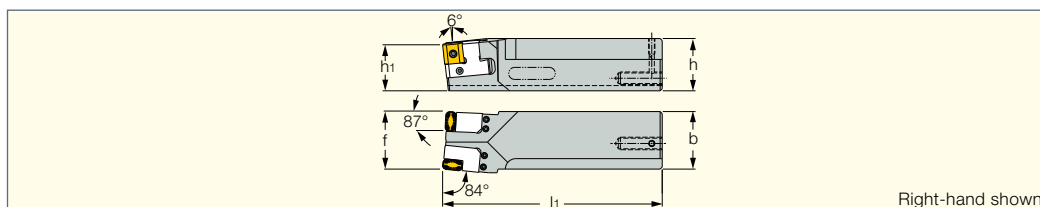
For inserts, see pages: LNMX-HT (158)

Spare Parts

Designation						
SLBNL 4040R-22 TANG	TLN 22L-HT					
SLBNR/L 4040R-22 TANG		SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLBNR 4040R-22 TANG	TLN 22R-HT					

PRWR/L

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



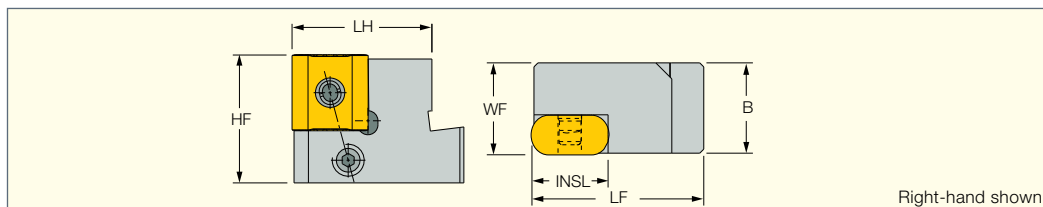
Designation	H	HF	B	OAL	WF		
PRWR/L 50-55	50.0	44.0	55.0	210.00	55.00	SR M6X1X16	HW 3.0

• Cartridges should be ordered separately

For tools, see pages: PRWR/L 175-CA (46) • PRWR/L 177-CA (46)

ISOTURN**PRWR/L 175-CA**

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



Right-hand shown

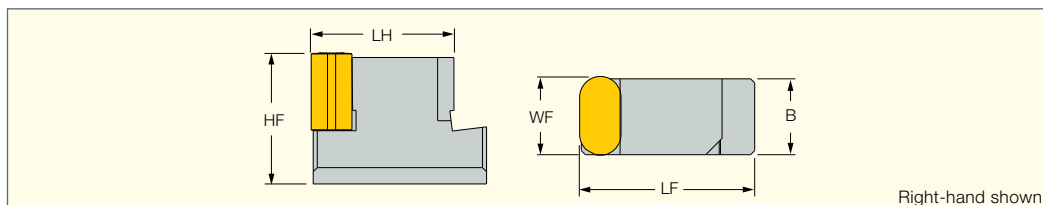
Designation	HF	B	LF	LH	WF	Insert			
PRWR/L 175-CA-19	32.0	22.6	43.00	35.0	23.00	LNMX 191940	SR LCS 5	LR 5	HW 3.0
PRWR/L 175-CA-30	32.0	22.6	43.00	35.0	23.00	LNMX 301940	SR LCS 5	LR 5	HW 3.0

For inserts, see pages: LNMX 19/30 (160)

For holders, see pages: PRWR/L (45)

ISOTURN**PRWR/L 177-CA**

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



Right-hand shown

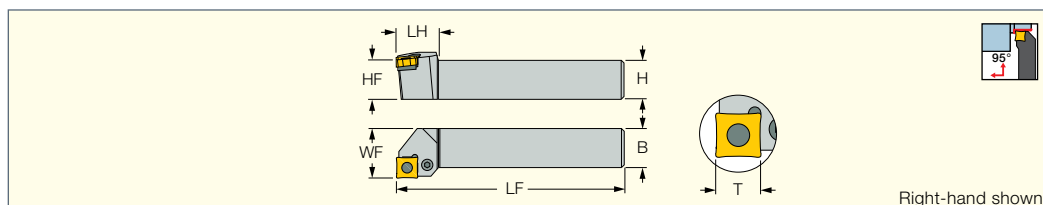
Designation	HF	B	LF	LH	WF	Insert			
PRWR/L 177-CA-19	32.0	18.6	43.00	35.0	19.10	LNMX 191940	SR LCS 5	LR 5	HW 3.0

For inserts, see pages: LNMX 19/30 (160)

For holders, see pages: PRWR/L (45)

ISOTURN**PQLNR/L**

Lever Lock Tools Carrying
the Negative Inserts with
Four 80° Corners



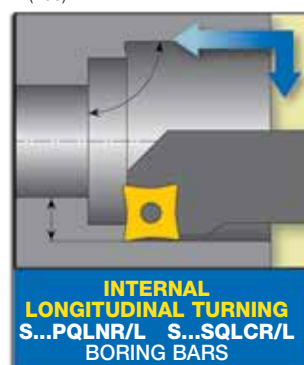
Right-hand shown

Designation	H	HF	B	LF	LH	WF	T ⁽¹⁾	GAMP	GAMF	Insert
PQLNR/L 1616H-09	16.0	16.0	16.0	100.00	21.0	20.00	8	-6	-6	QNMG 0904
PQLNR/L 2020K-09	20.0	20.0	20.0	125.00	26.6	25.00	8	-6	-6	QNMG 0904
PQLNR/L 2525M-09	25.0	25.0	25.0	150.00	26.6	32.00	8	-6	-6	QNMG 0904
PQLNR/L 2020K-12	20.0	20.0	20.0	125.00	26.6	25.00	10	-6	-6	QNMG 1204
PQLNR/L 2525M-12	25.0	25.0	25.0	150.00	26.6	32.00	10	-6	-6	QNMG 1204

• For more information about T, see page...

⁽¹⁾ T for r 0.8

For inserts, see pages: QNMG-GN (161) • QNMG-NF (160) • QNMG-PP (161) • QNMG-TF (160)



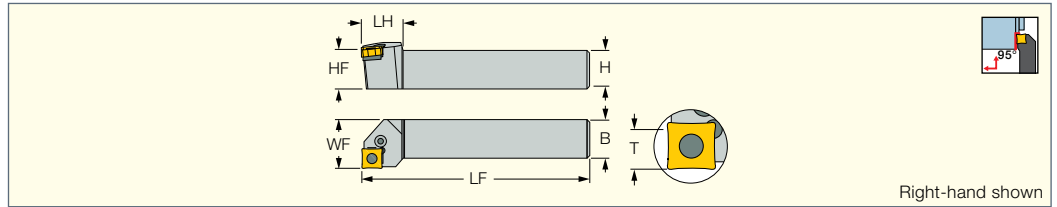
Depth of shoulder T with angles over 92° is unlimited in both directions.

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

PQFNR/L

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	T ⁽¹⁾	GAMP	GAMF	Insert
PQFNR/L 2020K-09	20.0	20.0	20.0	125.00	26.0	25.00	8	-6	-6	QNMG 0904
PQFNR/L 2020K-12	20.0	20.0	20.0	125.00	26.0	25.00	10	-6	-6	QNMG 1204
PQFNR/L 2525M-12	25.0	25.0	25.0	150.00	26.0	25.00	10	-6	-6	QNMG 1204

• For more information about T, see page 46

⁽¹⁾ T for r 0.8

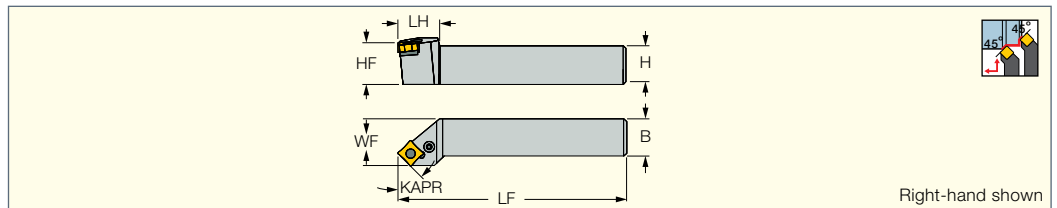
For inserts, see pages: QNMG-GN (161) • QNMG-NF (160) • QNMG-PP (161) • QNMG-TF (160)

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

PQSNR/L

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PQSNR/L 2525M-12	25.0	25.0	25.0	150.00	30.0	32.00	-4.5	-5.5	QNMG 1204

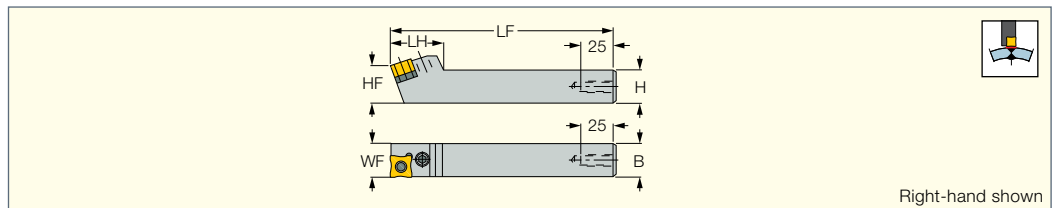
For inserts, see pages: QNMG-GN (161) • QNMG-NF (160) • QNMG-PP (161) • QNMG-TF (160)

Spare Parts

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

PSANR/L

Lever Lock Tools Carrying
the Negative Square
Pipe Skiving Inserts



Right-hand shown

Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert					
PSANR/L 2525M-15 ⁽¹⁾	25.0	25.0	26.0	150.00	38.0	25.00	0	20	SNMX 1507	TXN 532	TXN 5-2*	SR 117-2020	LR 5S	HW 3.0

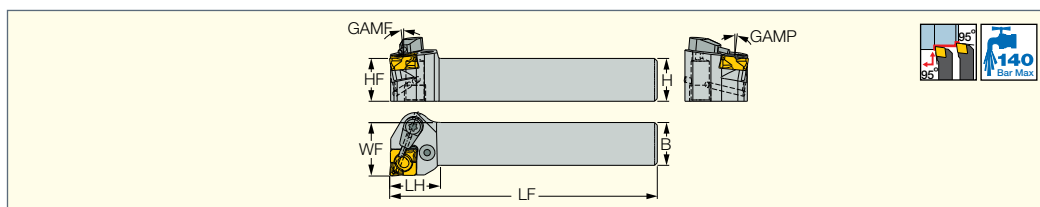
⁽¹⁾ TXN 5-2 for SNMX 150608R-.. inserts without chipbreaker for hard materials.

* Optional, should be ordered separately

For inserts, see pages: SNMX 150608R-.. (194) • SNMX 150708R-.. (194)

PCLXR/L-JHP

Lever Lock Tools with
Channels for High Pressure
Coolant Carrying the 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	21.5	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...

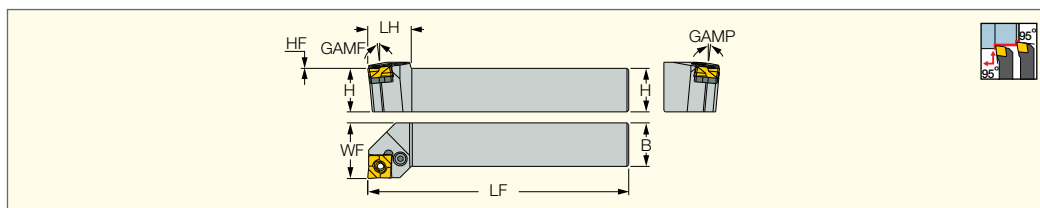
For inserts, see pages: CXMG-F3M (162) • CXMG-F3P (161) • CXMG-M3M (162) • CXMG-M3P (162)

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

PCLXR/L

Lever Lock Tools Carrying the
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	21.5	16.00	6.0	6.0	CXMG 09...
PCLXR/L 1616H-09X	16.0	16.0	16.0	100.00	20.0	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 (162) • CXMG-F3P (161) • CXMG-M3M (162) • CXMG-M3P (162)

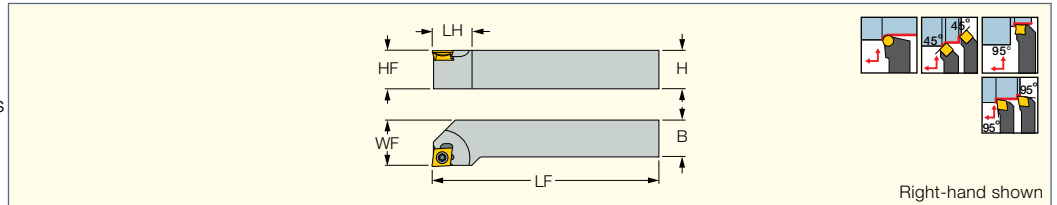
Spare Parts

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	

CHAMTURN

SUXCR/L-CM

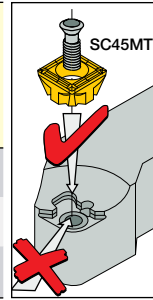
Screw Lock Tools Carrying Four
Different 7° Clearance Geometries



Designation	H	HF	B	LF	LH	GAMP	GAMF	WF
SUXCR/L 1616H-10 CM	16.0	16.0	16.0	100.00	24.0	0	0	20.00
SUXCR/L 2020K-10 CM	20.0	20.0	20.0	125.00	25.0	0	0	25.00
SUXCR/L 2525M-10 CM	25.0	25.0	25.0	150.00	25.0	0	0	32.00

For inserts, see pages: CC95MT-SM (187) • SC45MT-SM (187)

Designation	H	HF	LF	LH	GAMP	GAMF	WF	Inserts
SUXCR/L 1616H-10 CM	16.0	16.0	100.00	24.0	0	0	20	CC95MT...
SUXCR/L 2020K-10 CM	20.0	20.0	125.00	25.0	0	0	25	CC95MT...
SUXCR/L 2525M-10 CM	25.0	25.0	150.00	25.0	0	0	32	CC95MT...



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...

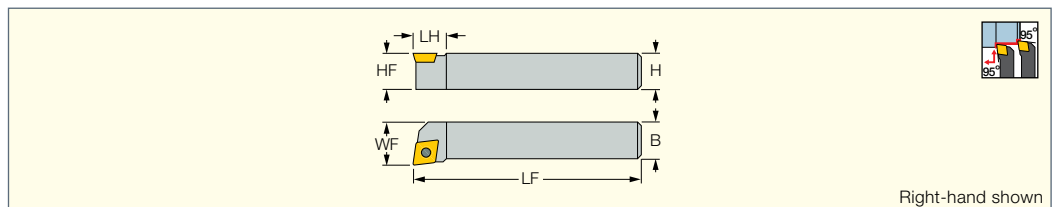
Spare Parts

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

ISOTURN

SCLCR/L

Screw Lock Tools Carrying
the 80° Diamond Inserts
with 7° Clearance Angle



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SCLCR/L 0808F-06	8.0	8.0	8.0	80.00	10.0	10.00	0	0	CC.. 0602	SR 14-548	T-7/5			
SCLCR/L 1010F-06	10.0	10.0	10.0	80.00	10.0	12.00	0	0	CC.. 0602	SR 14-548	T-7/5			
SCLCR/L 1212F-09	12.0	12.0	12.0	80.00	14.0	16.00	0	0	CC.. 09T3	SR 16-236	T-15/5			
SCLCR/L 1616H-09	16.0	16.0	16.0	100.00	14.0	20.00	0	0	CC.. 09T3	SR 16-236	T-15/5			
SCLCR/L 2020K-12	20.0	20.0	20.0	125.00	18.0	25.00	0	0	CC.. 1204	SR 16-212	T-20/5			
SCLCR/L 2525M-12	25.0	25.0	25.0	150.00	20.0	32.00	0	0	CC.. 1204	SR 16-212	T-20/5	TCC 4-2	SR TC-4	HW 3.0

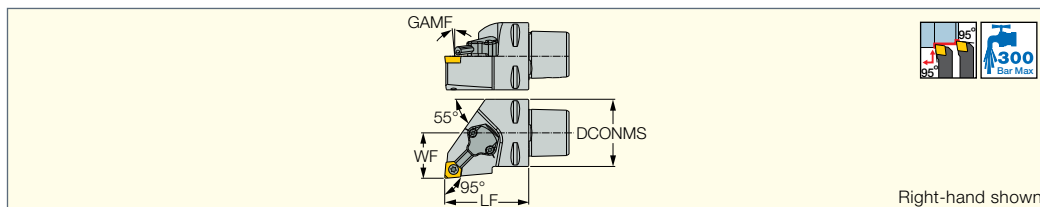
For inserts, see pages: CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCGT-AF (191) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)

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	GAMP	GAMF	Insert					
C3 SCLCR-22045-09-JHP	32.00	22.00	45.00	0	0	CC.. 09T3	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	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	SR 16-236	T-15/5	CU-CW-JHP	SR M5X5 DIN913 TL360	T-8/5

• For user guide, see pages 68-74

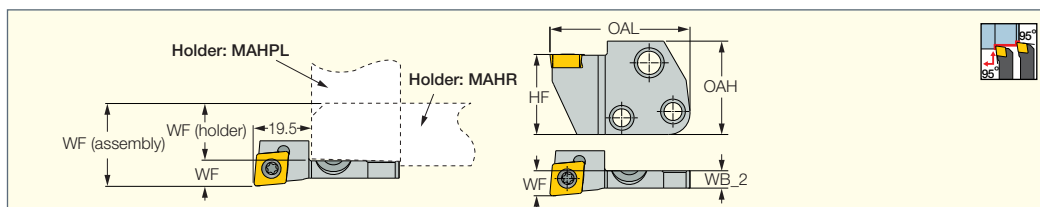
For inserts, see pages: CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCGT-AF (191) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)

ISOTURN

MODULARGRIP

SCLCR-PAD

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



Designation	HF	OAL	H	WF	WB_2	GAMP	GAMF	Insert		
SCLCR-09-PAD	24.0	42.00	28.0	7.50	5.2	0	0	CCGT/CCMT 09T3	SR 16-236	T-15/5

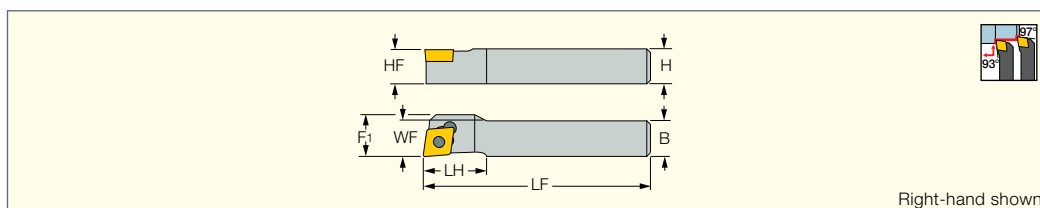
For inserts, see pages: CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCGT-AF (191) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)

For holders, see pages: MAHR/L-JHP-MC (263) • C#-MAHD-JHP (593) • MAHPR/L-JHP (264) • MAHR/L-JHP (263) • MAHR/L (262) • MAHPR/L (264) • C#-MAHD (592) • C#-MAHPD (593) • C#-MAHUR/L (592) • C#-MAHDR-45 (591) • C#-MAHDOR (592) • HSK A63WH-MAHUR/L (598) • HSK A63WH-MAHDR-45 (597) • HSK A63WH-MAHDOR (597) • IM-MAHD (599) • IM-MAHPD (599) • HMSN-New Britain (435) • DGHAL-DECO (435)

ISOTURN

SCACR/L-S

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



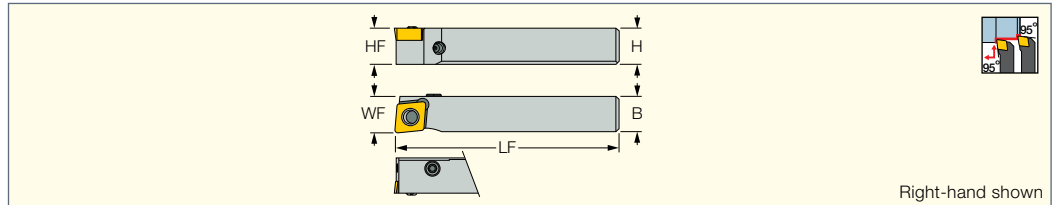
Right-hand shown

Designation	H	HF	B	LF	LH	WF	F1	GAMP	GAMF	Insert		
SCACR/L 0808K-06S	8.0	8.0	8.0	125.00	8.0	8.20	-	0	0	CC.. 0602	SR 14-548	T-7/5
SCACR 1010K-06S	10.0	10.0	10.0	150.00	-	10.00	-	0	0	CC.. 0602	SR 14-548	T-7/5
SCACR/L 1616K-06S	16.0	16.0	16.0	125.00	-	16.20	-	0	0	CC.. 0602	SR 14-548	T-7/5
SCACR/L 1010K-09S	10.0	10.0	10.0	125.00	15.2	10.20	-	0	0	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	0	0	CC.. 09T3	SR 16-236	T-15/5
SCACR/L 1616K-09S	16.0	16.0	16.0	125.00	-	16.20	-	0	0	CC.. 09T3	SR 16-236	T-15/5

For inserts, see pages: CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)

PCLCR/L-S

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



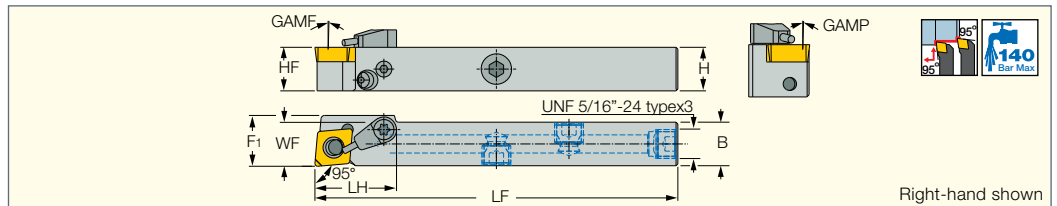
Designation	H	HF	B	LF	WF	GAMP	GAMF	Insert				
PCLCR 0808M-06S	8.0	8.0	8.0	150.00	8.00	0	0	CC.. 0602	SL LV-2	SL PI-2	PIN	SR 10400611
PCLCR/L 1010M-06S	10.0	10.0	10.0	150.00	10.20	0	0	CC.. 0602	SL LV-2	SL PI-2	PIN	SR 10400611
PCLCR/L 1212M-06S	12.0	12.0	12.0	150.00	12.20	0	0	CC.. 0602	SL LV-2	SL PI-2	PIN	SR 10400611
PCLCR/L 1616M-06S	16.0	16.0	16.0	150.00	16.20	0	0	CC.. 0602	SL LV-2	SL PI-2	PIN	SR 10400611
PCLCR/L 1012M-09S	10.0	10.0	12.0	150.00	12.20	0	0	CC.. 09T3	SL LV-3	SL PI-3		SR 10400150
PCLCR/L 1212M-09S	12.0	12.0	12.0	150.00	12.20	0	0	CC.. 09T3	SL LV-3	SL PI-3		SR 10400150
PCLCR/L 1616M-09S	16.0	16.0	16.0	150.00	16.20	0	0	CC.. 09T3	SL LV-3	SL PI-3		SR 10400150
PCLCR/L 2020K-09S	20.0	20.0	20.0	125.00	20.20	0	0	CC.. 09T3	SL LV-3	SL PI-3		SR 10400150

• The clamping screw may be transferred to the opposite side if needed

For inserts, see pages: CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCGT-AF (191) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)

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	F1	GAMP	GAMF	Insert
PCLCR/L 1010H-06S-JHP	10.0	10.0	10.0	100.00	22.3	10.20	-	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	CC.. 09T3
PCLCR/L 1616K-09S-JHP	16.0	16.0	16.0	125.00	22.3	16.20	-	0	0	CC.. 09T3
PCLCR/L 2020K-09S-JHP	20.0	20.0	20.0	125.00	22.3	20.20	-	0	0	CC.. 09T3

• For user guide, see pages 68-74

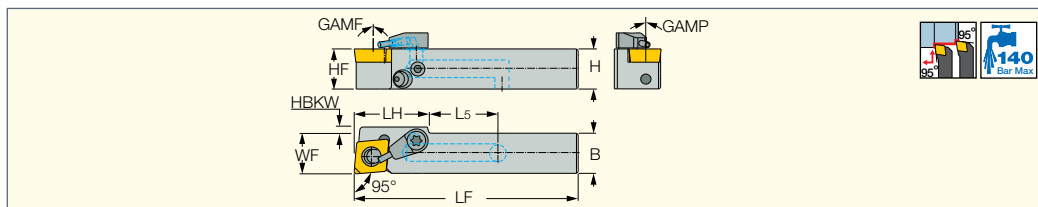
For inserts, see pages: CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCGT-AF (191) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)

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**

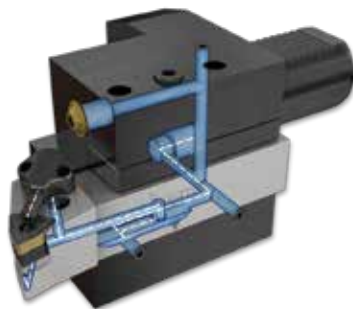
Tools with Channels for High Pressure Coolant Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines



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	1.8	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	CC.. 09T3

• For user guide, see pages 68-74

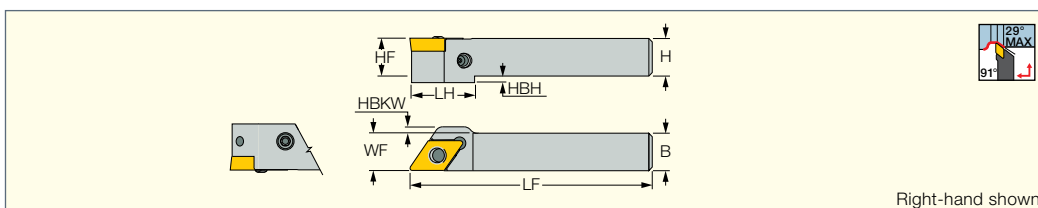
For inserts, see pages: CCET-WF (167) • CCGT-AF (191) • CCGT-AS (190) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201) • CCMT-14 (166) • CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3M (164) • CCMT-M3P (164) • CCMT-PF (166) • CCMT-WG (167) • CCMT/CCGT (166) • CCMT/CCGT-SM (165)

**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



Right-hand shown

Designation	H	HF	LH	HBH	B	LF	WF	HBKW	GAMP	GAMF	Insert				
PDACR/L 0808M-07S	8.0	8.0	16.0	2.0	8.0	150.00	8.00	-	0	0	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	-	0	0	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	-	0	0	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	-	0	0	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	2.0	0	0	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	2.0	0	0	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	-	0	0	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	-	0	0	DC..11T3	SL LV-3	SL PI-3		SR 10400150 HW 2.5/5

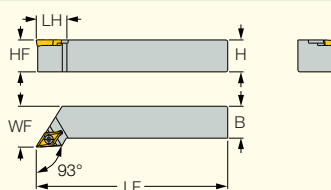
• The clamping screw may be transferred to the opposite side if needed

For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

T-LOCK ISOTURN

SDJCR/L-13-SL

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert		
SDJCR/L 1616H-13-SL	16.0	16.0	16.0	100.00	24.0	21.00	0	0	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	0	0	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	0	0	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45

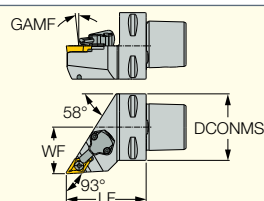
• Insert clamping torque 3 Nxm

For inserts, see pages: DCMT-F3P-SL (169) • DCMT-M3M-SL (170) • DCMT-PF-SL (171) • DCMT-SM-SL (172)

T-LOCK JETCUT CAMFIX

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

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



Right-hand shown

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

• For user guide, see pages 68-74

For inserts, see pages: DCMT-F3P-SL (169) • DCMT-M3M-SL (170) • DCMT-PF-SL (171) • DCMT-SM-SL (172)

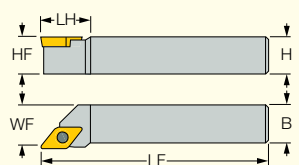
Spare Parts

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 the 55° Diamond Inserts with 7° Clearance Angle



Right-hand shown

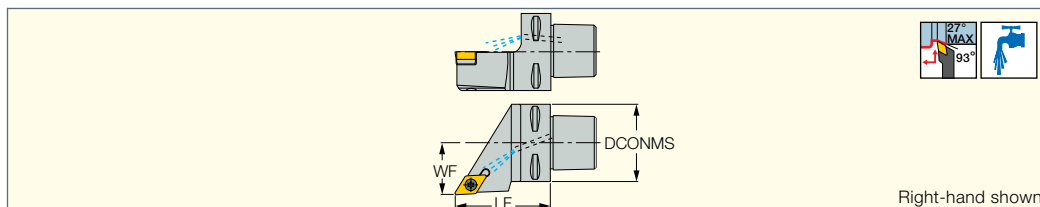
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SDJCR/L 0808F-07	8.0	8.0	8.0	80.00	11.5	10.00	0	0	DC..0702	SR 14-548	T-7/5			
SDJCR/L 1010F-07	10.0	10.0	10.0	80.00	11.5	12.00	0	0	DC..0702	SR 14-548	T-7/5			
SDJCR/L 1212K-07S ⁽¹⁾	12.0	12.0	12.0	125.00	-	12.20	0	0	DC..0702	SR 14-548	T-7/5			
SDJCR/L 1616K-07S ⁽¹⁾	16.0	16.0	16.0	125.00	-	16.20	0	0	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	0	0	DC..11T3	SR 16-236	T-15/5			
SDJCR/L 1212F-11	12.0	12.0	12.0	80.00	20.0	16.00	0	0	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	0	0	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	0	0	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	0	0	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: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

ISOTURN CAMFIX**C#-SDJCR/L**

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

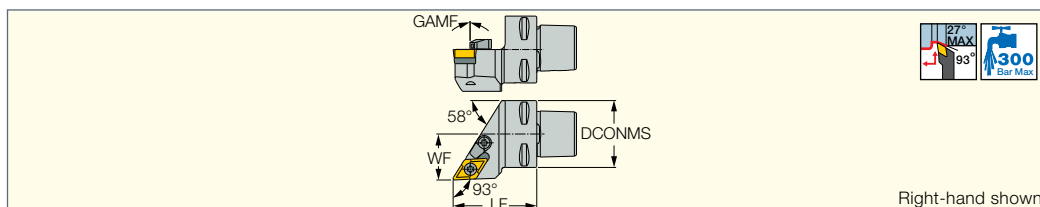


Designation	DCONMS	WF	LF	Insert						
C4 SDJCR-27050-11	40.00	27.00	50.00	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 83
C5 SDJCR/L-35060-11	50.00	35.00	60.00	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

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
C3 SDJCR-22040-11-JHP	32.00	22.00	40.00	DC.. 11T3

• For user guide, see pages 68-74

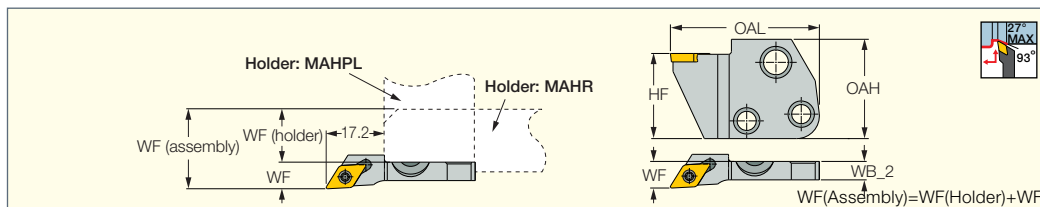
For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

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
the 55° Diamond Inserts
with 7° Clearance Angle



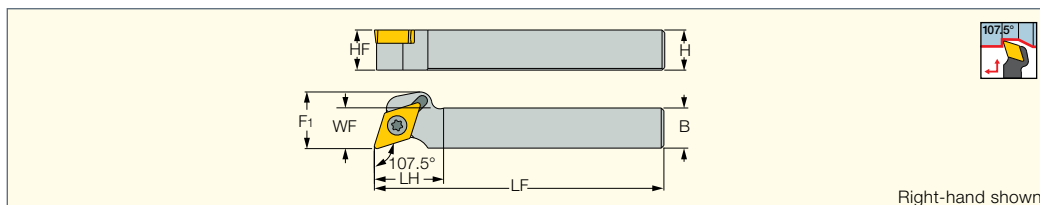
Designation	HF	OAH	OAL	WF	WB_2	GAMP	GAMF	Insert		
SDJCR-07-PAD	24.0	28.0	42.00	7.50	5.2	0	0	DCMT/DCGT 0702	SR 14-548	T-7/5

For inserts, see pages: DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209)

For holders, see pages: MAHR/L-JHP-MC (263) • C#-MAHD-JHP (593) • MAHPR/L-JHP (264) • MAHR/L-JHP (263) • MAHR/L (262) • MAHPR/L (264) • C#-MAHD (592) • C#-MAHPD (593) • C#-MAHUR/L (592) • C#-MAHDR-45 (591) • C#-MAHDOR (592) • HSK A63WH-MAHUR/L (598) • HSK A63WH-MAHDR-45 (597) • HSK A63WH-MAHDOR (597) • IM-MAHD (599) • IM-MAHPD (599) • HMSN-New Britain (435) • DGHAL-DECO (435)

ISOTURN**SDHCR/L**

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

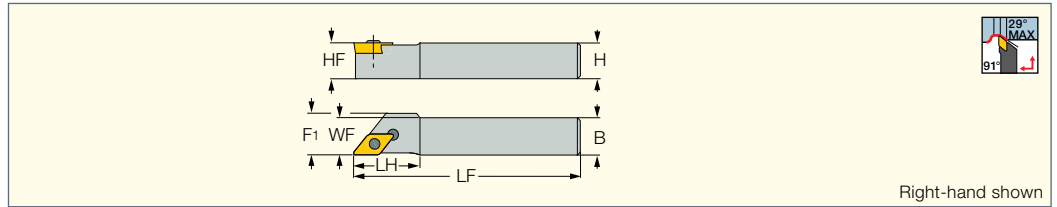


Designation	H	HF	B	LF	LH	WF	F1	GAMP	GAMF	Insert		
SDHCR/L 1010K-07S	10.0	10.0	10.0	125.00	12.5	10.20	-	0	0	DC..0702	SR 14-548	T-7/5
SDHCR/L 1212K-07S	12.0	12.0	12.0	125.00	12.0	12.20	-	0	0	DC..0702	SR 14-548	T-7/5
SDHCR/L 1616K-07S	16.0	16.0	16.0	125.00	12.0	16.20	-	0	0	DC..0702	SR 14-548	T-7/5
SDHCR/L 1212K-11S	12.0	12.0	12.0	125.00	19.0	12.20	17.0	0	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	-	0	0	DC..11T3	SR 16-236	T-15/5

For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

SDACR/L

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



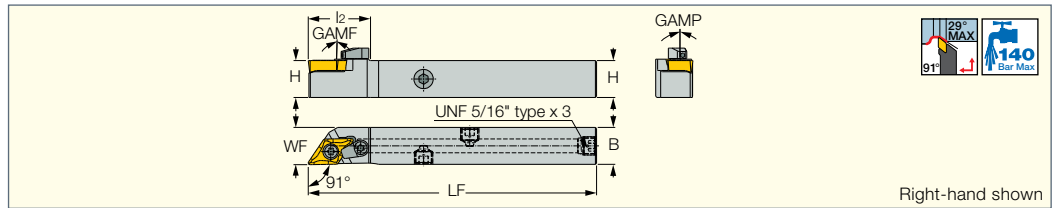
Right-hand shown

Designation	H	HF	B	LF	LH	WF	F1	GAMP	GAMF	Insert		
SDACR/L 1010K-07S	10.0	10.0	10.0	125.00	-	10.00	-	0	0	DC..0702	SR 14-548	T-7/5
SDACR/L 1212K-07S	12.0	12.0	12.0	125.00	-	12.00	-	0	0	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	0	0	DC..11T3	SR 16-236 P	T-15/5
SDACR/L 1616K-11S	16.0	16.0	16.0	125.00	-	16.00	-	0	0	DC..11T3	SR 16-236 P	T-15/5

For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

ISOTURN T-LOCK
JETCUT
SDACR/L-13S-SL-JHP

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

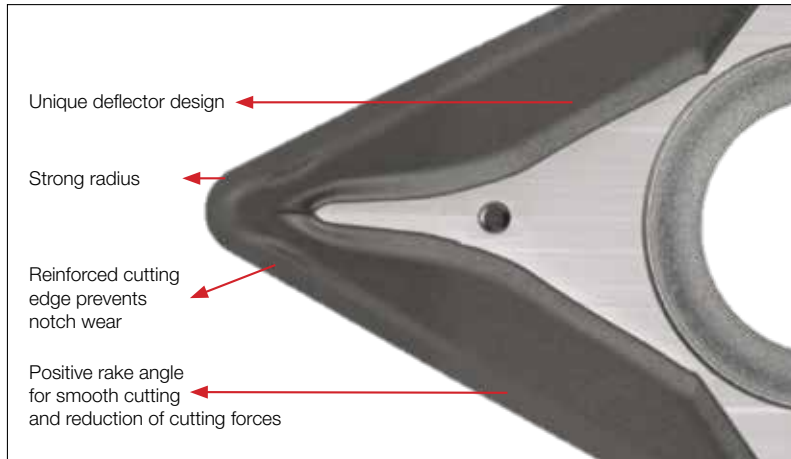
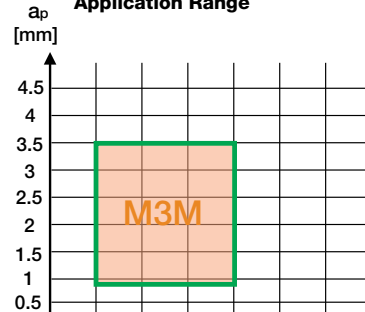


Right-hand shown

Designation	H	B	LF	LH	WF	GAMP	GAMF	Insert
SDACR/L 1212H-13S-SL-JHP	12.0	12.0	100.00	27.0	12.20	0	0	DCMT 13T5-SL
SDACR/L 1616K-13S-SL-JHP	16.0	16.0	125.00	27.0	16.20	0	0	DCMT 13T5-SL

• For user guide, see pages 68-74

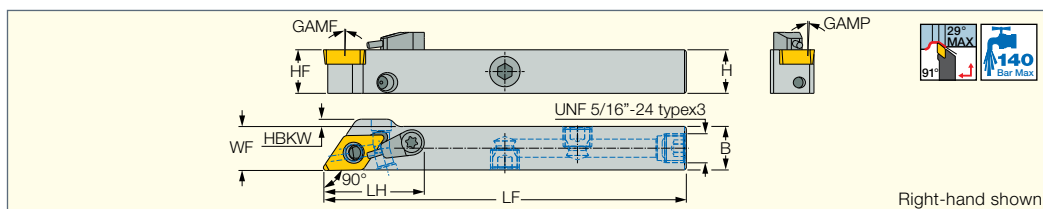
For inserts, see pages: DCMT-F3P-SL (169) • DCMT-M3M-SL (170) • DCMT-PF-SL (171) • DCMT-SM-SL (172)


DCMT 13T508-M3M-SL
Application Range

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 the 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	6.1	0	0	DC..0702
PDACR/L 1212H-11S-JHP	12.0	12.0	12.0	100.00	28.0	12.20	2.0	0	0	DC..11T3
PDACR/L 1616K-11S-JHP	16.0	16.0	16.0	125.00	28.0	16.20	-	0	0	DC..11T3
PDACR/L 2020K-11S-JHP	20.0	20.0	20.0	125.00	28.0	20.20	-	0	0	DC..11T3

• For user guide, see pages 68-74

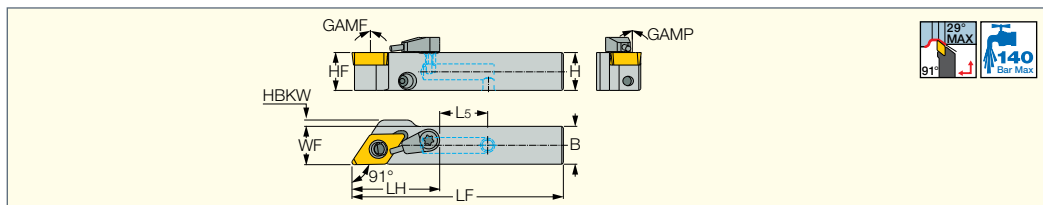
For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

Spare Parts

Designation						
PDACL 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 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**

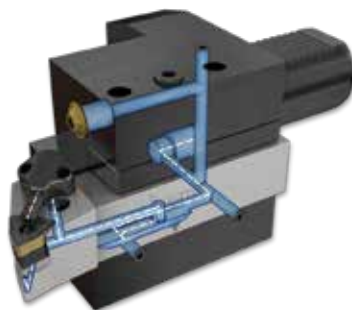
Tools with Channels for High Pressure Coolant Carrying the 55° Positive Rhombic Inserts for Swiss Automatic Machines



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	2.0	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	DC..11T3

• For user guide, see pages 68-74

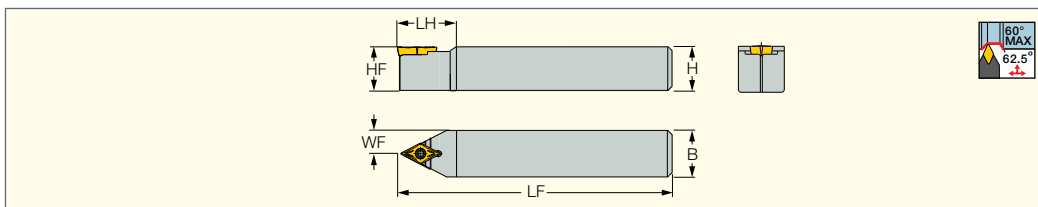
For inserts, see pages: DCET-WF (173) • DCGT-AF (191) • DCGT-AS (191) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201) • DCMT-14 (173) • DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT (173) • DCMT/DCGT-SM (172)

**Spare Parts**

Designation						
PDACR/L-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 the 55° Diamond Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



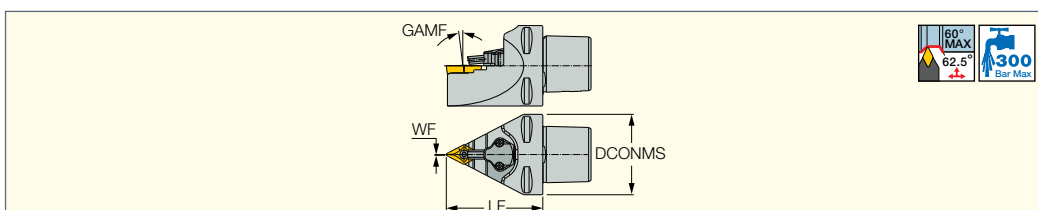
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert		
SDNCN 1616H-13-SL	16.0	16.0	16.0	100.00	25.0	8.00	0	0	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45
SDNCN 2020K-13-SL	20.0	20.0	20.0	125.00	25.0	10.00	0	0	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45
SDNCN 2525M-13-SL	25.0	25.0	25.0	150.00	25.0	12.50	0	0	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45

• Insert clamping torque 3 Nxm

For inserts, see pages: DCMT-F3P-SL (169) • DCMT-M3M-SL (170) • DCMT-PF-SL (171) • DCMT-SM-SL (172)

T-LOCK JETCUT**CAMFIX****C#-SDNCN-13-SL-JHP**

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



Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C3 SDNCN-00045-13-SL-JHP	32.00	0.50	45.00	0	0	DCMT 13T5-SL
C4 SDNCN-00060-13-SL-JHP	40.00	0.50	60.00	0	0	DCMT 13T5-SL
C5 SDNCN-00060-13-SL-JHP	50.00	0.50	60.00	0	0	DCMT 13T5-SL

• For user guide, see pages 68-74

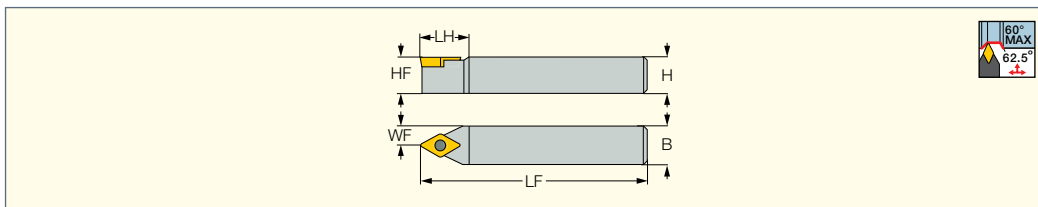
For inserts, see pages: DCMT-F3P-SL (169) • DCMT-M3M-SL (170) • DCMT-PF-SL (171) • DCMT-SM-SL (172)

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
C5 SDNCN-00060-13-SL-JHP	CU-D-JHP		TORX PLUS IP15X45	SR M4X0.7-L9.6 IP15

ISOTURN**SDNCN**

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



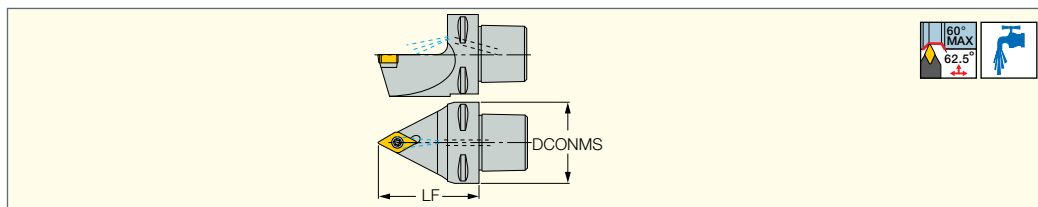
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SDNCN 0808F-07	8.0	8.0	8.0	80.00	14.0	4.00	0	0	DC..0702	SR 14-548	T-7/5			
SDNCN 1010F-07	10.0	10.0	10.0	80.00	14.5	5.00	0	0	DC..0702	SR 14-548	T-7/5			
SDNCN 1010K-11S ⁽¹⁾	10.0	10.0	10.0	120.00	20.0	5.00	0	0	DC..11T3	SR 16-236	T-15/5			
SDNCN 1212F-11	12.0	12.0	12.0	80.00	21.3	6.00	0	0	DC..11T3	SR 16-236 P	T-15/5			
SDNCN 1616H-11	16.0	16.0	16.0	100.00	21.0	8.00	0	0	DC..11T3	SR 16-236 P	T-15/5			
SDNCN 2020K-11	20.0	20.0	20.0	125.00	21.0	10.00	0	0	DC..11T3	SR 16-236 P	T-15/5			
SDNCN 2525M-11	25.0	25.0	25.0	150.00	30.0	12.50	0	0	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: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

ISOTURN CAMFIX**C#-SDNCN**

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

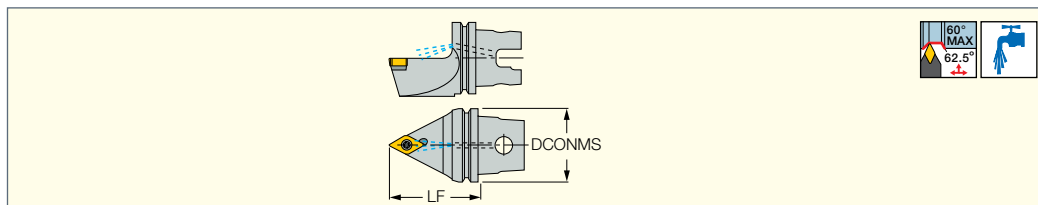


Designation	DCONMS	LF	Insert						
C4 SDNCN-00050-11	40.00	50.00	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

ISO 26622-1 XMZ**ISOTURN****IM-SDNCN**

Screw Lock Tools with ISO
26622-1 Tapered Shanks
Carrying the 55° Rhombic
Inserts with 7° Clearance Angle



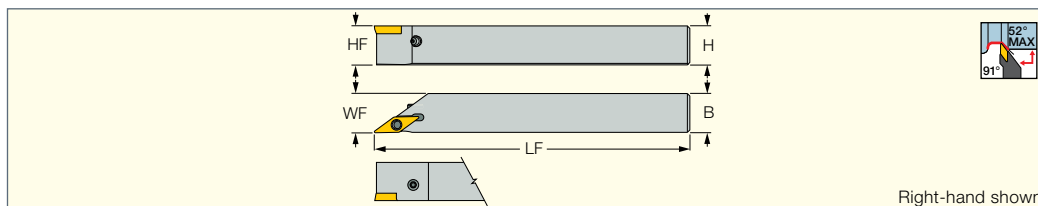
Designation	DCONMS	LF	Insert						
IM40 SDNCN-11	40.00	40.00	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

• Tools with orientation holes in the flange groove can be supplied on request

For inserts, see pages: DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201)

ISOTURN**PVACR/L-S**

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



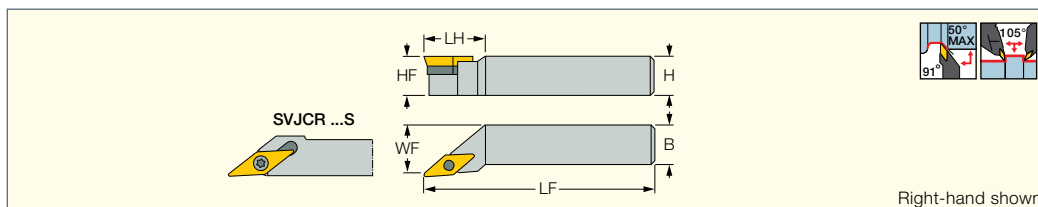
Designation	H	HF	B	LF	WF	GAMP	GAMF	Insert				
PVACR/L 0808M-11S	8.0	8.0	8.0	150.00	8.00	0	0	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1010M-11S	10.0	10.0	10.0	150.00	10.20	0	0	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1212M-11S	12.0	12.0	12.0	150.00	12.20	0	0	VC..1103	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	0	0	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	0	0	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5

• The clamping screw may be transferred to the opposite side if needed

For inserts, see pages: VCMT-F3P (174) • VCMT-F3M (174) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190)

ISOTURN**SVJCR/L**

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



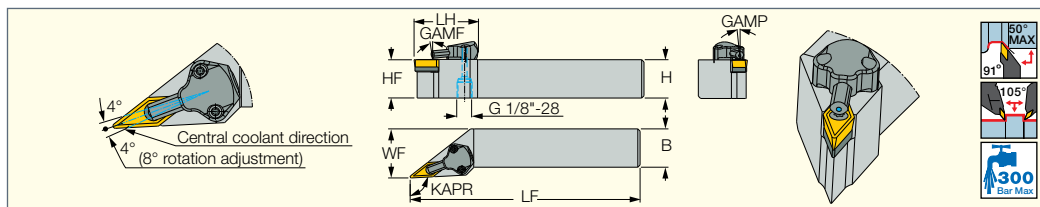
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SVJCR/L 0808K-11S ⁽¹⁾	8.0	8.0	8.0	125.00	11.5	8.20	0	0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1010K-11S ⁽¹⁾	10.0	10.0	10.0	125.00	22.0	10.20	0	0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1212K-11S ⁽¹⁾	12.0	12.0	12.0	125.00	-	12.20	0	0	VC..1103	SR 14-560	T-8/5			
SVJCR/L 1616K-11	16.0	16.0	16.0	125.00	25.0	20.00	0	0	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	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	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	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	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: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

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	GAMP	GAMF	Insert
SVJCR/L 2525M-16-JHP	25.0	25.0	25.0	150.00	42.0	32.00	93.0	0	0	VCMT 1604

• For user guide, see pages 68-74

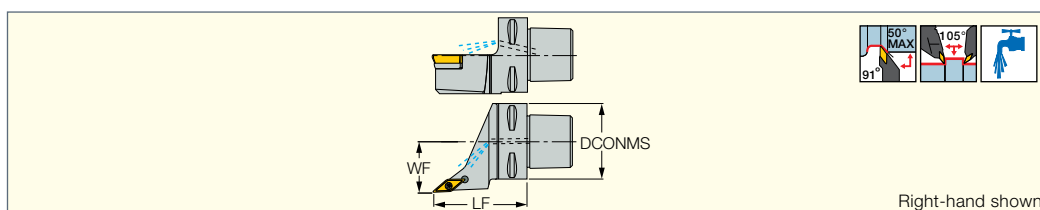
For inserts, see pages: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

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

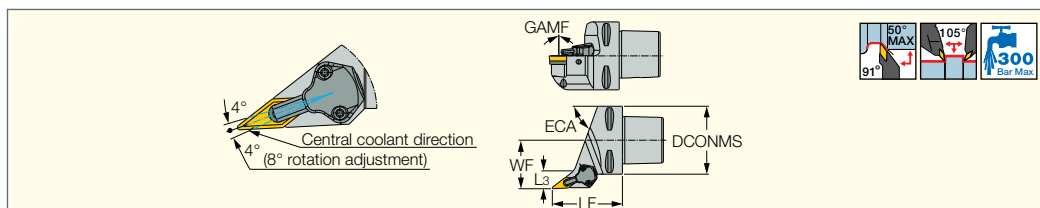


Designation	DCONMS	WF	LF	Insert						
C4 SVJCR/L-27050-11	40.00	27.00	50.00	VC.. 1103	TVC 3-1	SR TC-3	HW 2.5	SR 14-560/S	T-8/5	EZ 83
C4 SVJCR/L-27050-16	40.00	27.00	50.00	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 14-560/S	T-8/5	EZ 83
C5 SVJCR-35060-11	50.00	35.00	60.00	VC.. 1103	TVC 3-1	SR TC-3	HW 2.5	SR 14-560/S	T-8/5	EZ 104
C5 SVJCR/L-35060-16	50.00	35.00	60.00	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 14-560/S	T-8/5	EZ 104
C6 SVJCR/L-45065-16	63.00	45.00	65.00	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 14-560/S	T-8/5	EZ 125

For inserts, see pages: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

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	GAMP	GAMF	ECA	L3	Insert
C3 SVJCR-22040-11-JHP	32.00	22.00	40.00	0	0	55	-	VCMT 1103
C4 SVJCR/L-27055-16-JHP	40.00	27.00	55.00	0	0	55	-	VCMT 1604
C5 SVJCR/L-35060-16-JHP	50.00	35.00	60.00	0	0	55	-	VCMT 1604
C6 SVJCR-45065-16-JHP	63.00	45.00	65.00	0	0	70	16.80	VCMT 1604

• For user guide, see pages 68-74

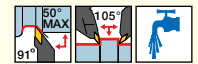
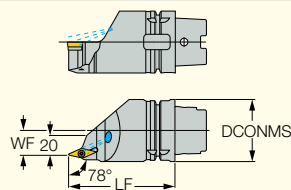
For inserts, see pages: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

Spare Parts

Designation								
C3 SVJCR-22040-11-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
C4 SVJCR/L-27055-16-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
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	OR 6.4X0.9N	T-8/5	HW 2.5

ISOTURN HSK**HSK A63WH-SVJCR/L**

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



Right-hand shown

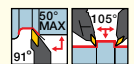
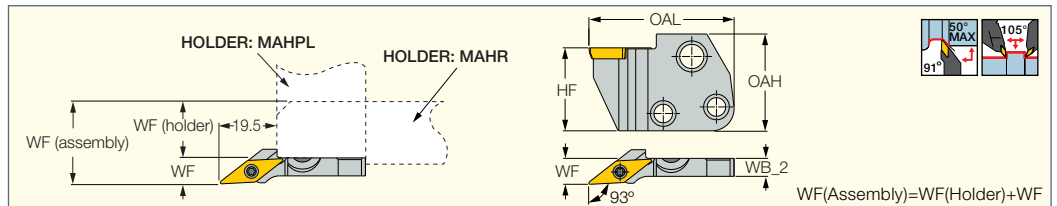
Designation	DCONMS	LF	WF	Insert						
HSK A63WH-SVJCR/L-J16	63.00	110.00	25.00	VC..1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 104

• 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 676

For inserts, see pages: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

ISOTURN**MODULAR-GRIP****SVJCR-PAD**

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



WF(Assembly)=WF(Holder)+WF

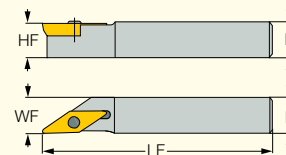
Designation	HF	OAH	OAL	WF	WB_2	GAMP	GAMF	Insert		
SVJCR-11-PAD	24.0	28.0	42.00	7.50	5.2	0	0	VC..1103	SR 14-560	T-8/5

For inserts, see pages: VCMT-F3P (174) • VCMT-F3M (174) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190)

For holders, see pages: MAHR/L-JHP-MC (263) • C#-MAHD-JHP (593) • MAHPR/L-JHP (264) • MAHR/L-JHP (263) • MAHR/L (262) • MAHPR/L (264) • C#-MAHD (592) • C#-MAHPD (593) • C#-MAHUR/L (592) • C#-MAHDR-45 (591) • C#-MAHDOR (592) • HSK A63WH-MAHUR/L (598) • HSK A63WH-MAHDR-45 (597) • HSK A63WH-MAHDOR (597) • IM-MAHD (599) • IM-MAHPD (599) • HMSN-New Britain (435) • DGHAL-DECO (435)

ISOTURN**SVACR/L**

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



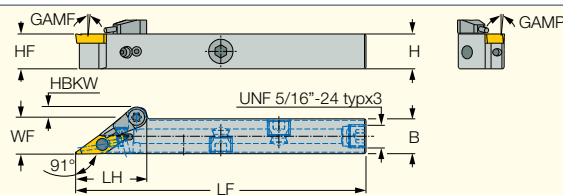
Right-hand shown

Designation	H	B	HF	LF	WF	GAMP	GAMF	Insert		
SVACR/L 1212K-11S	12.0	12.0	12.0	125.00	12.00	0	0	VC..11..	SR 14-560	T-8/5
SVACR 1616K-11S	16.0	16.0	16.0	125.00	16.00	0	0	VC..11..	SR 14-560	T-8/5
SVACR/L 1212K-13S	12.0	12.0	12.0	125.00	12.00	0	0	VC..13..	SR 14-513	T-8/5
SVACR/L 1616K-13S	16.0	16.0	16.0	125.00	16.00	0	0	VC..13..	SR 14-513	T-8/5
SVACR/L 2020K-13S	20.0	20.0	20.0	125.00	20.00	0	0	VC..13..	SR 14-513	T-8/5

For inserts, see pages: VCMT-F3P (174) • VCMT-F3M (174) • VCGT-MD/PF (175) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190)

ISOTURN JETCUT**PVACR/L-JHP**

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



Right-hand shown

Designation	H	HF	B	LF	LH	WF	HBKW	GAMP	GAMF	Insert
PVACR/L 1010H-11S-JHP	10.0	10.0	10.0	100.00	20.0	10.20	5.8	0	0	VC..1103
PVACR/L 1212H-11S-JHP	12.0	12.0	12.0	100.00	20.0	12.20	3.8	0	0	VC..1103
PVACR/L 1616K-11S-JHP	16.0	16.0	16.0	125.00	20.0	16.20	-	0	0	VC..1103
PVACR/L 2020K-11S-JHP	20.0	20.0	20.0	125.00	25.0	20.20	-	0	0	VC..1103

• For user guide, see pages 68-74

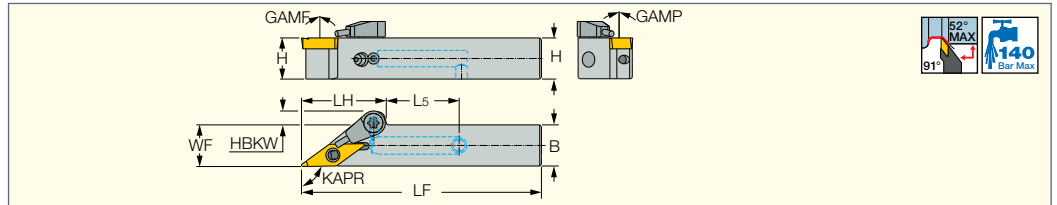
For inserts, see pages: VCMT-F3P (174) • VCMT-F3M (174) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190)

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

PVACR/L-JHP-MC

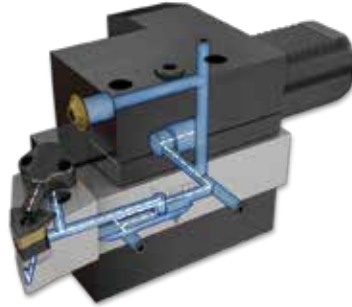
Tools with Channels for High Pressure Coolant Carrying the 35° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	B	LF	LH	L5	WF	HBKW	Insert	KAPR
PVACR/L 1212X-11S-JHP-MC	12.0	12.0	70.00	25.0	21.00	12.20	3.8	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 68-74

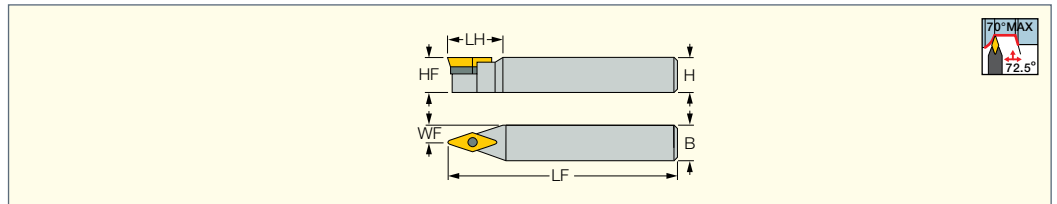
For inserts, see pages: VCET-WF (175) • VCGT-AS (190) • VCMT-F3M (174) • VCMT-F3P (174) • VCMT-SM (176)


Spare Parts

Designation						
PVACR/L-JHP-MC	SL LV-2	SL-PI-2	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 the 35° Diamond Inserts with 7° Clearance Angle



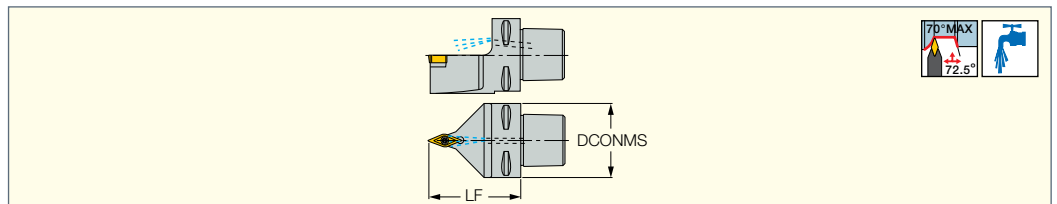
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SVVCN 0808K-11S ⁽¹⁾	8.0	8.0	8.0	125.00	-	4.30	0	0	VC..1103	SR 14-560	T-8/5			
SVVCN 1010K-11S ⁽¹⁾	10.0	10.0	10.0	125.00	-	5.30	0	0	VC..1103	SR 14-560	T-8/5			
SVVCN 1212K-11S ⁽¹⁾	12.0	12.0	12.0	125.00	-	6.30	0	0	VC..1103	SR 14-560	T-8/5			
SVVCN 1616K-11S ⁽¹⁾	16.0	16.0	16.0	125.00	-	8.30	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	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	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: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

ISOTURN CAMFIX
C#-SVVCN

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

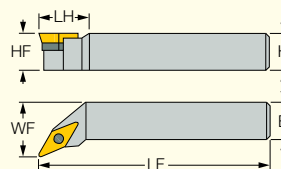


Designation	DCONMS	LF	Insert						
C4 SVVCN-00050-11	40.00	40.00	VC.. 1103				SR 14-560/S	T-8/5	EZ 83
C4 SVVCN-00050-16	40.00	40.00	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 83
C5 SVVCN-00060-16	50.00	50.00	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 125

For inserts, see pages: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

ISOTURN**SVXCR/L**

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



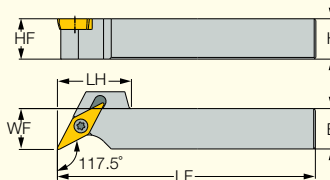
Right-hand shown

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	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	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 (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

ISOTURN**SVPCR/L**

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



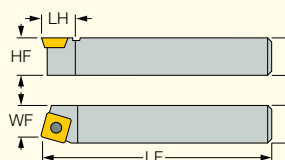
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert			
SVPCR/L 1212K-11S	12.0	12.0	12.0	125.00	19.0	12.20	0	0	VC..1103	SR 14-560	T-8/5	
SVPCR/L 1616K-11S	16.0	16.0	16.0	125.00	-	16.20	0	0	VC..1103	SR 14-560	T-8/5	

For inserts, see pages: VCMT-F3P (174) • VCMT-F3M (174) • VCMT-SM (176) • VCGT-AS (190)

ISOTURN**SSBCR/L**

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



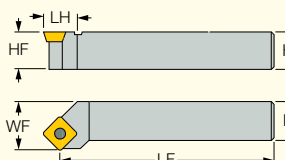
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SSBCR/L 1616H-09	16.0	16.0	16.0	100.00	15.0	13.00	0	0	SC..09T3	SR 16-236	T-15/5			
SSBCR/L 2020K-12	20.0	20.0	20.0	125.00	19.0	17.00	0	0	SC..1204	SR 16-212	T-20/5			
SSBCR/L 2525M-12	25.0	25.0	25.0	150.00	19.0	22.00	0	0	SC..1204	SR 16-212	T-20/5	TSC 4-2	SR TC-4	HW 3.0

For inserts, see pages: SCMT-F3P (177) • SCMT-M3P (177) • SCMT-M3M (177) • SCMT-SM (178) • SCGT-AS (189) • SCMT-14 (178) • SCMT-19 (178)

ISOTURN**SSSCR/L**

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



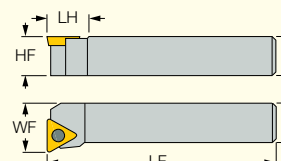
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
SSSCR/L 1212F-09	12.0	12.0	12.0	80.00	18.0	16.00	0	0	SC..09T3	SR 16-236	T-15/5			
SSSCR/L 1616H-09	16.0	16.0	16.0	100.00	18.0	20.00	0	0	SC..09T3	SR 16-236	T-15/5			
SSSCR/L 2020K-12	20.0	20.0	20.0	125.00	22.0	25.00	0	0	SC..1204	SR 16-212	T-20/5			
SSSCR/L 2525M-12	25.0	25.0	25.0	150.00	25.0	32.00	0	0	SC..1204	SR 16-212	T-20/5	TSC 4-2	SR TC-4	HW 3.0

For inserts, see pages: SCMT-F3P (177) • SCMT-M3P (177) • SCMT-M3M (177) • SCMT-SM (178) • SCGT-AS (189) • SCMT-14 (178) • SCMT-19 (178)

ISOTURN**STFCR/L**

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



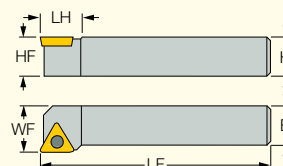
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
STFCR/L 1212F-11	12.0	12.0	12.0	80.00	13.0	16.00	0	0	TC..1102	SR 14-548	T-7/5			
STFCR/L 2020K-16	20.0	20.0	20.0	125.00	18.0	25.00	0	0	TC..16T3	SR 16-236	T-15/5			
STFCR/L 2525M-16	25.0	25.0	25.0	150.00	20.0	32.00	0	0	TC..16T3	SR 16-236	T-15/5	TTC 3-2	SR TC-3	HW 2.5

For inserts, see pages: TCMT-F3P (179) • TCMT-PF (179) • TCMT-SM (180) • TCGT-AS (189) • TCMT (CBN) (212) • TCMT (PCD) (203)

STGCR/L

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



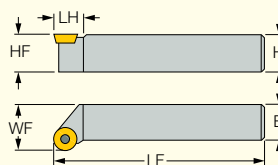
Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
STGCR/L 1212F-11	12.0	12.0	12.0	80.00	13.0	16.00	0	0	TC.. 1102	SR 14-548	T-7/5			
STGCR/L 1616H-11	16.0	16.0	16.0	100.00	13.0	20.00	0	0	TC.. 1102	SR 14-548	T-7/5			
STGCR/L 2020K-16	20.0	20.0	20.0	125.00	18.0	25.00	0	0	TC.. 16T3	SR 16-236	T-15/5			
STGCR/L 2525M-16	25.0	25.0	25.0	150.00	18.0	32.00	0	0	TC.. 16T3	SR 16-236	T-15/5	TTC 3-2	SR TC-3	HW 2.5

For inserts, see pages: TCMT-F3P (179) • TCMT-PF (179) • TCMT-SM (180) • TCGT-AS (189) • TCMT (CBN) (212) • TCMT (PCD) (203)

SRGCR/L

Screw Lock Tools Carrying
the Round Inserts with
7° Clearance Angle



Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SRGCR/L 1616H-08	16.0	16.0	16.0	100.00	11.0	20.00	0	0	RCMT 0803MO
SRGCR/L 2020K-10	20.0	20.0	20.0	125.00	14.0	25.00	0	0	RCMT 10T3MO
SRGCR 2525M-10	25.0	25.0	25.0	150.00	18.0	32.00	0	0	RCMT 10T3MO
SRGCR/L 2525M-12	25.0	25.0	25.0	150.00	18.0	32.00	0	0	RCMT 1204MO
SRGCR/L 2525M-16	25.0	25.0	25.0	150.00	20.0	32.00	0	0	RCMT 1606MO
SRGCR/L 3232P-20	32.0	32.0	32.0	170.00	25.0	40.00	0	0	RCMT 2006MO

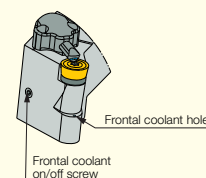
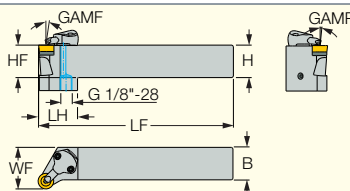
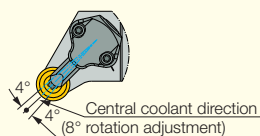
For inserts, see pages: RCGT-AS (192) • RCMT-14 (180) • RCMT-SR (180)

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	

SRGCR-12-JHP

Screw Lock Tools with Channels
for High Pressure Coolant
Carrying the 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	RCMT 1204

• For user guide, see pages 68-74

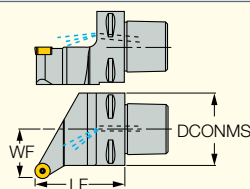
For inserts, see pages: RCMT-14 (180)

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 the Round Inserts
with 7° Clearance Angle



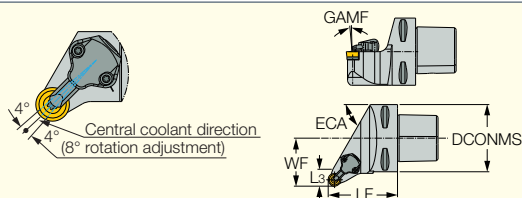
Right-hand shown

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

For inserts, see pages: RCMT-14 (180)

ISOTURN JETCUT
CAMFIX
C#-SRGCR-12-JHP

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



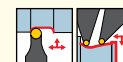
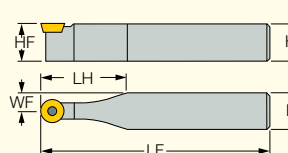
Designation	DCONMS	WF	LF	ECA	L ₃	Insert							
C6 SRGCR-45065-12-JHP	63.00	45.00	65.00	60	16.00	RCMT 1204MO	TRC 4-0	SR TC-4	T-20/5	SR 16-212	HW 3.0	CU-R-JHP	T-8/5

• For user guide, see pages 68-74

For inserts, see pages: RCMT-14 (180)

ISOTURN**SRDCN**

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



Designation	H	B	LF	LH	WF	GAMP	GAMF	Insert
SRDCN 1616H-08	16.0	16.0	100.00	33.0	8.00	0	0	RCMT 0803MO
SRDCN 2020K-10	20.0	20.0	125.00	38.0	10.00	0	0	RCMT 10T3MO
SRDCN 2525M-12	25.0	25.0	150.00	50.0	12.50	0	0	RCMT 1204MO
SRDCN 3225P-12	32.0	25.0	170.00	50.0	12.50	0	0	RCMT 1204MO
SRDCN 3225P-16	32.0	25.0	170.00	50.0	12.50	0	0	RCMT 1606MO
SRDCN 3232P-20	32.0	32.0	170.00	50.0	16.00	0	0	RCMT 2006MO

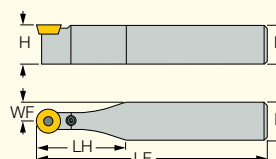
For inserts, see pages: RCGT-AS (192) • RCMT-14 (180) • RCMT-SR (180)

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
the RCMX Round Inserts

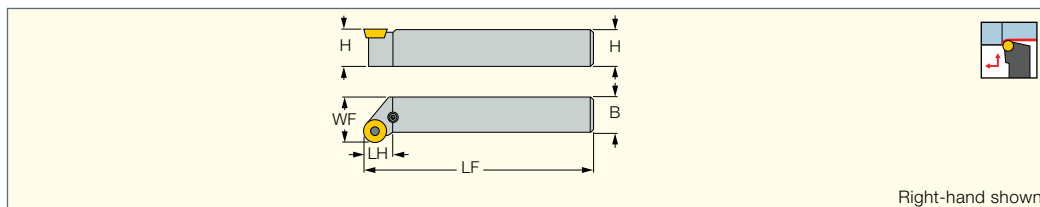


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
PRDCN 4040S-25	40.0	40.0	40.0	250.00	80.0	20.00	0	0	RCMX 250700	TRC 25	SP 66	HW 4.0	SR 10402289	LR 25C
PRDCN 5050U-32	50.0	50.0	50.0	350.00	90.0	25.00	0	0	RCMX 320900	TRC 32	SP 8	HW 5.0	SR 10402264	LR 32C

For inserts, see pages: RCMX-NR (181)

ISOTURN**PRGCR/L**

Lever Lock Tools Carrying
the RCMX Round Inserts



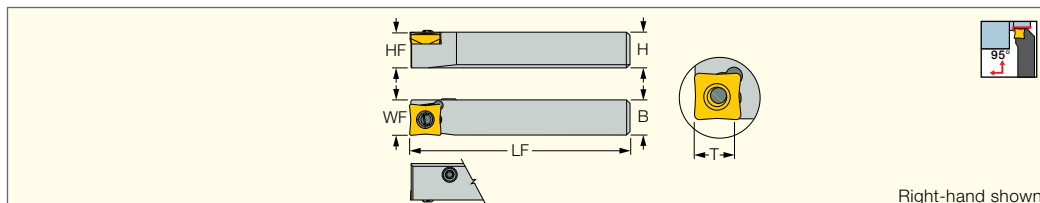
Right-hand shown

Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert					
PRGCR 4040S-25	40.0	40.0	40.0	250.00	30.0	50.00	0	0	RCMX 250700	TRC 25	SP 66	SR 10402289	LR 25C	HW 4.0

For inserts, see pages: RCMX-NR (181)

ISOTURN**PQLCR/L-S**

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



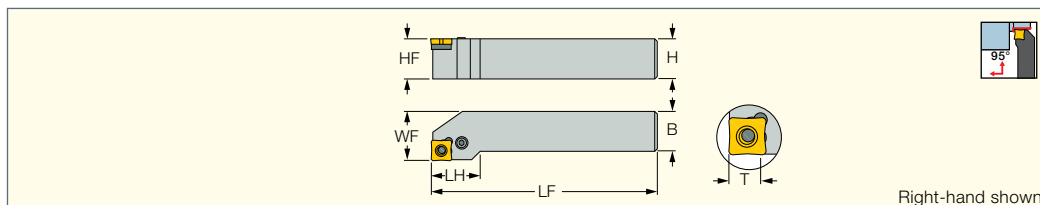
Right-hand shown

Designation	H	B	HF	LF	WF	T	GAMP	GAMF	Insert				
PQLCR/L 1212M-09S	12.0	12.0	12.0	150.00	12.00	8.5	0	0	QCMT 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

For inserts, see pages: QCMT-PF (181) • QCMT-SM (181)

ISOTURN**PQLCR/L**

Lever-Lock Tools Carrying the
80° Positive 4-Cornered Inserts



Right-hand shown

Designation	H	HF	B	LF	LH	WF	T	GAMP	GAMF	Insert
PQLCR/L 1616H-09	16.0	16.0	16.0	100.00	22.0	20.00	8.5	0	0	QCMT 09T3
PQLCR/L 2020K-09	20.0	20.0	20.0	125.00	25.0	25.00	8.5	0	0	QCMT 09T3
PQLCR/L 2525M-09	25.0	25.0	25.0	150.00	26.0	32.00	8.5	0	0	QCMT 09T3

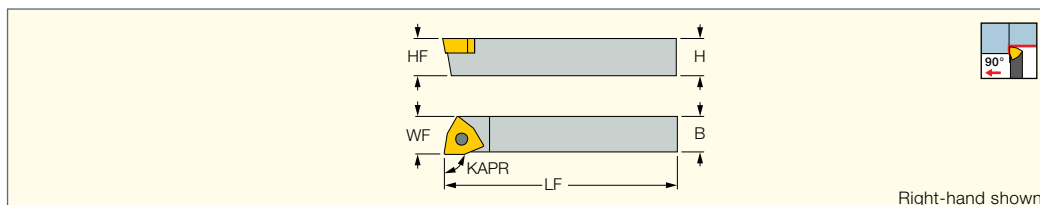
For inserts, see pages: QCMT-PF (181) • QCMT-SM (181)

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 the Trigon Inserts
for Swiss Automatic Machines



Right-hand shown

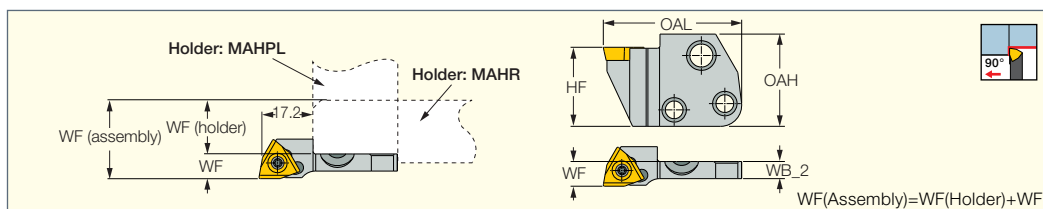
Designation	H	HF	B	LF	WF	KAPR	Insert			
SWAPR/L 0808-04	8.0	8.0	8.0	140.00	8.10	90.0	WPEB/X 04..	T-8/5		SR M3.0L
SWAPR 1010-04	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 04..	T-8/5		SR M3.0R
SWAPR/L 1010-05	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 05..	T-8/5		SR M3.5L
SWAPL 1212-05	12.0	12.0	12.0	150.00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

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

For inserts, see pages: WPEX (187)

ISOTURN**MODULARGRIP****SWAPR-PAD**

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



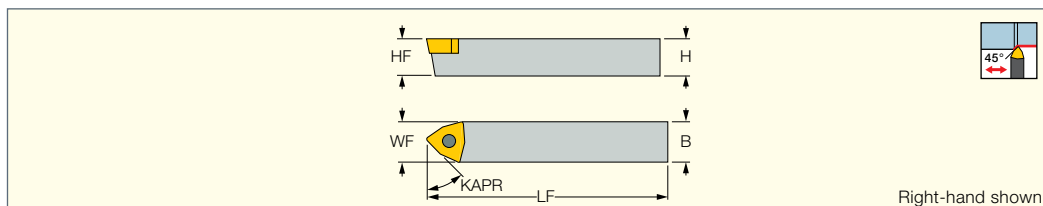
Designation	HF	OAH	OAL	WF	WB_2	GAMP	GAMF	Insert		
SWAPR-06-PAD	24.0	28.0	42.00	7.50	5.2	0	0	WPEX/B 0604	SR M3.5R	T-8/5

For inserts, see pages: WPEX (187)

For holders, see pages: C#-MAHD-JHP (583) • MAHR/L-JHP-MC (263) • MAHPR/L-JHP (264) • MAHR/L-JHP (263) • MAHR/L (262) • MAHPR/L (264) • C#-MAHD (592) • C#-MAHPD (593) • C#-MAHUR/L (592) • C#-MAHDR-45 (591) • C#-MAHDOR (592) • HSK A63WH-MAHUR/L (598) • HSK A63WH-MAHDR-45 (597) • HSK A63WH-MAHDOR (597) • IM-MAHD (599) • IM-MAHPD (599) • HMSN-New Britain (435) • DGHAL-DECO (435)

ISOTURN**SWDPR/L**

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



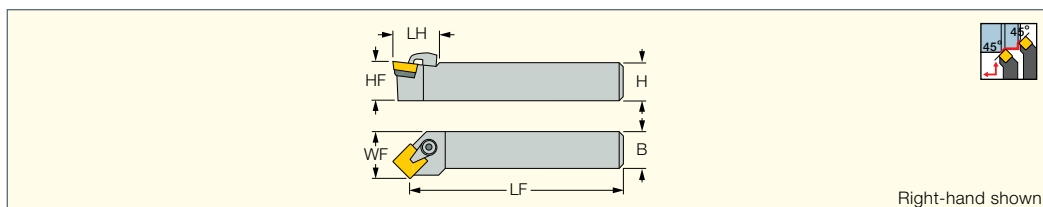
Designation	H	HF	B	LF	WF	KAPR	Insert		
SWDPR 1010-04	10.0	10.0	10.0	150.00	10.10	45.0	WPEB/X 04..	T-8/5	SR M3.0R
SWDPR/L 1212-05	12.0	12.0	12.0	150.00	12.10	45.0	WPEB/X 05..	T-8/5	SR M3.5L
SWDPR 1616-06	16.0	16.0	16.0	150.00	16.10	45.0	WPEB/X 06..	T-8/5	SR M3.5R

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

For inserts, see pages: WPEX (187)

ISOTURN**CSSPR/L**

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



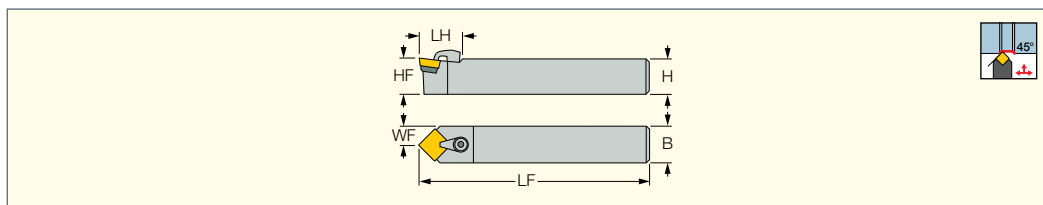
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert				
CSSPR 1212F-09	12.0	12.0	12.0	80.00	21.0	16.00	0	6	SPMR 0903			LC 15 SET 1	HW 2.5
CSSPR 1616H-12 (1)	16.0	16.0	16.0	100.00	26.0	20.00	0	6	SPMR 1203	ISQP 162	SP 16	LC 30 SET 2	HW 3.0
CSSPR 2020K-12 (1)	20.0	20.0	20.0	125.00	26.0	25.00	0	6	SPMR 1203	ISQP 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	0	6	SPMR 1203	ISQP 162	SP 16	LC 30 SET 1	HW 3.0

(1) Minimum cutting width

For inserts, see pages: SPMR (182)

ISOTURN**CSDPN**

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



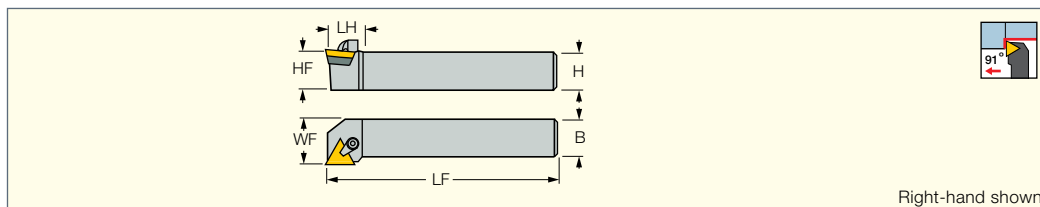
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert				
CSDPN 2020K-12	20.0	20.0	20.0	125.00	30.0	10.00	0	6	SPMR 1203	ISQP 162(a)	SP 16	LC 30 SET 1	HW 3.0
CSDPN 2525M-12	25.0	25.0	25.0	150.00	30.0	12.50	0	6	SPMR 1203	ISQP 162(a)	SP 16	LC 30 SET 1	HW 3.0

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

For inserts, see pages: SPMR (182)

CTGPR/L

Clamp Lock Tools Carrying the 11° Clearance Triangular Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert					
CTGPR/L 1212F-11	12.0	12.0	12.0	80.00	17.0	16.00	0	6	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	0	6	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	0	6	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	0	6	TPMR/TPGN 1603	ITBP 122	ITBP 123*	SP 16(a)	LC 30 SET 1	HW 3.0

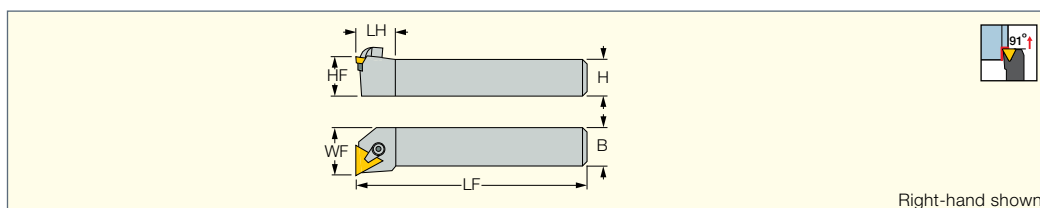
* Optional, should be ordered separately

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

For inserts, see pages: TPGN-Ceramic (199) • TPMR (182) • TPMR-FTF (183) • TPMR-PF (182)

CTFPR/L

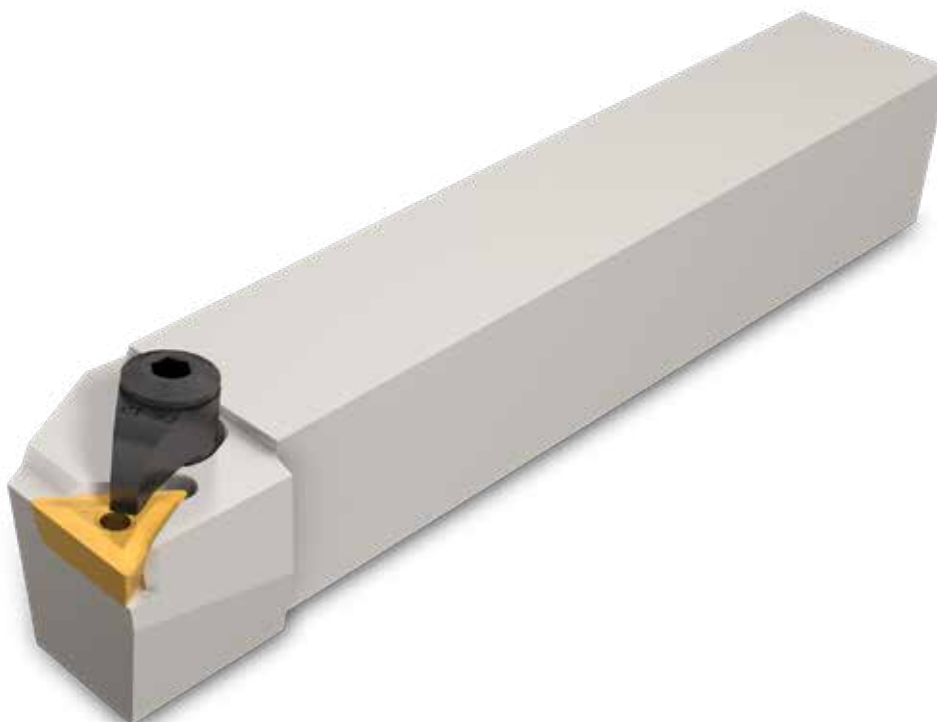
Clamp Lock Tools Carrying the 11° Clearance Triangular Inserts for Face Turning



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	6	TPMR/TPGN 1103				LC 15 SET 1	HW 2.5
CTFPR/L 1616H-11	16.0	16.0	16.0	100.00	16.0	20.00	0	6	TPMR/TPGN 1103				LC 15 SET 1	HW 2.5
CTFPR 2020K-16	20.0	20.0	20.0	125.00	22.0	25.00	0	6	TPMR/TPGN 1603	ITBP 122	HW 3.0	SP 16	LC 30 SET 1	ITBP 123*
CTFPR/L 2525M-16	25.0	25.0	25.0	150.00	22.0	32.00	0	6	TPMR/TPGN 1603	ITBP 122	HW 3.0	SP 16	LC 30 SET 1	

* Optional, should be ordered separately

For inserts, see pages: TPGN-Ceramic (199) • TPMR (182) • TPMR-FTF (183) • TPMR-PF (182)



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.

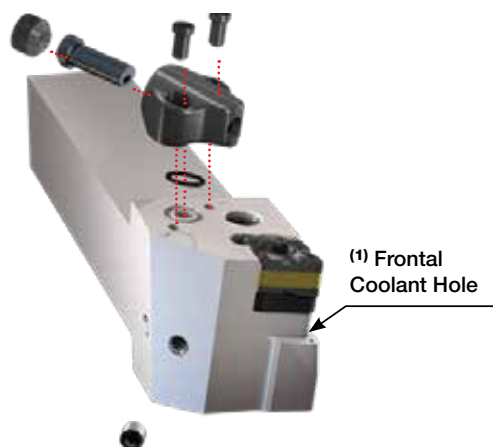
Chips & Pressure

- 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.



Fixed Cooling Holes



(1) Frontal Coolant Hole

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

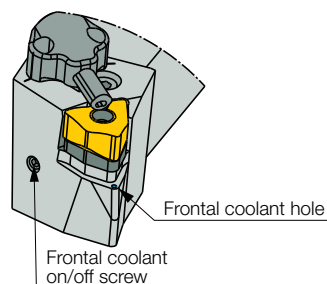
The tools with LNMX 1506... inserts feature fixed cooling channels.

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.



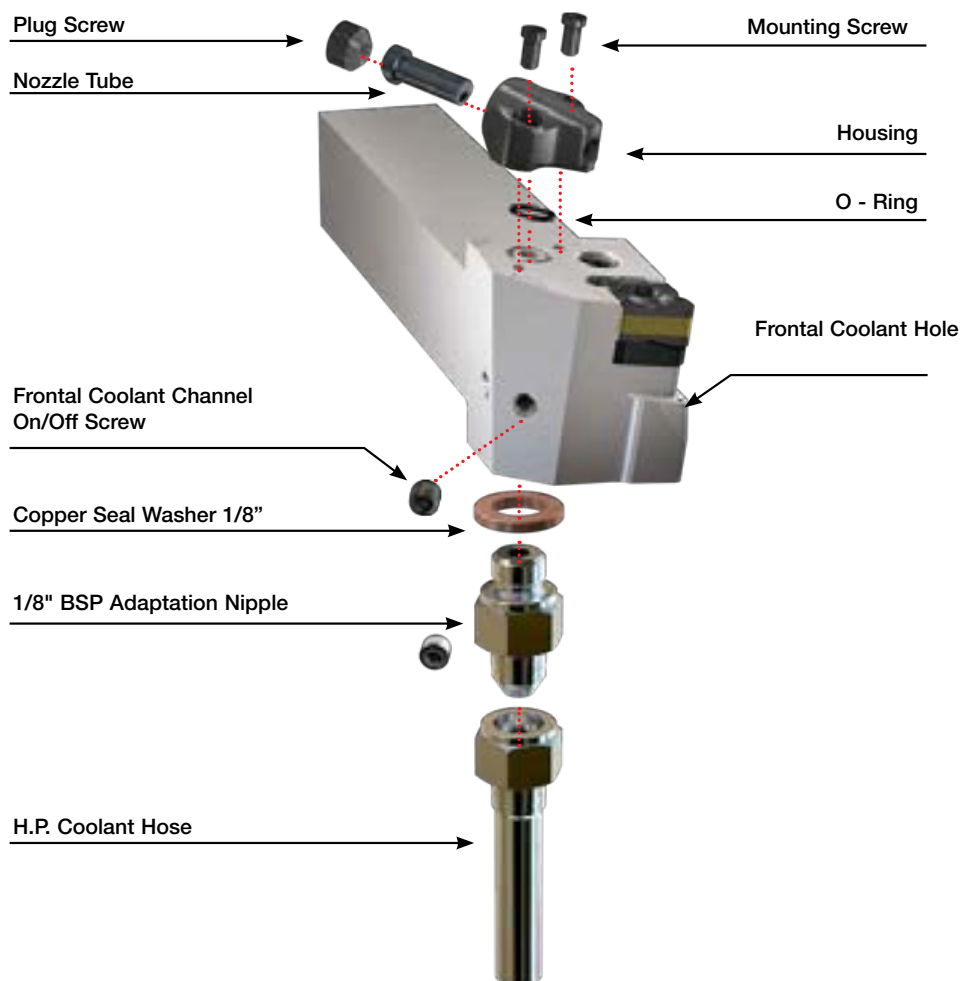
**Frontal
Coolant Hole**

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



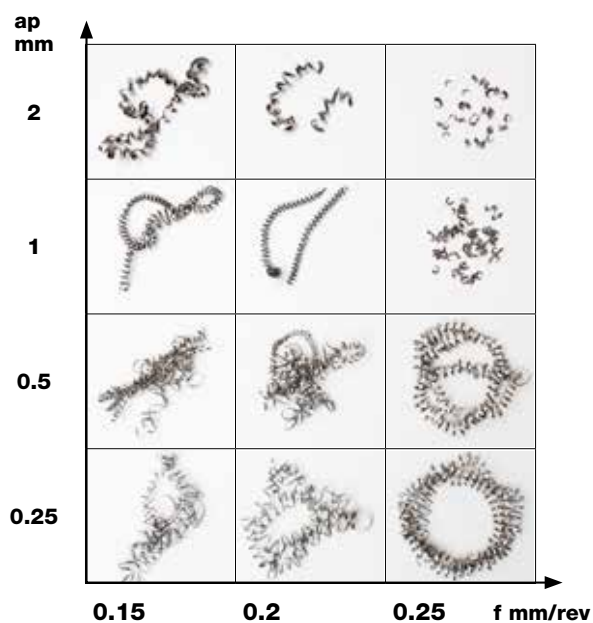
Frontal coolant hole

Frontal coolant
on/off screw

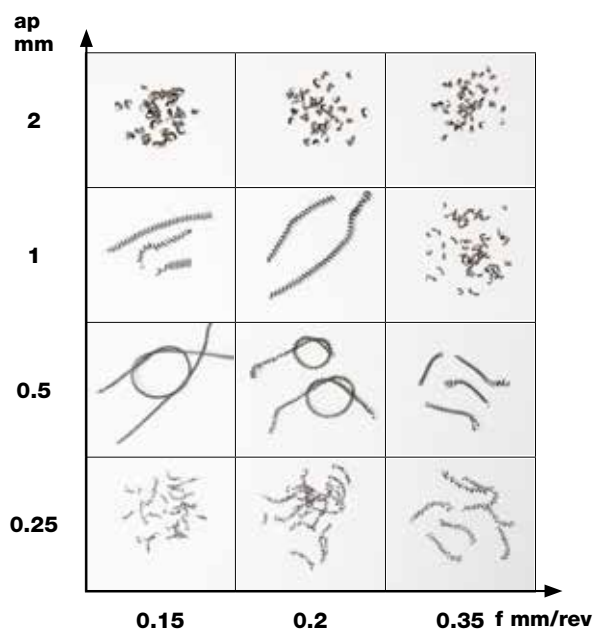


Inconel 718 - Chip Control with
CNMX 120708-M4MW IC807 $V_c = 70$ m/min

Normal Pressure

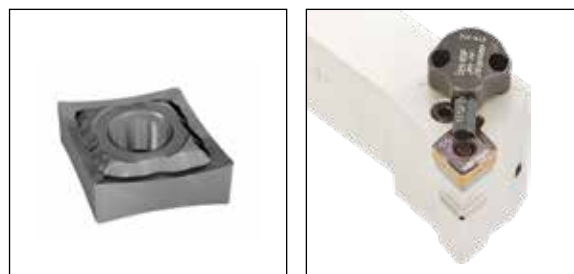


High Pressure 80 bar

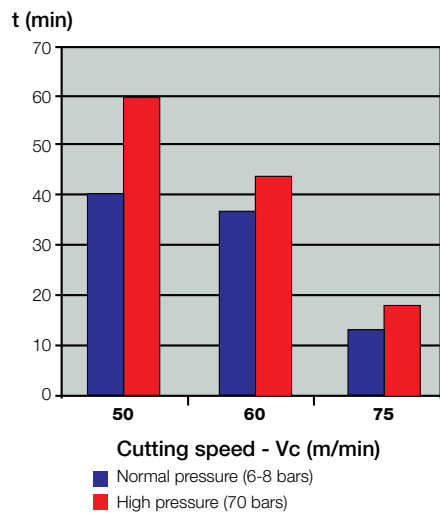


Test Report

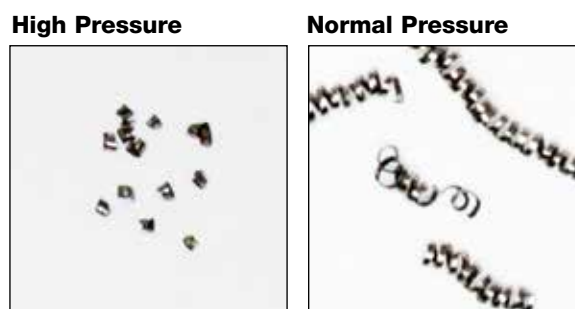
Material: Titanium (Ti6Al4V)
Operation: Turning
Tool: PCLNL 2525M-12-JHP
Insert: CNMG 120412-PP IC20
 a_p : 2.5 mm
 f : 0.3 mm/rev



Pressure Influence on Tool Life



Pressure Influence on Chip Control



Test Report

Material: Stainless steel 316L

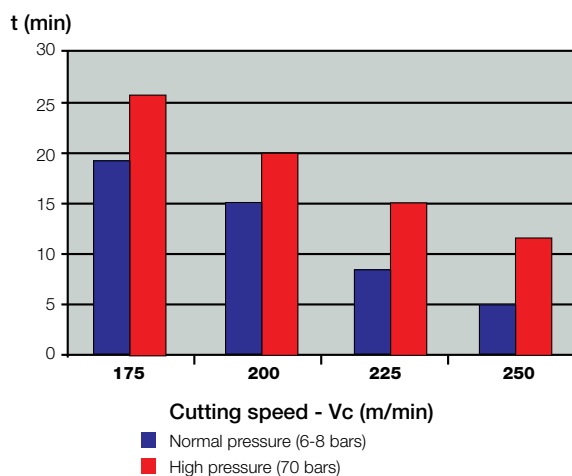
Operation: Turning

Tool: PCLNL 2525M-12-JHP

Insert: CNMG 120408-TF IC908

ap: 2.5 mm

f: 0.3 mm/rev

**Pressure Influence on Tool Life****Pressure Influence on Chip Control****High Pressure****Normal Pressure****Test Report**

Material: Inconel 718 (46 HRC)

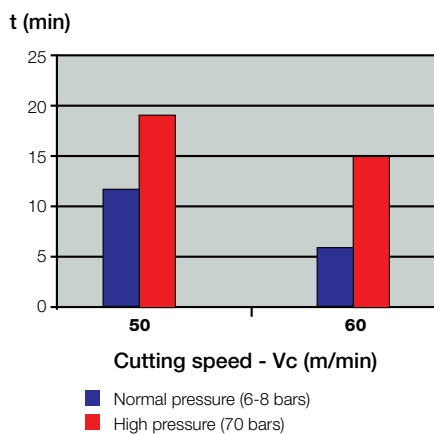
Operation: Turning

Tool: PCLNL 2525M-12-JHP

Insert: CNMG 120408-TF IC808

ap: 2.5 mm

f: 0.3 mm/rev

**Pressure Influence on Tool Life****Pressure Influence on Chip Control****High Pressure****Normal Pressure**

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 coolant leakage

Important

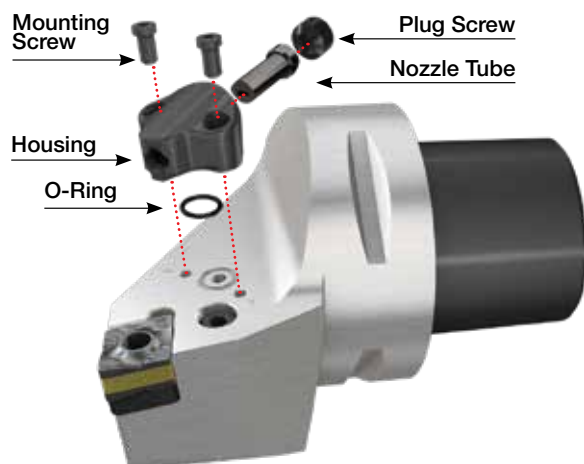
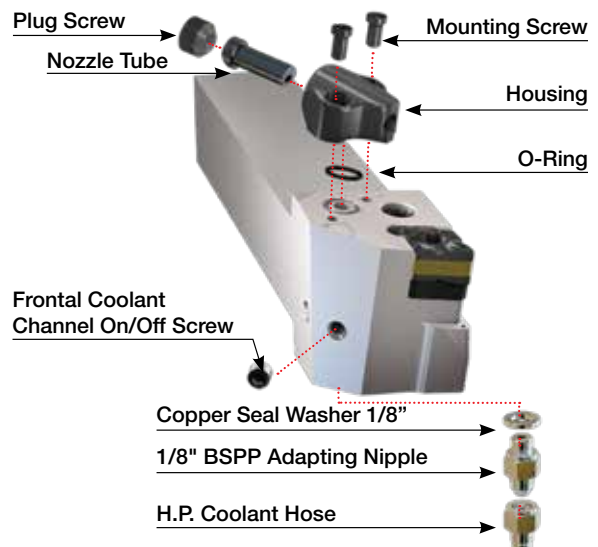
Always pay attention not to exceed the maximum safe working pressure of 300 bar.



Maximum Pressure 300 Bar



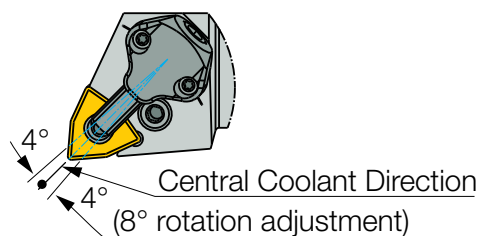
Maximum Pressure 300 Bar



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.

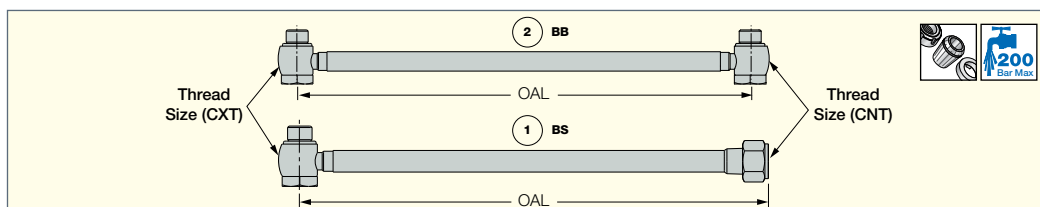
After indexing the cutting edge of the insert, starting the coolant will extract the tube automatically to its operating position.

Insert Indexing Procedure

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

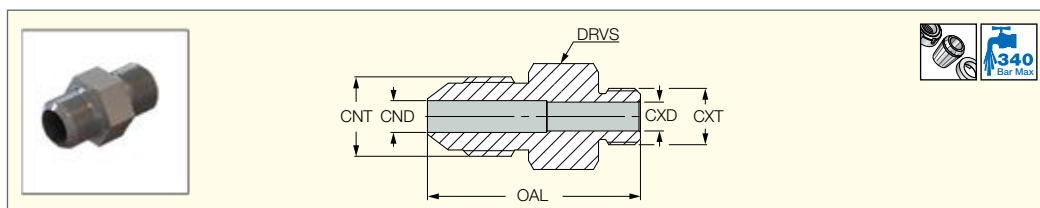
Designation		
JHP HOSE 5/16-7/16-200BS	JHP BANJO BOLT 5/16" UNF	JHP COPPER SEAL 5/16"
JHP HOSE G1/8-G1/8-200BB	JHP BANJO BOLT G1/8**	JHP COPPER SEAL 1/8**
JHP HOSE G1/8-G1/8-250BB	JHP BANJO BOLT G1/8**	JHP COPPER SEAL 1/8**

* Optional, should be ordered separately

Accessories

JHP NIPPLE

High Pressure Adaptation Nipple



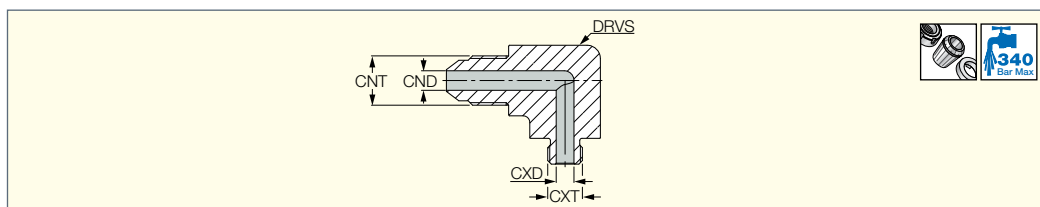
Designation	CXT	CNT	OAL	CND	CXD	DRVS ⁽¹⁾
JHP NIPPLE G1/8"-7/16"UNF	1/8"-28 BSPP	7/16"-20 UNF	28.75	4.00	4.00	14.3
JHP NIPPLE 1/8NPT-7/16UNF	1/8"-27 NPT	7/16"-20 UNF	31.00	4.80	4.40	12.7
JHP NIPPLE 1/4NPT-7/16UNF	1/4"-18 NPT	7/16"-20 UNF	36.00	4.40	4.40	14.3
JHP NIPPL 5/16UNF-7/16UNF	5/16"-24 UNF	7/16"-20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

⁽¹⁾ Key flat size

Accessories

JHP ELBOW

High Pressure Adaptation Elbow



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

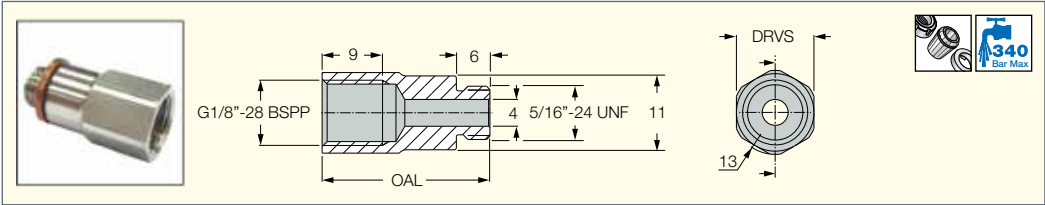
⁽¹⁾ Key flat size

Spare Parts

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

Accessories

JHP CONNECTOR
High Pressure Connector

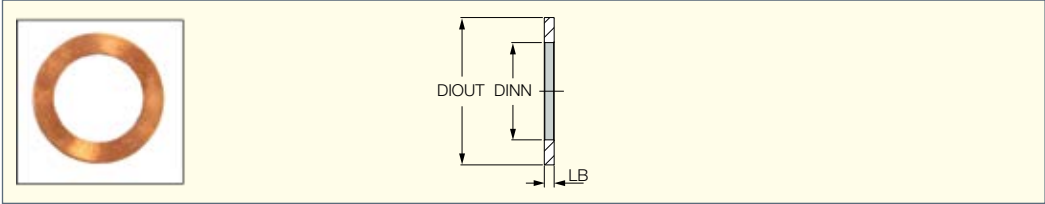


Designation	OAL	DRVS ⁽¹⁾
JHP CONECTOR 5/16"-G1/8"	25.00	12.0

⁽¹⁾ Key flat 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

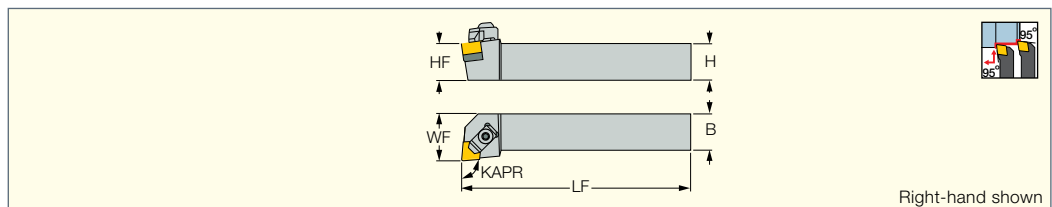


TOOLS FOR CERAMIC INSERTS



ISOTURN**CCLNR/L**

Clamp Lock Tools Carrying
the Ceramic Negative
80° Rhombic Inserts



Designation	H	HF	B	LF	WF	KAPR	GAMP	GAMF	Insert
CCLNR 2020K-12CEA	20.0	20.0	20.0	125.00	25.00	95.0	-4	-6	CNGN 1204
CCLNR/L 2525M-12CEA	25.0	25.0	25.0	150.00	32.00	95.0	-4	-6	CNGN 1204

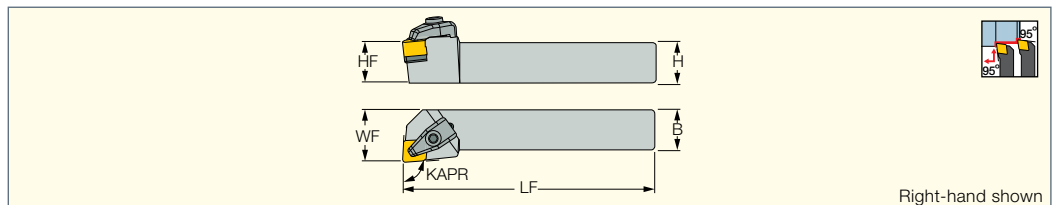
For inserts, see pages: CNGN-Ceramic (195)

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
the Negative CNGX 80° Rhombic
Ceramic Dimpled Inserts

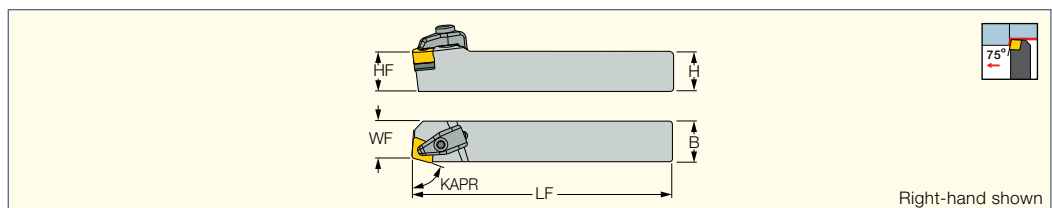


Designation	H	HF	B	LF	WF	KAPR	Insert						
TCLNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	95.0	CNGX 1207...T	S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: CNGX-Ceramic (196)

ISOTURN**TCBNR/L-CH**

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

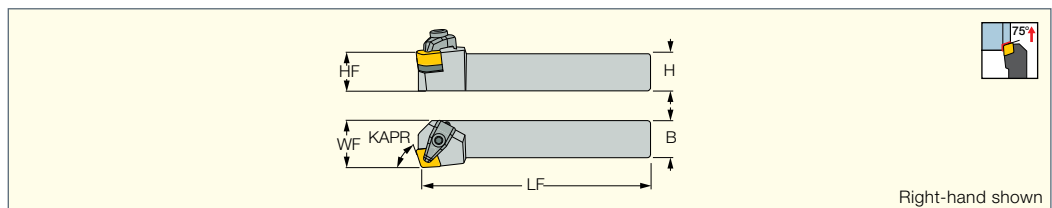


Designation	H	HF	B	LF	WF	KAPR	Insert						
TCBNR/L 2525M-12CH	25.0	25.0	25.0	150.00	22.00	75.0	CNGX 1207...T	S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: CNGX-Ceramic (196)

ISOTURN**TCKNR/L-CH**

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

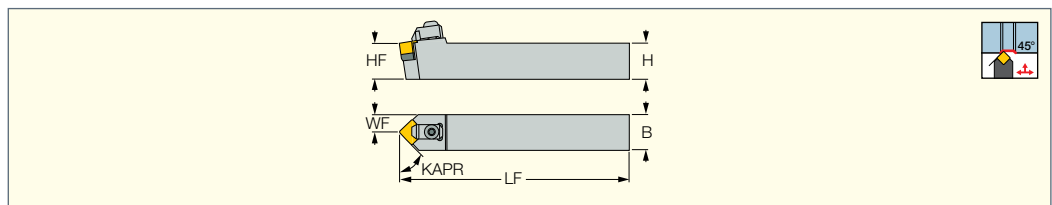


Designation	H	HF	B	LF	WF	KAPR	Insert						
TCKNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	75.0	CNGX 1207...T	S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: CNGX-Ceramic (196)

ISOTURN**CSDNN-CE/CEA**

45° Lead Angle Tools Carrying
the Square Ceramic Inserts



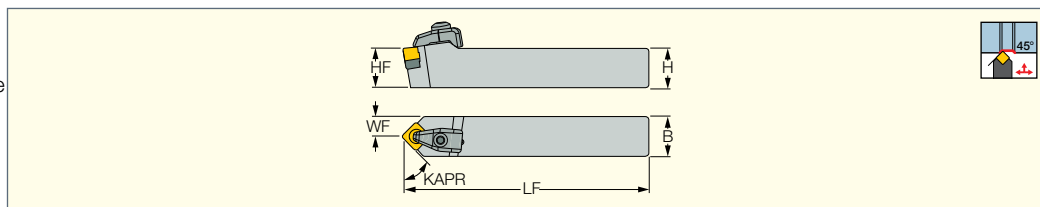
Designation	H	HF	B	LF	WF	KAPR	Insert
CSDNN 2525M-12CEA	25.0	25.0	25.0	150.00	12.50	45.0	SNGN 1204

Spare Parts

Designation						
CSDNN 2525M-12CEA	S 40 (SEAT)	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0	HW 3.0

ISOTURN**TSDNN-CH**

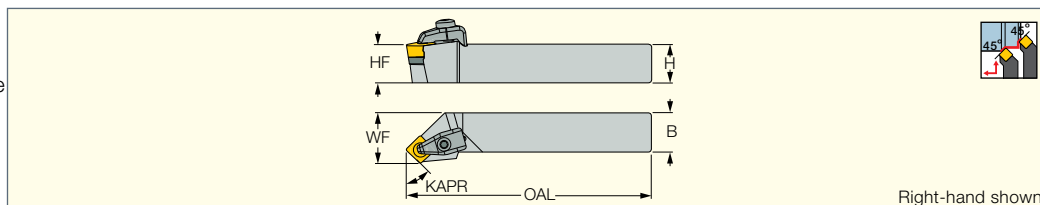
45° Lead Angle Tools Carrying the Square Ceramic Dimpled Inserts



Designation	H	HF	B	LF	WF	KAPR						
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

ISOTURN**TSSNR/L-CH**

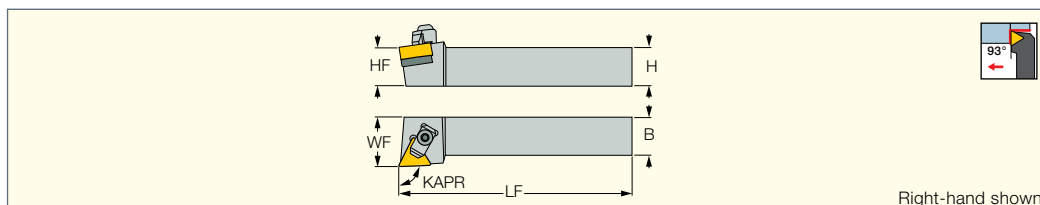
45° Lead Angle Tools Carrying the Square Ceramic Dimpled Inserts for Longitudinal and Face Turning



Designation	H	HF	B	OAL	WF	KAPR	Insert						
TSSNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	45.0	SNGX 1207..T	S 40 (SEAT)	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

ISOTURN**CTJNR/L**

93° Lead Angle Tools Carrying the Triangular Ceramic Inserts for Longitudinal Turning



Designation	H	HF	B	LF	WF	KAPR	GAMP	GAMF	Insert
CTJNR 2525M-16CEA	25.0	25.0	25.0	150.00	32.00	93.0	-4	-4	TNGN 1604

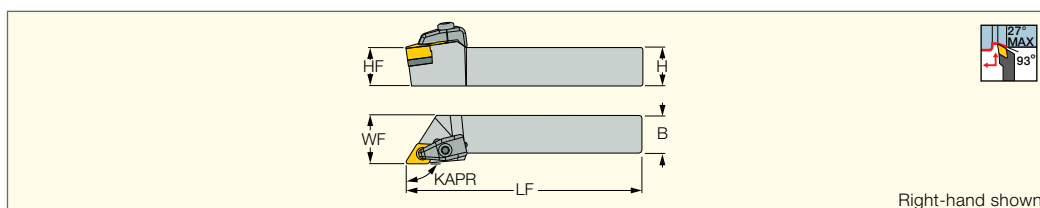
For inserts, see pages: TNGN-Ceramic (198)

Spare Parts

Designation					
CTJNR/L	S 3	HW 4.0	BCL 6 CLAMP	SR M6X1X25ISO7380	SR M4X8 ISO7380 SS

ISOTURN**TDJNR/L-CH**

93° Lead Angle Tools Carrying the 55° Rhombic Dimpled Ceramic Inserts

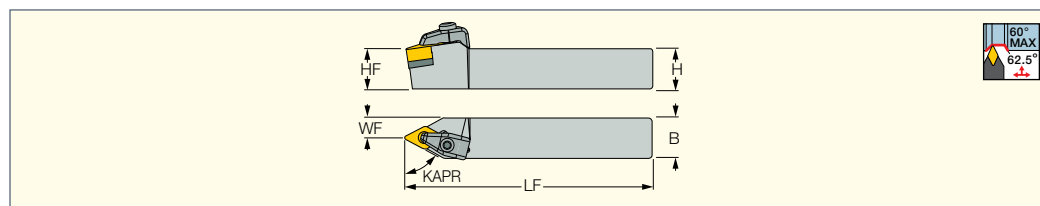


Designation	H	HF	B	LF	WF	KAPR	Insert					
TDJNR/L 2525M-15CH	25.0	25.0	25.0	150.00	32.00	93.0	DNGX 1507..T	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: DNGX-Ceramic (198)

ISOTURN**TDNNN-CH**

62.5° Lead Angle Tools Carrying the 55° Rhombic Dimpled Ceramic Inserts

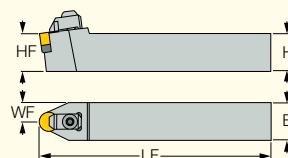


Designation	H	HF	B	LF	WF	KAPR	Insert					
TDNNN 2525M-15CH	25.0	25.0	25.0	150.00	12.50	62.5	DNGX 1507..T	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: DNGX-Ceramic (198)

ISOTURN**CRDNN**

Clamp Lock Neutral Tools
Carrying Ceramic Round
Negative Inserts

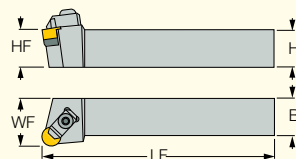


Designation	H	HF	B	LF	WF	GAMP	GAMF	Insert					
CRDNN 2525M-12CE	25.0	25.0	25.0	150.00	12.50	-8.5	0	RNGN 120700	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0
CRDNN 2525M-12CEA	25.0	25.0	25.0	150.00	12.50	-8.5	0	RNGN 120400	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0
CRDNN 3225P-12CE	32.0	32.0	25.0	170.00	12.50	-8.5	0	RNGN 120700	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0

For inserts, see pages: RNGN-Ceramic (200)

ISOTURN**CRGNR/L**

Clamp Lock Tools Carrying the
Ceramic Round Negative Inserts



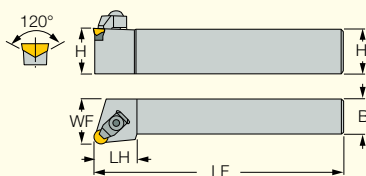
Right-hand shown

Designation	H	HF	B	LF	WF	GAMP	GAMF	Insert					
CRGNR/L 2525M-12CE	25.0	25.0	25.0	150.00	32.00	-6	-6	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	-6	-6	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	-6	-6	RNGN 120700	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25ISO7380	HW 4.0

For inserts, see pages: RNGN-Ceramic (200)

ISOTURN**CRGCR/L**

Clamp Lock Tools Carrying
Ceramic Round 7° Positive Inserts



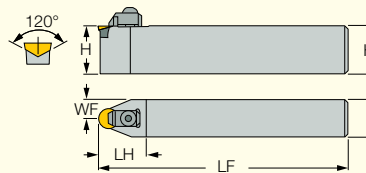
Right-hand shown

Designation	H	B	LF	WF	LH	GAMP	GAMF	Insert				
CRGCR/L 3225P-09-120	32.0	25.0	170.00	32.00	30.0	0	0	RCGX 090700	SR M2.5X10 ISO7380*	BCL 6-20A*	CERS 09*	HW 4.0
CRGCR/L 3225P-12-120	32.0	25.0	170.00	32.00	32.0	0	0	RCGX 120700	SR M2.5X10 ISO7380*	BCL 6 CLAMP*		HW 4.0

* Optional, should be ordered separately

ISOTURN**CRDCN**

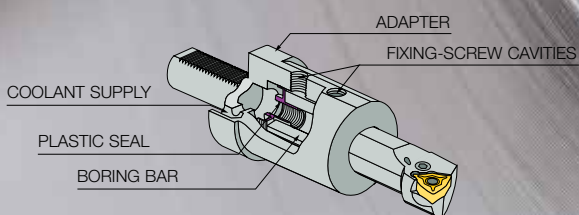
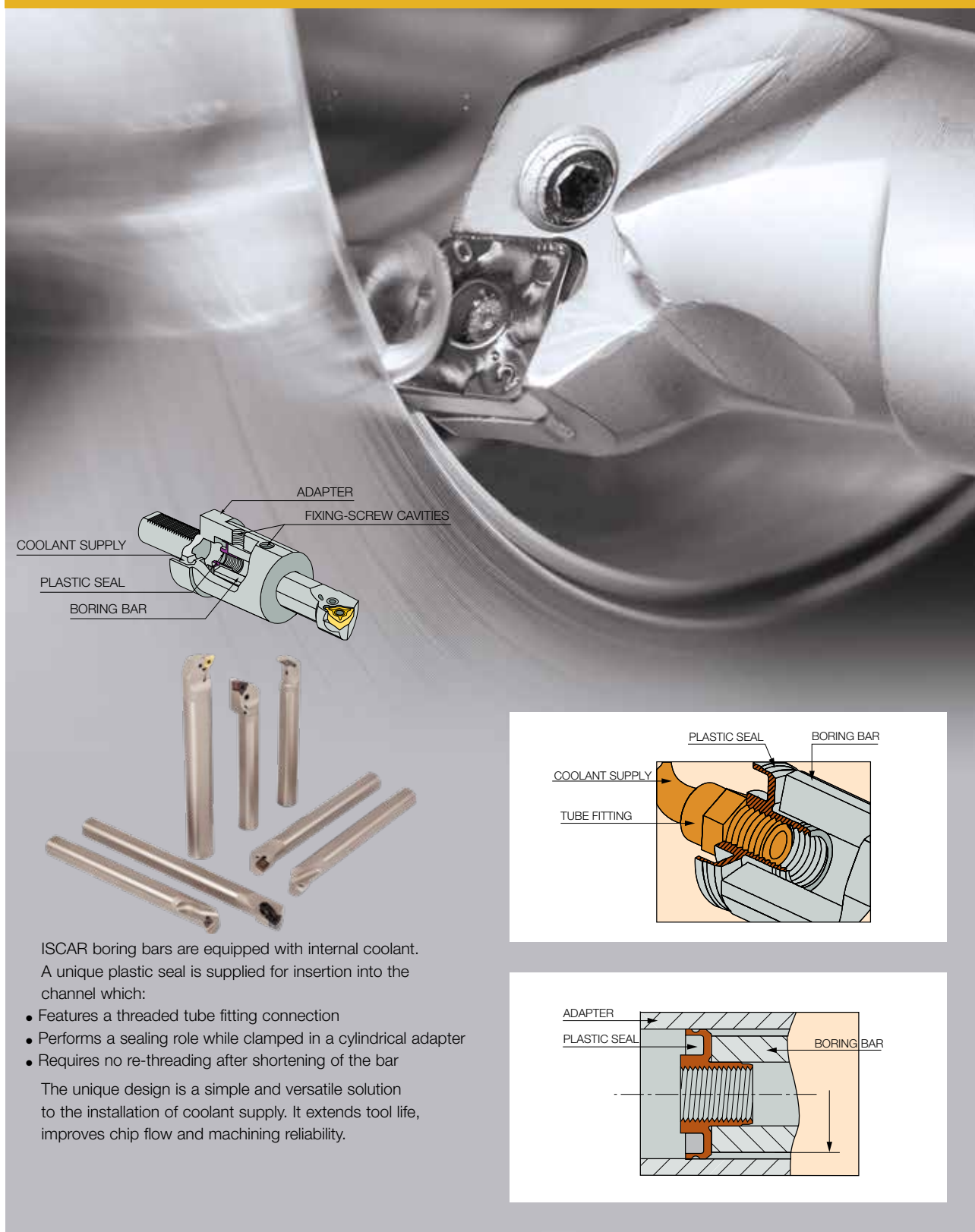
Clamp Lock Neutral Tools
Carrying Ceramic Round
7° Positive Inserts



Designation	H	B	LF	WF	LH	GAMP	GAMF	Insert				
CRDCN 3225P-09-120	32.0	170.0	25.00	30.00	12.5	0	0	RCGX 090700	SR M2.5X10 ISO7380*	HW 4.0	BCL 6-20A*	CERS 09*
CRDCN 3225P-12-120	32.0	170.0	25.00	32.00	12.5	0	0	RCGX 120700	SR M2.5X10 ISO7380*	HW 4.0	BCL 6 CLAMP*	

* Optional, should be ordered separately

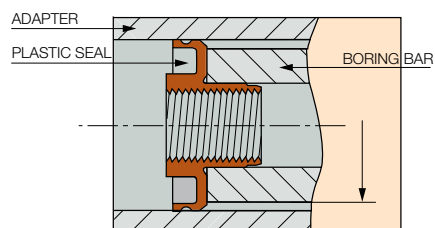
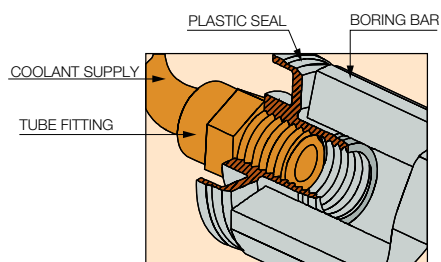
ISOTURN BORING BARS



ISCAR boring bars are equipped with internal coolant. A unique plastic seal is supplied for insertion into the channel which:

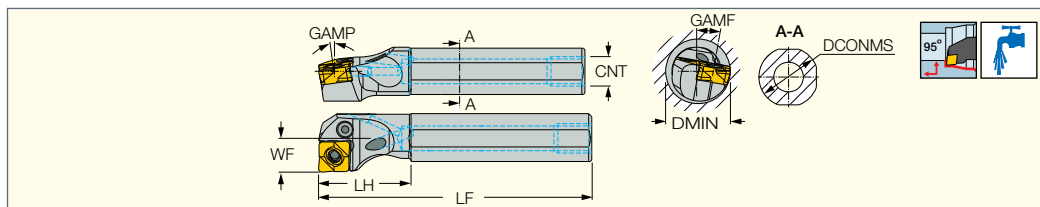
- Features a threaded tube fitting connection
- Performs a sealing role while clamped in a cylindrical adapter
- Requires no re-threading after shortening of the bar

The unique design is a simple and versatile solution to the installation of coolant supply. It extends tool life, improves chip flow and machining reliability.



LOGIC4TURN
 POSITIVE DOUBLE SIDED

A-PCLXR/L

 Lever Lock Boring Bars
 Carrying the 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	6.0	10.0	25.00	UNC 3/8"-24	CXMG 09..
A25R PCLXR/L-09X	25.00	200.00	40.0	17.00	6.0	8.0	32.00	UNC 1/2"-20	CXMG 09..

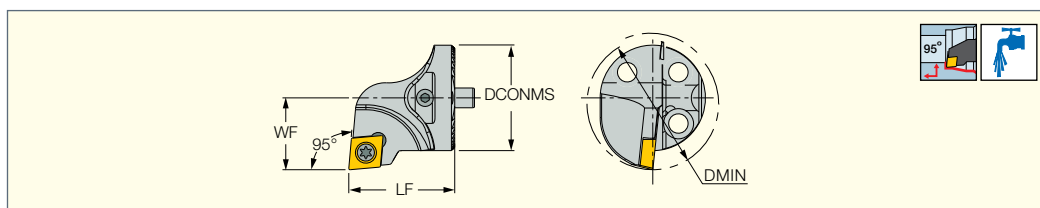
For inserts, see pages: CXMG-F3M (162) • CXMG-F3P (161) • CXMG-M3M (162) • CXMG-M3P (162)

Spare Parts

Designation					
A16Q PCLXR/L-09X	LR 3X SET	PL 16	SR M6XL11.5V	T-8/5	HW 2.0
A20R PCLXR/L-09X	LR 3X SET	PL 20	SR M6XL11.5V	T-8/5	
A25R PCLXR/L-09X	LR 3X SET	PL 25	SR M6XL11.5V	T-8/5	

ISOTURN
WHISPERLINE
 ANTI-VIBRATION

AVC-SCLCR/L

 Interchangeable Boring
 Heads Carrying 80° Rhombic
 Inserts with 7° Clearance


Designation	WF	DCONMS	DMIN	LF				
AVC-D16-SCLCR/L-06	11.00	16.00	20.00	20.00	SR 14-548*	T-7/5*		
AVC-D20-SCLCR/L-09	13.00	20.00	25.00	20.00	SR 16-236*	T-15/5*		
AVC-D25-SCLCR/L-09	17.00	25.00	32.00	22.00	SR 16-236*	T-15/5*		
AVC-D32-SCLCR/L-09	22.00	32.00	40.00	32.00	SR 16-236	T-15/5*		
AVC-D40-SCLCR/L-12T	27.00	40.00	50.00	38.00	SR 16-212*	T-20/5*	SR TC-4*	TCC 4-2*

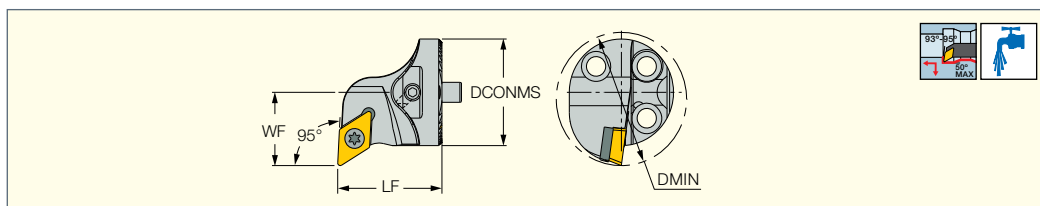
* Optional, should be ordered separately

For inserts, see pages: CCET-WF (167) • CCGT-AF (191) • CCGT-AS (190) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201) • CCMT-14 (166) • CCMT-M3M (164) • CCMT-M3P (164) • CCMT-PF (166) • CCMT-WG (167) • CCMT/CCGT (166) • CCMT/CCGT-SM (165)

For holders, see pages: AV-D (84)

ISOTURN
WHISPERLINE
 ANTI-VIBRATION

AVC-SDUCR/L

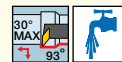
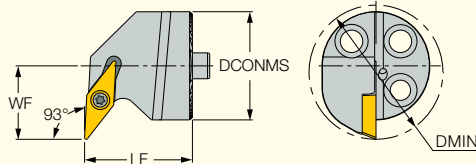
 Interchangeable Boring
 Heads Carrying 55° Rhombic
 Inserts with 7° Clearance


Designation	WF	DCONMS	DMIN	LF				
AVC-D16-SDUCR/L-07	11.00	16.00	20.00	20.00	SR 14-548*	T-7/5*		
AVC-D20-SDUCR/L-11	13.00	20.00	25.00	20.00	SR 16-236 P*	T-15/5*		
AVC-D25-SDUCR/L-11	17.00	25.00	32.00	20.00	SR 16-236 P*	T-15/5*		
AVC-D32-SDUCR/L-11T	22.00	32.00	40.00	32.00	SR 16-236 P*	T-15/5*	SR TC-3P*	TDC 3-1P*
AVC-D40-SDUCR/L-11T	27.00	40.00	50.00	38.00	SR 16-236 P	T-15/5*	SR TC-3P*	TDC 3-1P*

* Optional, should be ordered separately

For inserts, see pages: DCET-WF (173) • DCGT-AF (191) • DCGT-AS (191) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201) • DCMT-14 (173) • DCMT-CERMET (171) • DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT (173) • DCMT/DCGT-SM (172)

For holders, see pages: AV-D (84)

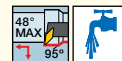
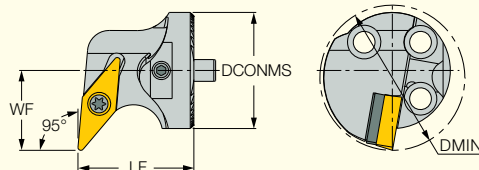
ISOTURN**WHISPERLINE**
ANTI-VIBRATION**AVC-SVUCR/L**Interchangeable Boring
Heads for 35° Rhombic
Inserts with 7° Clearance

Designation	WF	DCONMS	DMIN	LF		
AVC-D20-SVUCR/L-11	16.00	20.00	27.00	20.00	SR 14-560*	T-8/5*
AVC-D25-SVUCR/L-11	17.00	25.00	31.00	25.00	SR 14-560*	T-8/5*

* Optional, should be ordered separately

For inserts, see pages: VCGT-AS (190) • VCMT-F3M (174) • VCMT-SM (176)

For holders, see pages: AV-D (84)

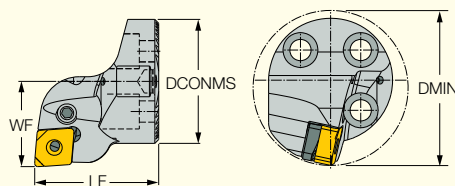
ISOTURN**WHISPERLINE**
ANTI-VIBRATION**AVC-SVLCR/L**Interchangeable Boring
Heads Carrying 35° Rhombic
Inserts with 7° Clearance

Designation	WF	DCONMS	DMIN	LF				
AVC-D32-SVLCR/L-16T	22.00	32.00	40.00	32.00	SR 16-236 P*	T-15/5*	SR TC-3P*	TVC 3-1P*
AVC-D40-SVLCR/L-16T	27.00	40.00	50.00	32.00	SR 16-236 P*	T-15/5*	SR TC-3P*	TVC 3-1P*

* Optional, should be ordered separately

For inserts, see pages: VCGT (PCD) (202) • VCGT-AS (190) • VCGT-DW (PCD) (202) • VCGW-2 (CBN) (211) • VCMT (CBN) (202) • VCMT-14 (176) • VCMT-F3M (174) • VCMT-F3P (174) • VCMT-FPC-CERMET (175) • VCMT-M3M (174) • VCMT-SM (176) • VCMW (176)

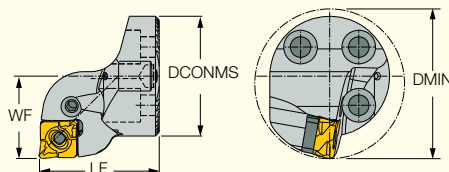
For holders, see pages: AV-D (84)

FLASHTURN
ECO LINE**WHISPERLINE**
ANTI-VIBRATION**AVC-PCLNR/L**Interchangeable Boring Heads
for 80° Rhombic Inserts

Designation	WF	DCONMS	DMIN	LF						
AVC-D20-PCLNR/L-09	13.00	20.00	25.00	20.00	TCN 323	TCX 3	LR 3S	SR 117-2009	HW 2.0	
AVC-D25-PCLNR/L-09	17.00	25.00	32.00	25.00	TCN 323	TCX 3	LR 3	SR 117-2014	HW 2.5	SP 3
AVC-D32-PCLNR/L-09	22.00	32.00	40.00	32.00	TCN 323	TCX 3	LR 3	SR 117-2014	HW 2.5	SP 3

For inserts, see pages: CNMG-F3S (128) • CNGG-F3N (188) • CNMG-F3M (127) • CNMG-F3P (124) • CNMG-M3M (127) • CNMG-M3P (124) • CNMG/CNGG-TF (131)

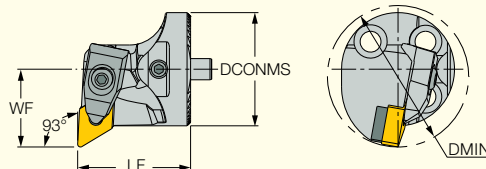
For holders, see pages: AV-D (84)

LOGIQ4TURN
POSITIVE DOUBLE SIDED**WHISPERLINE**
ANTI-VIBRATION**AVC-PCLXR/L**Interchangeable Boring Heads
for 80° Rhombic Inserts

Designation	WF	DCONMS	DMIN	LF					
AVC-D20-PCLXR/L-09X	13.00	20.00	25.00	20.00	TSN 323	LR 3W	SR 117-2014	HW 2.5	SP 3
AVC-D25-PCLXR/L-09X	17.00	25.00	32.00	25.00	TSN 323	LR 3W	SR 117-2014	HW 2.5	SP 3
AVC-D32-PCLXR/L-09X	22.00	32.00	40.00	32.00	TSN 323	LR 3W	SR 117-2014	HW 2.5	SP 3
AVC-D40-PCLXR/L-12X	27.00	40.00	50.00	40.00	TCNX 423	LR 4X	SR LCS 5	HW 3.0	SP 4

For inserts, see pages: CXMG-F3M (162) • CXMG-F3P (161) • CXMG-M3M (162) • CXMG-M3P (162)

For holders, see pages: AV-D (84)

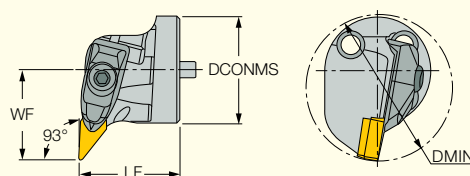
ISOTURN**WHISPERLINE**
ANTI-VIBRATION**AVC-DDUNR/L**Interchangeable Boring Heads
for 55° Rhombic Inserts

Designation	WF	DCONMS	DMIN	LF							
AVC-D32-DDUNR/L-11T	22.00	32.00	40.00	32.00	RDT 3-2°	SR RC3*	SR 400851*	HW 2.5°	T-15/5°	LCGR-3°	KSP 3°
AVC-D40-DDUNR/L-15T	27.00	40.00	50.00	32.00							

* Optional, should be ordered separately

For inserts, see pages: DNGA-4 (CBN) (208) • DNGA-Ceramic (197) • DNMA (140) • DNMA (CBN) (207) • DNMG-F3M (136) • DNMG-F3P (135) • DNMG-F3S (136) • DNMG-GN (140) • DNMG-M3M (136) • DNMG-M3P (135) • DNMG-NF (138) • DNMG-NR (140) • DNMG-PF (138) • DNMG-VL (139) • DNMG-WG (138) • DNMG/DNGG-PP (139) • DNMG/DNGG-SF (137) • DNMG/DNGG-TF (139) • DNMM-NM (141) • DNMM-R3P (141) • DNMS-12 (192)

For holders, see pages: AV-D (84)

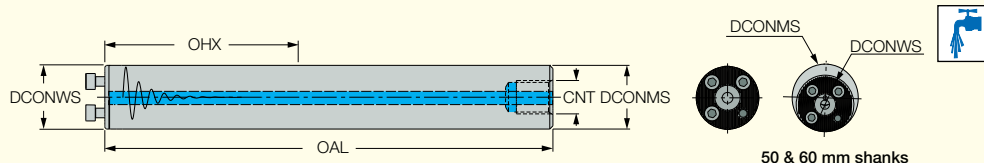
ISOTURN**WHISPERLINE**
ANTI-VIBRATION**AVC-DVUNR/L**Interchangeable Boring Heads
for 35° Rhombic Inserts

Designation	WF	DCONMS	DMIN	LF							
AVC-D40-DVUNR/L-16T	34.00	40.00	52.00	38.00	DLM 3V	SR 10402267	HW 4.0	KSP 5	ASV322 D30	T-15/5	SR 350801

* Optional, should be ordered separately

For inserts, see pages: VNMG-F3M (143) • VNMG-F3P (142) • VNMG-M3M (143) • VNMG-TF (145) • VNMG/VNMG-NF (144)

For holders, see pages: AV-D (84)

ISOTURN**WHISPERLINE**
ANTI-VIBRATION**AV-D**Anti-Vibration Bars with
Through Coolant for
Interchangeable Turning Heads

50 & 60 mm shanks

Designation	DCONMS	DCONWS	OAL	OHX ⁽¹⁾	CNT	BMC ⁽²⁾
AV-D16-7D-C	16.00	16.00	156.00	92.0	G1/8	S
AV-D16-10D-E	16.00	16.00	204.00	140.0	-	H
AV-D20-7D-C	20.00	20.00	200.00	120.0	G1/4	S
AV-D20-10D-E	20.00	20.00	260.30	180.0	-	H
AV-D25-7D-C	25.00	25.00	257.50	155.0	G1/4	S
AV-D25-10D-C	25.00	25.00	332.50	230.0	G1/4	S
AV-D32-7D-C	32.00	32.00	323.00	192.0	G3/8	S
AV-D32-10D-C	32.00	32.00	419.00	288.0	G3/8	S
AV-D40-7D-C	40.00	40.00	411.00	251.0	G1/2	S
AV-D40-10D-C	40.00	40.00	531.00	368.0	G1/2	S
AV-D50-7D-C	50.00	40.00	523.00	318.0	G1/2	S
AV-D50-10D-C	50.00	40.00	673.00	468.0	G1/2	S
AV-D60-7D-C	60.00	40.00	633.00	388.0	G3/4	S
AV-D60-10D-C	60.00	40.00	813.00	568.0	G3/4	S

• The bars can be shortened. For details, see table below

⁽¹⁾ Maximum overhang⁽²⁾ S: steel body, H: solid carbide body

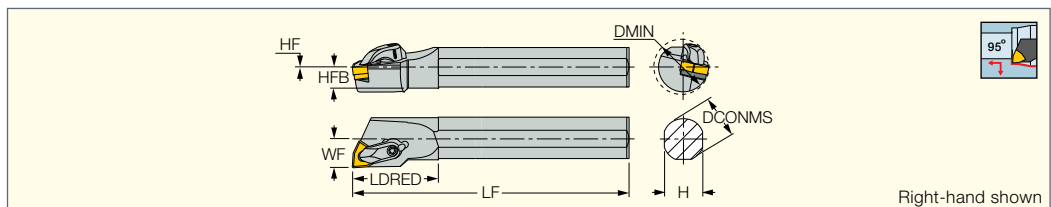
For tools, see pages: AVC-DDUNR/L (84) • AVC-DVUNR/L (84) • AVC-PCLNR/L (83) • AVC-PCLXR/L (83) • AVC-SCLCR/L (82) • AVC-SDUCR/L (82) • AVC-SVLCR/L (83) • AVC-SVUCR/L (83)

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

S-DWLNLR/L

R-Clamp Boring Bars Carrying the Negative Trigon Inserts



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	DMIN	GAMP	GAMF	Insert
S25T DWLNLR/L-08	25.00	300.00	50.0	23.0	12.3	0.8	17.00	32.00	-6	-11	WNMG 0804
S32U DWLNLR/L-08	32.00	350.00	55.0	29.0	15.8	1.3	22.00	40.00	-6	-10	WNMG 0804
S40V DWLNLR/L-08	40.00	400.00	55.0	36.0	19.8	1.8	27.00	60.00	-6	-10	WNMG 0804

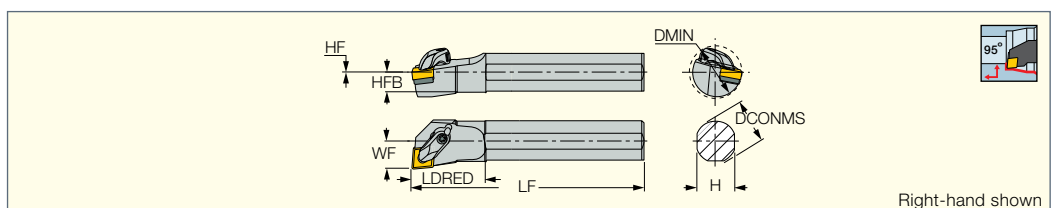
For inserts, see pages: WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/ WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204)

Spare Parts

Designation					
S-DWLNLR/L	TWN 423	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

S-DCLNR/L

R-Clamp Boring Bars Carrying the Negative 80° Negative Diamond Inserts



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	GAMP	GAMF	Insert
S25R DCLNR-L-12	25.00	200.00	45.0	23.0	12.3	17.00	32.00	0.8	-6	-10.5	CNMG 1204..
S32T DCLNR/L-12	32.00	300.00	45.0	28.0	15.8	22.00	40.00	1.8	-6	-10	CNMG 1204..
S40U DCLNR/L-12	40.00	350.00	55.0	36.0	19.8	27.00	48.00	1.8	-6	-9	CNMG 1204..

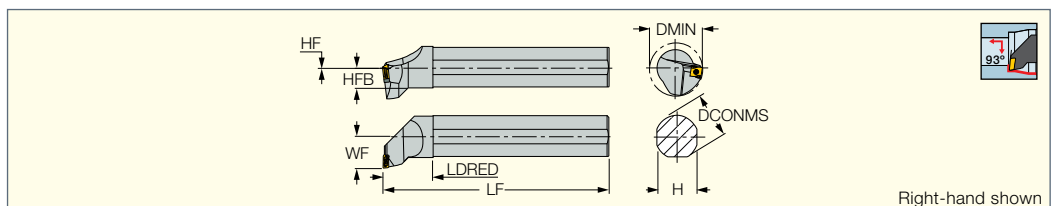
For inserts, see pages: CNMG-CERMET (125) • CNMG-F3S (128) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • CNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

Spare Parts

Designation					
S-DCLNR/L	TCN 423	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

S-SLANR/L-TANG

Boring Bars Carrying the LNMX Tangentially Screw Clamped Inserts with 4 Cutting Edges for High Metal Removal Rates



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	GAMP	GAMF	Insert
S25T SLANR/L-11 TANG	25.00	300.00	40.0	23.0	1.0	17.00	53.00	1.0	-6	-15	LNMX 1104..
S32U SLANR/L-11 TANG	32.00	350.00	50.0	30.0	1.0	22.00	53.00	1.0	-6	-15	LNMX 1104..
S40V SLANR/L-11 TANG	40.00	400.00	60.0	37.0	1.5	27.00	53.00	1.5	-6	-15	LNMX 1104..
S50U SLANR/L-15 TANG	50.00	350.00	60.0	47.0	1.5	37.00	85.00	1.5	-8	-10	LNMX 1506..

• Right-hand inserts for left-hand bars. Left-hand inserts for right-hand bars. • ap max for facing: LNMX 11-2.8 mm, LNMX 15-3.8 mm.

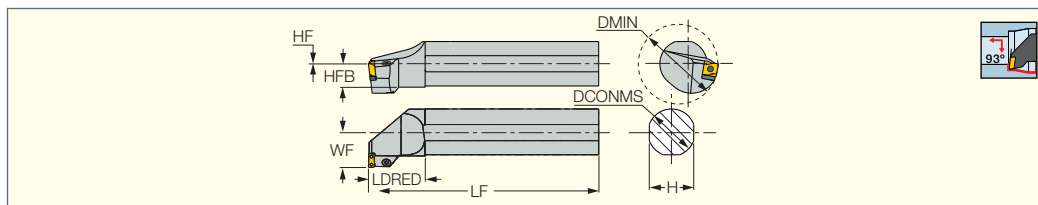
For inserts, see pages: LNMX-HM (159) • LNMX-HT (158) • LNMX-WG (159)

Spare Parts

Designation						
S25T SLANR-L-11 TANG	TLN 11R-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
S25T SLANR-L-11 TANG	TLN 11L-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
S32U SLANR-L-11 TANG	TLN 11R-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
S32U SLANR-L-11 TANG	TLN 11L-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
S40V SLANR-L-11 TANG	TLN 11R-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
S40V SLANR-L-11 TANG	TLN 11L-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
S50U SLANR-L-15 TANG	TLN 15R-HTI	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
S50U SLANR-L-15 TANG	TLN 15L-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 the LNMX ... Tangentially Clamped Inserts with 4 Cutting Edges for High Production Rates



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	GAMP	GAMF	Insert
S50U PLANR-15 TANG	50.00	350.00	60.0	47.0	1.5	37.00	85.00	1.5	-6	-10	LNMX 1506...

• Right-hand inserts for left-hand bars. Left-hand inserts for right-hand bars. • ap max for facing 3.8 mm.

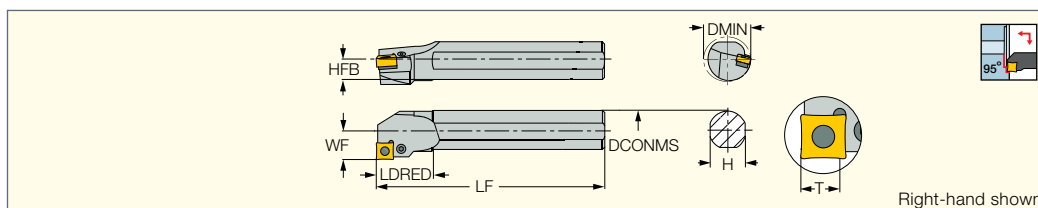
For inserts, see pages: LNMX-HM (159) • LNMX-HT (158) • LNMX-WG (159)

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 the Negative Square Inserts with 80° Corners for Internal Facing



Designation	DCONMS	LF	LDRED	H	HFB	WF	T	DMIN	GAMP	GAMF	Insert
S20Q PQFNR/L-09	20.00	180.00	40.0	18.0	9.0	13.00	7.5	28.00	-6	-12	QNMG 0904...
S32R PQFNR-09	32.00	200.00	45.0	29.0	14.5	22.00	7.5	40.00	-6	-10	QNMG 0904...
S25R PQFNL-12	25.00	200.00	40.0	23.0	11.5	17.00	9.0	32.00	-6	-12	QNMG 1204...
S32R PQFNR-12	32.00	200.00	45.0	29.0	14.5	22.00	9.0	40.00	-6	-12	QNMG 1204...
S40S PQFNL-12	40.00	250.00	50.0	36.0	18.0	27.00	9.0	50.00	-6	-10	QNMG 1204...

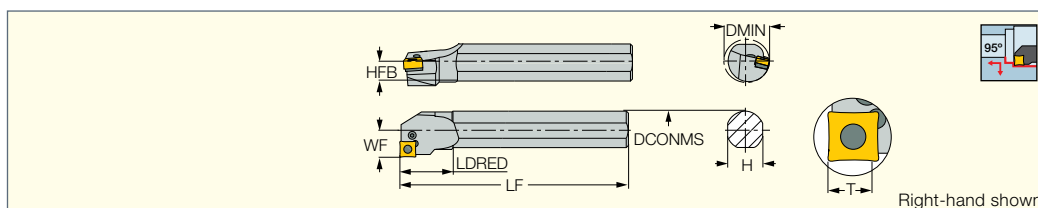
For inserts, see pages: QNMG-GN (161) • QNMG-NF (160) • QNMG-PP (161) • QNMG-TF (160)

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 the Negative Square Inserts with 80° Corners



Designation	DCONMS	LF	LDRED	H	HFB	WF	T	DMIN	GAMP	GAMF	Insert
S20S PQLNR/L-09	20.00	250.00	40.0	18.0	9.0	13.00	6.5	25.00	-6	-12	QNMG 0904
S25T PQLNR-09	25.00	300.00	40.0	23.0	11.5	17.00	6.5	32.00	-6	-10	QNMG 0904
S32U PQLNR-09	32.00	350.00	45.0	29.0	14.5	22.00	6.5	40.00	-6	-10	QNMG 0904
S25T PQLNR/L-12	25.00	300.00	40.0	23.0	11.5	17.00	8.5	32.00	-6	-12	QNMG 1204
S32U PQLNR/L-12	32.00	350.00	45.0	29.0	14.5	22.00	8.5	40.00	-6	-12	QNMG 1204
S40V PQLNR/L-12	40.00	400.00	50.0	36.0	18.0	27.00	8.5	50.00	-6	-10	QNMG 1204

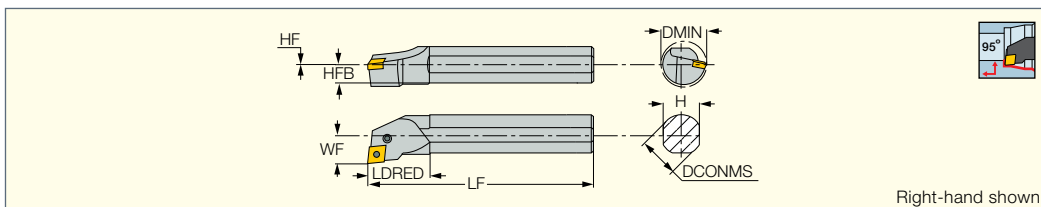
For inserts, see pages: QNMG-GN (161) • QNMG-NF (160) • QNMG-PP (161) • QNMG-TF (160)

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

A/S-PCLNR/L

Lever Lock Boring Bars Carrying
the Negative 80° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	CSP ⁽¹⁾	DMIN	Insert
A25R PCLNR/L-12	25.00	200.00	40.0	23.0	11.5	17.00	0.0	-6	-12	1	32.00	CNMG 1204..
S25S PCLNR/L-12	25.00	250.00	48.0	23.0	11.5	17.00	0.0	-6	-12	0	32.00	CNMG 1204..
A32T PCLNR/L-12	32.00	300.00	50.0	30.0	14.5	22.00	-0.5	-6	-12	1	40.00	CNMG 1204..
S32T PCLNR/L-12	32.00	300.00	51.0	30.0	14.5	22.00	-0.5	-6	-12	0	40.00	CNMG 1204..
S40U PCLNR/L-12	40.00	350.00	51.0	36.0	18.0	27.00	0.0	-6	-12	0	49.00	CNMG 1204..
S50W PCLNR-19	50.00	450.00	70.0	47.0	23.5	35.00	0.0	0	-8.5	0	63.00	CNMG 1906..

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

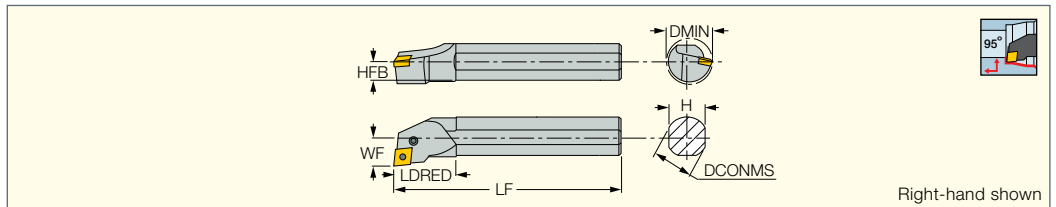
Spare Parts

Designation								
A25R PCLNR/L-12				LR 4M	SR 117-2011	HW 2.5/5	HW 2.0	PL 25
S25S PCLNR/L-12				LR 4M	SR 117-2011	HW 2.5	HW 2.0	
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 the Negative CNMX/
CNMG 80° Rhombic Inserts



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	CSP ⁽⁵⁾	Insert
A16M PCLNR/L-09G ⁽¹⁾	16.00	150.00	30.0	15.0	7.5	11.00	-12	-16	21.00	1	CNMG 0904..
A20Q PCLNR/L-09G ⁽¹⁾	20.00	180.00	30.0	18.0	9.0	13.00	-6	-15	25.00	1	CNMG 0904..
A25R PCLNR/L-09X ⁽²⁾	25.00	200.00	35.0	23.0	11.5	17.00	-6	-15	32.00	1	CNMX 0906, CNMG 0904
A32S PCLNR/L-09X ⁽²⁾	32.00	250.00	40.0	29.0	14.5	22.00	-6	-13	40.00	1	CNMX 0906, CNMG 0904
A25R PCLNR/L-12X ⁽³⁾	25.00	200.00	51.0	23.0	11.5	21.00	-7	-14	50.00	1	CNMX 1207, CNMG 1204
A32S PCLNR/L-12X ⁽³⁾	32.00	250.00	51.0	29.0	14.5	21.00	-6	-13	54.00	1	CNMX 1207, CNMG 1204
S50W PCLNR-16X ⁽⁴⁾	50.00	450.00	70.0	47.0	23.5	35.00	0	-8.5	63.00	0	CNMX 1607, CNMG 1606

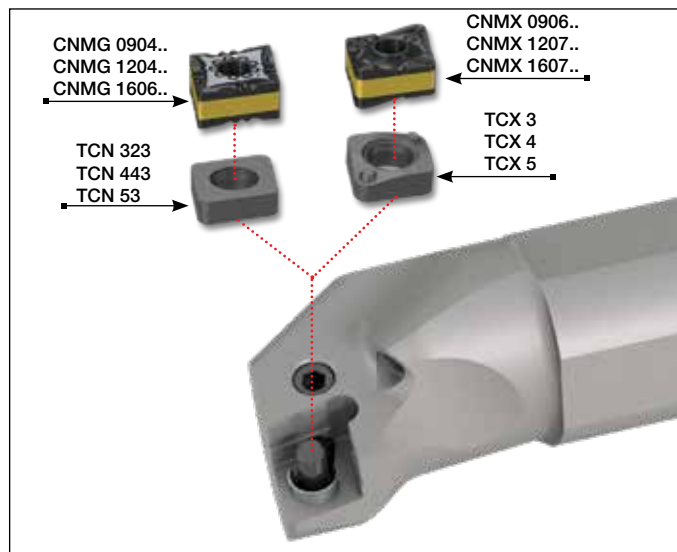
⁽¹⁾ For CNMG 0904.. inserts only

⁽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

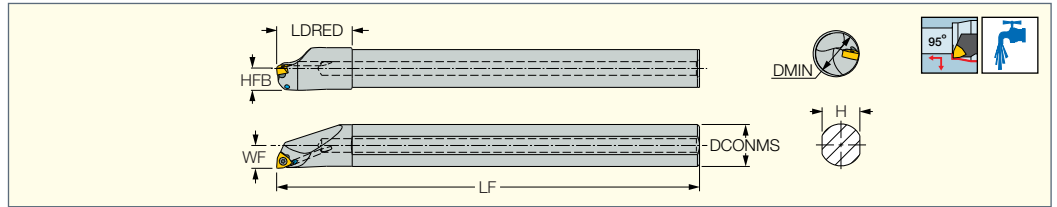
**Spare Parts**

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	TCN 323	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	PL 25
A32S PCLNR/L-09X	TCX 3	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
A32S PCLNR/L-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 32
S50W PCLNR-16X	TCX 5*	TCN 53	SP 5		LR 5	SR LCS 5	HW 3.0	

* Optional, should be ordered separately

A/E-SWLNLR/L-04

Boring Bars Carrying WNGP
0403.. Double-Sided Trigon
Inserts for Small Diameters



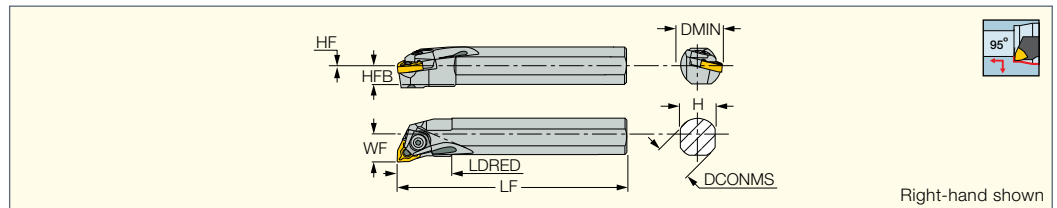
Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert		
A10K SWLNLR/L-04	10.00	125.00	20.0	9.0	5.5	6.00	-10	-16	12.00	WNGP 04	SR 34-514	T-7F
A12M SWLNLR/L-04	12.00	150.00	24.0	11.0	6.5	7.00	-10	-14	14.00	WNGP 04	SR 34-514	T-7F
A16Q SWLNLR/L-04	16.00	180.00	32.0	15.0	8.5	9.00	-10	-11	18.00	WNGP 04	SR 34-514	T-7F
A20R SWLNLR/L-04	20.00	200.00	36.0	18.0	10.5	11.00	-10	-10	22.00	WNGP 04	SR 34-514	T-7F
E10M SWLNLR/L-04	10.00	150.00	25.0	9.0	5.5	6.00	-10	-16	12.00	WNGP 04	SR 34-514	T-7F
E12Q SWLNLR/L-04	12.00	180.00	27.0	11.0	6.5	7.00	-10	-14	14.00	WNGP 04	SR 34-514	T-7F
E16R SWLNLR/L-04	16.00	200.00	32.0	15.0	8.5	9.00	-10	-11	18.00	WNGP 04	SR 34-514	T-7F
E20S SWLNLR/L-04	20.00	250.00	36.0	18.0	10.5	11.00	-10	-10	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 (117) • WNGP-F2P (115)

A/S-MWLNLR/L-W

Top Wedge Lock Boring
Bars Carrying the Double-
Sided Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	GAMP	GAMF	CSP ⁽²⁾	Insert
A20Q MWLNLR/L-06W	20.00	180.00	28.0	18.0	9.2	13.00	25.00	0.2	-6	10	1	WNMG 06T3
A20 MWLNLR/L-06W-AD ⁽¹⁾	20.00	100.00	28.0	18.0	9.0	13.00	25.00	0.0	-6	14	1	WNMG 06T3
A25R MWLNLR/L-06W	25.00	200.00	34.0	23.0	11.7	17.00	32.00	0.2	-6	14	1	WNMG 06T3
A32S MWLNLR/L-06W	32.00	250.00	28.0	29.0	14.7	19.00	36.00	0.2	-6	10	1	WNMG 06T3
S20S MWLNLR/L-06W	20.00	250.00	28.0	18.0	9.2	13.00	25.00	0.2	-6	10	0	WNMG 06T3
S25T MWLNLR/L-06W	25.00	300.00	28.0	23.0	11.7	17.00	32.00	0.2	-6	14	0	WNMG 06T3
S32U MWLNLR/L-06W	32.00	350.00	40.0	29.0	14.7	19.00	36.00	0.2	-6	10	0	WNMG 06T3
A25R MWLNLR/L-08W	25.00	200.00	40.0	23.0	11.7	17.00	32.00	0.2	-6	12	1	WNMG 0804
A25 MWLNLR/L-08W-AD ⁽¹⁾	25.00	120.00	35.0	23.0	11.7	17.00	32.00	0.2	-6	12	1	WNMG 0804
A32S MWLNLR/L-08W	32.00	250.00	45.0	29.0	14.7	22.00	40.00	0.2	-6	12	1	WNMG 0804
A40T MWLNLR/L-08W	40.00	300.00	50.0	36.0	18.2	27.00	50.00	0.2	-6	10	1	WNMG 0804
S25T MWLNLR/L-08W	25.00	300.00	35.0	23.0	11.7	17.00	32.00	0.2	-6	12	0	WNMG 0804
S32U MWLNLR/L-08W	32.00	350.00	45.0	28.0	14.7	22.00	40.00	0.7	-6	12	0	WNMG 0804
S40V MWLNLR/L-08W	40.00	400.00	50.0	36.0	18.2	27.00	50.00	0.2	-6	10	0	WNMG 0804
S50V MWLNLR/L-13W	50.00	400.00	63.0	47.0	23.5	35.00	63.00	0.0	-6	11	0	WNMG 1306

⁽¹⁾ AD - short tool for adapter holders

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

For inserts, see pages: WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-NM (122) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-SF (119) • WNMG-NF (119) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • WNMG-CERMET (116)

Spare Parts

Designation										
A20Q MWLNLR/L-06W			ZNW 3WI	LC 250 SET 1					HW 2.5	PL 20
A20 MWLNLR/L-06W-AD			ZNW 3WI	LC 250 SET 1					HW 2.5	PL 20
A25R MWLNLR/L-06W	IWSN 322W	IWSN 3-2W ^{(a)*}	ZNW 3W	LC 250 SET 1					HW 2.5	PL 25
A32S MWLNLR/L-06W	IWSN 322W	IWSN 3-2W ^{(a)*}	ZNW 3W	LC 250 SET 1					HW 2.5	PL 32
S20S MWLNLR/L-06W			ZNW 3WI	LC 250 SET 1					HW 2.5	
S25T MWLNLR/L-06W	IWSN 322W	IWSN 3-2W ^{(a)*}	ZNW 3W	LC 250 SET 1					HW 2.5	
S32U MWLNLR/L-06W	IWSN 322W	IWSN 3-2W ^{(a)*}	ZNW 3W	LC 250 SET 1					HW 2.5	
A25R MWLNLR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 2					HW 3.0	PL 25
A25 MWLNLR/L-08W-AD	TWN 423		ZNW-4WI	LC 252 SET 2					HW 3.0	PL 25
A32S MWLNLR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 1					HW 3.0	PL 32
A40T MWLNLR/L-08W	IWSN 433	IWSN 433M ^{(b)*}	ZNW 4W	LC 252 SET 1					HW 3.0	PL 40
S25T MWLNLR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 2					HW 3.0	
S32U MWLNLR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 1					HW 3.0	
S40V MWLNLR/L-08W	IWSN 433	IWSN 433M ^{(b)*}	ZNW 4W	LC 252 SET 1					HW 3.0	
S50V MWLNLR/L-13W	IWSN 635		ZNW 6W		LC 253	SPR 17-362	WA FL M8	SR 17-362	HW 4P	

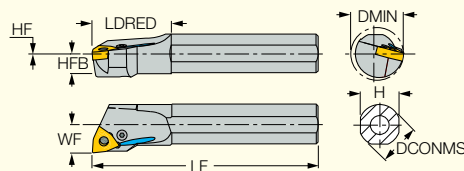
* Optional, should be ordered separately

^(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-PWLNRL/L**

Lever Lock Boring Bars Carrying the Double-Sided Trigon Inserts



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	GAMP	GAMF	CSP ⁽¹⁾	Insert
A16M PWLNRL/L-06	16.00	150.00	27.0	15.0	8.0	11.00	20.00	0.5	-6	-14	1	WNMG 06T3
A20Q PWLNRL/L-06	20.00	180.00	36.0	18.0	9.2	13.00	25.00	0.2	-6	-14	1	WNMG 06T3
A25R PWLNRL/L-06	25.00	200.00	35.0	23.0	11.7	17.00	32.00	0.2	-6	-14	1	WNMG 06T3
S16Q PWLNRL/L-06	16.00	180.00	27.0	15.0	8.0	11.00	20.00	0.5	-6	-14	0	WNMG 06T3
S20R PWLNRL/L-06	20.00	200.00	36.0	18.0	9.0	13.00	27.00	0.0	-6	-14	0	WNMG 06T3
S25S PWLNRL/L-06	25.00	250.00	40.4	23.0	11.5	17.00	32.00	0.0	-6	-14	0	WNMG 06T3
S32T PWLNRL-06	32.00	300.00	50.0	29.0	14.5	19.00	39.00	0.0	-6	-12	0	WNMG 06T3
A25R PWLNRL/L-08	25.00	200.00	35.0	23.0	11.7	17.00	32.00	0.2	-6	-12	1	WNMG 0804
A32S PWLNRL/L-08	32.00	250.00	50.0	28.0	14.7	22.00	39.00	0.7	-6	-12	1	WNMG 0804
S25S PWLNRL/L-08	25.00	250.00	47.0	23.0	11.5	17.00	32.00	0.0	-5	-12.5	0	WNMG 0804
S32T PWLNRL/L-08	32.00	300.00	50.0	29.0	14.5	22.00	39.00	0.0	-6	-12	0	WNMG 0804
S40U PWLNRL/L-08	40.00	350.00	59.0	36.0	18.0	27.00	49.00	0.0	-6	10	0	WNMG 0804

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

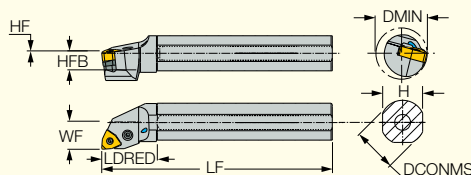
For inserts, see pages: WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-SF (119) • WNMG-NF (119) • WNMG-NM (122) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • WNMG-CERMET (116)

Spare Parts

Designation							
A16M PWLNRL/L-06				LR 3S	SR 117-2009	PL 16	HW 2.0/5
A20Q PWLNRL/L-06	TWN 322	SP 3	PN 3-4	LR 3W	SR 117-2014	PL 20	HW 2.5/5
A25R PWLNRL/L-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014	PL 25	HW 2.5/5
S16Q PWLNRL/L-06				LR 3S	SR 117-2009		HW 2.0/5
S20R PWLNRL/L-06	TWN 322	SP 3	PN 3-4	LR 3W	SR 117-2014		HW 2.5/5
S25S PWLNRL/L-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014		HW 2.5/5
S32T PWLNRL-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014		HW 2.5/5
A25R PWLNRL/L-08				LR 4M	SR 117-2011	PL 25	HW 2.5/5
A32S PWLNRL/L-08	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010	PL 32	HW 3.0
S25S PWLNRL/L-08				LR 4M	SR 117-2011		HW 2.5/5
S32T PWLNRL/L-08	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010		HW 3.0
S40U PWLNRL/L-08	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010		HW 3.0

HELI TURN LD**A-PWLNRL/L-X/G**

Lever Lock Boring Bars with Coolant Holes Carrying the HELI TURN LD WNMX or WNMG Trigon Inserts



Designation	DCONMS	H	HFB	LF	LDRED	WF	DMIN	HF	GAMP	GAMF	Insert
A16M PWLNRL/L-06G ⁽¹⁾	16.00	15.0	8.0	150.00	30.0	11.00	25.00	0.5	-6	-14	WNMG 0604
A20Q PWLNRL/L-06G ⁽¹⁾	20.00	18.0	9.2	180.00	35.0	13.00	25.00	0.2	-6	-14	WNMG 0604
A25R PWLNRL-06G ⁽¹⁾	25.00	23.0	11.5	200.00	35.0	17.00	32.00	0.0	-6	-14	WNMX 0606, WNMG 0604
A32S PWLNRL-06G ⁽¹⁾	32.00	29.0	14.5	250.00	48.0	22.00	40.00	0.0	-6	-12	WNMX 0606, WNMG 0604
A32S PWLNRL/L-08X ⁽²⁾	32.00	29.0	14.5	250.00	51.0	21.00	54.00	0.0	-6	-13	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

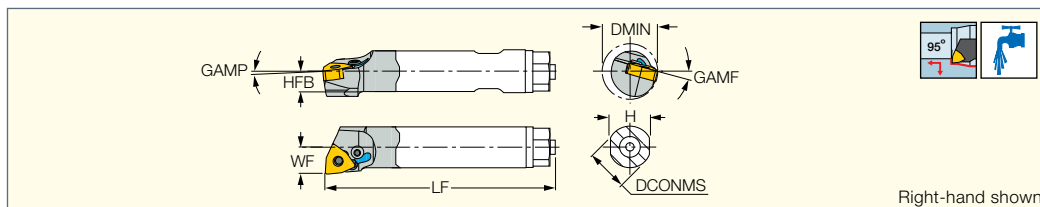
For inserts, see pages: WNMA/WNMA-WG (123) • WNMG-F3M (118) • WNMG-F3P (115) • WNMG-F3S (118) • WNMG-GN (121) • WNMG-M3M (118) • WNMG-M3P (115) • WNMG-NF (119) • WNMG-PP (120) • WNMG-TF (121) • WNMG-WF (120) • WNMG-WG (120) • WNMX-M3/4MW (123) • WNMX-M3/4PW (123)

Spare Parts

Designation									
A16M PWLNRL/L-06G		SP 3	PN 3-4	LR 3S	LR 3W	SR 117-2009	SR 117-2014	PL 16	HW 2.5/5
A20Q PWLNRL/L-06G				LR 3S	LR 3W		SR 117-2009		PL 20
A25R PWLNRL-06G		TWN 3	SP 3	PN 3-4	LR 3W		SR 117-2014		PL 25
A32S PWLNRL-06G		TWN 3	SP 3	PN 3-4	LR 3W		SR 117-2014		PL 32
A32S PWLNRL/L-08X	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH		SR 117-2010		PL 32

E-PWLNLR/L-HEAD

Lever Lock Interchangeable Boring Heads Clamped on a Solid Carbide Shank Carrying the Negative WNMG Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
E16 PWLNLR-06 HEAD	16.00	200.00	37.0	15.0	8.0	11.00	-14	-6	20.00	WNMG/WMGG 06T3

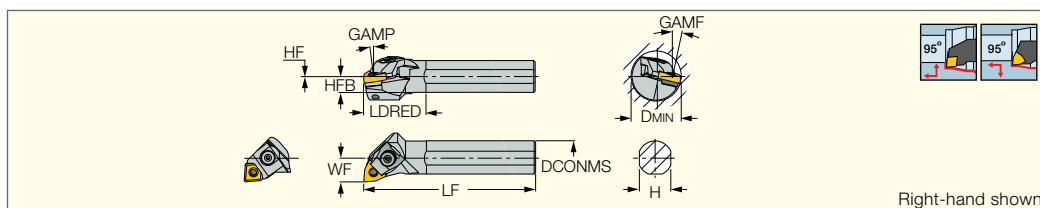
For inserts, see pages: WNMG-CERMET (116) • WNMG-M3P (115) • WNMG-TF (121) • WNMG-GN (121) • WNMG-PP (120) • WNMG-VL (119) • WNMG-SF (119) • WNMG-NF (119) • WNMA/WMMA-WG (123) • WNMG-WG (120)

Spare Parts

Designation			
E-PWLNLR/L-HEAD	LR 3S	SR 117-2009	HW 2.0/5

MULTI-WEDGE
S-MULNR-MW

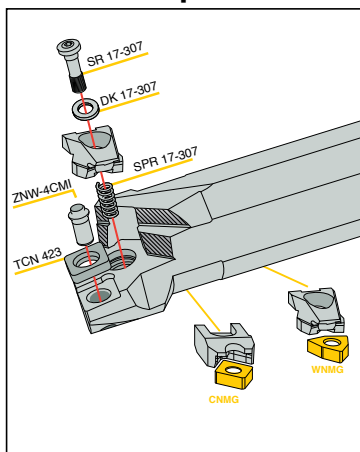
MULTI-WEDGE Lock Boring Bars Carrying the 80° Negative Rhombic or Trigon or Square Inserts



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	-12	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: CNMG-CERMET (125) • CNMG-F3S (128) • WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121) • WNMG-GN (121) • WNMG-NR (122) • WNMG-PP (120) • WNMG-VL (119) • WNMG-TNM (122) • WNMG-NF (119) • WNMM-NM (122) • WNMG-WF (120) • WNMA/WMMA-WG (123) • WNMG-WG (120) • WNGA-Ceramic (195) • WNGA-M3 (CBN) (203) • WNGA-MC/M6 (CBN) (204) • CNMG-F3P (124) • CNMG-M3P (124) • CNMM-R3P (125) • CNMM-M4PW (134) • CNMG-F3M (127) • CNMG-M3M (127) • CNMG/CNGG-TF (131) • CNMG-GN (132) • CNMG-NR (132) • CNMG/CNGG-PP (131) • CNMG-VL (128) • CNMG/CNGG-SF (129) • CNMG-NF (129) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMA (130) • WNGA-Ceramic (196) • CNMG-Ceramic (195) • CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGG-M4HF/M4HM (CBN) (206) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMA (PCD) (201)

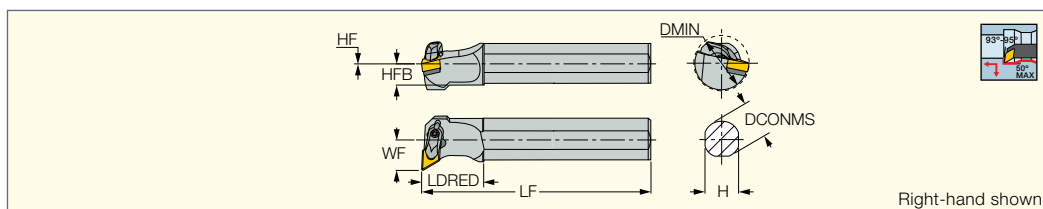
Toolholder Options

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 the 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	-11	DNMG 1506
S40U DDUNR/L-15	40.00	350.00	50.0	36.0	19.8	27.00	48.00	1.8	-6	-10	DNMG 1506

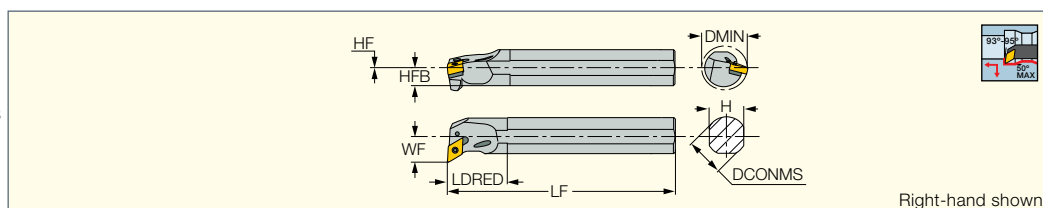
For inserts, see pages: DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-CERMET (137) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG-NF (138) • DNMM-NM (141) • DNMA (140) • DNGA-Ceramic (197) • DNGA-2 (CBN) (208) • DNGA-4 (CBN) (208) • DNGG-M4HF/M4HM (CBN) (208) • DNMA (CBN) (207)

Spare Parts

Designation					
S-DDUNR/L	TDN 422	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

ISOTURN**A/S-PDUNR/L**

Lever Lock Boring Bars Carrying the 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	-14	27.00	1	DNMG 1104
A25R PDUNR/L-11	25.00	200.00	40.0	23.0	11.5	0.0	17.00	-6	-13	32.00	1	DNMG 1104
A32S PDUNR/L-11	32.00	250.00	45.0	29.0	14.5	0.0	22.00	-6	-11	40.00	1	DNMG 1104
S32T PDUNR/L-15	32.00	300.00	51.0	29.0	15.5	1.0	22.00	-6	-13	40.00	0	DNMG 1506
S40U PDUNR/L-15	40.00	350.00	50.0	36.0	18.0	0.0	27.00	-6	-11.5	50.00	0	DNMG 1506

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

For inserts, see pages: DNMG-CERMET (137) • DNMG-F3S (136) • DNMG-F3P (135) • DNMG-M3P (135) • DNMX-M3P (141) • DNMM-R3P (141) • DNMG-F3M (136) • DNMG-M3M (136) • DNMG/DNGG-TF (139) • DNMG-GN (140) • DNMG-NR (140) • DNMG/DNGG-PP (139) • DNMG-VL (139) • DNMG-PF (138) • DNMG/DNGG-SF (137) • DNMG-NF (138) • DNMM-NM (141) • DNMG-WG (138) • DNMS-12 (192) • DNMA (140) • DNGA-Ceramic (197) • DNGA-4 (CBN) (208) • DNMA (CBN) (207)

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

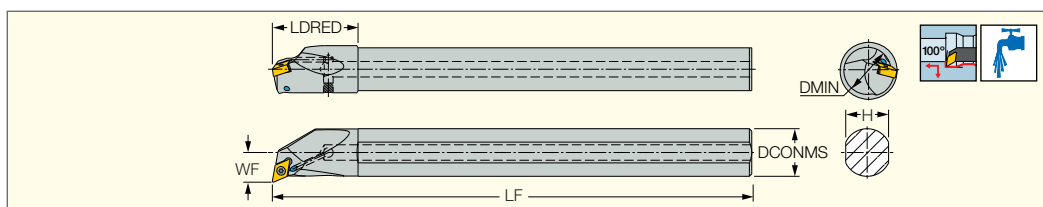
* Optional, should be ordered separately

^(a) Use for DNMG 1506.. inserts

^(b) Use for DNMG 1504.. inserts

ISOTURN**A/E-SDXNR/L-07**

Boring Bars Carrying the DNGP 0703.. Double-Sided 55° Rhombic Inserts for Small Diameters



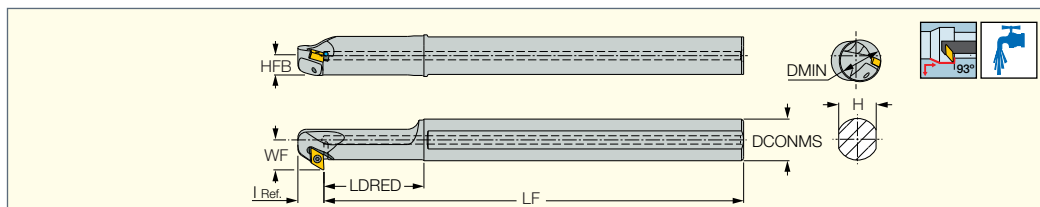
Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP	GAMF	Insert		
A10K SDXNR/L-07	10.00	125.00	20.0	9.0	7.60	13.00	-14	-16	DNGP 07	SR 34-514	T-7F
A12M SDXNR/L-07	12.00	150.00	24.0	11.0	8.60	16.00	-14	-14	DNGP 07	SR 34-514	T-7F
A16Q SDXNR/L-07	16.00	180.00	32.0	15.0	10.60	20.00	-13	-13	DNGP 07	SR 34-514	T-7F
A20R SDXNR/L-07	20.00	200.00	36.0	18.0	12.60	24.00	-13	-12	DNGP 07	SR 34-514	T-7F
E10M SDXNR/L-07	10.00	150.00	20.0	9.0	7.60	13.00	-14	-16	DNGP 07	SR 34-514	T-7F
E12Q SDXNR/L-07	12.00	180.00	24.0	11.0	8.60	16.00	-14	-14	DNGP 07	SR 34-514	T-7F
E16R SDXNR/L-07	16.00	200.00	32.0	15.0	10.60	20.00	-13	-13	DNGP 07	SR 34-514	T-7F
E20S SDXNR/L-07	20.00	250.00	36.0	18.0	12.60	24.00	-13	-12	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 (135) • DNGP-F2P (134)

ISOTURN**A/E-SDZNR/L-07**

Back Turning Boring Bars
Carrying the DNGP 0703..
Double-Sided 55° Rhombic
Inserts for Small Diameters



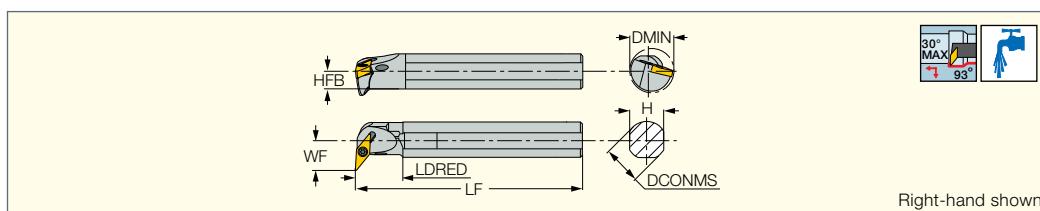
Designation	DCONMS	LF	LDRED	I Ref.	H	h ₁	WF	DMIN	GAMP	GAMF	Insert		
A12M SDZNR/L-07	12.00	150.00	38.0	13.00	11.0	5.5	10.50	14.00	-10	-14	DNGP 07	SR 34-514	T-7F
A16Q SDZNR/L-07	16.00	180.00	43.0	13.00	15.0	7.5	12.50	16.00	-10	-12.5	DNGP 07	SR 34-514	T-7F
A20R SDZNR/L-07	20.00	200.00	48.0	12.50	18.0	9.0	14.50	20.00	-10	-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	-11	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	-9	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 (135) • DNGP-F2P (134)

ISOTURN**A-SVUNR/L**

Boring Bars with Internal
Coolant Holes Carrying the 35°
Negative Rhombic Inserts



Right-hand shown

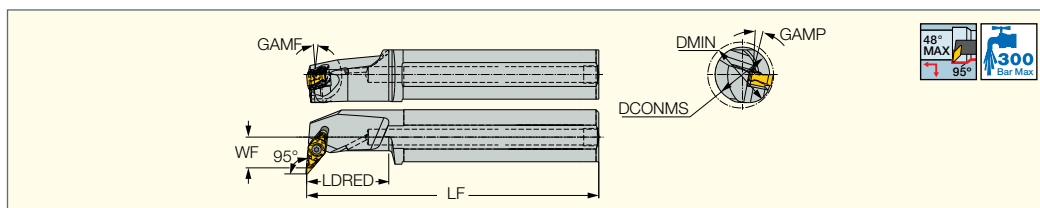
Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF			
A20Q SVUNR/L-12	20.00	180.00	38.0	18.0	9.0	16.00	26.50	-6.5	-14	SR 14-551	T-9/5	PL 20
A25R SVUNR/L-12	25.00	200.00	35.0	23.0	11.5	18.50	31.50	-6.5	-14	SR 14-551	T-9/5	PL 25
A32S SVUNR/L-12	32.00	250.00	50.0	29.0	14.5	23.00	37.00	-6.5	-14	SR 14-551	T-9/5	PL 32

• For user guide, see pages 4-5

For inserts, see pages: VNMG-F3M (143) • VNMG-F3S (143) • VNMG-FNF-CERMET (144) • VNMG-SF (144) • VNMG/VNGG-NF (144) • VNMM-PP (145)

ISOTURN**A-SVLFNR-JHP**

Screw Lock Boring Bars
Carrying the 35° Rhombic
Inserts with 7° Clearance



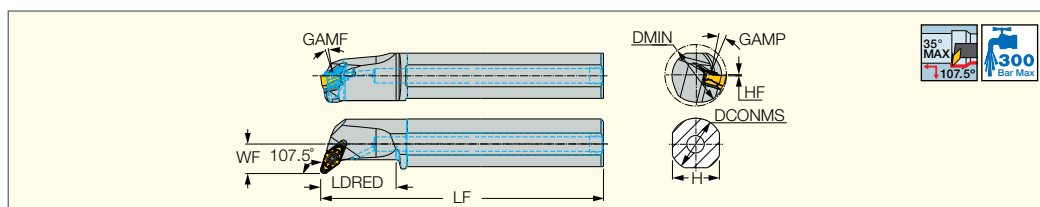
Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP	GAMF	Insert
A40U SVLFNR-22-JHP	40.00	350.00	60.0	36.0	22.50	48.00	4.5	11.0	VNGU 22..

Spare Parts

Designation							
A-SVLFNR-JHP	TVX 2230	SR 14-591/L-SN	HW 3.0	PL 40	SW6-T-SH	BLD T20/S7	SR TC-4

ALUPTURN
POSITIVE DOUBLE SIDED**A-SVQNR/L-AL-JHP**

Screw Lock Boring Bars Carrying
the 35° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HF	WF	DMIN	GAMP	GAMF	Insert
A40U SVQNR/L-22-AL-JHP	40.00	348.10	60.0	36.0	0.1	23.40	49.00	6.5	14.5	VNGU 22..

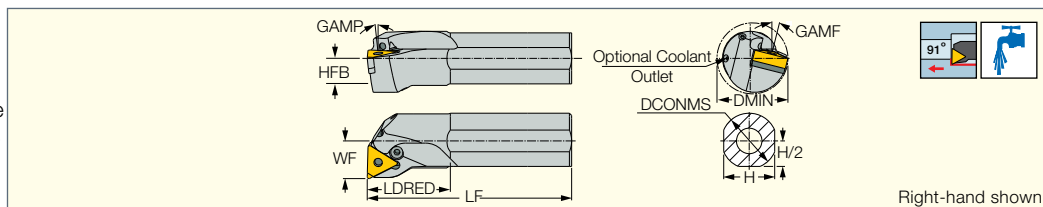
For inserts, see pages: VNMG-F3M (143) • VNMG-F3S (143) • VNMG-FNF-CERMET (144) • VNMG-SF (144) • VNMG/VNGG-NF (144) • VNMM-PP (145)

Spare Parts

Designation							
A-SVQNR/L-AL-JHP	TVX 2230	SR 14-591/L-SN	HW 3.0	SW6-T-SH	BLD T20/S7	PL 40	SR TC-4

HELITURN LD**A-PTFNR/L-X/G**

91° Lead Angle Lever Lock
Boring Bars Carrying the 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	-16	20.00	TNMG 1604
A20Q PTFNR/L-16G	20.00	180.00	31.0	18.0	9.0	13.00	-6	-14	25.00	TNMG 1604
A25S PTFNR/L-16X	25.00	250.00	37.5	23.0	11.5	17.00	-6	-14	32.00	TNMX 1606, TNMG 1604
A32T PTFNR/L-16X	32.00	300.00	48.0	29.0	14.5	22.00	-6	-12	40.00	TNMX 1606, TNMG 1604
A40U PTFNR/L-16X	40.00	350.00	50.0	36.0	18.0	27.00	-6	-12	50.00	TNMX 1606, TNMG 1604

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

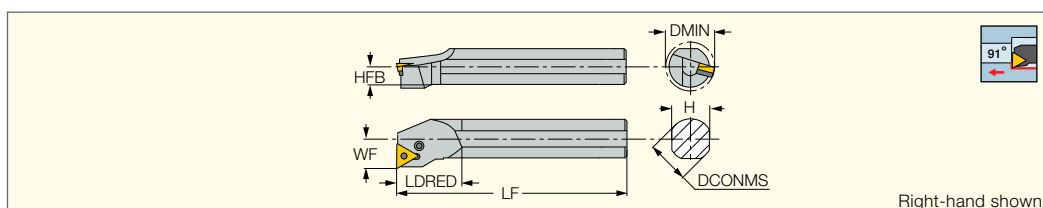
For inserts, see pages: TNMG-F3S (148) • TNMX-M3/4PW (146) • TNMX-M3/4MW (147) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-FFG-CERMET (148) • TNMG-TF (149) • TNMG-GN (150) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

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 the
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	-14	24.00	TNMG 1103
S25S PTFNR/L-16	25.00	250.00	48.0	23.0	11.5	17.00	-6	-13	32.50	TNMG 1604
S32T PTFNR/L-16	32.00	300.00	63.0	30.0	15.0	22.00	-6	-13	40.00	TNMG 1604
S40U PTFNR-16	40.00	350.00	30.0	36.0	18.0	27.00	-6	-10	49.00	TNMG 1604
S40U PTFNR-22	40.00	350.00	62.0	36.0	18.0	27.00	-6	-10	49.00	TNMG 2204

For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149)

• TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

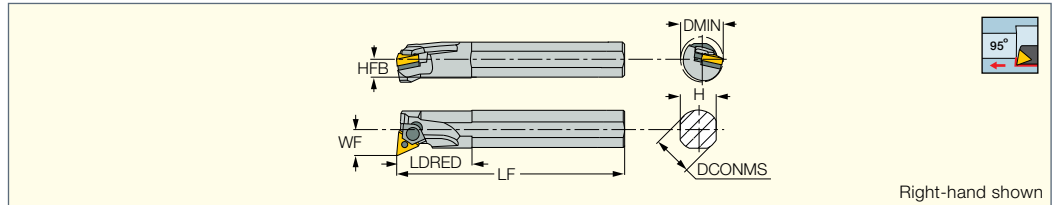
Designation							
S20R PTFNR/L-11				LR 2	SR 117-2015		HW 2.0/5
S25S PTFNR/L-16	TTN 322	TTN 332 ^(a)	SP 3	LR 3	SR 117-2014		HW 2.5/5
S32T PTFNR/L-16	TTN 322	TTN 332 ^(a)	SP 3	LR 3	SR 117-2014		HW 2.5/5
S40U PTFNR-16	TTN 322		SP 3	LR 3	SR 117-2014		HW 2.5/5
S40U PTFNR-22	TTN 422		SP 4	LR 4	SR 117-2010		HW 3.0

* Optional, should be ordered separately

^(a) Use for TNMG 1603.. inserts

S-MTLNR/L-W

95° Lead Angle Wedge Lock Boring Bars Carrying the 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	-12	32.00	TNMG 1604
S32T MTLNR/L-16W-M	32.00	300.00	50.0	30.0	15.0	22.00	-6	-12	40.00	TNMG 1604
S40U MTLNR/L-22W	40.00	350.00	50.0	36.0	18.0	27.00	-6	-10	49.00	TNMG 2204

For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMM-NR (151) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

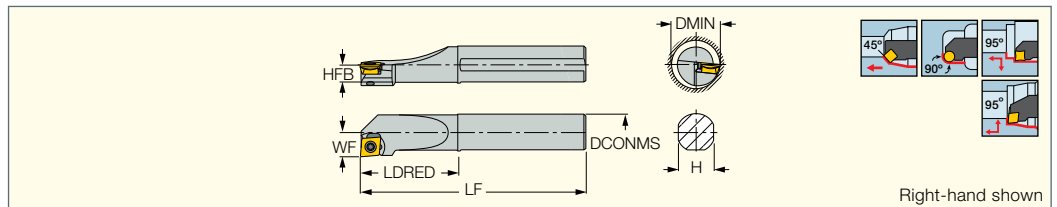
Designation							
S25S MTLNR/L-16W-M	TTT 322N	TTT 332N ^(a)	ZNW 3WNS	SR 17-317NS	LC 291N CLAMP	HW 3.0	E RING N
S32T MTLNR/L-16W-M	TTT 322N	TTT 332N ^(a)	ZNW 3WN	SR 17-317N	LC 291N CLAMP	HW 3.0	E RING N
S40U MTLNR/L-22W		TTT 434	ZNW 4	SR 17-295	HW 2.5	LC 281 SET 1	HW 3.0

* Optional, should be ordered separately

^(a) Use for TNMG 1603.. inserts

CHAMTURN
S-SUXCR/L-CM

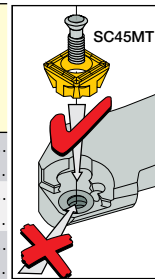
Screw Lock Boring Bars Carrying Four Different 7° Clearance Geometries



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	-12	11.00
S20R SUXCR/L-10 CM	20.00	200.00	52.0	18.0	9.0	25.00	0	-6	13.00
S25S SUXCR/L-10 CM	25.00	250.00	55.0	23.0	11.5	32.00	0	-4	17.00

For inserts, see pages: CC95MT-SM (187) • SC45MT-SM (187)

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	CC95MT... 12.14 SC45MT...
S20R SUXCR/L-10 CM	20.00	200.00	52.0	18.0	9.0	25.00	0	-6	13	CC95MT... 14.14 SC45MT...
S25S SUXCR/L-10 CM	25.00	250.00	55.0	23.0	11.5	32.00	0	-4	17	CC95MT... 18.14 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

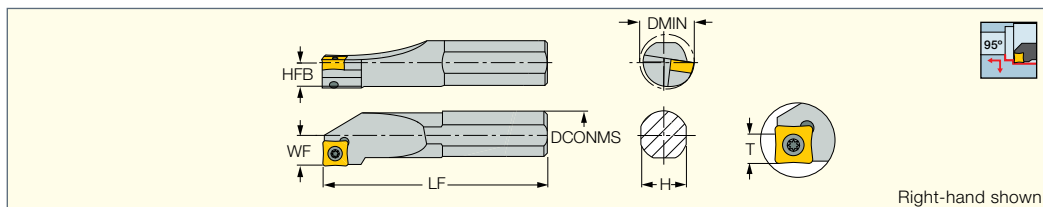
Clamping direction for SC45MT...

Spare Parts

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

ISOTURN**S/A-SQLCR/L**

Screw Lock Boring Bars
Carrying the 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	-12	20.00	0	QCMT 09T304
S20R SQLCR-09	20.00	200.00	45.0	15.0	7.5	13.00	8.5	0	-6	25.00	0	QCMT 09T304
S25S SQLCR-09	25.00	250.00	55.0	15.0	7.5	17.00	8.5	0	-6	32.00	0	QCMT 09T304
A25 SQLCR-09-AD	25.00	120.00	45.0	15.0	7.5	17.00	8.5	0	-6	32.00	1	QCMT 09T304

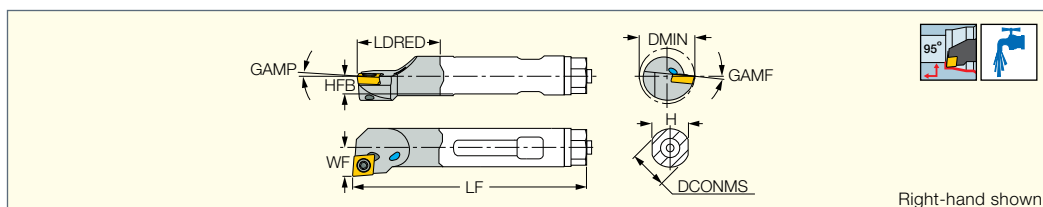
(1) 0 - Without coolant supply, 1 - With coolant supply

Spare Parts

Designation			
S16Q SQLCR/L-09	SR 16-236	T-15/5	
S20R SQLCR-09	SR 16-236	T-15/5	
S25S SQLCR-09	SR 16-236	T-15/5	
A25 SQLCR-09-AD	SR 16-236	T-15/5	PL 25

ISOTURN**E-SCLCR/L-HEAD**

Screw Clamped Boring Heads
Carrying the 80° Rhombic Inserts
with Positive 7° Clearance
Mounted on Carbide Bars



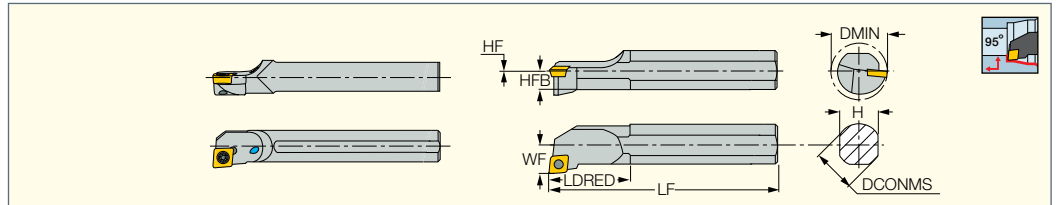
Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert		
E12 SCLCR/L-06 HEAD	12.00	179.00	24.8	11.0	5.5	9.00	0	-7	15.80	CCMT/CCGT 0602	SR 14-548	T-7/5
E16 SCLCR-09 HEAD	16.00	200.00	37.0	15.0	7.5	11.00	0	-9	20.00	CCMT/CCGT 09T3	SR 16-236	T-15/5

For inserts, see pages: CCMT-CERMET (165) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCGT-AF (191) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)



A/E/S-SCLCR/L

Screw Lock Boring Bars
Carrying the 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	-15	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	-13	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	-13	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	-11	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	-4	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	-4	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	-15	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	-13	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	-13	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	-11	0.6	CCGT 04T1
E08K SCLCR/L-06	8.00	125.00	-	5.00	7.6	3.8	0.0	10.00	1	3	-11	1.0	CC.. 0602
E10M SCLCR/L-06	10.00	150.00	-	7.00	9.2	4.6	0.0	14.00	1	3	-7	1.0	CC.. 0602
E12Q SCLCR/L-06	12.00	180.00	-	9.00	11.0	5.5	0.0	16.00	1	0	-7	1.0	CC.. 0602
E16R SCLCR/L-06	16.00	200.00	-	11.00	14.0	7.0	0.0	20.00	1	0	-12	1.0	CC.. 0602
E16R SCLCR/L-09	16.00	200.00	-	11.00	15.0	7.5	0.0	20.00	1	0	-6	3.0	CC.. 09T3
S08K SCLCR/L-06	8.00	125.00	12.0	5.00	8.0	3.8	-0.2	10.50	0	0	-11	1.0	CC.. 0602
S10L SCLCR/L-06	10.00	140.00	20.0	7.00	9.0	4.5	0.0	13.00	0	0	-7	1.0	CC.. 0602
S12M SCLCR/L-06	12.00	150.00	12.0	9.00	12.0	5.5	-0.5	16.00	0	0	-7	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	-6	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	-4	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	-4	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

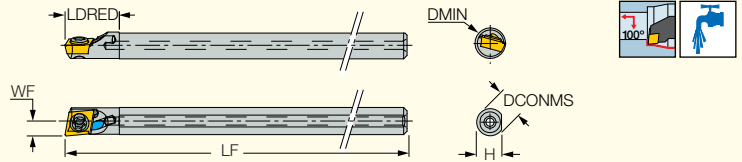
For inserts, see pages: CCMT-CERMET (165) • CCGT-F1P (163) • CCMT-F3P (163) • CCMT-M3P (164) • CCMT-M3M (164) • CCMT-PF (166) • CCMT/CCGT-SM (165) • CCET-WF (167) • CCMT-WG (167) • CCGT-AS (190) • CCGT-AF (191) • CCMT-14 (166) • CCMT/CCGT (166) • CCGW/CCMT (CBN) (206) • CCGW/CCMW-2 (CBN) (207) • CCMT (PCD) (201)


Spare Parts

Designation				
A04F SCLCR/L-03	CSTA-1.6			
A05F SCLCR/L-03	CSTA-1.6			
A06G SCLCR/L-04	CSTB-2			
A07G SCLCR/L-04	CSTB-2			
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			
E05G SCLCR/L-03	CSTA-1.6			
E06H SCLCR/L-04	CSTB-2			
E07H SCLCR/L-04	CSTB-2			
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 the 75° Rhombic Inserts with 11° Clearance for 4.5 mm Minimum Bore Diameter



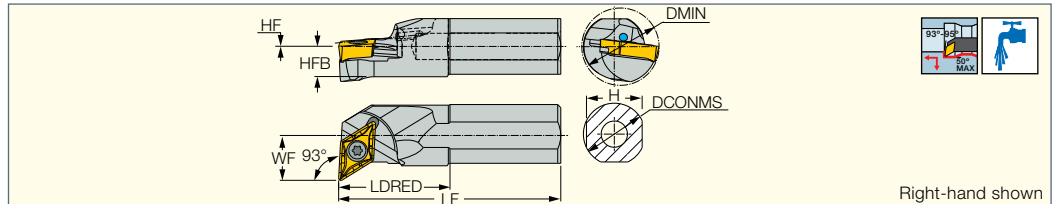
Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	Insert		
A04F SEXPR/L-03	4.00	80.00	8.0	3.8	0.0	2.30	4.50	0	-15	EPGT03	CSTA-1.6	T-6F
E04G SEXPR/L-03	4.00	90.00	9.0	3.8	0.0	2.30	4.50	0	-15	EPGT03	CSTA-1.6	T-6F

• A - steel shank with coolant hole, E - carbide shank with coolant hole

For inserts, see pages: EPGT-F1P (167)

ISOTURN**A-SDUCR/L-13-SL**

Boring Bars Carrying the 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	-7	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	-6	S	DCMT 13T5-SL

⁽¹⁾ S-Steel

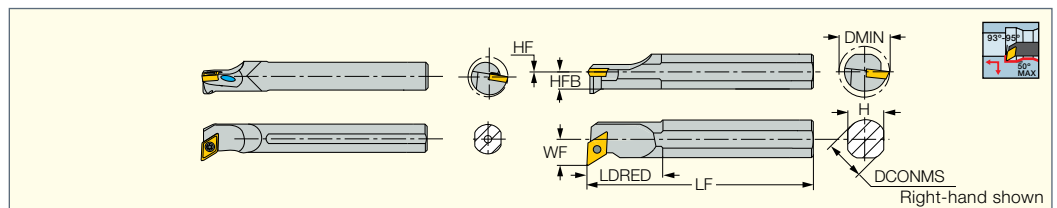
For inserts, see pages: DCMT-F3P-SL (169) • DCMT-M3M-SL (170) • DCMT-PF-SL (171) • DCMT-SM-SL (172)

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 the 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	-6	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	-5	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	-7	C	1	DC.. 0702
E12Q SDUCR/L-07	12.00	180.00	-	11.0	5.5	9.00	0.0	16.00	0	-7	C	1	DC.. 0702
E16R SDUCR/L-07	16.00	200.00	-	15.0	8.1	11.00	0.6	20.00	0	-8	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	-9	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	-9	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	-8	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	-6	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	-5	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

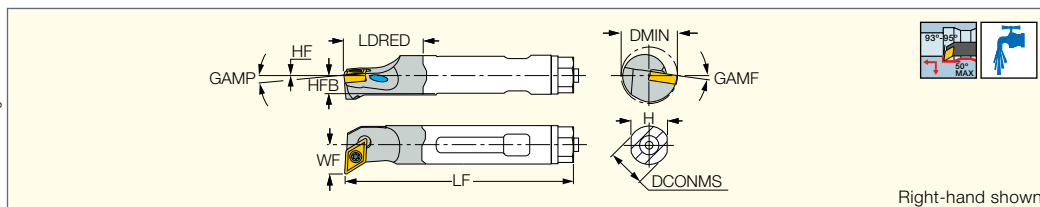
For inserts, see pages: DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCGT-AF (191) • DCMT-14 (173) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209) • DCMT (CBN) (209) • DCMT (PCD) (201) • DCMT-CERMET (171)

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	

E-SDUCR/L-HEAD

Interchangeable Screw Clamped
Boring Heads Carrying Positive 7°
Clearance 55° Rhombic Inserts
Mounted on Carbide Bars

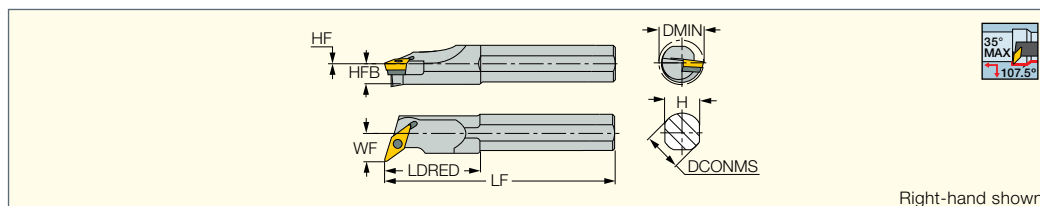


Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert		
E12 SDUCR/L-07 HEAD	12.00	179.00	24.8	11.0	999.0	9.00	0.0	0	-9	15.80	DCMT/DCGT 0702	SR 14-548	T-7/5
E16 SDUCR/L-07 HEAD	16.00	200.00	29.7	15.0	999.0	11.00	0.5	0	-9	20.00	DCMT/DCGT 0702	SR 14-548	T-7/5

For inserts, see pages: DCMT-F3P (169) • DCMT-M3M (170) • DCMT-PF (172) • DCMT/DCGT-SM (172) • DCET-WF (173) • DCGT-AS (191) • DCMT/DCGT (173) • DCGW/DCMW-2 (CBN) (209)

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	-5	0	VC.. 1604
S32T SVQCR/L-16	32.00	300.00	70.0	30.0	15.0	22.00	0.0	40.00	0	-5	0	VC.. 1604
A40U SVQCR/L-22	40.00	350.00	64.0	36.0	18.0	27.00	0.0	47.50	0	-8	1	VCGT 2205

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

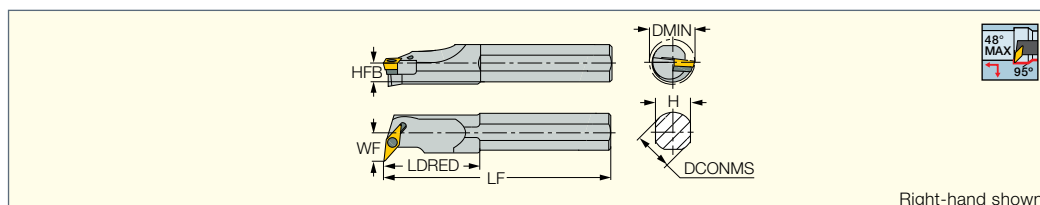
For inserts, see pages: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCGT-AF (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

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

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	-8	1	VC.. 1604
S32T SVLFCR/L-16	32.00	300.00	56.0	29.0	14.5	22.00	39.50	0	-8	0	VC.. 1604
S40U SVLFCR/L-16	40.00	350.00	-	36.0	18.0	27.00	49.00	0	-5	0	VC.. 1604
A40U SVLFCR/L-22	40.00	350.00	70.0	36.0	18.0	27.00	48.00	0	-8	1	VC.. 2205

⁽¹⁾ 93° approach angle

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

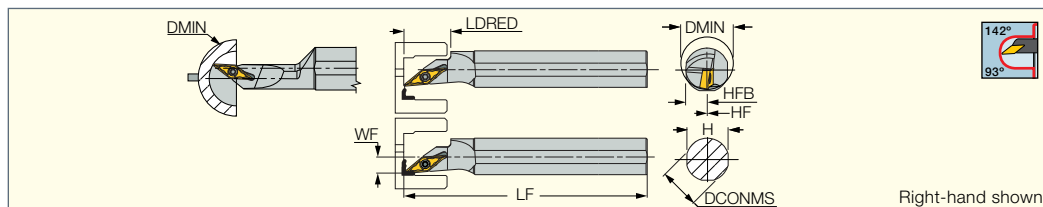
For inserts, see pages: VCMT-F3P (174) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCGT-AF (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202) • VCMT-FPC-CERMET (175) • VCGW-2 (CBN) (211)

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 the 35° Rhombic
Inserts with 7° Clearance



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP	GAMF	CSP ⁽²⁾	Insert
A16R SVJCR/L-11	16.00	200.00	47.5	15.0	7.5	8.50	0.0	20.00	-5	-5	1	VC.. 1103
S16R SVJCR/L-11 ⁽¹⁾	16.00	200.00	20.0	15.0	8.0	7.00	0.5	19.00	-5	-4	0	VC.. 1103
A20R SVJCR/L-11	20.00	200.00	43.0	18.0	9.0	11.00	0.0	25.00	-7	-3	1	VC.. 1103
S20R SVJCR/L-11	20.00	200.00	37.0	19.0	9.5	2.00	0.0	25.00	-7	-3	0	VC.. 1103

⁽¹⁾ Cannot be used for internal sphere turning

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

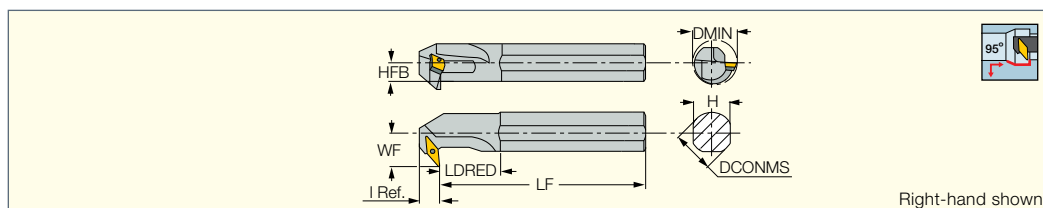
For inserts, see pages: VCMT-F3P (174) • VCMT-F3M (174) • VCMT-SM (176) • VCET-WF (175) • VCGT-AS (190)

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 the 35° Rhombic
Inserts with 7° Clearance



Right-hand shown

Designation	DCONMS	LF	LDRED	I Ref.	H	HFB	WF	DMIN	GAMP	GAMF	CSP ⁽¹⁾	Insert
A32T SVLBCR/L-16	32.00	300.00	76.5	18.50	29.0	14.5	27.50	40.00	0	-8	1	VC.. 1604
S32T SVLBCR/L-16	32.00	300.00	63.2	18.50	29.0	14.5	22.00	40.00	0	-8	0	VC.. 1604
S40U SVLBCR/L-16	40.00	350.00	60.0	20.00	36.0	18.0	27.00	49.50	0	-5	0	VC.. 1604

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

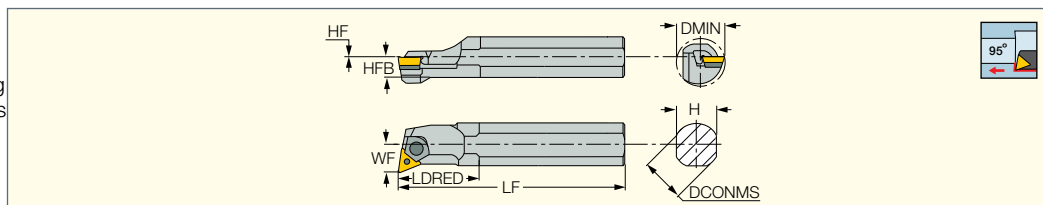
For inserts, see pages: VCMT-FPC-CERMET (175) • VCMT-F3P (174) • VCGW-2 (CBN) (211) • VCMT-F3M (174) • VCMT-M3M (174) • VCMT-SM (176) • VCGT-AS (190) • VCMT-14 (176) • VCMW (176) • VCMT (CBN) (202) • VCGT (PCD) (202) • VCGT-DW (PCD) (202)

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
the 7° Clearance Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP	GAMF	Insert
S25S MTLCR/L-16W	25.00	250.00	43.0	23.0	13.1	17.00	1.6	34.00	0	0	TC.. 16T3
S32T MTLCR/L-16W	32.00	300.00	45.0	29.0	14.5	22.00	0.0	39.00	0	0	TC.. 16T3

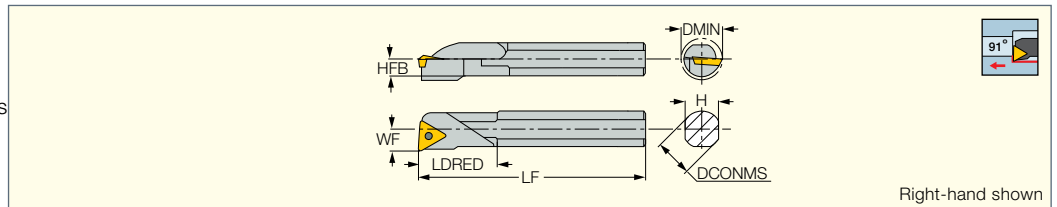
For inserts, see pages: TCMT-F3P (179) • TCMT-SM (180) • TCGT-AS (189)

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

S-STFCR/L

Screw Lock Boring Bars Carrying the 7° Clearance Triangular Inserts



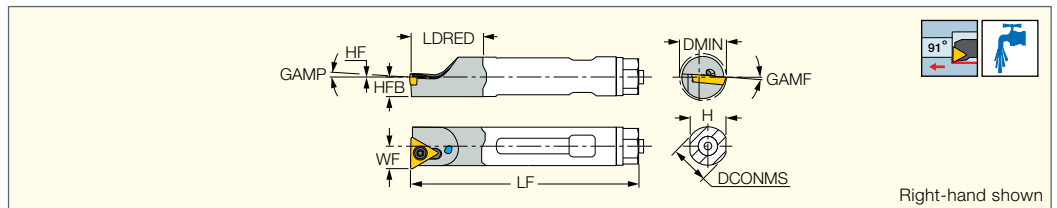
Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	Insert		
S10K STFCR/L-11	10.00	125.00	29.0	9.0	4.5	7.00	13.00	0	-6	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	0	-3	TC.. 1102	SR 14-548	T-7/5

For inserts, see pages: TCMT-F3P (179) • TCMT-PF (179) • TCMT-SM (180) • TCGT-AS (189) • TCMT (CBN) (212) • TCMT (PCD) (203)

E-STFCR-HEAD

Interchangeable Screw Clamped Boring Heads Carrying the Positive 7° Clearance Triangular Inserts Mounted on Carbide Bars



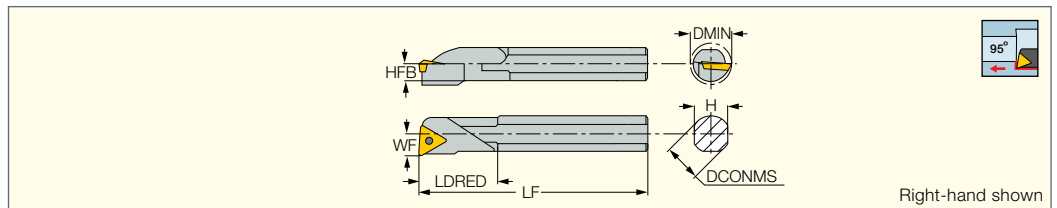
Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert		
E12 STFCR-11 HEAD	12.00	179.00	24.8	11.0	999.0	6.80	0.0	0	-6	13.80	TCMT 1102	SR 14-548	T-7/5
E16 STFCR-11 HEAD	16.00	200.00	37.0	15.0	999.0	9.00	0.5	0	-6	20.00	TCMT 1102	SR 14-548	T-7/5

For inserts, see pages: TCMT-F3P (179) • TCMT-PF (179) • TCMT-SM (180) • TCGT-AS (189) • TCMT (CBN) (212) • TCMT (PCD) (203)

S-STLCR/L

Screw Clamp Boring Bars Carrying the 7° Clearance Triangular Inserts



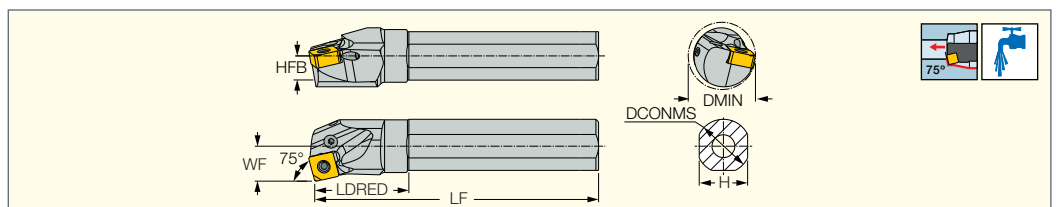
Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	Insert		
S16Q STLCR/L-11	16.00	180.00	45.0	15.0	7.5	11.00	20.00	0	-1	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	0	-3	TC.. 16T3	SR 16-236	T-15/5

For inserts, see pages: TCMT-F3P (179) • TCMT-PF (179) • TCMT-SM (180) • TCGT-AS (189) • TCMT (CBN) (212) • TCMT (PCD) (203)

A-PSKNR/L-09

Lever Lock Boring Bars Carrying the 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	-15	32.00	SNMG 0903 SNMG 0904
A32S PSKNR/L-09	32.00	250.00	43.0	30.0	15.0	22.00	-6	-13	40.00	SNMG 0903 SNMG 0904

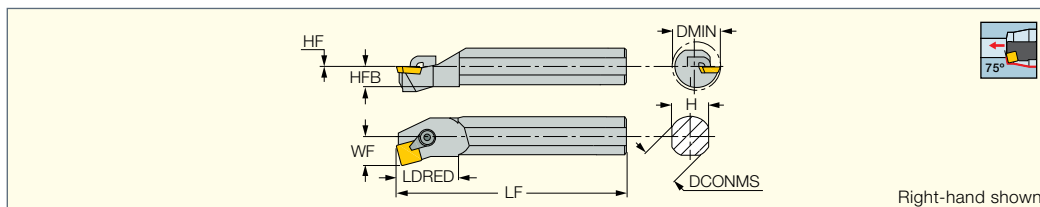
For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMG-F3M (153) • SNMG-M3M (153)

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 the 11° Clearance Square Inserts

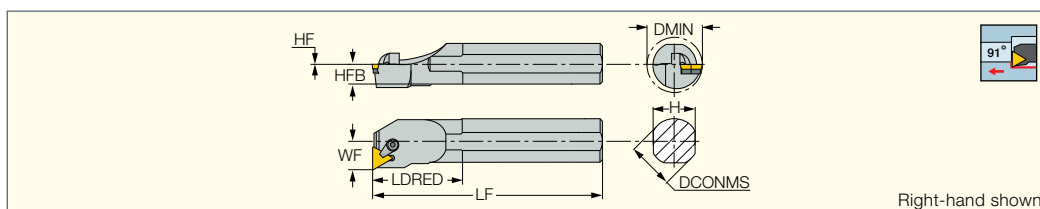


Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP	GAMF	Insert		
S16Q CSKPR-09	16.00	180.00	34.0	15.0	8.0	11.00	0.5	20.00	4	0	SPMR 0903	LC 15 SET 1	HW 2.5
S25S CSKPR-12	25.00	250.00	48.0	23.0	11.5	17.00	0.0	30.00	5	0	SPMR 1203	LC 30 SET 2	HW 3.0

For inserts, see pages: SPMR (182)

ISOTURN**S-CTFPR/L**

Clamp Lock Boring Bars Carrying the 11° Clearance Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert
S12L CTFPR/L-09	12.00	140.00	34.0	11.0	6.0	9.00	0.5	3	0	15.60	TPMR 0902
S16Q CTFPR/L-11	16.00	180.00	38.0	15.0	8.0	11.00	0.5	4	0	20.00	TPMR 1103
S20Q CTFPR-16	20.00	180.00	38.0	18.0	9.5	13.00	0.5	4	0	24.00	TPMR 1603
S20R CTFPR/L-16	20.00	200.00	46.0	18.0	9.5	13.00	0.5	4	0	24.00	TPMR 1603
S25R CTFPR-16	25.00	200.00	48.0	23.0	11.5	17.00	0.0	5	0	31.00	TPMR 1603
S25S CTFPR-16	25.00	250.00	48.0	23.0	11.5	17.00	0.0	5	0	31.00	TPMR 1603
S32T CTFPR/L-16	32.00	300.00	62.0	29.0	14.5	22.00	0.0	5	0	40.00	TPMR 1603
S40T CTFPR-16	40.00	300.00	62.0	36.0	18.0	27.00	0.0	5	0	48.00	TPMR 1603

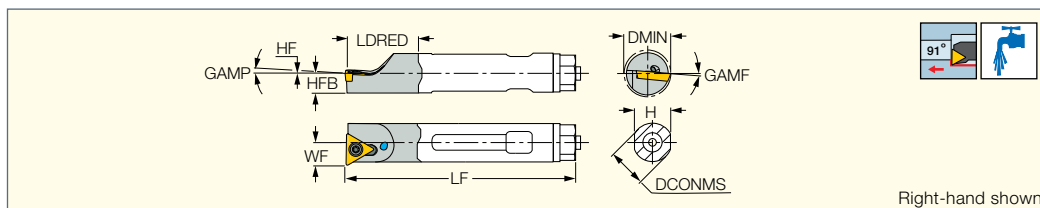
For inserts, see pages: TPGN-Ceramic (199) • TPMR (182) • TPMR-FTF (183) • TPMR-PF (182)

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/L-HEAD**

Interchangeable Boring Heads Carrying the Positive 11° Clearance Triangular Inserts on a Carbide Bar

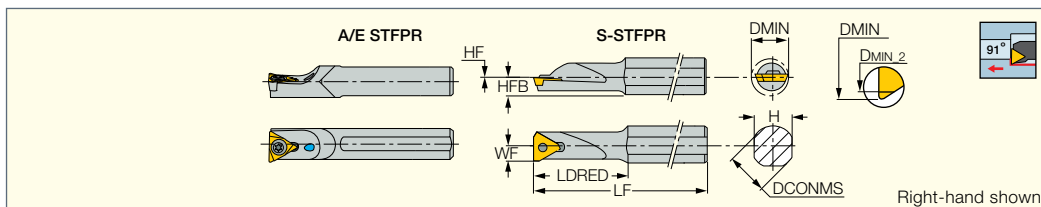


Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP	GAMF	DMIN	Insert		
E12 STFPR-11 HEAD	12.00	179.00	24.8	11.0	999.0	6.80	0.0	4	-6	13.00	TPMT/TPGH 1102	SR 14-505	T-7/5
E16 STFPR-11 HEAD	16.00	200.00	37.0	15.0	999.0	8.80	0.5	4	-6	20.00	TPGB 1102	SR 14-505	T-7/5

For inserts, see pages: TPMT-PF (184) • TPGT-SP (183) • TPGB-XL (184) • TPGH-XL (185) • TPGB (184) • TPMT (183)

A/E/S-STFPR/L

Screw Lock Boring Bars
Carrying the Triangular
Inserts with 11° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	DMIN	DMIN_2	GAMP	GAMF	CSP ⁽¹⁾	Shank m. ⁽²⁾		
A10K STFPR-11	10.00	125.00	-	9.0	5.3	0.8	6.00	11.00	12.00	3	0	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	4	0	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	3	0	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	4	0	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	3	0	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	4	0	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	5	0	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	5	0	0	S	SR 14-541	T-15/5

• (a1) When used with insert TPG. 110204-XL (a2) When used with insert TP.. 110204-..

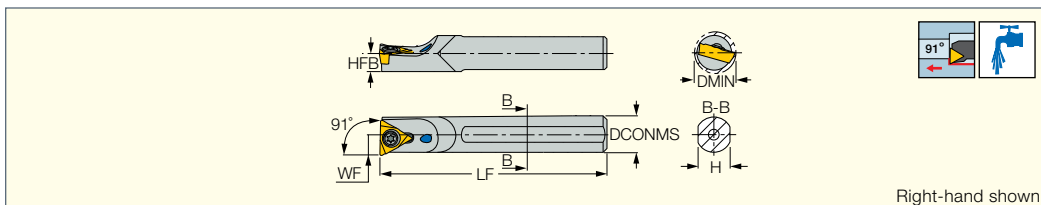
(1) 0 - Without coolant supply, 1 - With coolant supply

(2) S-Steel, C-Carbide

For inserts, see pages: TPMT-PF (184) • TPGB-XL (184) • TPGH-R/L (185) • TPGH-XL (185) • TPGB (184) • TPMT (183)

A/E-STFPR-X

Boring Bars Carrying the
Triangular TPGX 11° Clearance
Inserts for Small Diameters



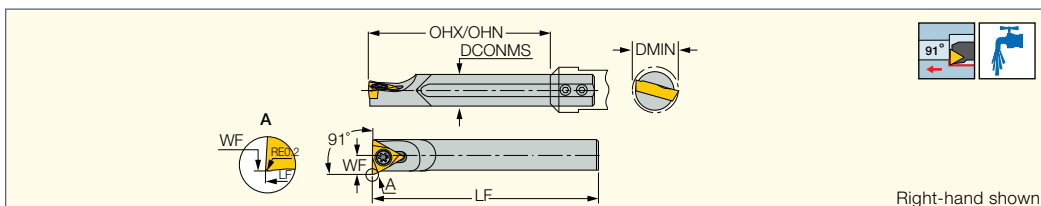
Designation	DCONMS	LF	WF	H	HFB	DMIN	GAMP	GAMF	Shank m. ⁽¹⁾	Insert		
A08J STFPR-09X	8.00	110.00	5.00	7.2	3.6	9.50	5	-15	S	TPGX 0902	SR 14-298	T-8/5
A10K STFPR-09X	10.00	125.00	5.70	9.0	4.5	10.90	5	-8	S	TPGX 0902	SR 14-298	T-8/5
A12M STFPR-09X	12.00	150.00	6.70	11.0	5.5	13.00	5	-8	S	TPGX 0902	SR 14-298	T-8/5
A10K STFPR-11X	10.00	125.00	6.00	9.0	4.5	11.40	3	-15	S	TPGX 1103	SR 10400052	T-8/5
A12M STFPR-11X	12.00	150.00	6.80	11.0	5.5	13.50	3	-10	S	TPGX 1103	SR 10400052	T-8/5
A16Q STFPR-11X	16.00	180.00	8.80	14.0	7.0	17.30	3	-5	S	TPGX 1103	SR 10400052	T-8/5
E08K STFPR-09X	8.00	125.00	5.00	7.2	3.6	9.50	5	-15	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	-8	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	-8	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	-15	C	TPGX 1103	SR 10400052	T-8/5
E12Q STFPR-11X	12.00	180.00	6.80	11.0	5.5	13.50	3	-10	C	TPGX 1103	SR 10400052	T-8/5
E16R STFPR-11X	16.00	200.00	8.80	14.0	7.0	17.30	3	-5	C	TPGX 1103	SR 10400052	T-8/5

(1) S-Steel, C-Carbide

For inserts, see pages: TPGW-M3 (CBN) (213) • TPGX (185) • TPGX (CBN) (213) • TPGX (PCD) (203)

MG STFPR-X

Solid Carbide Boring Bar
Carrying the 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	-15	9.50	SR 14-298	T-8/5

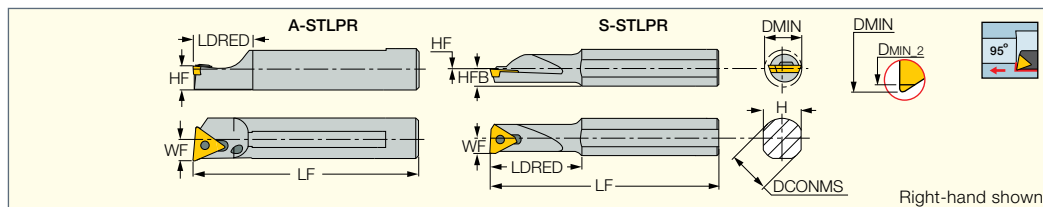
(1) Minimum overhang in adjustment range

(2) Maximum overhang in adjustment range

For inserts, see pages: TPGX (185) • TPGX (CBN) (213) • TPGX (PCD) (203)

ISOTURN**A/S-STLPR/L**

Screw Lock Boring Bars
Carrying the Triangular
Inserts with 11° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	GAMP	GAMF	DMIN	DMIN_2	CSP ⁽¹⁾		
A10K STLPR-11	10.00	125.00	18.0	9.5	5.8	1.1	6.00	3	0	11.00	12.00	1	SR 14-505	T-7/5
A12Q STLPR-11	12.00	180.00	18.0	11.5	6.0	0.3	7.00	4	0	13.00	14.00	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	3	0	9.70	11.00	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	4	0	14.00	15.00	0	SR 14-505	T-7/5
S16Q STLPR-11	16.00	180.00	27.0	15.0	8.0	0.5	9.00	5	0	17.00	18.00	0	SR 14-505	T-7/5
S20R STLPR-16	20.00	200.00	63.0	18.0	10.0	1.0	10.20	5	0	21.50	21.50	0	SR 14-541	T-15/5

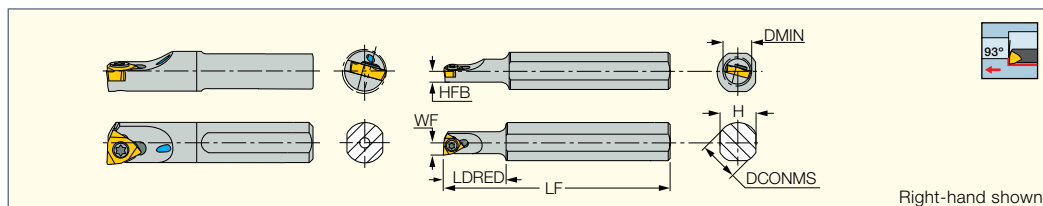
• (a1) When used with insert TPG. 110204-XL (a2) When used with insert TP. 110204-..

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

For inserts, see pages: TPMT-PF (184) • TPGB-XL (184) • TPGH-R/L (185) • TPGH-XL (185) • TPGB (184) • TPMT (183)

ISOTURN**E/S-SWUBR/L**

Screw Clamp Miniature
Boring Bars Carrying the
Small WBMT Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	CSP ⁽¹⁾	Shank m. ⁽²⁾	MIID ⁽³⁾		
E06H SWUBR/L-06	6.00	100.00	-	5.2	2.6	3.30	0	-15	6.50	1	C	WBMT 060101R	SR 14-552	T-6/5
E08K SWUBR-06	8.00	125.00	-	7.6	3.8	4.30	0	-8	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	0	-12	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	0	-15	6.50	0	S	WBMT 060101L	SR 14-552	T-6/5
S0610H SWUBR/L-06	10.00	100.00	20.0	9.0	4.5	3.00	0	-15	6.00	0	S	WBMT 060101R	SR 14-552	T-6/5
S0710H SWUBR/L-06	10.00	100.00	24.0	9.0	4.5	3.50	0	-13	7.00	0	S	WBMT 060101R	SR 14-552	T-6/5
S0808J SWUBR-06	8.00	100.00	-	7.4	3.7	4.30	0	-12	8.50	0	S	WBMT 060101L	SR 14-552	T-6/5
S0812J SWUBR/L-06	12.00	110.00	32.0	11.0	5.5	4.00	0	-12	8.00	0	S	WBMT 060101R	SR 14-552	T-6/5
S1010K SWUBR/L-06	10.00	125.00	-	9.0	4.5	5.20	0	-12	11.00	0	S	WBMT 060101R	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) 0 - Without coolant supply, 1 - With coolant supply

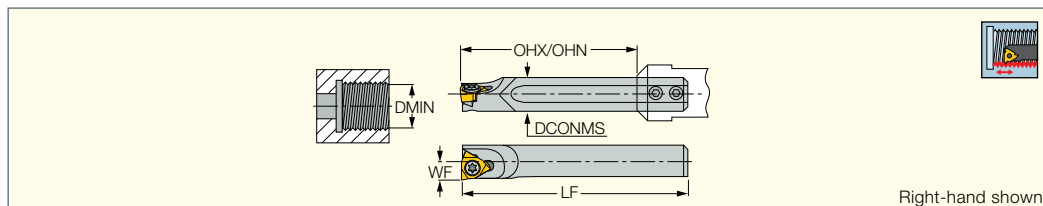
(2) S-Steel, C-Carbide

(3) Master insert identification

For inserts, see pages: WBGT (186) • WBMT (186)

ISOTURN**ISCAR THREAD****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

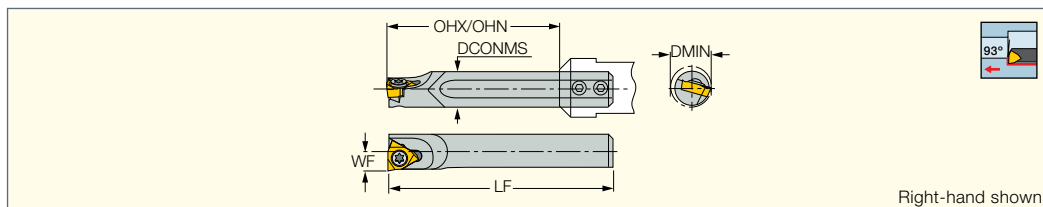
• In order to maintain high machining reliability, we strongly recommend replacing the clamping screw every 10 insert indexes

(1) Minimum overhang in adjustment range

(2) Maximum overhang in adjustment range

For inserts, see pages: IR-MJ (627) • IR/L-55° (597) • IR/L-60° (601) • IR/L-BSPT (623) • IR/L-ISO (608) • IR/L-NPT (620) • IR/L-NPTF (622) • IR/L-UN (613) • IR/L-W (617)

For holders, see pages: SBB (106)

ISOTURN**MG-SWUBR/L**Solid Carbide Bars for
Internal Turning

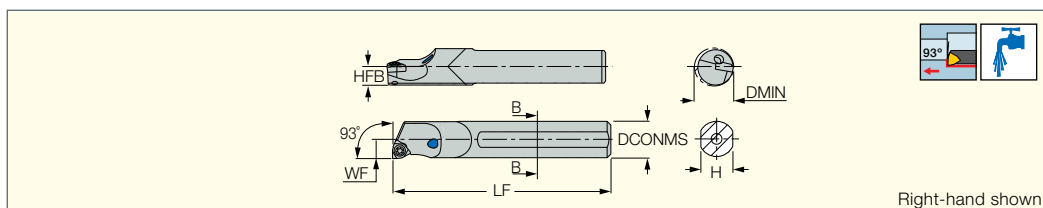
Designation	DCONMS	LF	OHN ⁽¹⁾	OHX ⁽²⁾	WF	DMIN		
MG 06-SWUBR/L-06	6.00	59.00	16.0	42.0	3.30	6.60	SR 14-552	T-6/5
MG 08-SWUBR/L-06	8.00	72.00	20.0	56.0	4.30	8.70	SR 14-552	T-6/5

• 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 (186) • WBMT (186)

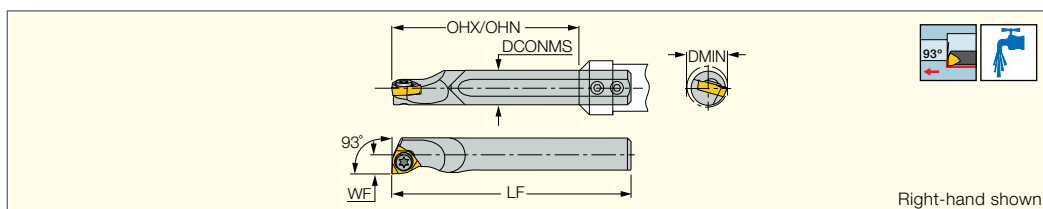
For holders, see pages: SBB (106)

ISOTURN**A/E-SWUCR**Boring Bars Carrying the WCGT
Trigon Inserts for Small Diameters

Designation	DCONMS	LF	H	HFB	WF	GAMP	GAMF	DMIN	Shank m. ⁽¹⁾	Insert		
A06H SWUCR-02	6.00	100.00	5.4	2.7	3.30	0	-15	6.60	S	WCGT 0201	SR 14-299	T-6/5
A08J SWUCR-02	8.00	110.00	7.2	3.6	4.25	0	-12	8.70	S	WCGT 0201	SR 14-299	T-6/5
A10K SWUCR-02	10.00	125.00	9.0	4.5	5.20	0	-12	10.90	S	WCGT 0201	SR 14-299	T-6/5
E06H SWUCR-02	6.00	100.00	5.4	2.7	3.30	0	-15	6.60	C	WCGT 0201	SR 14-299	T-6/5
E08K SWUCR-02	8.00	125.00	7.2	3.6	4.30	0	-12	8.70	C	WCGT 0201	SR 14-299	T-6/5
E10M SWUCR-02	10.00	150.00	9.0	4.5	5.20	0	-12	10.90	C	WCGT 0201	SR 14-299	T-6/5

⁽¹⁾ S-Steel, C-Carbide

For inserts, see pages: WCGT (186)

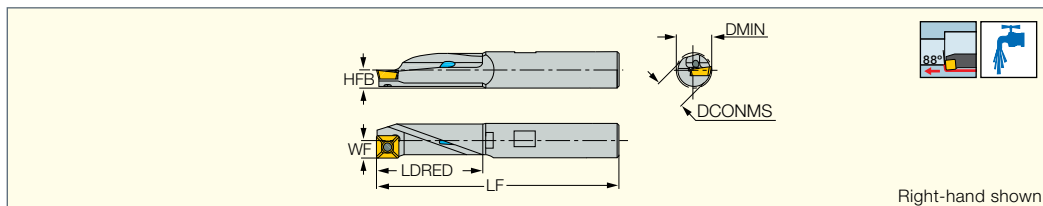
ISOTURN**MG-SWUCR**Solid Carbide Boring Bars
Carrying the WCGT Trigon
Inserts for Small Diameters

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	15	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	12	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 (186)

For holders, see pages: SBB (106)

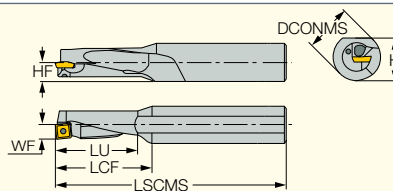
ISOTURN**A-SXFOR/L**Boring Bars with Coolant Holes
Carrying the XOMT Inserts

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	1.75	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	1.75	10.00	XOMT 0602	SR 34-508	T-7/5

For inserts, see pages: XOMT-DT (179)

MULTIFUNCTION TOOLS**A-SXFOR-DR**

Boring and Drilling Bars
with Coolant Holes Carrying
the XOMT Inserts

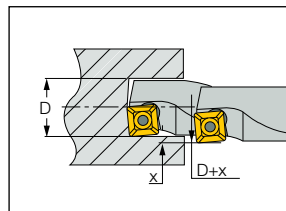


Right-hand shown

Designation	DCONMS	LSCMS	LCF	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	15.0	12.50	XOMT 0602

⁽¹⁾ Cutting diameter minimum

For inserts, see pages: XOMT-DT (179)

**Drilling Solid Material**

Range:

Dmin=12.5 mm

Dmax=14 mm

To achieve required diameter ϕD , 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;

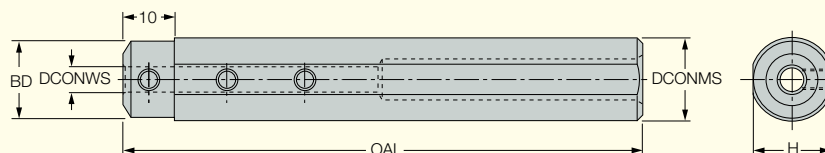
For stainless steel: 0.03 mm/rev

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*

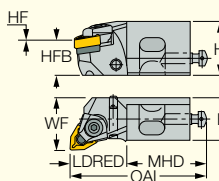
• Holders are suitable for right- and left-hand inserts, and boring bars

* Optional, should be ordered separately

For tools, see pages: A/E-SEXPR/L-03 (98) • A/E-SWUCR (105) • A/E/S-SCLCR/L (97) • E/S-SWUBR/L (104) • MG-SWUBR/L (105) • MG-SWUCR (105) • MGCH (375) • MGSIR/L (104)

ISOTURN**MWLNRL/L-CA-W**

Top Wedge Lock Cartridges
Carrying the Negative
Trigon Inserts



Right-hand shown

Designation	OAL	LDRED	B	H	HFB	HF	WF	GAMP	GAMF	MHD
MWLNRL/L 16CA-06W	63.00	26.4	20.0	25.0	16.0	3.5	25.00	-8	-8	36.60

For inserts, see pages: WNMG-CERMET (116) • WNMG-F3S (118) • WNMG-F3P (115) • WNMG-M3P (115) • WNMG-F3M (118) • WNMG-M3M (118) • WNMG-TF (121)

• WNMG-GN (121) • WNMG-PP (120) • WNMG-VL (119) • WNMG-SF (119) • WNMG-NF (119) • WNMG-WF (120) • WNMA/WNMA-WG (123) • WNMG-WG (120)

Spare Parts

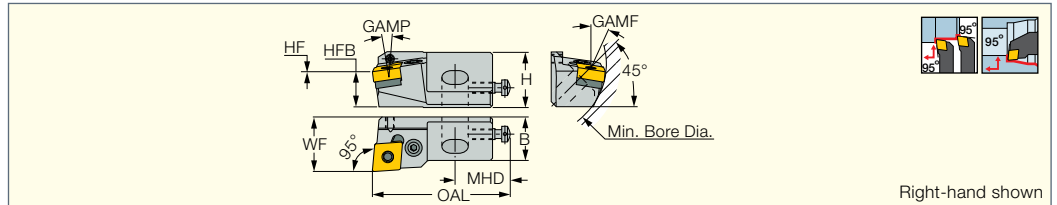
Designation								
MWLNRL/L 16CA-06W	IWSN 322W	IWSN 3-2W ^(a)	ZNW 3W	LC 250 SET 1	HW 2.0	SR 76-1401	SR M4X10 DIN913	HW 2.5

* Optional, should be ordered separately

^(a) Use WNMG 33..(0604..) inserts

PCLNR/L-CA

95° Lead Angle Exchangeable Cartridges Carrying the Negative 80° Diamond Inserts



Designation	H	HFB	B	OAL	HF	WF	DMIN ⁽¹⁾	GAMP	GAMF	MHD
PCLNR/L 16CA-12	25.0	16.0	20.0	63.00	3.5	25.00	55.00	-8	-8	25.00

⁽¹⁾ For axial mounting

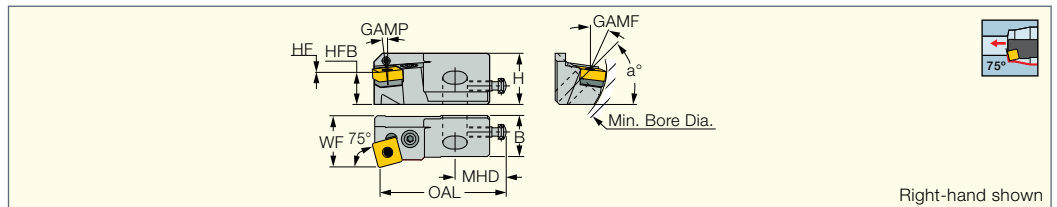
For inserts, see pages: CNGA-2 (CBN) (205) • CNGA-4 (CBN) (205) • CNGA-Ceramic (196) • CNGG-M4HF/M4HM (CBN) (206) • CNMA (130) • CNMA (PCD) (201) • CNMA-MW4 (CBN) (204) • CNMA-T/M1/WG (CBN) (204) • CNMG-Ceramic (195) • CNMG-CERMET (125) • CNMG-F3M (127) • CNMG-F3P (124) • CNMG-F3S (128) • CNMG-GN (132) • CNMG-M3M (127) • CNMG-M3P (124) • CNMG-NF (129) • CNMG-NR (132) • CNMG-VL (128) • CNMG-WF (129) • CNMG-WG/NRW (130) • CNMG/CNGG-PP (131) • CNMG/CNGG-SF (129) • CNMG/CNGG-TF (131) • CNMM-M4PW (134) • CNMM-R3P (125) • CNMS-12 (193)

Spare Parts

Designation									
PCLNL 16CA-12	TCN 423	SP 4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN916	HW 2.0	PN 3-4
PCLNR 16CA-12	TCN 423	SP 4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN913	HW 2.0	PN 3-4

PSKNR/L-CA

75° Lead Angle Cartridges Carrying the Negative Square Inserts



Designation	H	HFB	B	LF	HF	WF	DMIN ⁽¹⁾	GAMP	GAMF	a°	MHD
PSKNR 12CA-12	20.0	12.0	15.0	55.00	2.0	20.00	50.00	-6	-8	20	20.00
PSKNR/L 16CA-12	25.0	16.0	20.0	63.00	3.5	25.00	60.00	-4	-8	45	25.00

⁽¹⁾ For axial mounting

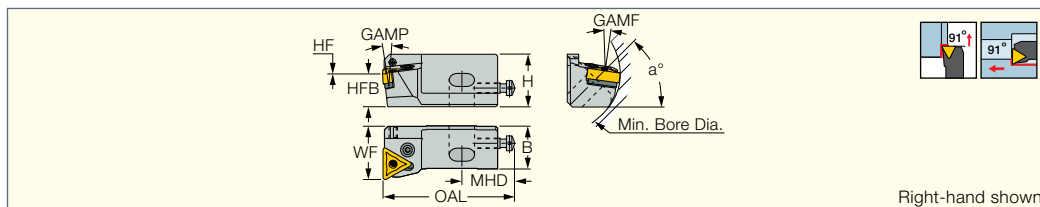
For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

Spare Parts

Designation									
PSKNR 12CA-12				LR 4M	SR 117-2011	HW 2.5/5	SR 76-1401	SR M4X5 DIN913	HW 2.0
PSKNR/L 16CA-12	TSN 423	SP 4	PN 3-4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN913	HW 2.0

ISOTURN**PTFNR-CA**

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



Designation	H	HFB	B	OAL	HF	WF	DMIN ⁽¹⁾	GAMP	GAMF	a°	MHD
PTFNR 12CA-16	20.0	12.0	15.0	55.00	2.0	20.00	50.00	-6	-9	20	20.00
PTFNR 16CA-16	25.0	16.0	20.0	63.00	3.5	25.00	55.00	-6	-8	45	25.00

⁽¹⁾ For axial mounting

For inserts, see pages: TNMG-F3S (148) • TNMG-FFG-CERMET (148) • TNMG-F3P (146) • TNMG-M3P (146) • TNMG-F3M (147) • TNMG-M3M (147) • TNMG-TF (149) • TNMG-GN (150) • TNMG/TNGG-PP (150) • TNMG-VL (149) • TNMG-PF (149) • TNMG-SF (148) • TNMG-NF (150) • TNMS-12 (192) • TNMA (151) • TNGA-Ceramic (199) • TNGA-M3 (CBN) (212) • TNGA-MC/M6 (CBN) (212) • TNMA (CBN) (211)

Spare Parts

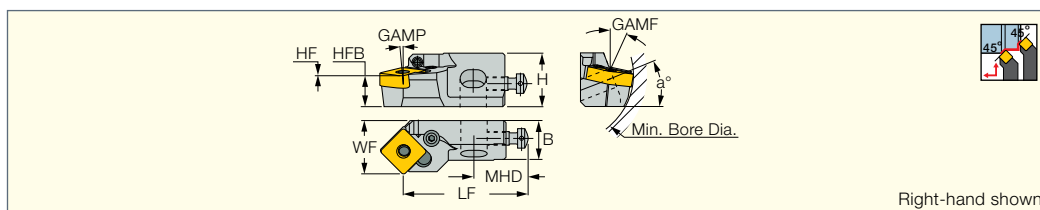
Designation										
PTFNR 12CA-16	TTN 332 ^(a) *				LR 3S	SR 117-2009		SR 76-1401	SR M4X5 DIN913	HW 2.0
PTFNR 16CA-16	TTN 322	TTN 332 ^(a) *	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	SR 76-1401	SR M4X5 DIN913	HW 2.0

* Optional, should be ordered separately

^(a) Use for TNMG 32..(1603..) inserts

ISOTURN**PSSNR-CA**

45° Lead Angle Cartridges
Carrying the Negative
Square Inserts for Face and
Longitudinal Turning



Designation	LF	B	H	HFB	HF	WF	GAMP	GAMF	a°	DMIN ⁽¹⁾	MHD
PSSNR 12CA-12	47.00	15.0	20.0	12.0	2.0	20.00	-3	-10	20	50.00	20.00
PSSNR 16CA-12	53.00	20.0	25.0	16.0	3.5	25.00	0	-11	45	55.00	24.00

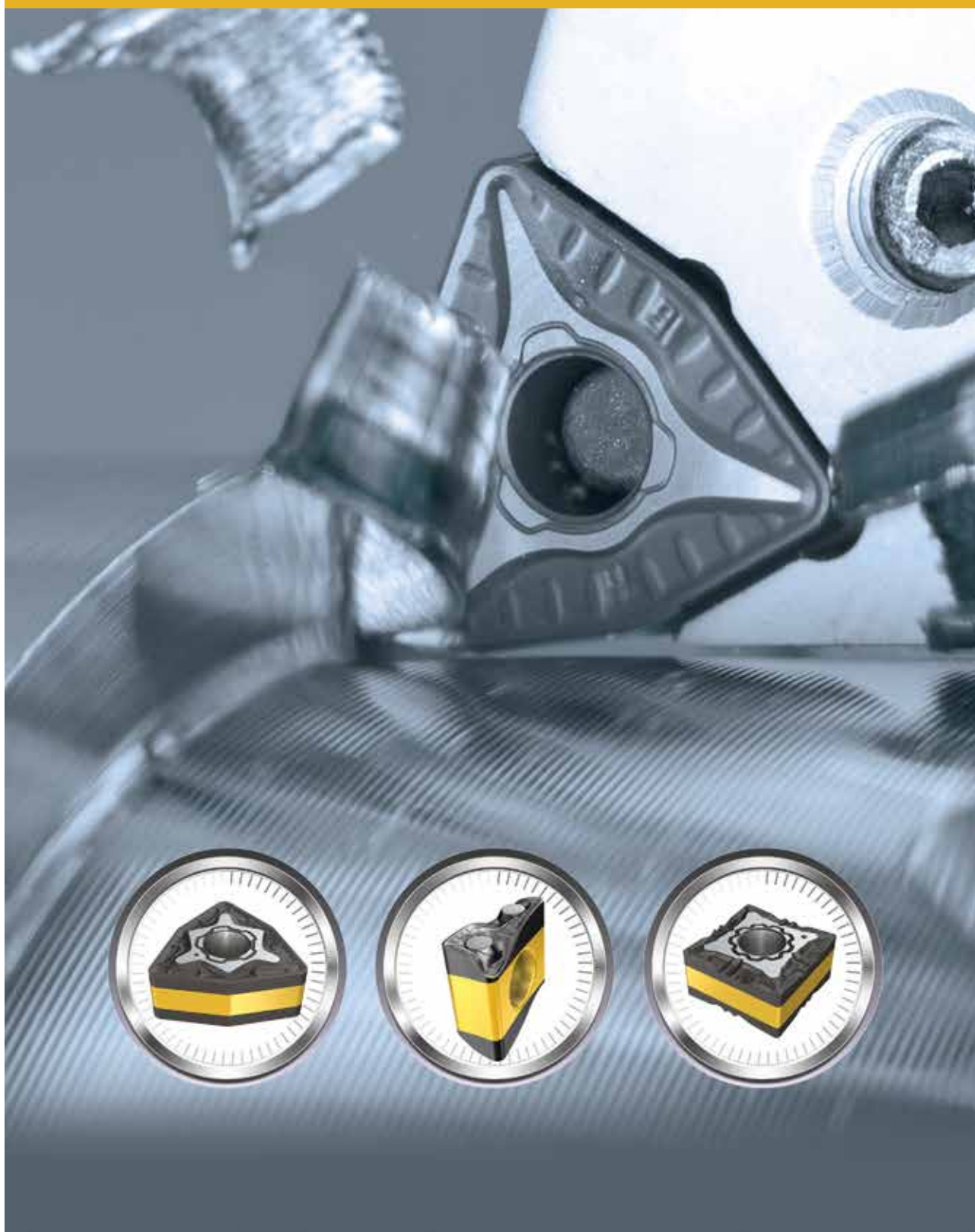
⁽¹⁾ For axial mounting

For inserts, see pages: SNMG-F3S (154) • SNMG-F3P (152) • SNMG-M3P (152) • SNMM-R3P (157) • SNMG-F3M (153) • SNMG-M3M (153) • SNMG-TF (155) • SNMG-GN (156) • SNMG-NR (156) • SNMG-PP (154) • SNMG-VL (154) • SNMA (156) • SNGA-Ceramic (197) • SNMA (CBN) (214)

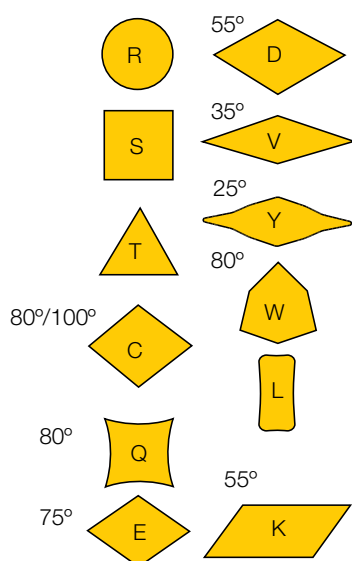
Spare Parts

Designation										
PSSNR 12CA-12					LR 4M	SR 117-2011	HW 2.5	SR 76-1401	SR M4X5 DIN913	HW 2.0
PSSNR 16CA-12	TSN 423	SP 4	PN 3-4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN913	SR M4X5 DIN913	HW 2.0

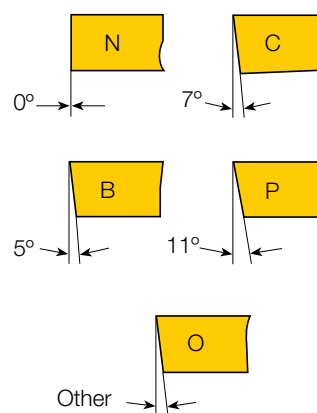
ISOTURN INSERTS



1. Shape



2. Clearance Angle



W

1

N

2

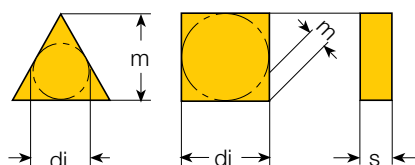
M

3

G

4

3. Tolerance



	m	s	di
E	±0.025	±0.025	±0.025
G	±0.025	±0.13	±0.025
M	fr. ±0.08 to ±0.18 ⁽¹⁾	±0.13	fr. ±0.05 to ±0.13 ⁽¹⁾
U	fr. ±0.13 to ±0.38 ⁽¹⁾	±0.13	fr. ±0.08 to ±0.25 ⁽¹⁾

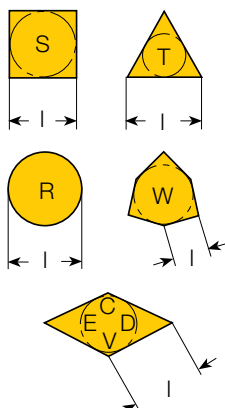
⁽¹⁾ Exact tolerance depends on insert size

di	Tolerance in mm			
	On m		On di	
	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	C/breaker on one side, with hole and C/sink
	P	Neg/pos on one or both sides, with hole
	Z, X	Special

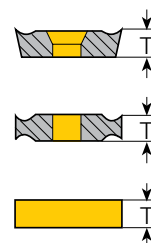
5. Cutting Edge Length



di		Symbol (I)							
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

08

5

04

6

08

7

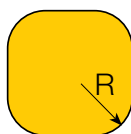
E

8

GN

9

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)

Symbol

Sharp



F

Honed
(Rounded)



E

Chamfered
(Negative Land)



T

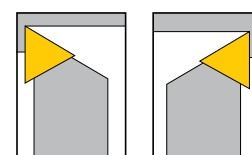
Chamfered +
Honed



S

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		



R

L

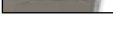
☐ R

☐ L

Right-hand

Left-hand

ISO P - Steel Finishing						ISO P - Steel Medium						ISO P - Steel Roughing					
TIGHT ↑		SF		IC520N	HARD ↓	TIGHT ↑		M3P			HARD ↓	TIGHT ↑		GN	IC8150	HARD ↓	
		PF		IC530N					IC8150					R3P	IC8250		
		NF/SM		IC570				PP						NR			
OPEN ↓		F3P		IC8150	TOUGH ↓	OPEN ↓		TF			TOUGH ↓	OPEN ↓		HTW	IC8350	TOUGH ↓	
		RF/LF							IC8250					NM/ TNM			
		WF/WG - Wiper		IC8250				GN						T3P			
														H6P	IC3028		

ISO N - Aluminum		
Finishing		
 NF	 ID5	 IC520
 .CGT-AS	 IC20	
OPEN — TIGHT	TOUGH — HARD	
Medium		
 PP	 ID5	 IC520
 .CGT-AS	 IC20	
OPEN — TIGHT	TOUGH — HARD	
Roughing		
 .CGT-AS	 IC20	 .NMS-12
OPEN — TIGHT	TOUGH — HARD	

ISO K - Cast Iron		
Finishing		
 GN IN11 IS6 IS80 IS8 IC9007 IC5005 ...A	 NR IN23 IC9007 IC5005 IC428 IC 5010 IC8150	 ...A
TIGHT	TIGHT	TIGHT
OPEN	OPEN	OPEN
HARD	HARD	HARD
TOUGH	TOUGH	TOUGH

■ First Choice

ISO M - Stainless Steel		
Finishing		
 SF IC6015 IC807 IC907 PF NF/SM IC6025 F3M IC570 VL IC808 IC908 RF/LF	 TF IC6025 IC808 IC908 M3M IC3028	 ...A
TIGHT	TIGHT	TIGHT
OPEN	OPEN	OPEN
HARD	HARD	HARD
TOUGH	TOUGH	TOUGH

■ First Choice

ISO S - High Temp. Alloys Finishing			ISO S - High Temp. Alloys Medium			ISO S - High Temp. Alloys Roughing					
TIGHT ↑		SF/PF	IW7	TIGHT ↑		PP	IW7	TIGHT ↑		HM	IW7
		PF	IC804			TF	IC804			M4MW	IC806 IC807 IC907
		TF	IC07			EM-M	IC07			EM-R	IC808 IC908
		PP	IC807 IC907				IC807 IC907			MR	IC3028
OPEN ↓			IC20	OPEN ↓			IC908	OPEN ↓			
HARD ↑			HARD ↑			HARD ↑			HARD ↑		
TOUGH ↓			TOUGH ↓			TOUGH ↓			TOUGH ↓		

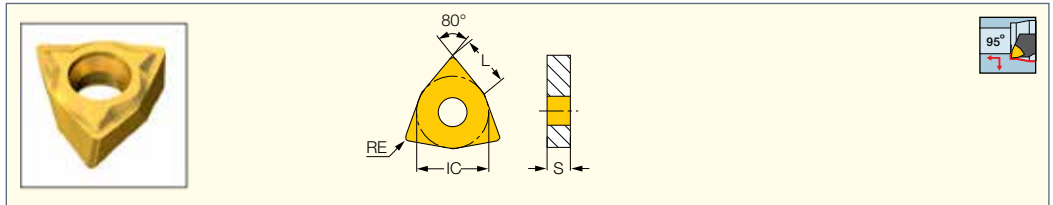
 First Choice

ISO H - Hardened Steel Finishing			ISO H - Hardened Steel Medium		
TIGHT ↑		GN	HARD ↑		.NMA
		.NMA			.NGA
		.NGA			GN
OPEN ↓		IB10HC IB50 IB10H	OPEN ↓		IB55
		IB55			IB20H
		IB20H			IN22
		IN22			IC807 IC907
		IC807 IC907			IC808 IC908
TOUGH ↓			TOUGH ↓		

 First Choice

WNGP-F2P

Double-Sided Trigon Inserts
for Super Finish Machining
Conditions on Alloyed Steel



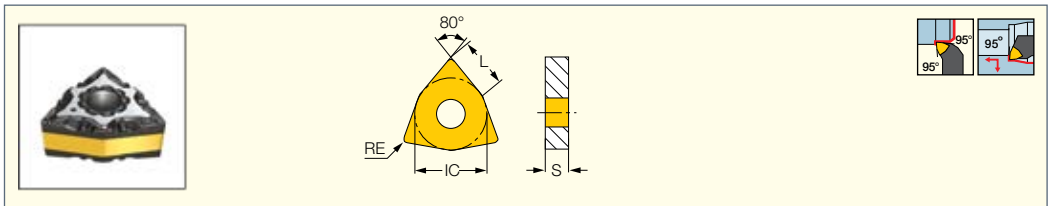
Designation	Dimensions				IC530N	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
WNGP 040302R/L-F2P	4.35	6.35	3.18	0.20	•	0.30-2.00	0.08-0.30
WNGP 040304R/L-F2P	4.35	6.35	3.18	0.40	•	0.30-2.00	0.08-0.30
WNGP 040308R/L-F2P	4.35	6.35	3.18	0.80	•	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-SWLNRL/L-04 (89) • PWNRL/L-S (6)

WNMG-F3P

Double-Sided Trigon Inserts
for Semi-Finishing and
Finishing Applications



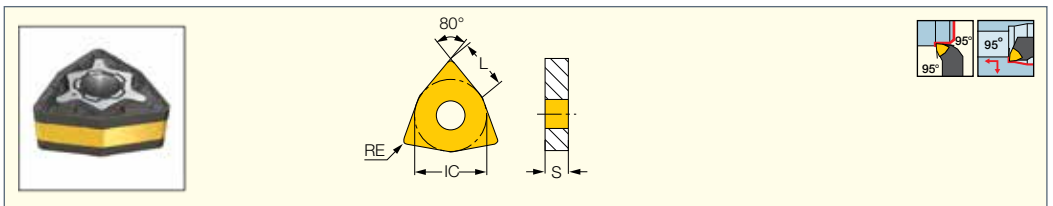
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC20N	IC520N	IC807	a_p (mm)	f (mm/rev)
WNMG 060404-F3P	6.52	9.52	4.76	0.40	•	•	•	•	•	•	0.50-2.50	0.07-0.25
WNMG 060408-F3P	6.52	9.52	4.76	0.80	•	•	•	•	•	•	0.90-3.00	0.08-0.25
WNMG 060412-F3P	6.52	9.52	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNR/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • HSK A63WH-MULNR-L12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNR-MW (91) • DWLNRL/L-JHP-MC (8)

WNMG-M3P

Double-Sided Trigon Inserts
for Medium Machining
Conditions on Steel



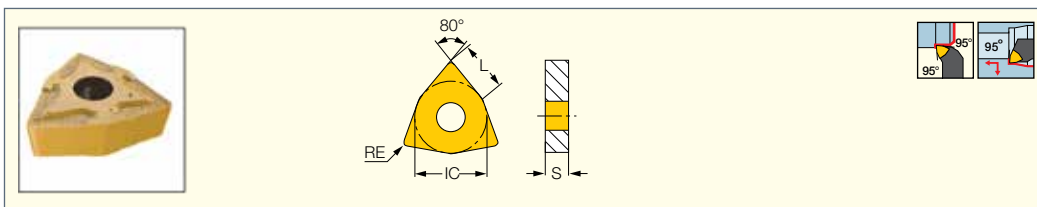
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC5010	IC807	a_p (mm)	f (mm/rev)
WNMG 06T304-M3P	6.52	9.52	3.97	0.40	•	•	•	•	•	•	0.45-2.50	0.10-0.45
WNMG 06T308-M3P	6.52	9.52	3.97	0.80	•	•	•	•	•	•	0.50-3.00	0.15-0.50
WNMG 06T312-M3P	6.52	9.52	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNR/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • E-PWLNRL/L-HEAD (91) • HSK A63WH-MULNR-L12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNR-MW (91) • DWLNRL/L-JHP-MC (8)

ISOTURN**WNMG-CERMET**

Double-Sided Trigon Cermet
Grade Inserts for Semi-Finishing
and Finishing Applications

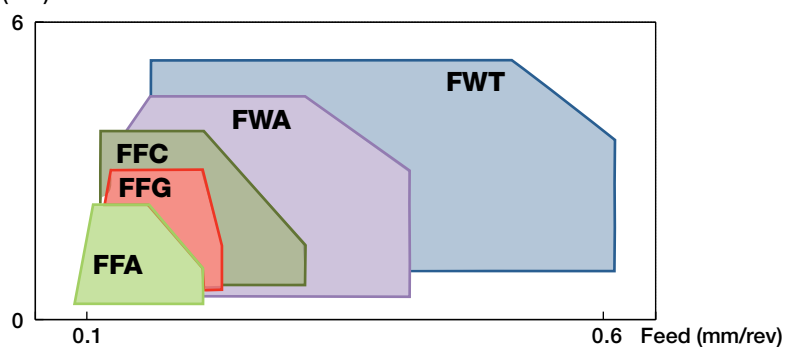


Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC20N	IC520N	a_p (mm)	f (mm/rev)
WNMG 06T302-FFC	6.52	9.52	3.97	0.20	●	●	1.00-2.50	0.05-0.25
WNMG 06T304-FFC	6.52	9.52	3.97	0.40	●	●	1.00-2.50	0.05-0.25
WNMG 06T304-FFG	6.52	9.52	3.97	0.40		●	1.00-2.50	0.05-0.25
WNMG 06T304-FWA	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	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

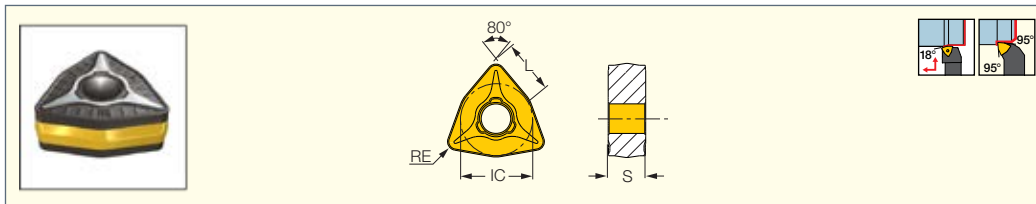
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-MWLNRL-W (89) • A/S-PWLNRL (90) • C#-MULNRL-MW (13) • C#-PWLNRL-08-JHP (7) • DWLNRL (7) • E-PWLNRL-HEAD (91) • HSK A63WH-MULNRL-J12MWX2 (14) • HSK A63WH-MULNRL-L-MW (13) • HSK A63WH-MUMN-MW (14) • MULNRL-12MW (12) • MWLNRL-CA-W (106) • MWLNRL-W (15) • PWLNRL (6) • PWLNRL-08-JHP (6) • PWLNRL-X (8) • PWLNRL-X-JHP (9) • S-DWLNRL (85) • S-MULNRL-MW (91) • DWLNRL-JHP-MC (8)

D.O.C(mm)



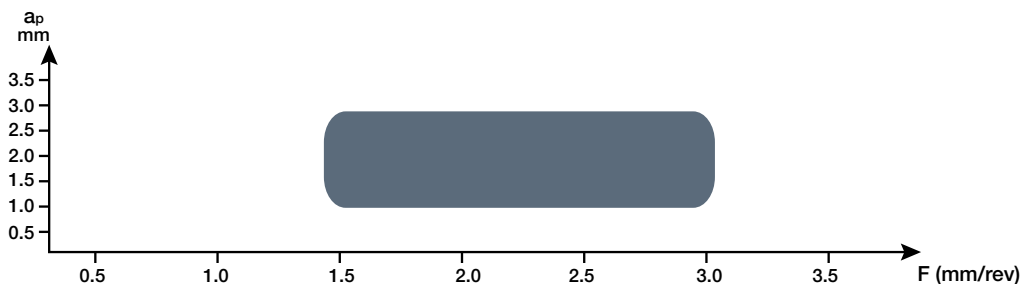
WOMG-10-T3P-IQ

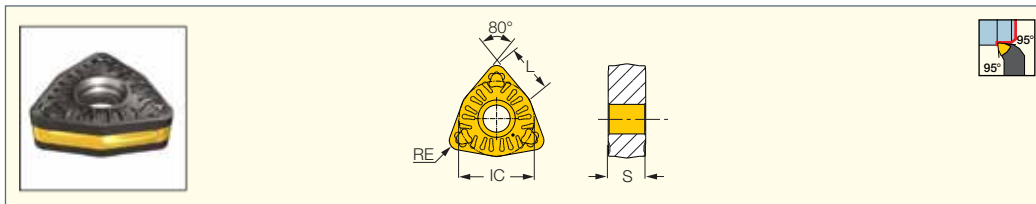
 Double-Sided 6° Negative
 Side Flank Trigon Inserts for
 High Feed Turning of Steel


Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC8350	IC8250	IC8150	a_p (mm)	f (mm/rev)
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, $f_t = 0.3-0.8$ mm/rev. • For user guide, see pages 109-114, 215-238

For tools, see pages: PWLOR/L-IQ (16) • PWXOR/L-TF-IQ (17)

Application Range on PWXOR/L-TF-IQ Tools

WOMG-13-R3P-IQ

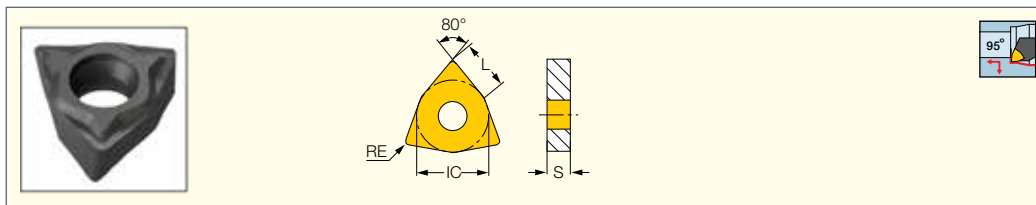
 Double-Sided 7° Negative
 Side Flank Trigon Inserts for
 Heavy Turning of Steel


Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	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 109-114, 215-238

For tools, see pages: C#-PWLOR/L-IQ (16) • PWLOR/L-IQ (16)

WNGP-F2M

 Double-Sided Trigon Inserts
 for Super Finish Machining
 Conditions on Stainless Steel


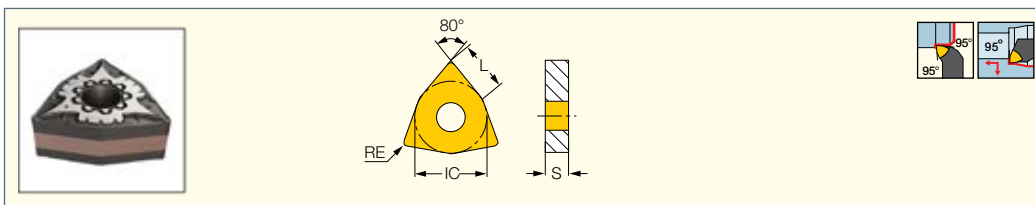
Designation	Dimensions				IC908	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
WNGP 040302R/L-F2M	4.35	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
WNGP 040304R/L-F2M	4.35	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
WNGP 040308R/L-F2M	4.35	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-SWLN/L-04 (89) • PWLN/L-S (6)

ISOTURN**WNMG-F3M**

Double-Sided Trigon
Inserts for Stainless Steel
Finishing Applications



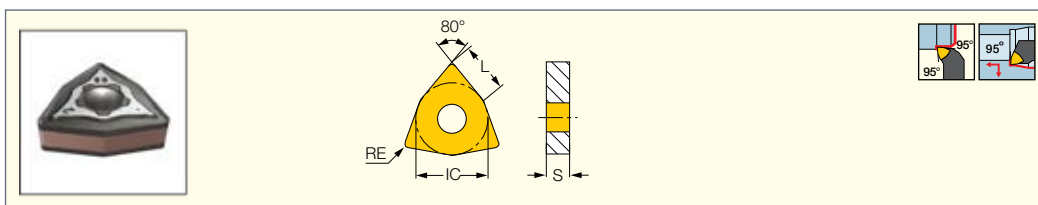
Designation	Dimensions				Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	a_p (mm)	f (mm/rev)
WNMG 060404-F3M	6.52	9.52	4.76	0.40	●	●	●	●	●	0.10-1.50	0.05-0.30
WNMG 060408-F3M	6.52	9.52	4.76	0.80	●	●	●	●	●	0.10-1.50	0.10-0.40
WNMG 060412-F3M	6.52	9.52	4.76	1.20	●	●	●	●	●	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNRL/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • HSK A63WH-MULNRL-L12MWX2 (14) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNRL-MW (91) • DWLNRL/L-JHP-MC (8)

ISOTURN**WNMG-M3M**

Double-Sided Trigon Inserts
for Machining Stainless
and Low Carbon Steel



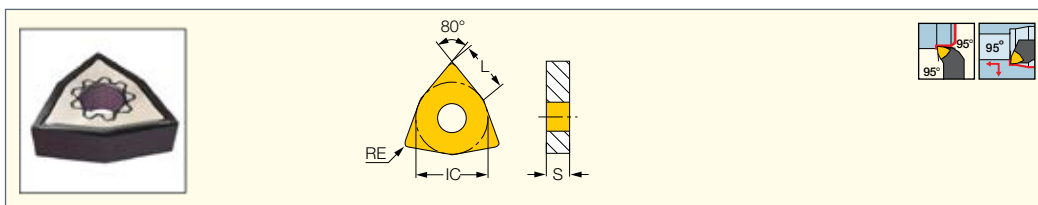
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC804	a_p (mm)	f (mm/rev)
WNMG 060404-M3M	6.52	9.52	4.76	0.40	●	●	●	●	●		0.50-3.50	0.12-0.40
WNMG 060408-M3M	6.52	9.52	4.76	0.80	●	●	●	●	●		0.50-3.50	0.15-0.50
WNMG 060412-M3M	6.52	9.52	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNRL/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • HSK A63WH-MULNRL-L12MWX2 (14) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNRL-MW (91) • DWLNRL/L-JHP-MC (8)

ISOTURN**WNMG-F3S**

Double-Sided 80° Trigon
Inserts for Titanium and Heat
Resistant Materials. Used
for Finishing Applications.



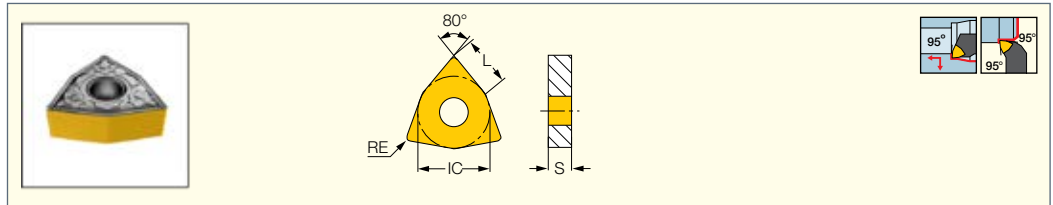
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC806	IC804	a_p (mm)	f (mm/rev)
WNMG 060404-F3S	6.52	9.52	4.76	0.40	●	●	0.10-1.50	0.05-0.30
WNMG 060408-F3S	6.52	9.52	4.76	0.80	●	●	0.10-1.50	0.10-0.35
WNMG 080404-F3S	8.70	12.70	4.76	0.40	●	●	0.10-1.50	0.05-0.30
WNMG 080408-F3S	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNRL/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • DWLNRL/L-JHP-MC (8) • HSK A63WH-MULNRL-L12MWX2 (14) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNRL-MW (91)

WNMG-SF

Double-Sided Trigon Inserts
for Super Finishing



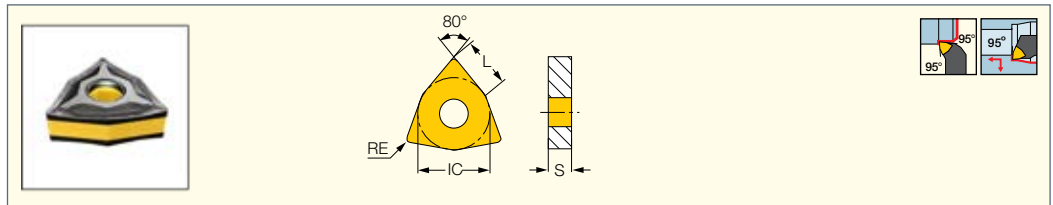
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC530N	IC520N	IC807	IC907	a_p (mm)	f (mm/rev)
WNMG 06T302-SF	6.52	9.52	3.97	0.20	●				0.30-1.50	0.02-0.15
WNMG 06T304-SF	6.52	9.52	3.97	0.40	●	●	●	●	0.30-1.50	0.05-0.15

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • DWLN/L (7) • E-PWLN/L-HEAD (91) • MWLN/L-CA-W (106) • MWLN/L-W (15) • PWLN/L (6)

WNMG-NF

Double-Sided Trigon Inserts
for Semi-Finishing and
Finishing Applications



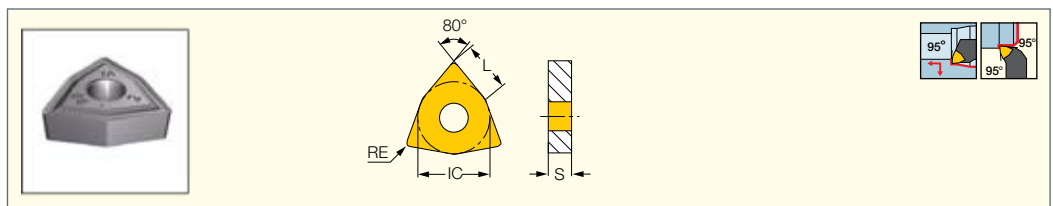
Designation	Dimensions				Tough ↔ Hard											Recommended Machining Data		
	L	IC	S	RE	IC8350	IC8250	IC908	IC30N	IC530N	IC10	IC8150	IC20	IC20N	IC520N	IC807	IC907	a _p (mm)	f (mm/rev)
WNMG 06T301-NF	6.52	9.52	3.97	0.10			●										0.20-1.00	0.05-0.15
WNMG 06T302-NF	6.52	9.52	3.97	0.20	●	●		●	●	●	●		●		●	●	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 109-114, 215-238

For tools, see pages: A-PWLN/L-X/G (90) • A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLN/L-08-JHP (7) • C#-PWLN/L-X (10) • C#-PWLN/L-X-JHP (11) • DWLN/L (7) • E-PWLN/L-HEAD (91) • HSK A63WH-MULNR-L12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-CA-W (106) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • PWLN/L-X-JHP-MC (10) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

WNMG-VL

Double-Sided Trigon Inserts
with a Chipformer for High
Temperature Alloys and
Stainless Steel Valves



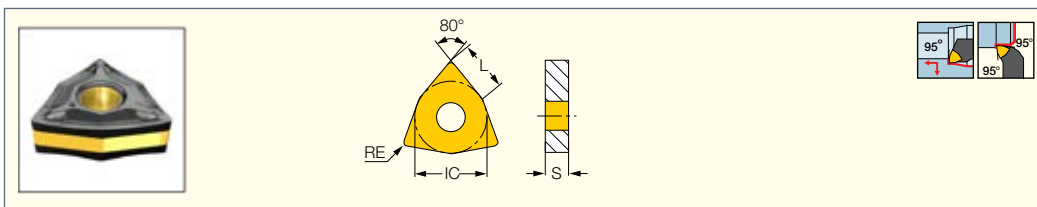
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC908	IC806	IC907	a_p (mm)	f (mm/rev)
WNMG 06T308-VL	6.52	9.52	3.97	0.80	●			0.50-3.00	0.07-0.25
WNMG 080404-VL	8.70	12.70	4.76	0.40		●	●	0.30-3.00	0.05-0.15
WNMG 080408-VL	8.70	12.70	4.76	0.80	●	●		0.50-4.00	0.10-0.25
WNMG 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 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLN/L-08-JHP (7) • DWLN/L (7) • E-PWLN/L-HEAD (91) • HSK A63WH-MULNR-L12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-CA-W (106) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

ISOTURN**WNMG-WG**

Double-Sided Trigon Wiper
Inserts for High Surface Finish
at High Feed Turning



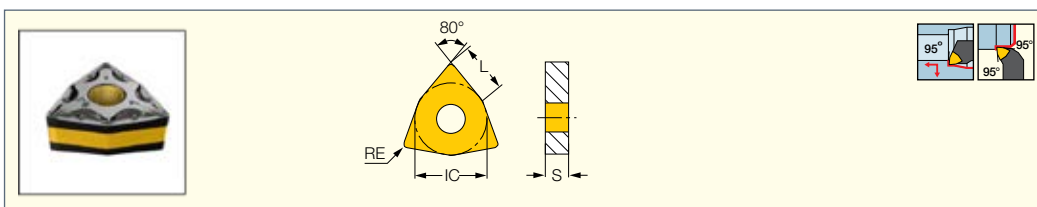
Designation	Dimensions				Tough ↔ Hard									Recommended Machining Data	
	IC	L	S	RE	IC8250	IC530N	IC8150	IC20N	IC520N	IC428	IC5005	IC807	IC907	a_p (mm)	f (mm/rev)
WNMG 06T304-WG	9.52	6.52	3.97	0.40	•	•	•	•	•					0.40-3.00	0.10-0.35
WNMG 06T308-WG	9.52	6.52	3.97	0.80	•		•		•			•	•	0.60-3.50	0.10-0.50
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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNRL/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • E-PWLNRL/L-HEAD (91) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL/L-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNRL/L-MW (91) • DWLNRL/L-JHP-MC (8)

ISOTURN**WNMG-WF**

Double-Sided Trigon
Wiper Inserts for Finishing
Operations at High Feeds



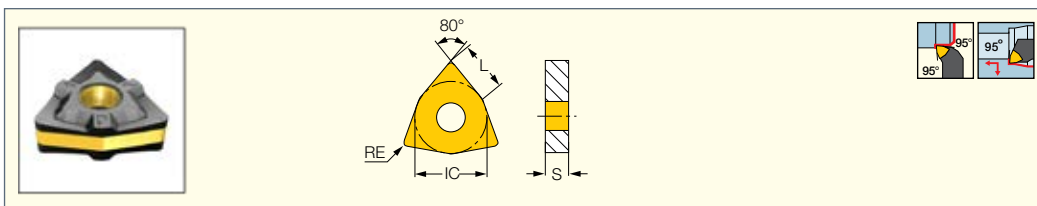
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC530N	IC8150	IC807	IC907	a_p (mm)	f (mm/rev)
WNMG 060402-WF	6.52	9.52	4.76	0.20				•	0.20-3.00	0.05-0.25
WNMG 060404-WF	6.52	9.52	4.76	0.40			•	•	0.50-3.00	0.05-0.30
WNMG 060408-WF	6.52	9.52	4.76	0.80				•	0.80-3.50	0.07-0.30
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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNRL/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • HSK A63WH-MULNRL/L-12MWX2 (14) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL/L-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNRL/L-MW (91) • DWLNRL/L-JHP-MC (8)

ISOTURN**WNMG-PP**

Double-Sided Trigon Inserts for
Machining Very Ductile Materials
at Medium Cutting Conditions



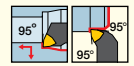
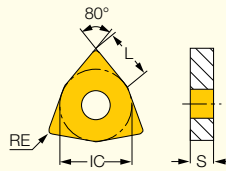
Designation	Dimensions				Tough ↔ Hard															Recommended Machining Data		
	L	IC	S	RE	IC28	IC830	IC8350	IC6025	IC8250	IC30N	IC530N	IC10	IC6015	IC8150	IC520M	IC20	IC20N	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
WNMG 06T304-PP	6.52	9.52	3.97	0.40			●		●		●			●					●	●	1.00-3.00	0.14-0.30
WNMG 06T308-PP	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNRL/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • E-PWLNRL/L-HEAD (91) • HSK A63WH-MULNRL/L-12MWX2 (14) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL/L-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNRL/L-MW (91) • DWLNRL/L-JHP-MC (8)

WNMG-TF

Double-Sided Trigon Inserts
for Machining a Wide Range
of Materials at Medium
Cutting Conditions



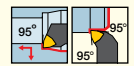
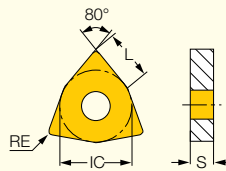
Designation	Dimensions				Tough ↔ Hard												Recommended Machining Data		
					IC830	IC8350	IC6025	IC8250	IC908	IC6015	IC8150	IC520M	IC20	IC20N	IC5010	IC806			IC807
	L	IC	S	RE													a _p (mm)	f (mm/rev)	
WNMG 06T304-TF	6.52	9.52	3.97	0.40	●			●					●			●	●	1.00-3.00	0.12-0.35
WNMG 06T308-TF	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 109-114, 215-238

For tools, see pages: A-PWLNRL-X/G (90) • A/S-MWLNRL-W (89) • A/S-PWLNRL (90) • C#-MULNRL-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL (7) • E-PWLNRL-HEAD (91) • HSK A63WH-MULNRL-J12MWX2 (14) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL (85) • S-MULNRL-MW (91) • DWLNRL/L-JHP-MC (8)

WNMG-GN

Double-Sided Trigon Inserts
for General Applications



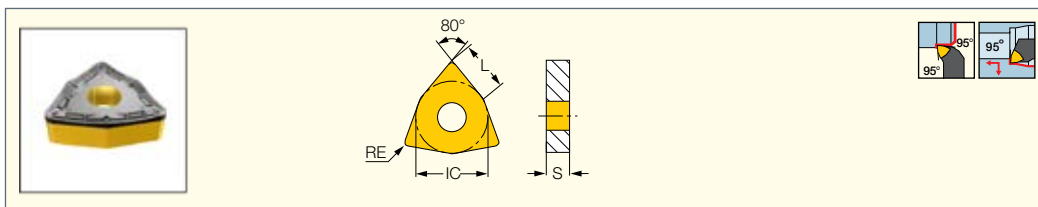
Designation	Dimensions				Tough ↔ Hard												Recommended Machining Data	
	L	IC	S	RE	IC830	IC928	IC8350	IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
WNMG 06T304-GN	6.52	9.52	3.97	0.40	•				•		•	•					1.00-3.50	0.14-0.40
WNMG 06T308-GN	6.52	9.52	3.97	0.80	•		•		•		•	•					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 109-114, 215-238

For tools, see pages: A-PWLNRL-X/G (90) • A/S-MWLNRL-W (89) • A/S-PWLNRL (90) • C#-MULNRL-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL (7) • E-PWLNRL-HEAD (91) • HSK A63WH-MULNRL-J12MWX2 (14) • HSK A63WH-MULNRL/L-MW (13) • HSK A63WH-MUMNRL-MW (14) • MULNRL/L-12MW (12) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL (85) • S-MULNRL-MW (91) • DWLNRL/L-JHP-MC (8)

ISOTURN**WNMM-NM**

Single-Sided Trigon Inserts
for Roughing Applications



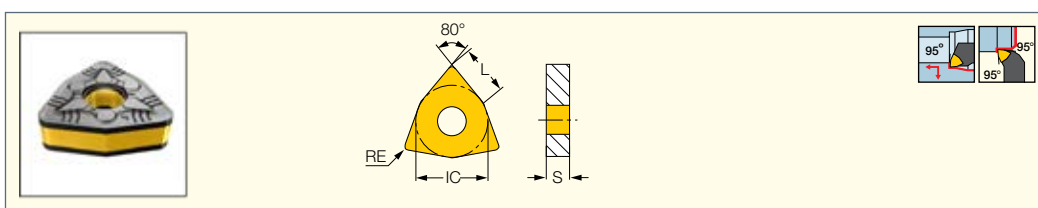
Designation	Dimensions				IC8250	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
WNMM 080408-NM	8.70	12.70	4.76	0.80	●	1.50-5.00	0.20-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLN/L-08-JHP (7) • DWLN/L (7) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • PWLN/L-X-JHP-MC (10) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

ISOTURN**WNMG-NR**

Double-Sided Trigon Inserts
with a Special Chipformer
for Heavy Machining



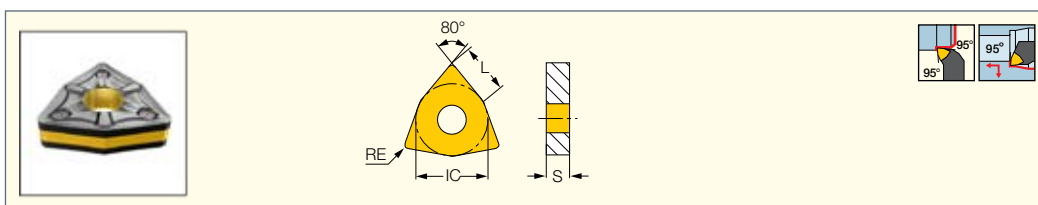
Designation	Dimensions				Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	IC5010	IC807	IC907	a_p (mm)	f (mm/rev)
WNMG 080408-NR	8.70	12.70	4.76	0.80	●		●	●	●	1.00-5.00	0.18-0.50
WNMG 080412-NR	8.70	12.70	4.76	1.20	●	●	●	●	●	2.00-5.00	0.23-0.55
WNMG 080416-NR	8.70	12.70	4.76	1.60	●	●				2.00-5.00	0.30-0.60

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLN/L-08-JHP (7) • DWLN/L (7) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • PWLN/L-X-JHP-MC (10) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

ISOTURN**WNMG-TNM**

Double-Sided Trigon Inserts
for Semi-Roughing and
Roughing Applications



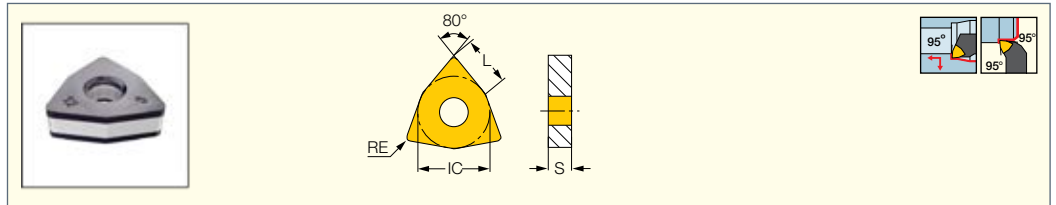
Designation	Dimensions				Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC807	IC907	a_p (mm)	f (mm/rev)
WNMG 080408-TNM	8.70	12.70	4.76	0.80			●			2.00-4.50	0.25-0.45
WNMG 080412-TNM	8.70	12.70	4.76	1.20			●			2.00-4.50	0.25-0.45
WNMG 130612-TNM	13.03	19.05	6.35	1.20		●	●	●	●	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

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLN/L-08-JHP (7) • DWLN/L (7) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-13W (15) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • PWLN/L-X-JHP-MC (10) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

WNMA/WNMA-WG

Double-Sided Trigon Inserts
for Short Chipping Materials
such as Cast Iron



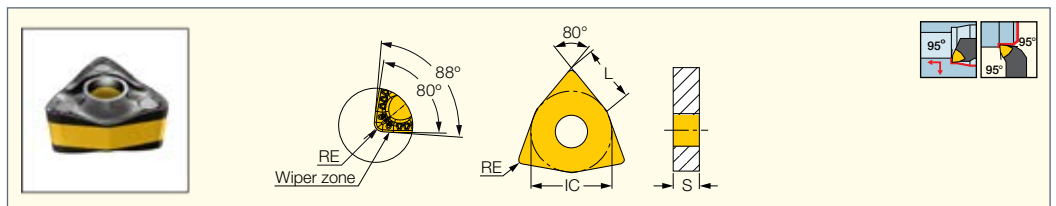
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC8150	IC5010	IC428	IC5005	a_p (mm)	f (mm/rev)
WNMA 06T304	6.52	9.52	3.97	0.40		•	•	•	0.50-2.00	0.03-0.30
WNMA 06T308	6.52	9.52	3.97	0.80		•	•	•	1.00-3.00	0.03-0.40
WNMA 06T312	6.52	9.52	3.97	1.20			•	•	1.50-3.50	0.03-0.45
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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • A/S-MWLNRL/L-W (89) • A/S-PWLNRL/L (90) • C#-MULNR/L-MW (13) • C#-PWLNRL/L-08-JHP (7) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • E-PWLNRL/L-HEAD (91) • HSK A63WH-MULNR-L-MW (13) • HSK A63WH-MULNR-L-MW (13) • HSK A63WH-MULNR-L-MW (13) • HSK A63WH-MULNR-L-MW (13) • MULNR/L-12MW (12) • MWLNRL/L-13W (15) • MWLNRL/L-CA-W (106) • MWLNRL/L-W (15) • PWLNRL/L (6) • PWLNRL/L-08-JHP (6) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10) • S-DWLNRL/L (85) • S-MULNR-L-MW (91) • DWLNRL/L-JHP-MC (8)

HELI TURN LD
WNMX-M3/4PW

Double-Sided Trigon Inserts
with High Helical Cutting Edge
for High Metal Removal Rates



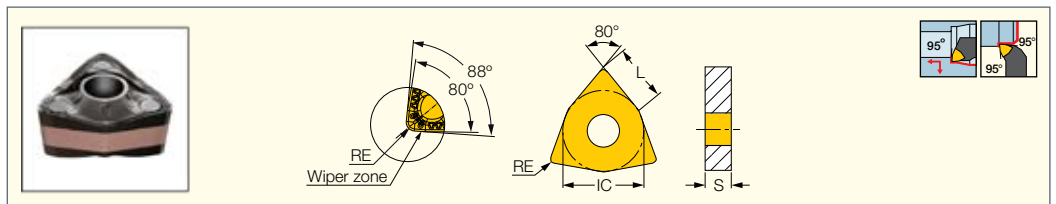
Designation	Dimensions				Tough ↔ Hard					Recommended Machining Data	
	IC	RE	S	L	IC830	IC8250	IC8150	IC520N	IC807	a_p (mm)	f (mm/rev)
WNMX 060604-M3PW	9.52	0.40	4.41	6.50	•	•	•		•	1.00-4.00	0.20-0.50
WNMX 060608-M3PW	9.52	0.80	4.41	6.50	•	•	•	•	•	1.50-4.00	0.25-0.60
WNMX 080708-M4PW	12.70	0.80	6.78	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • DWLNRL/L-JHP-MC (8) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10)

HELI TURN LD
WNMX-M3/4MW

Double-Sided Trigon Inserts
for Machining Stainless Steel,
High Temperature Alloys and
Soft, Low Carbon Steel



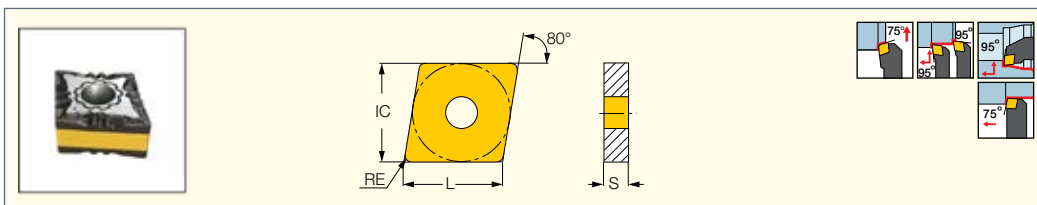
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	IC	RE	S	L	IC830	IC6025	IC8250	IC6015	IC8150	IC806	IC807	a _p (mm)	f (mm/rev)
WNMX 060604-M3MW	9.52	0.40	4.41	6.50	●	●		●				0.80-4.00	0.15-0.50
WNMX 060608-M3MW	9.52	0.80	4.41	6.50	●	●		●				1.00-5.00	0.20-0.60
WNMX 080704-M4MW	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 109-114, 215-238

For tools, see pages: A-PWLNRL/L-X/G (90) • C#-PWLNRL/L-X (10) • C#-PWLNRL/L-X-JHP (11) • DWLNRL/L (7) • DWLNRL/L-JHP-MC (8) • PWLNRL/L-X (8) • PWLNRL/L-X-JHP (9) • PWLNRL/L-X-JHP-MC (10)

ISOTURN**CNMG-F3P**

Double-Sided 80° Rhombic
Inserts for Semi-Finishing
and Finishing Applications



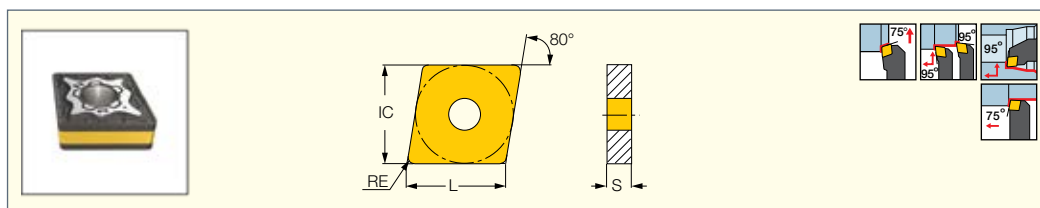
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	IC830	IC8025	IC8250	IC8150	IC20N	IC520N	IC807	a _p (mm)	f (mm/rev)
CNMG 090404-F3P	9.67	9.52	4.76	0.40	●		●	●	●	●	●	0.50-3.50	0.07-0.25
CNMG 090408-F3P	9.67	9.52	4.76	0.80	●		●	●	●	●	●	0.90-3.50	0.08-0.25
CNMG 120404-F3P	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • AVC-PCLNR/L (83) • DCLNR/L-JHP-MC (22)

ISOTURN**CNMG-M3P**

Double-Sided 80° Rhombic
Inserts for Medium Machining
Conditions on Steel



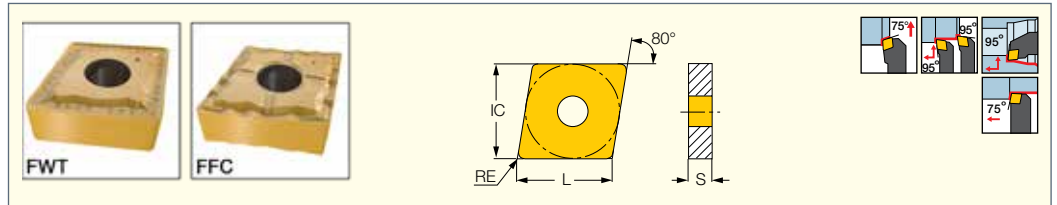
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC5010	IC5005	IC807	a _p (mm)	f (mm/rev)
CNMG 090404-M3P	9.67	9.52	4.76	0.40	●		●	●			●	0.40-4.00	0.10-0.30
CNMG 090408-M3P	9.67	9.52	4.76	0.80	●		●	●			●	0.50-4.50	0.15-0.50
CNMG 120404-M3P	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • AVC-PCLNR/L (83) • DCLNR/L-JHP-MC (22)

CNMG-CERMET

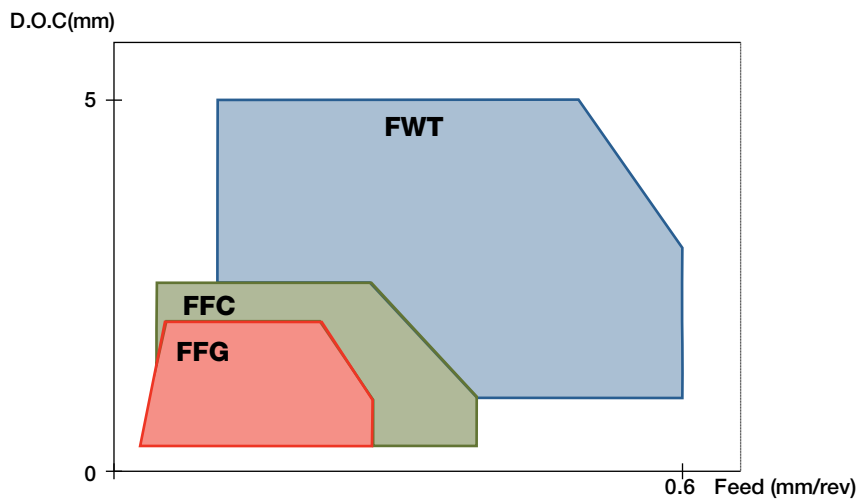
Double-Sided 80° Rhombic
Cermet Grade Inserts
for Semi-Finishing and
Finishing Applications



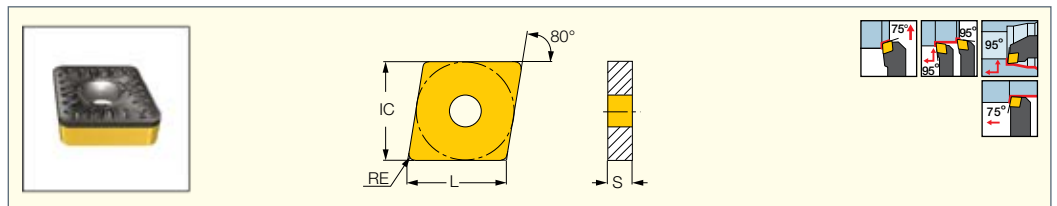
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC20N	IC520N	a_p (mm)	f (mm/rev)
CNMG 120402-FFG	12.90	12.70	4.76	0.20		●	0.40-3.50	0.07-0.25
CNMG 120404-FFC	12.90	12.70	4.76	0.40	●	●	0.50-3.50	0.07-0.25
CNMG 120408-FFC	12.90	12.70	4.76	0.80	●	●	1.00-2.50	0.05-0.25
CNMG 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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • DCLNR/L-JHP-MC (22)


CNMM-R3P

Single-Sided 80° Rhombic
Inserts for Rough Turning
Applications on Steel



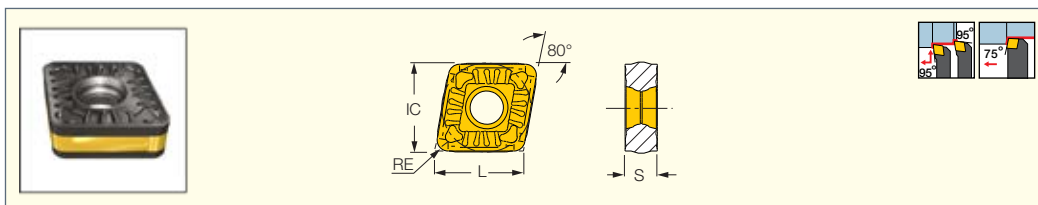
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	a_p (mm)	f (mm/rev)
CNMM 120408-R3P	12.90	12.70	4.76	0.80	●	●	●	0.70-7.50	0.20-0.55
CNMM 120412-R3P	12.90	12.70	4.76	1.20	●	●	●	1.00-7.50	0.25-0.70
CNMM 120416-R3P	12.90	12.70	4.76	1.60	●	●	●	1.50-7.50	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

DOVE IQTURN
 HEAVY DUTY LINE

COMG-R3P-IQ

 Double-Sided 7° Negative Side
 Flank 80° Rhombic Inserts
 for Heavy Turning of Steel


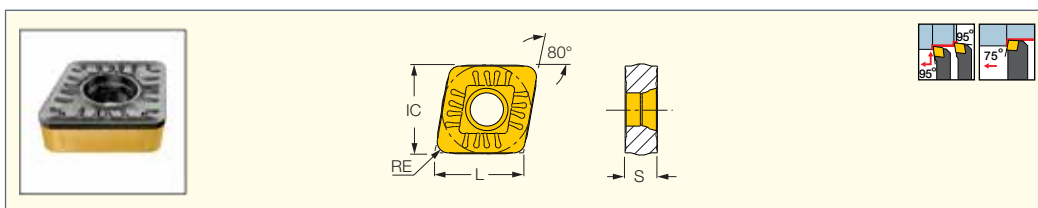
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	a_p (mm)	f (mm/rev)
COMG 160608-R3P-IQ	16.12	15.88	6.35	0.80	●	●	2.00-9.00	0.25-0.50
COMG 160612-R3P-IQ	16.12	15.88	6.35	1.20	●	●	2.00-9.00	0.30-0.60
COMG 160616-R3P-IQ	16.12	15.88	6.35	1.60	●	●	2.00-9.00	0.30-0.70
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 109-114, 215-238

For tools, see pages: C#-PCLOR/L-IQ (24) • PCBOR/L-IQ (24) • PCLOR/L-IQ (23)


DOVETAIL GEOMETRY
DOVE IQTURN
 HEAVY DUTY LINE

COMM-R3P-IQ

 Single-Sided 7° Negative Side
 Flank 80° Rhombic Inserts
 for Heavy Turning of Steel


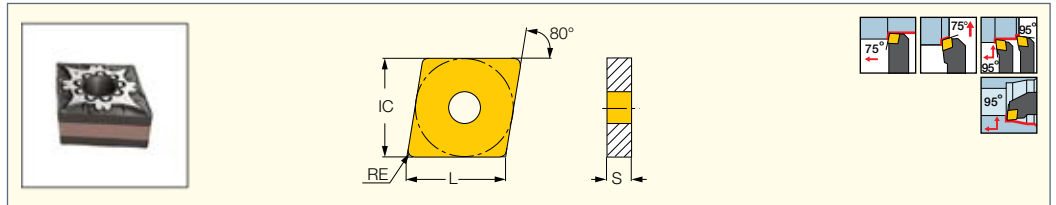
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	a_p (mm)	f (mm/rev)
COMM 190624-R3P-IQ	19.34	19.05	6.35	2.40	●	●	3.50-12.00	0.35-1.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-PCLOR/L-IQ (24) • PCBOR/L-IQ (24) • PCLOR/L-IQ (23)

CNMG-F3M

Double-sided 80° Rhombic
Inserts for Stainless Steel
Finishing Applications



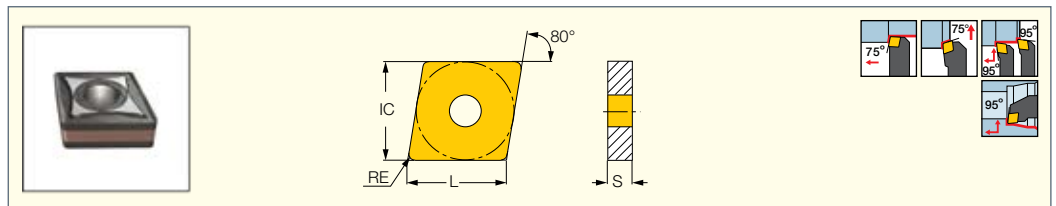
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC4	IC804	a _p (mm)	f (mm/rev)
CNMG 090404-F3M	9.67	9.52	4.76	0.40	●	●	●	●	●			0.10-1.50	0.05-0.30
CNMG 090408-F3M	9.67	9.52	4.76	0.80	●	●	●	●	●			0.10-1.50	0.10-0.40
CNMG 120404-F3M	12.90	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • AVC-PCLNR/L (83) • DCLNR/L-JHP-MC (22)

CNMG-M3M

Double-Sided 80° Rhombic
Inserts for Machining Stainless
and Low Carbon Steel



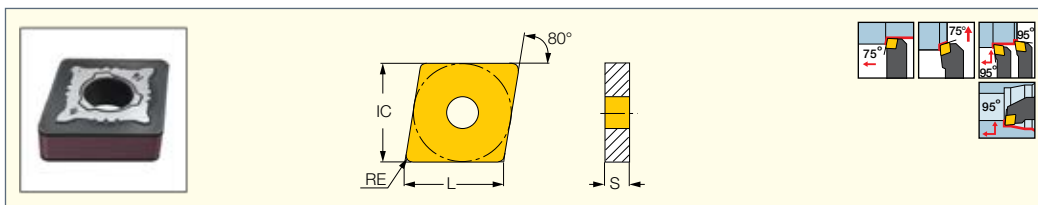
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC4	IC804	a _p (mm)	f (mm/rev)
CNMG 090404-M3M	9.67	9.52	4.76	0.40	●	●	●	●	●			0.40-4.00	0.12-0.40
CNMG 090408-M3M	9.67	9.52	4.76	0.80	●	●	●	●	●			0.50-4.50	0.15-0.50
CNMG 120404-M3M	12.90	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • AVC-PCLNR/L (83) • DCLNR/L-JHP-MC (22)

ISOTURN**CNMG-R3M**

Double-Sided 80° Rhombic
Inserts for Rough Machining of
Stainless and Low Carbon Steel



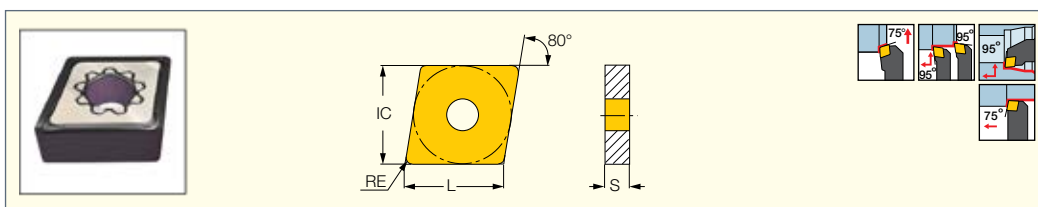
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC806	a_p (mm)	f (mm/rev)
CNMG 160612-R3M	16.12	15.88	6.35	1.20	●	●		2.00-9.00	0.30-0.90
CNMG 160616-R3M	16.12	15.88	6.35	1.60	●	●		2.00-10.00	0.40-1.00
CNMG 160624-R3M	16.12	15.88	6.35	2.40	●	●		2.00-11.00	0.50-1.20
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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-PCLNR/L-X (21) • DCBNR/L (23) • DCLNR/L (22) • MCLNR/L (18) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-X (19) • A/S-PCLNR/L-X/G (88)

ISOTURN**CNMG-F3S**

Double-Sided 80° Rhombic
Inserts for Titanium and Heat
Resistant Materials. Used
for Finishing Applications.



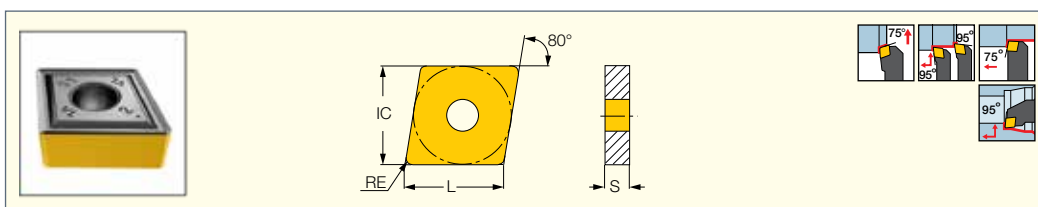
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC806	IC804	a_p (mm)	f (mm/rev)
CNMG 090404-F3S	9.67	9.52	4.76	0.40	●	●	0.10-1.50	0.05-0.30
CNMG 090408-F3S	9.67	9.52	4.76	0.80	●	●	0.10-1.50	0.05-0.30
CNMG 120404-F3S	12.90	12.70	4.76	0.40	●	●	0.10-1.50	0.05-0.30
CNMG 120408-F3S	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • AVC-PCLNR/L (83) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91)

ISOTURN**CNMG-VL**

Double-Sided 80° Rhombic
Inserts with a Chipformer
for High Temperature Alloys
and Stainless Steel Valves



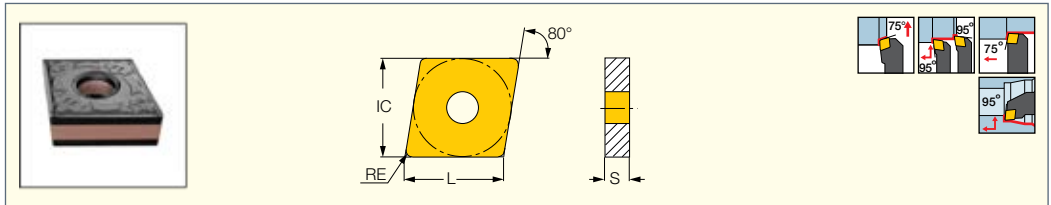
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC806	IC804	a_p (mm)	f (mm/rev)
CNMG 120404-VL	12.90	12.70	4.76	0.40	●		0.30-3.00	0.05-0.15
CNMG 120408-VL	12.90	12.70	4.76	0.80	●	●	0.50-4.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

CNMG/CNMG-SF

Double-Sided 80° Rhombic
Inserts for Super-Finishing;
Controls Chip Flow at Very Low
Feeds and Depths of Cut



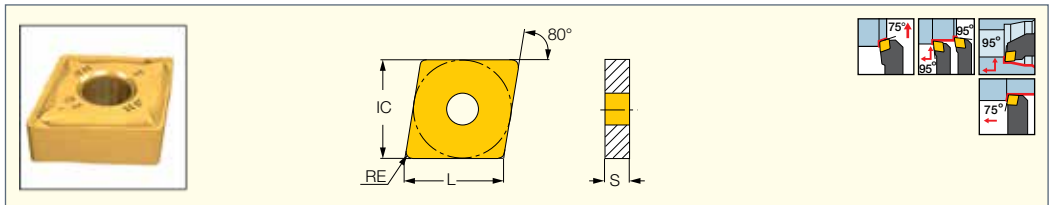
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC6015	IC520N	IC428	IC907	a_p (mm)	f (mm/rev)
CNMG 120402-SF	12.90	12.70	4.76	0.20		•	•		0.30-2.00	0.03-0.25
CNMG 120404-SF	12.90	12.70	4.76	0.40	•				0.30-2.00	0.05-0.25
CNMG 120401-SF	12.90	12.70	4.76	0.10				•	0.20-1.50	0.03-0.15
CNMG 120402-SF	12.90	12.70	4.76	0.20				•	0.30-2.00	0.03-0.20
CNMG 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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBMR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBMR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

CNMG-NF

Double-Sided 80° Rhombic
Inserts for Semi-Finishing
and Finishing Applications



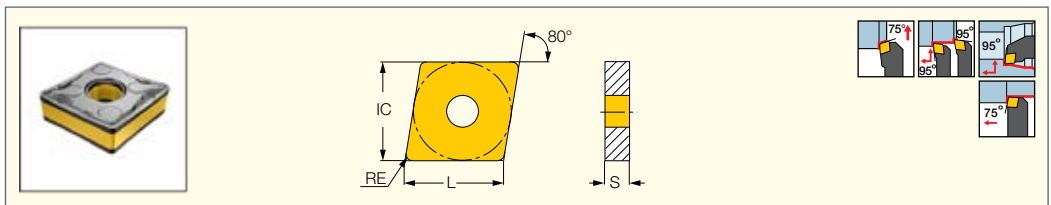
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	IC8250	IC530N	IC6015	IC8150	IC20N	IC807	IC907	a_p (mm)	f (mm/rev)
CNMG 120404-NF	12.90	12.70	4.76	0.40	•	•	•	•	•	•	•	0.00-0.00	0.00-0.00
CNMG 120408-NF	12.90	12.70	4.76	0.80	•			•	•	•	•	0.80-3.50	0.08-0.25

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBMR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBMR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

CNMG-WF

Double-Sided 80° Rhombic
Wiper Inserts for Finishing
Operations at High Feeds



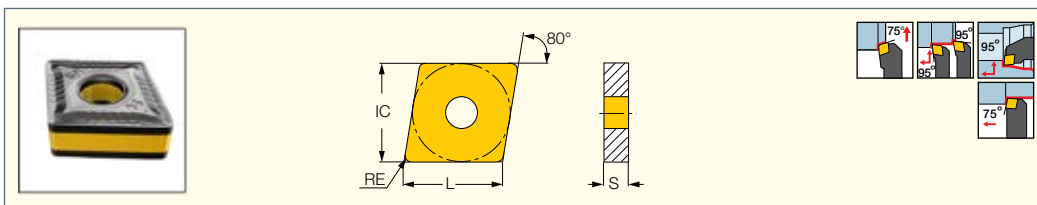
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	a_p (mm)	f (mm/rev)
CNMG 120408-WF	12.90	12.70	4.76	0.80	•	•	0.80-3.50	0.10-0.35

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBMR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBMR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CNMG-WG/NRW**

Double-Sided 80° Rhombic
Wiper Inserts for High Feed
Turning and High Surface Finish



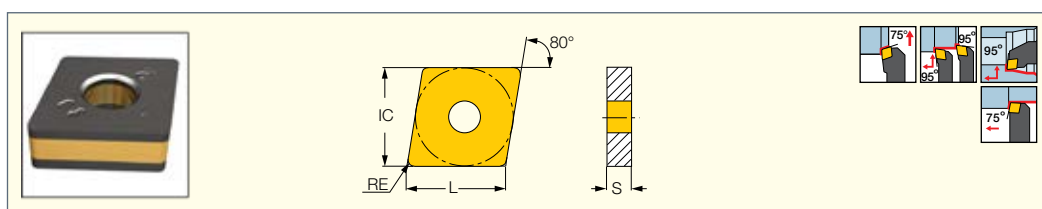
Designation	Dimensions				Tough ↔ Hard							Recommended	Machining Data
	L	IC	S	RE	IC8250	IC8150	IC520N	IC428	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
CNMG 120408-WG	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	0.80-3.50	0.10-0.50
CNMG 120412-WG	12.90	12.70	4.76	1.20	●	●						1.50-4.00	0.30-0.80
CNMG 120416-NRW	12.90	12.70	4.76	1.60	●	●						2.00-4.50	0.30-0.80

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CNMA**

Double-Sided 80° Rhombic
Inserts for Short Chipping
Materials such as Cast Iron



Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	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

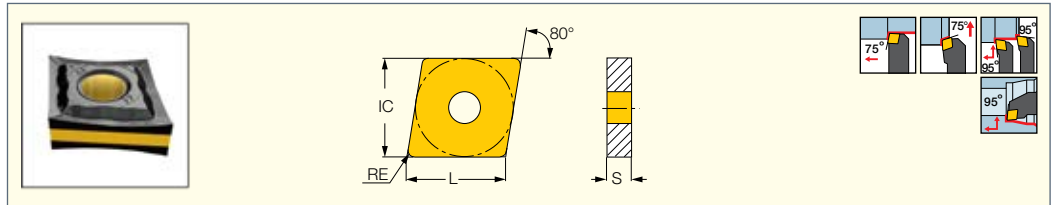
• For user guide, see pages 109-114, 215-238

⁽¹⁾ Minimum cutting width

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91)

CNMG/CNMG-PP

Double-Sided 80° Rhombic
Inserts for Machining Very
Ductile Materials at Medium
Cutting Conditions



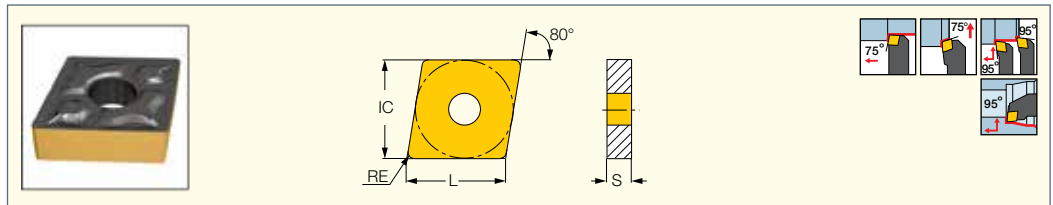
Designation	Dimensions				Tough ↔ Hard												Recommended Machining Data		
	L	IC	S	RE	IC28	IC830	IC8350	IC6025	IC8250	IC10	IC6015	IC8150	IC428	IC806	IC807	IC907	IC804	a _p (mm)	f (mm/rev)
CNMG 120404-PP	12.90	12.70	4.76	0.40		●	●	●	●	●	●				●	●		1.00-4.00	0.14-0.30
CNMG 120408-PP	12.90	12.70	4.76	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
CNMG 120401-PP	12.90	12.70	4.76	0.10												●		0.40-2.00	0.05-0.20
CNMG 120402-PP	12.90	12.70	4.76	0.20												●		0.40-2.50	0.08-0.25
CNMG 120404-PP	12.90	12.70	4.76	0.40												●		0.80-3.00	0.10-0.30
CNMG 120408-PP	12.90	12.70	4.76	0.80										●		●	●	1.00-4.00	0.10-0.30
CNMG 120412-PP	12.90	12.70	4.76	1.20										●			●	1.00-4.00	0.10-0.30
CNMG 190612-PP	19.30	19.05	6.35	1.20												●		2.00-9.00	0.30-0.60

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • DCLNR/L-JHP-MC (22)

CNMG/CNMG-TF

Double-Sided 80° Rhombic
Inserts for Machining a
Wide Range of Materials at
Medium Cutting Conditions



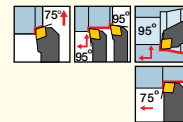
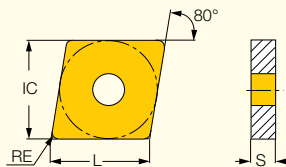
Designation	Dimensions				Tough → Hard												Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC6025	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
CNMG 090304-TF	9.70	9.52	3.18	0.40				•			•						1.00-3.00	0.12-0.35
CNMG 090308-TF	9.70	9.52	3.18	0.80	•			•			•						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
CNMG 120408-TF	12.96	12.70	4.76	0.80												•	1.00-4.00	0.12-0.35
CNMG 190612-TF	19.30	19.05	6.35	1.20												•	2.00-9.00	0.30-0.70

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • AVC-PCLNR/L (83) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CNMG-GN**

Double-Sided 80° Rhombic
Inserts for General Applications



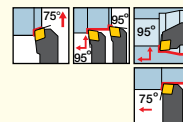
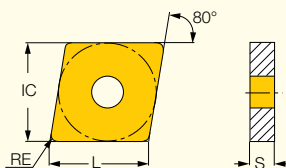
Designation	Dimensions				Tough ↔ Hard											Recommended Machining Data		
	L	IC	S	RE	IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
CNMG 120404-GN	12.90	12.70	4.76	0.40	●	●		●		●	●		●				1.00-4.00	0.14-0.40
CNMG 120408-GN	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	●		●	●	●	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, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91)

ISOTURN**CNMG-NR**

Double-Sided 80° Rhombic
Inserts with a Special Chipformer
for Heavy Machining



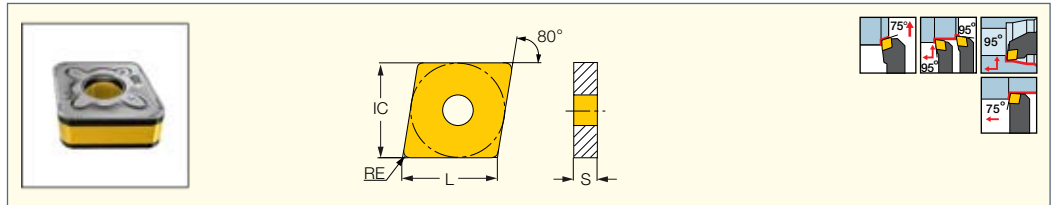
Designation	Dimensions				Tough ↔ Hard											Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC5010	IC428	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
CNMG 120408-NR	12.90	12.70	4.76	0.80		•	•	•	•	•	•	•	•	•	•	1.00-5.00	0.15-0.50
CNMG 120412-NR	12.90	12.70	4.76	1.20	•	•		•		•	•		•			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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MCLNR/L (18) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

CNMG-MR

Double-Sided 80° Rhombic
Inserts for Rough Turning on
Stainless Steel and Soft Materials



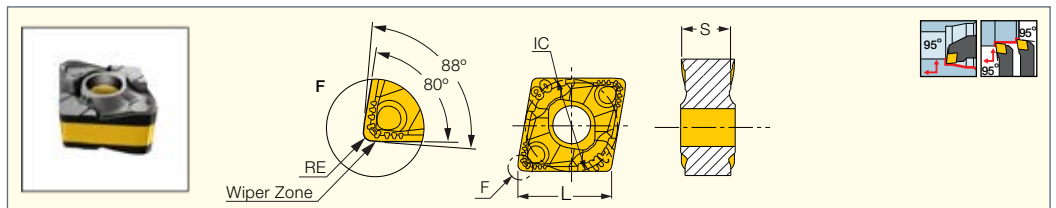
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC8350	IC8250	IC8150	IC807	a_p (mm)	f (mm/rev)
CNMG 160612-MR	16.12	15.88	6.35	1.20	•	•	•	•	2.00-10.00	0.30-0.90
CNMG 190612-MR	19.03	19.05	6.35	1.20	•	•	•	•	2.00-10.00	0.30-0.90

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-PCLNR/L-X (21) • DCBNR/L (23) • DCLNR/L (22) • MCLNR/L (18) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-X (19) • A/S-PCLNR/L-X/G (88)

HELITURN LD
CNMX-M3/4PW

Double-Sided 80° Rhombic
Inserts with High Helical
Cutting Edge for High
Metal Removal Rates



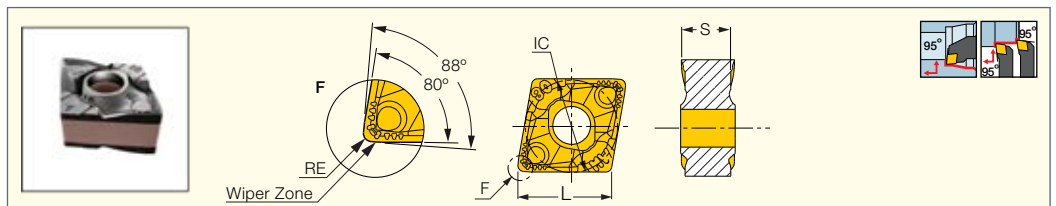
Designation	Dimensions				Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC20N	IC520N	IC807	IC907	a _p (mm)	f (mm/rev)
CNMX 090604-M3PW	9.67	9.52	4.40	0.40	●		●	●					1.00-4.50	0.20-0.50
CNMX 090608-M3PW	9.67	9.52	4.40	0.80	●		●	●	●	●			1.50-5.00	0.25-0.60
CNMX 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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L-X/G (88) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20)

HELITURN LD
CNMX-M3/4MW

Double-Sided 80° Rhombic
Inserts with High Helical
Cutting Edge for High Metal Removal
Rates of Stainless Steel



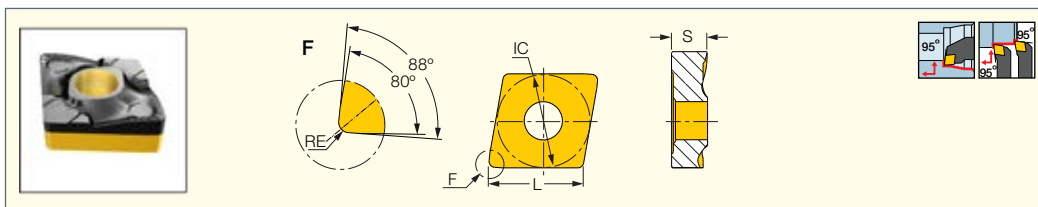
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC8150	IC806	IC807	a_p (mm)	f (mm/rev)
CNMX 090604-M3MW	9.67	9.52	4.40	0.40	•	•	•				0.80-4.00	0.15-0.45
CNMX 090608-M3MW	9.67	9.52	4.40	0.80	•	•	•				1.00-5.00	0.20-0.60
CNMX 120704-M4MW	12.90	12.70	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L-X/G (88) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20)

HELITURN LD**CNMM-M4PW**

Very Positive Radial Insert
with Helical Cutting Edge
and Positive Rake for Heavy
Machining Applications



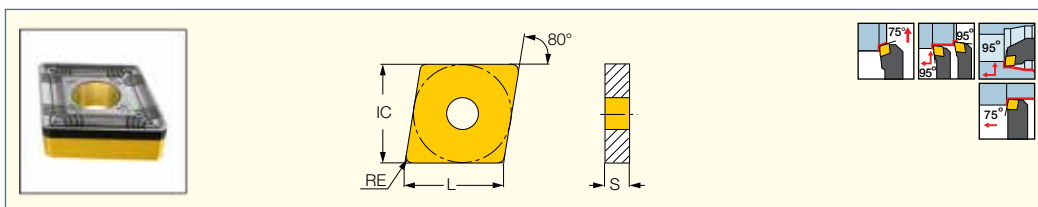
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	IC	S	RE	L	IC8250	IC8150	a_p (mm)	f (mm/rev)
CNMM 120408-M4PW	12.70	4.76	0.80	12.90	●	●	1.50-5.00	0.24-0.59

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • DCLNR/L-JHP-MC (22)

ISOTURN**CNMM-NR**

Single-Sided 80° Rhombic Inserts
for Rough Turning Applications



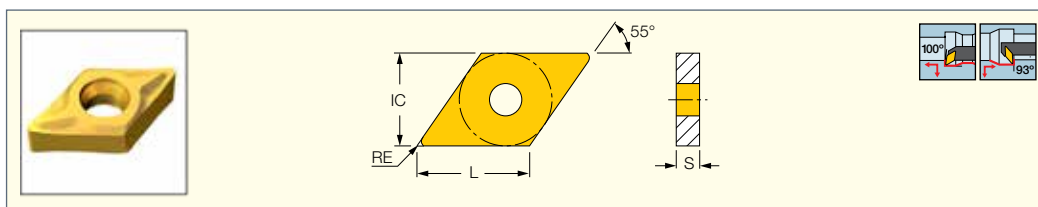
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8150	IC907	a_p (mm)	f (mm/rev)
CNMM 190616-NR	19.03	19.05	6.35	1.60	●	●	2.00-10.00	0.40-1.00

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: DCBNR/L (23) • DCLNR/L (22) • MCLNR/L (18) • PCBNR/L (19) • PCLNR/L (17)

ISOTURN**DNGP-F2P**

Double-Sided 55° Rhombic
Inserts for Semi-Finishing
and Finishing Applications
on Alloyed Steel



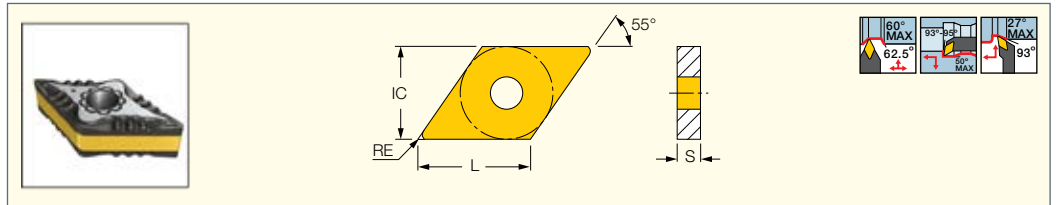
Designation	Dimensions				IC530N	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
DNGP 070302R/L-F2P	7.70	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
DNGP 070304R/L-F2P	7.70	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
DNGP 070308R/L-F2P	7.70	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-SDXNR/L-07 (92) • A/E-SDZNR/L-07 (93) • PDJNR/L-S (24)

DNMG-F3P

Double-Sided 55° Rhombic
Inserts for Semi-Finishing
and Finishing on Steel



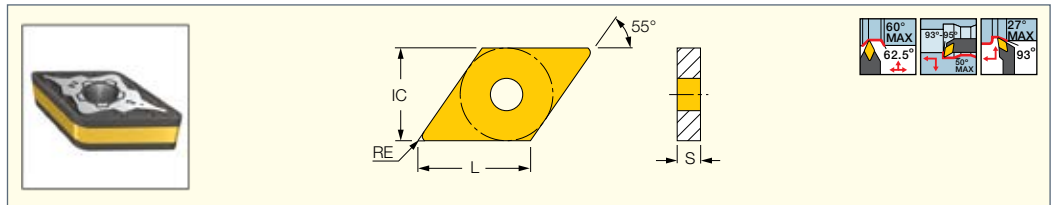
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC807	a_p (mm)	f (mm/rev)
DNMG 110404-F3P	11.63	9.52	4.76	0.40	●	●	●	●	0.80-3.00	0.07-0.25
DNMG 110408-F3P	11.63	9.52	4.76	0.80	●	●	●	●	1.00-3.50	0.08-0.25
DNMG 110412-F3P	11.63	9.52	4.76	1.20	●	●	●	●	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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

DNMG-M3P

Double-Sided 55° Rhombic
Inserts for Medium Machining
Conditions on Steel



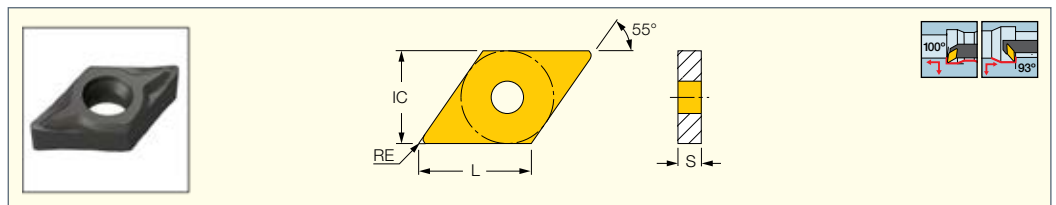
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC5010	IC5005	IC807	a_p (mm)	f (mm/rev)
DNMG 110408-M3P	11.63	9.52	4.76	0.80	●	●	●			●	0.50-5.00	0.15-0.50
DNMG 110412-M3P	11.63	9.52	4.76	1.20	●	●	●			●	0.80-5.00	0.18-0.60
DNMG 150408-M3P	15.50	12.70	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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • AVC-DDUNR/L (84) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • DDJNR/L-JHP-MC (27)

DNGP-F2M

Double-Sided 55° Rhombic
Inserts for Semi-Finishing and
Finishing on Stainless Steel



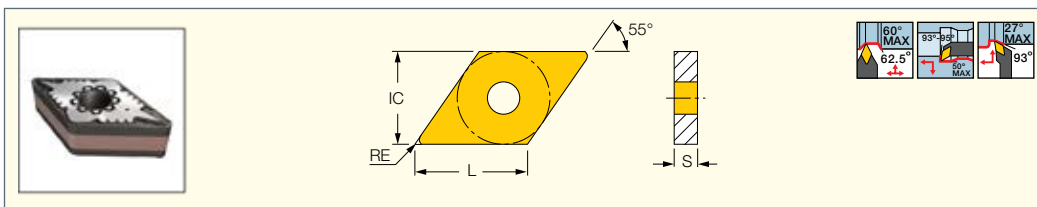
Designation	Dimensions				IC908	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
DNGP 070302R/L-F2M	7.70	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
DNGP 070304R/L-F2M	7.70	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
DNGP 070308R/L-F2M	7.70	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-SDXNR/L-07 (92) • A/E-SDZNR/L-07 (93) • PDJNR/L-S (24)

ISOTURN**DNMG-F3M**

Double-Sided 55° Rhombic
Inserts for Finish Turning of
Stainless and Low Carbon Steel



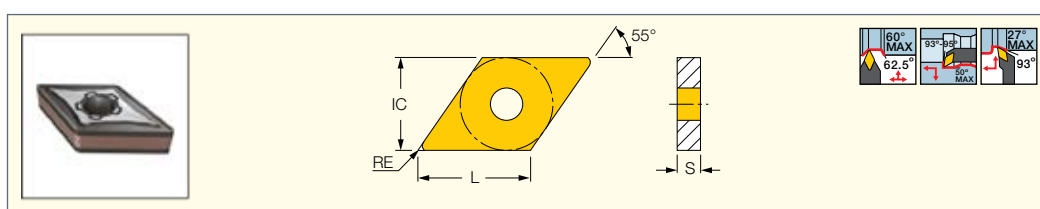
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC804	a_p (mm)	f (mm/rev)
DNMG 110404-F3M	11.63	9.52	4.76	0.40	●	●	●	●	●		0.10-1.50	0.05-0.32
DNMG 110408-F3M	11.63	9.52	4.76	0.80	●	●	●	●	●		0.10-1.50	0.10-0.42
DNMG 110412-F3M	11.63	9.52	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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMG-M3M**

Double-Sided 55° Rhombic
Inserts for Machining Stainless
and Low Carbon Steel



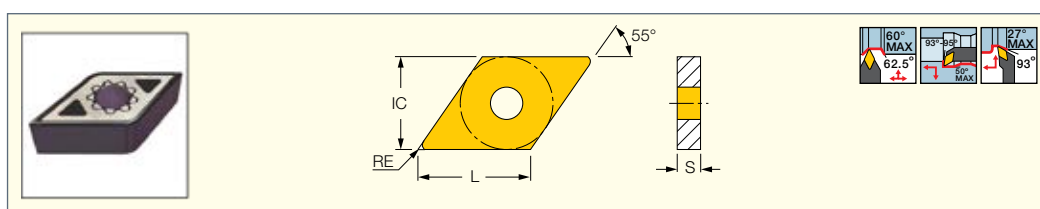
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC804	a_p (mm)	f (mm/rev)
DNMG 110404-M3M	11.63	9.52	4.76	0.40	●	●	●	●	●		0.50-3.50	0.12-0.40
DNMG 110408-M3M	11.63	9.52	4.76	0.80	●	●	●	●	●		0.50-4.00	0.15-0.50
DNMG 110412-M3M	11.63	9.52	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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMG-F3S**

Double-Sided 55° Rhombic
Inserts for Titanium and Heat
Resistant Materials. Used
for Finishing Applications.



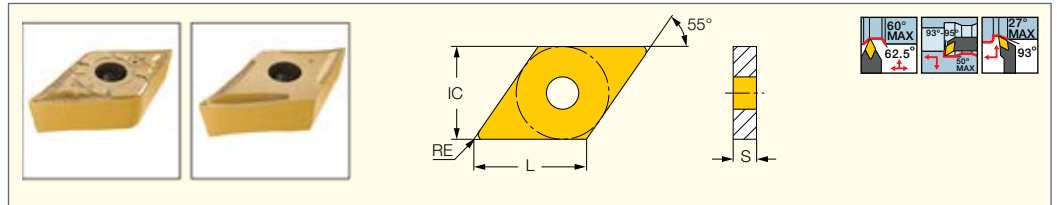
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC806	IC804	a_p (mm)	f (mm/rev)
DNMG 110404-F3S	11.63	9.52	4.76	0.40	●	●	0.10-1.50	0.05-0.32
DNMG 110408-F3S	11.63	9.52	4.76	0.80	●	●	0.10-1.50	0.10-0.40
DNMG 150404-F3S	15.50	12.70	4.76	0.40	●	●	0.10-1.50	0.05-0.32
DNMG 150408-F3S	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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • AVC-DDUNR/L (84) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92)

DNMG-CERMET

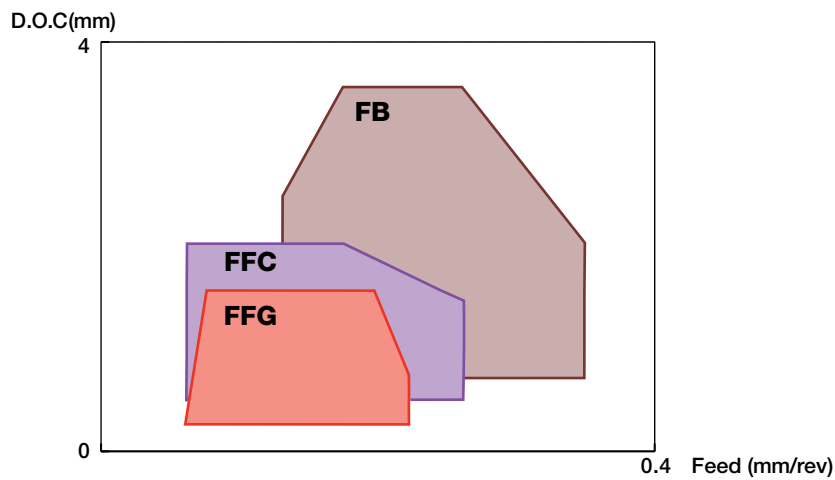
Double-Sided 55° Rhombic
Cermet Grade Inserts
for Semi-Finishing and
Finishing Applications



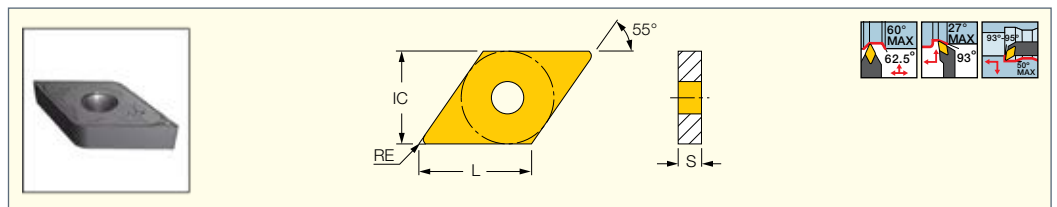
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC20N	IC520N	a_p (mm)	f (mm/rev)
DNMG 110404-FFG	11.63	9.52	4.76	0.40		●	0.70-2.00	0.07-0.22
DNMG 110402-FFC	11.63	9.52	4.76	0.20	●		0.40-2.50	0.05-0.20
DNMG 110404-FFC	11.63	9.52	4.76	0.40	●	●	0.80-3.00	0.07-0.25
DNMG 110408-FFC	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 109-114, 215-238

For tools, see pages: A/S-PDJNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • DDJNR/L-JHP-MC (27)


DNMG/DNMG-SF

Double-Sided 55° Rhombic
Inserts for Super-Finishing;
Controls Chip Flow at Very Low
Feeds and Depths of Cut



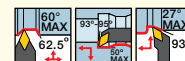
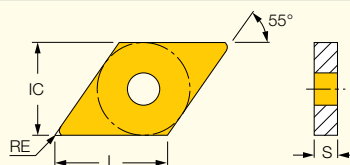
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC530N	IC520N	IC907	a_p (mm)	f (mm/rev)
DNMG 110404-SF	11.63	9.52	4.76	0.40	●	●		0.50-3.00	0.05-0.25
DNMG 150401-SF	15.50	12.70	4.76	0.10			●	0.25-2.00	0.03-0.15
DNMG 150402-SF	15.50	12.70	4.76	0.20			●	0.40-2.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PDJNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMG-NF**

Double-Sided 55° Rhombic
Inserts for Semi-Finishing
and Finishing Applications



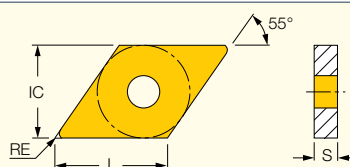
Designation	Dimensions				Tough ↔ Hard										Recommended Machining Data	
	L	IC	S	RE	IC830	IC835	IC8250	IC530N	IC8150	IC20N	IC520N	IC5010	IC807	IC907	a_p (mm)	f (mm/rev)
DNMG 110402-NF	11.63	9.52	4.76	0.20		•	•		•	•			•	•	0.40-2.50	0.07-0.18
DNMG 110404-NF	11.63	9.52	4.76	0.40	•		•		•	•	•	•	•	•	0.80-3.00	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, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMG-WG**

Double-Sided 55° Rhombic
Wiper Inserts for High Surface
Finish at High Feed Turning



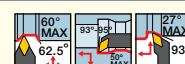
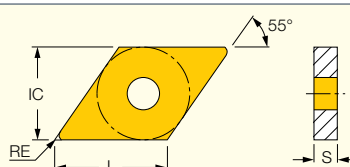
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	IC5010	IC807	a_p (mm)	f (mm/rev)
DNMG 150408-WG	15.50	12.70	4.76	0.80	•	•			1.00-2.50	0.18-0.40
DNMG 150608-WG	15.50	12.70	6.35	0.80	•			•	1.00-2.50	0.18-0.40
DNMG 150612-WG	15.50	12.70	6.35	1.20	•		•		1.00-3.00	0.20-0.80

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMG-PF**

Double-Sided 55° Rhombic
Inserts for Finishing Applications
on Alloyed and Stainless Steel



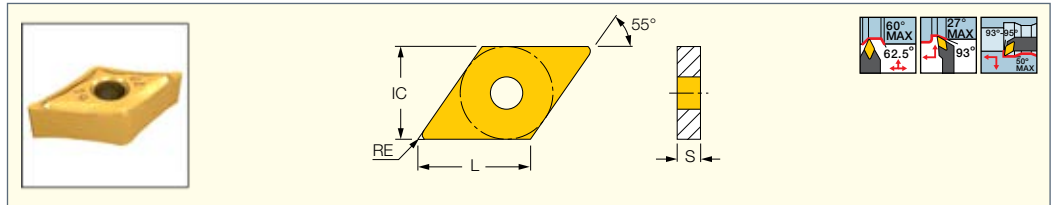
Designation	Dimensions				IC8150	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
DNMG 110408-PF	11.63	9.52	4.76	0.80	•	0.30-3.00	0.07-0.30
DNMG 150612-PF	15.50	12.70	6.35	1.20	•	1.00-4.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

DNMG/DNGG-PP

55° Double-Sided Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions



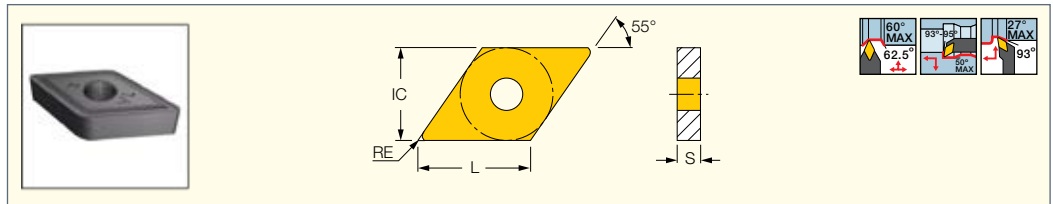
Designation	Dimensions				Tough ↔ Hard												Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC6025	IC8250	IC10	IC6015	IC8150	IC20	IC806	IC807	IC907	IC804	a _p (mm)	f (mm/rev)
DNMG 110404-PP	11.63	9.52	4.76	0.40		●		●				●					0.40-3.00	0.12-0.30
DNMG 110408-PP	11.63	9.52	4.76	0.80	●			●	●		●						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, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • AVC-DDUNR/L (84) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • DDJNR/L-JHP-MC (27)

DNMG-VL

Double-Sided 55° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves



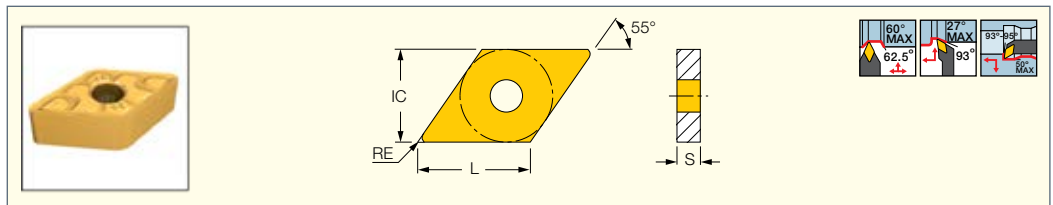
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC908	IC806	a _p (mm)	f (mm/rev)
DNMG 110404-VL	11.63	9.52	4.76	0.40	•	•	0.50-3.50	0.10-0.25
DNMG 110408-VL	11.63	9.52	4.76	0.80	•	•	0.50-3.50	0.10-0.25
DNMG 150404-VL	15.50	12.70	4.76	0.40	•	•	0.50-3.50	0.10-0.25
DNMG 150408-VL	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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

DNMG/DNGG-TF

Double-Sided 55° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions



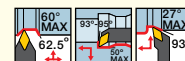
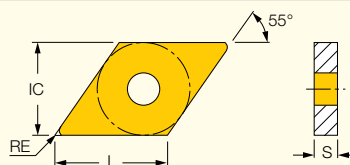
Designation	Dimensions				Tough ↔ Hard										Recommended Machining Data		
	L	IC	S	RE	IC830	IC6025	IC8250	IC530N	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
DNMG 110404-TF	11.63	9.52	4.76	0.40			●	●			●					1.00-3.00	0.12-0.30
DNMG 110412-TF	11.63	9.52	4.76	1.20			●									1.50-4.00	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, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMG-GN**

Double-Sided 55° Rhombic
Inserts for General Applications



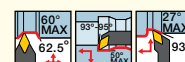
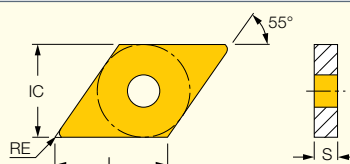
Designation	Dimensions				Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC20N	IC5010	IC428	IC5005	a _p (mm)	f (mm/rev)
DNMG 110408-GN	11.63	9.52	4.76	0.80			•	•		•			1.00-4.00	0.18-0.38
DNMG 110412-GN	11.63	9.52	4.76	1.20			•	•					1.50-4.50	0.18-0.38
DNMG 150408-GN	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, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMG-NR**

Double-Sided 55° Rhombic
Inserts with a Special Chipformer
for Heavy Machining



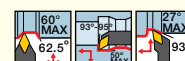
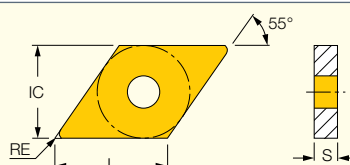
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	a _p (mm)	f (mm/rev)
DNMG 150612-NR	15.50	12.70	6.35	1.20	•	•	2.00-6.00	0.23-0.50
DNMG 150616-NR	15.50	12.70	6.35	1.60	•	•	2.00-6.00	0.25-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNMA**

Double-Sided 55° Rhombic
Inserts for Short Chipping
Materials such as Cast Iron



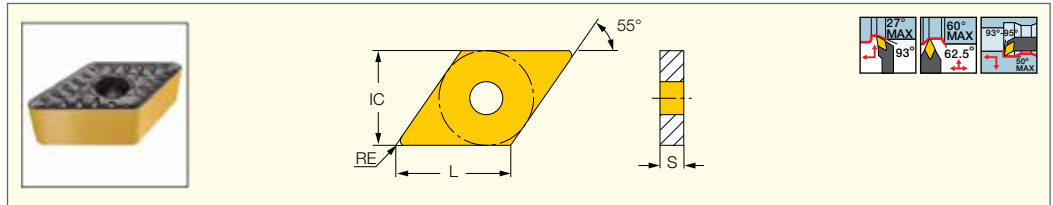
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC5010	IC428	IC5005	a _p (mm)	f (mm/rev)
DNMA 150412	15.50	12.70	4.76	1.20		•	•	1.50-4.00	0.05-0.40
DNMA 150608	15.50	12.70	6.35	0.80	•	•	•	1.50-4.00	0.03-0.40
DNMA 150612	15.50	12.70	6.35	1.20	•	•	•	1.50-4.00	0.05-0.40

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

DNMM-R3P

Single-Sided 55° Rhombic Inserts for Rough Turning Applications on Steel



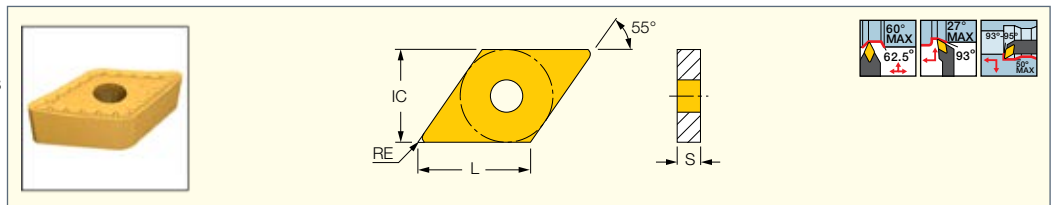
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	a_p (mm)	f (mm/rev)
DNMM 150608-R3P	15.50	12.70	6.35	0.80	●	●	0.70-6.00	0.20-0.55
DNMM 150612-R3P	15.50	12.70	6.35	1.20	●	●	1.00-6.00	0.25-0.70
DNMM 150616-R3P	15.50	12.70	6.35	1.60	●	●	1.50-6.00	0.32-0.90

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

DNMM-NM

Single-Sided 55° Rhombic Inserts for Roughing Applications



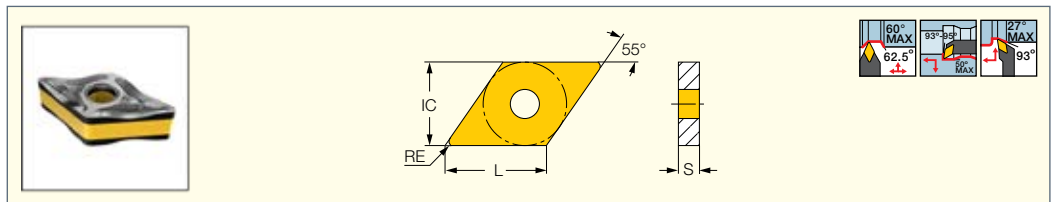
Designation	Dimensions				IC8250	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
DNMM 150612-NM	15.50	12.70	6.35	1.20	●	1.50-4.50	0.25-0.40

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

DNMX-M3P

Double-Sided 55° Rhombic Inserts with High Helical Cutting Edge for High Metal Removal Rates



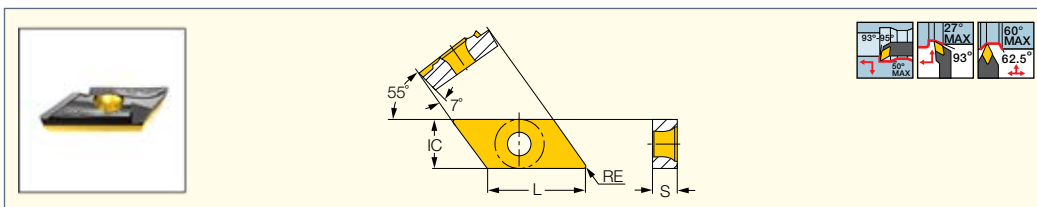
Designation	Dimensions				Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC806	IC807	a_p (mm)	f (mm/rev)
DNMX 150608-M3P	15.50	12.70	6.35	0.80	●	●	●	●	●	●	●	●	2.00-7.00	0.25-0.50
DNMX 150612-M3P	15.50	12.70	6.35	1.20	●	●	●	●	●	●	●	●	2.50-7.00	0.30-0.60
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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • DDJNR/L-JHP-MC (27)

ISOTURN**KNMX**

55° Parallelogram Profiling Inserts



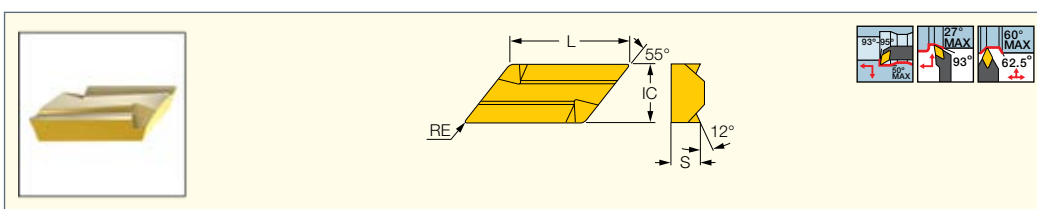
Designation	Dimensions				Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	IC5010	IC807	IC907	a_p (mm)	f (mm/rev)
KNMX 160405-R/LP	19.72	9.52	4.76	0.50	●	●	●	●	●	1.00-4.00	0.10-0.40
KNMX 160410-R/LP	19.72	9.52	4.76	1.00	●	●	●	●	●	1.50-4.00	0.15-0.45

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: CKJNR/L (28) • CKNNR/L (29) • SKJNR/L (28)

ISOTURN**KNUX**

55° Parallelogram Profiling Inserts



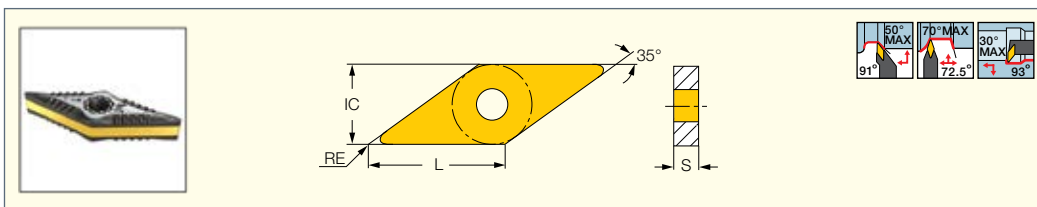
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC9025	IC9015	IC20	a_p (mm)	f (mm/rev)
KNUX 160405 R/L11	19.72	9.52	4.76	0.50	●	●	●	1.00-4.00	0.10-0.40
KNUX 160405 R/L12	19.72	9.52	4.76	0.50	●	●	●	1.50-4.00	0.10-0.40
KNUX 160410 R/L11	19.72	9.52	4.76	1.00	●	●	●	1.50-4.00	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 109-114, 215-238

For tools, see pages: CKJNR/L (28) • CKNNR/L (29)

ISOTURN**VNMG-F3P**

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications on Steel



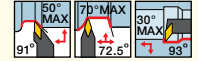
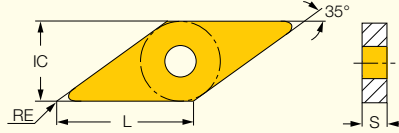
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC807	a_p (mm)	f (mm/rev)
VNMG 12T302-F3P	12.40	7.15	3.89	0.20	●	●	●	●	0.40-2.00	0.08-0.20
VNMG 12T304-F3P	12.40	7.15	3.89	0.40	●	●	●	●	0.70-2.00	0.08-0.20
VNMG 160404-F3P	16.60	9.52	4.76	0.40	●	●	●	●	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 109-114, 215-238

For tools, see pages: AVC-DVUNR/L (84) • MVJNR/L (30) • MVVNN (31)

VNMG-F3M

Double-Sided 35° Rhombic
Inserts for Finishing on
Stainless Steel



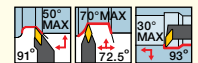
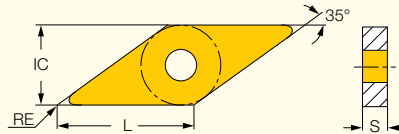
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC804	a_p (mm)	f (mm/rev)
VNMG 12T302-F3M	12.40	7.15	3.97	0.20				•		•	0.10-1.50	0.03-0.20
VNMG 12T304-F3M	12.40	7.15	3.97	0.40				•		•	0.10-1.50	0.05-0.30
VNMG 12T308-F3M	12.40	7.15	3.97	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 109-114, 215-238

For tools, see pages: A-SVUNR/L (93) • AVC-DVUNR/L (84) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (31) • MVJNR/L (30) • MVVNN (31) • SVANR/L-FS (29) • SVJNR/L-F (29) • SVVNN-F (30)

VNMG-M3M

Double-Sided 35° Rhombic
Inserts for Machining Stainless
and Low Carbon Steel



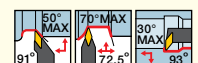
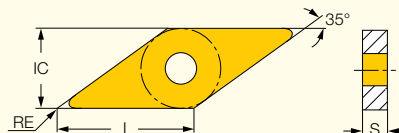
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC4	IC804	a _p (mm)	f (mm/rev)
VNMG 12T304-M3M	12.40	7.15	3.89	0.40	●	●	●	●	●			0.40-2.00	0.08-0.20
VNMG 12T308-M3M	12.40	7.15	3.89	0.80	●	●	●	●	●			0.70-2.00	0.08-0.20
VNMG 160404-M3M	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 109-114, 215-238

For tools, see pages: AVC-DVUNR/L (84) • MVJNR/L (30) • MVVNN (31)

VNMG-F3S

Double-Sided 35° Rhombic
Inserts for Titanium and Heat
Resistant Materials. Used
for Finishing Applications.



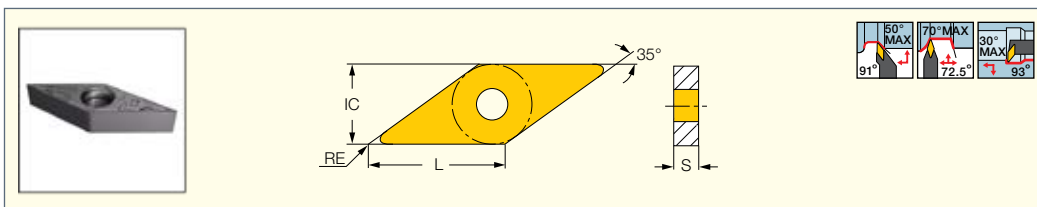
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC806	IC804	a_p (mm)	f (mm/rev)
VNMG 12T302-F3S	12.40	7.15	3.97	0.20	•	•	0.10-1.50	0.05-0.20
VNMG 12T304-F3S	12.40	7.15	3.97	0.40	•	•	0.10-1.50	0.05-0.30
VNMG 12T308-F3S	12.40	7.15	3.97	0.80	•	•	0.10-1.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SVUNR/L (93) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (31) • SVANR/L-FS (29) • SVJNR/L-F (29) • SVVNN-F (30)

ISOTURN**VNMG-SF**

Double-Sided 35° Rhombic
Inserts for Super-Finishing



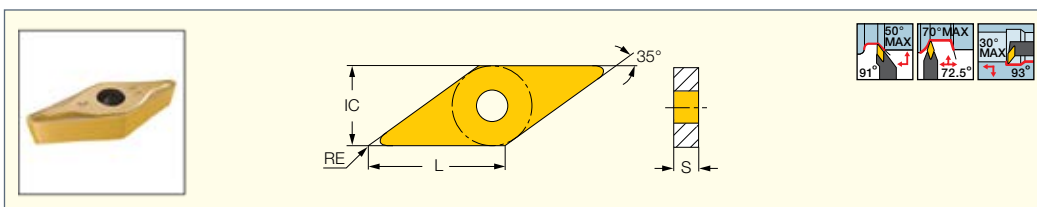
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC908	IC570	a _p (mm)	f (mm/rev)
VNMG 12T302-SF	12.40	7.15	3.97	0.20	●	●	0.30-2.00	0.03-0.20
VNMG 12T304-SF	12.40	7.15	3.97	0.40	●	●	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SVUNR/L (93) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (31) • SVANR/L-FS (29) • SVJNR/L-F (29) • SVVNN-F (30)

ISOTURN**VNMG-FNF-CERMET**

Double-Sided 35° Rhombic
Cermet Inserts for Semi-Finishing
and Finishing Applications



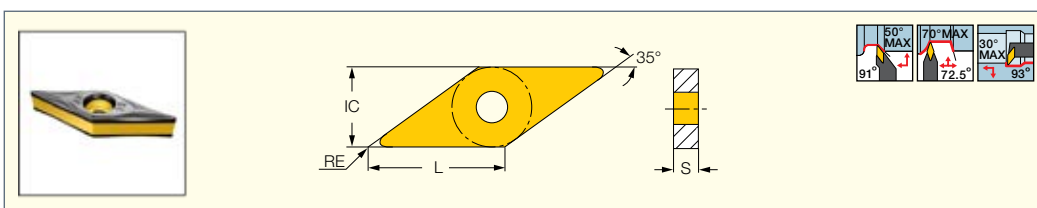
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC20N	IC520N	a _p (mm)	f (mm/rev)
VNMG 12T302-FNF	12.40	7.15	3.97	0.20	●	●	0.50-3.00	0.07-0.23
VNMG 12T304-FNF	12.40	7.15	3.97	0.40	●	●	0.50-3.00	0.07-0.23
VNMG 12T308-FNF	12.40	7.15	3.97	0.80	●	●	0.50-3.00	0.07-0.23

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SVUNR/L (93) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (31) • SVANR/L-FS (29) • SVJNR/L-F (29) • SVVNN-F (30)

ISOTURN**VNMG/VNMG-NF**

Double-Sided 35° Rhombic
Inserts for Semi-Finishing
and Finishing Applications



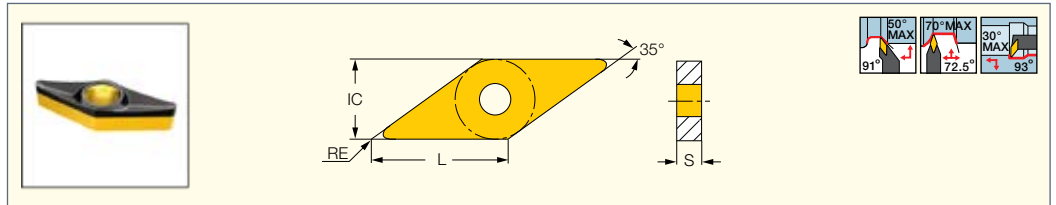
Designation	Dimensions				Tough ↔ Hard														Recommended Machining Data			
					IC830	IC8350	IC6025	IC8250	IC530N	IC10	IC6015	IC8150	IC20	IC20N	IC5010	IC428	IC5005	IC807			IC907	
	L	IC	S	RE														a _D (mm)	f (mm/rev)			
VNMG 12T302-NF	12.40	7.15	3.97	0.20	●		●	●		●	●			●				●	●	0.40-2.50	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
VNMG 12T302-NF	12.40	7.15	3.90	0.20															●		0.40-2.50	0.05-0.17
VNMG 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 109-114, 215-238

For tools, see pages: A-SVUNR/L (93) • AVC-DVUNR/L (84) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (31) • MVJNR/L (30) • MVVNN (31) • SVANR/L-FS (29) • SVJNR/L-F (29) • SVVNN-F (30)

VNMM-PP

Single-Sided 35° Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions



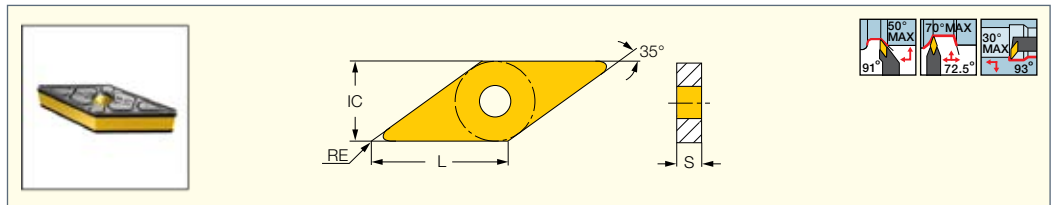
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC20	a_p (mm)	f (mm/rev)
VNMM 12T304-PP	12.40	7.15	3.97	0.40	•	•	0.80-2.50	0.12-0.20
VNMM 12T308-PP	12.40	7.15	3.97	0.80	•	•	1.00-2.50	0.12-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SVUNR/L (93) • C#-SVJNR/L-F (29) • HSK A63WH-SVNN-F (31) • SVANR/L-FS (29) • SVJNR/L-F (29) • SVNN-F (30)

VNMG-TF

Double-Sided 35° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions



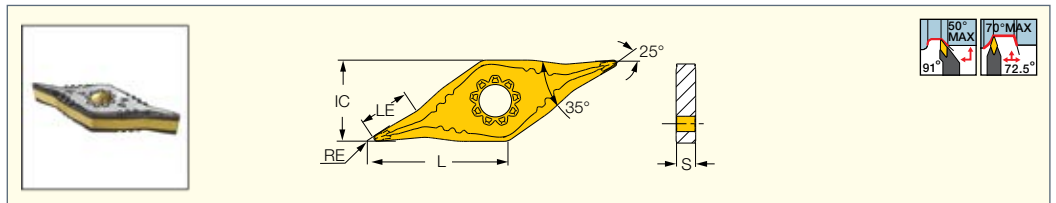
Designation	Dimensions				Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	IC830	IC6025	IC8250	IC6015	IC8150	IC806	IC807	IC907	a_p (mm)	f (mm/rev)
VNMG 160408-TF	16.60	9.52	4.76	0.80	•	•	•	•	•	•	•	•	1.00-3.50	0.10-0.30
VNMG 160412-TF	16.60	9.52	4.76	1.20							•	•	1.00-4.00	0.12-0.38
VNMG 220408-TF	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 109-114, 215-238

For tools, see pages: AVC-DVUNR/L (84) • MVJNR/L (30) • MVNN (31)

YNMG-F3P

Double-Sided 25° Corner Inserts for Internal and External Deep and Narrow Profiling and Undercutting



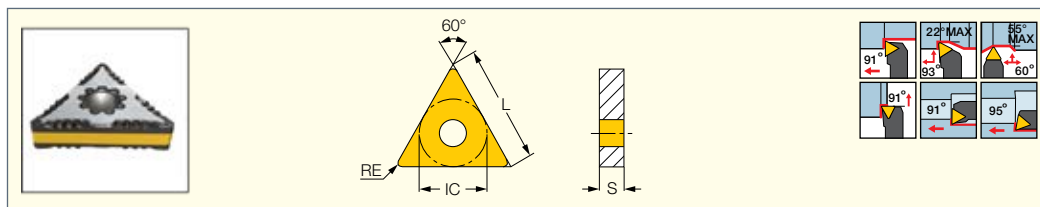
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	LE	S	RE	IC8250	IC8150	a_p (mm)	f (mm/rev)
YNMG 160404-F3P	16.60	9.52	5.7	4.76	0.40	•	•	0.40-3.00	0.03-0.12
YNMG 160408-F3P	16.60	9.52	5.3	4.76	0.80	•	•	0.90-4.00	0.05-0.15

• Use IYSN 322 seat for these inserts • For user guide, see pages 109-114, 215-238

For tools, see pages: MVJNR/L (30) • MVNN (31)

ISOTURN**TNMG-F3P**

Double-Sided Triangular
Inserts for Semi-Finishing
and Finishing Applications



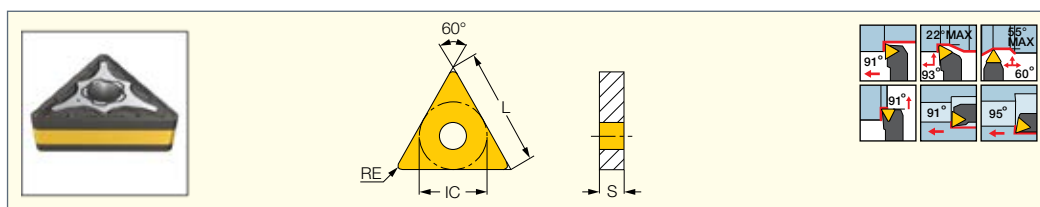
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC807	a_p (mm)	f (mm/rev)
TNMG 160404-F3P	16.50	9.52	4.76	0.40	●	●	●	●	0.50-2.00	0.07-0.25
TNMG 160408-F3P	16.50	9.52	4.76	0.80	●	●	●	●	0.90-3.00	0.08-0.25
TNMG 160412-F3P	16.50	9.52	4.76	1.20	●	●	●	●	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 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • C#-DTGNR/L (34) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

ISOTURN**TNMG-M3P**

Double-Sided Triangular
Inserts for Medium Machining
Conditions on Steel



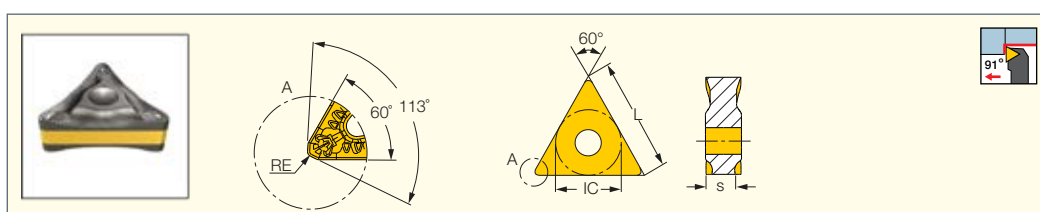
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC807	a_p (mm)	f (mm/rev)
TNMG 160404-M3P	16.50	9.52	4.76	0.40	●	●	●	●	0.40-5.00	0.10-0.30
TNMG 160408-M3P	16.50	9.52	4.76	0.80	●	●	●	●	0.50-5.00	0.15-0.50
TNMG 160412-M3P	16.50	9.52	4.76	1.20	●	●	●	●	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 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • C#-DTGNR/L (34) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

HELITURN LD**TNMX-M3/4PW**

Double-Sided Triangular
Inserts with High Helical
Cutting Edge for High Metal
Removal Rates on Steel



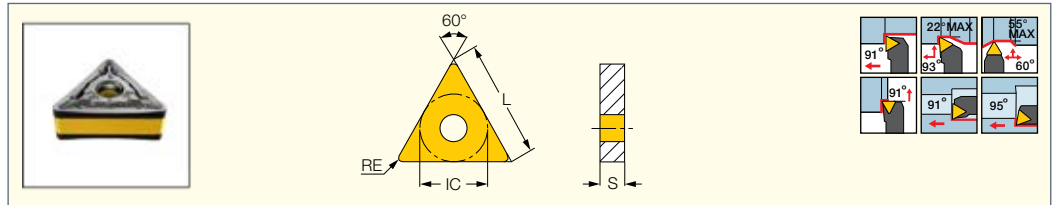
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	a_p (mm)	f (mm/rev)
TNMX 160604-M3PW	16.50	9.52	4.40	0.40	●	●	●	2.00-5.00	0.25-0.40
TNMX 160608-M3PW	16.50	9.52	4.40	0.80	●	●	●	2.50-5.50	0.30-0.50
TNMX 220712-M4PW	22.00	12.70	7.40	1.20	●	●	●	3.00-6.00	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 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33)

TNMG-PF

Triangular Double-Sided
Inserts for Finishing on
Alloyed and Stainless Steel



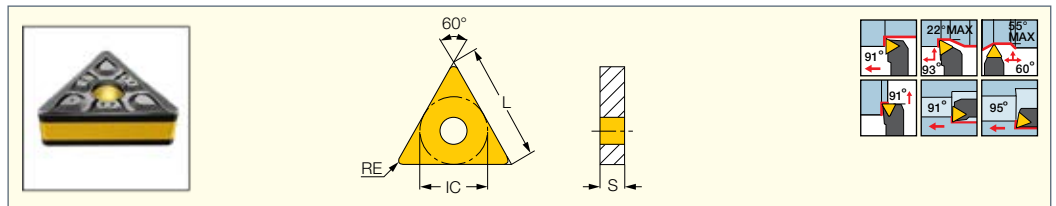
Designation	Dimensions				IC8150	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
TNMG 160408-PF	16.50	9.52	4.76	0.80	●	0.80-3.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

TNMG-TF

Double-Sided Triangular
Inserts for Machining a
Wide Range of Materials at
Medium Cutting Conditions



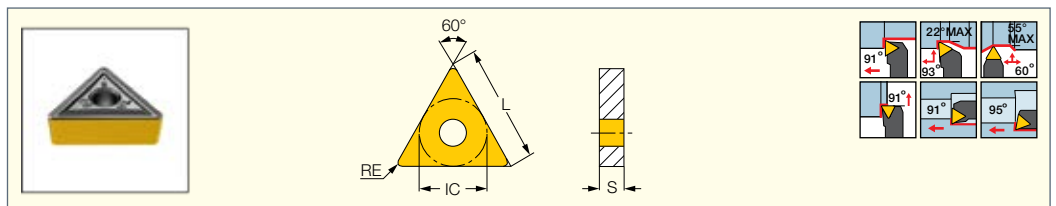
Designation	Dimensions				Tough ↔ Hard										Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
TNMG 160304-TF	16.50	9.52	3.18	0.40		●									1.00-3.00	0.12-0.30
TNMG 160308-TF	16.50	9.52	3.18	0.80		●								●	1.00-3.00	0.12-0.30
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 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • C#-DTGNR/L (34) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

TNMG-VL

Double-Sided Triangular
Inserts with a Chipformer
for High Temperature Alloys
and Stainless Steel Valves



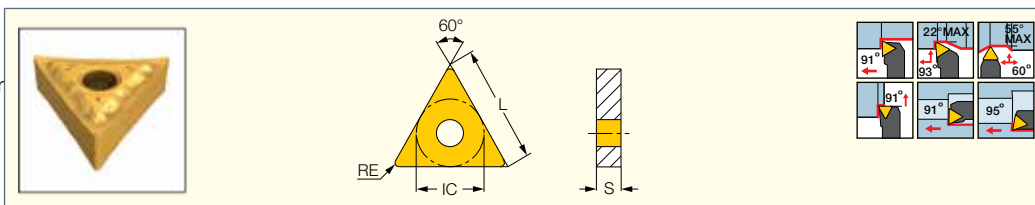
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC908	IC806	IC807	IC907	a_p (mm)	f (mm/rev)
TNMG 160404-VL	16.50	9.52	4.76	0.40		●			0.80-3.50	0.10-0.25
TNMG 160408-VL	16.50	9.52	4.76	0.80	●	●	●	●	0.80-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

ISOTURN**TNMG/TNGG-PP**

Double-Sided Triangular Inserts for Machining Very Ductile Materials at Medium Cutting Conditions



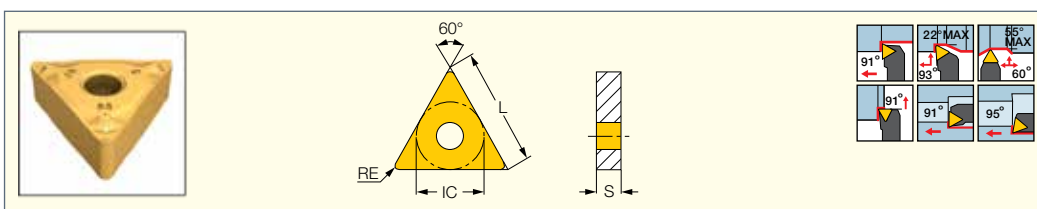
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC20	IC907	a_p (mm)	f (mm/rev)
TNGG 160402-PP	16.50	9.52	4.76	0.20						•	0.50-1.50	0.05-0.25
TNMG 160404-PP	16.50	9.52	4.76	0.40		•	•		•		0.50-3.00	0.13-0.30
TNMG 160408-PP	16.50	9.52	4.76	0.80	•		•	•	•		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 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • C#-DTG NR/L (34) • DTG NR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTG NR/L (32) • PTG NR/L-X (32) • PTG NR/L-X-JHP (33) • PTG NR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

ISOTURN**TNMG-NF**

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications



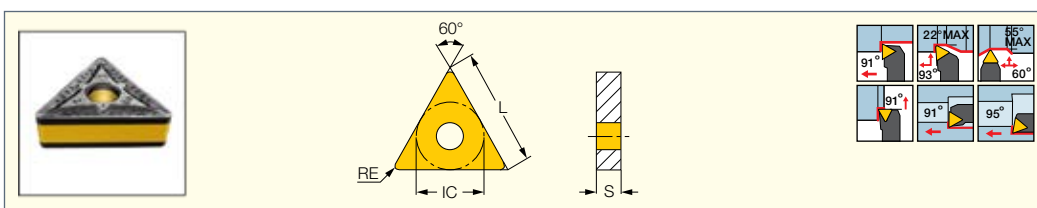
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	a_p (mm)	f (mm/rev)
TNMG 110304-NF	11.00	6.35	3.18	0.40	•		0.40-2.00	0.07-0.25
TNMG 160408-NF	16.50	9.52	4.76	0.80	•	•	1.00-3.00	0.08-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • DTG NR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTG NR/L (32) • PTG NR/L-X (32) • PTG NR/L-X-JHP (33) • PTG NR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

ISOTURN**TNMG-GN**

Double-Sided Triangular Inserts for General Applications



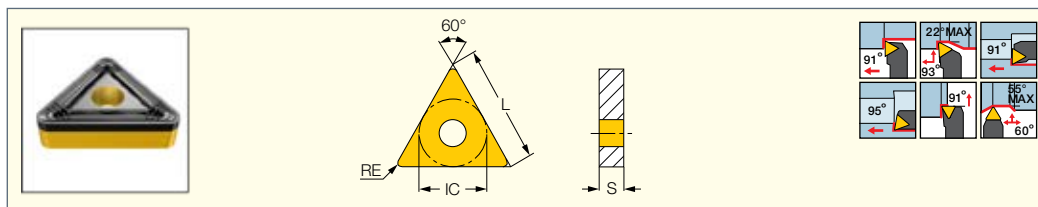
Designation	Dimensions				Tough ↔ Hard										Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	ap (mm)	f (mm/rev)
TNMG 160404-GN	16.50	9.52	4.76	0.40							●	●			1.00-3.00	0.12-0.30
TNMG 160408-GN	16.50	9.52	4.76	0.80	●	●	●	●	●	●	●	●	●	●	1.00-3.50	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 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • C#-DTG NR/L (34) • DTG NR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTG NR/L (32) • PTG NR/L-X (32) • PTG NR/L-X-JHP (33) • PTG NR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

TNMM-NR

Single-Sided Triangular Inserts with a Special Chipformer for Heavy Machining



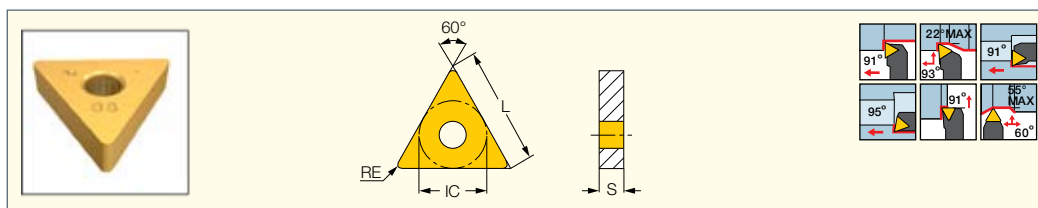
Designation	Dimensions				IC8150	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
TNMM 220416-NR	22.00	12.70	4.76	1.60	●	2.50-6.00	0.30-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-DTGNNR/L (34) • DTGNNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNNR/L (34) • PTGNNR/L (32) • PTGNNR/L-X (32) • S-MTLNR/L-W (95) • S-PTFNNR/L (94)

TNMA

Double-Sided Triangular Inserts with No Chipformer for Short Chipping Materials Such as Cast Iron



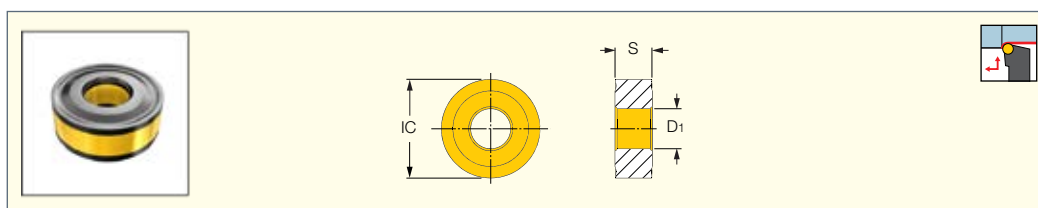
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC20	IC5010	IC428	IC5005	a_p (mm)	f (mm/rev)
TNMA 160404	16.50	9.52	4.76	0.40		●	●	●	0.50-3.00	0.05-0.21
TNMA 160408	16.50	9.52	4.76	0.80	●	●	●	●	1.00-4.00	0.05-0.25
TNMA 160412	16.50	9.52	4.76	1.20		●	●	●	1.50-4.50	0.10-0.29
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 109-114, 215-238

For tools, see pages: A-PTFNNR/L-X/G (94) • C#-DTGNNR/L (34) • DTGNNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNNR-CA (108) • PTFNNR/L (34) • PTGNNR/L (32) • PTGNNR/L-X (32) • PTGNNR/L-X-JHP (33) • PTGNNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNNR/L (94)

RNMG

Double-Sided Round Negative Insert for Medium and Rough Profiling

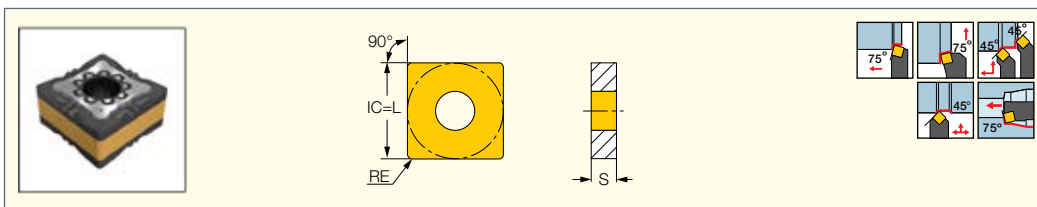


Designation	Dimensions			Tough ↔ Hard		Recommended Machining Data	
	IC	S	D ₁	IC8250	IC8150	a_p (mm)	f (mm/rev)
RNMG 120400	12.70	4.76	5.15	●	●	2.00-5.00	0.30-0.60

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

ISOTURN**SNMG-F3P**

Double-Sided Square
Inserts for Semi-Finishing
and Finishing on Steel



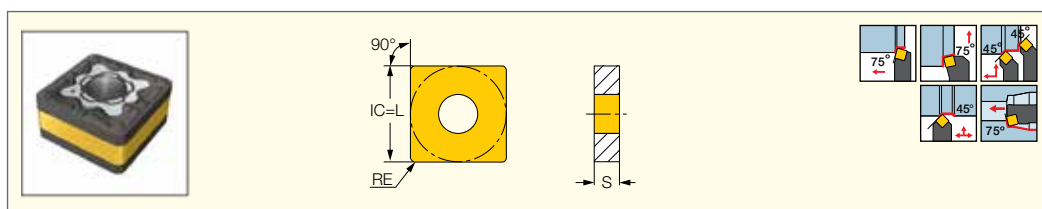
Designation	Dimensions			Tough ↔ Hard						Recommended Machining Data	
	IC	S	RE	IC830	IC8250	IC8150	IC20N	IC520N	IC807	a_p (mm)	f (mm/rev)
SNMG 090404-F3P	9.52	4.76	0.40	●	●	●	●	●	●	0.50-3.50	0.07-0.25
SNMG 090408-F3P	9.52	4.76	0.80	●	●	●	●	●	●	0.90-3.50	0.08-0.25
SNMG 120408-F3P	12.70	4.76	0.80	●	●	●	●	●	●	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 109-114, 215-238

For tools, see pages: A-PSKNR/L-09 (101) • C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN**SNMG-M3P**

Double-Sided Square Inserts
for Medium Machining
Conditions on Steel



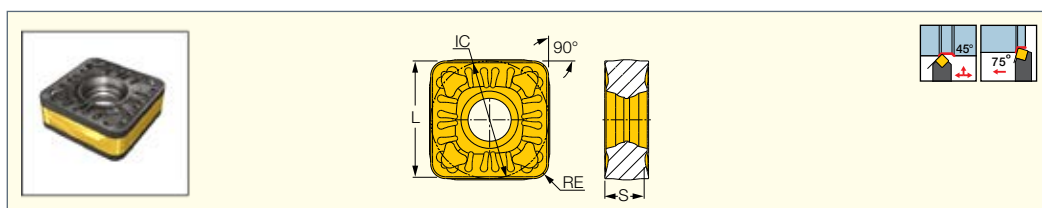
Designation	Dimensions			Tough ↔ Hard				Recommended Machining Data	
	IC	S	RE	IC830	IC8250	IC8150	IC807	a_p (mm)	f (mm/rev)
SNMG 090404-M3P	9.52	4.76	0.40	●	●	●	●	0.50-3.50	0.15-0.50
SNMG 090408-M3P	9.52	4.76	0.80	●	●	●	●	0.50-3.50	0.15-0.55
SNMG 120408-M3P	12.70	4.76	0.80	●	●	●	●	0.50-6.00	0.15-0.50
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 109-114, 215-238

For tools, see pages: A-PSKNR/L-09 (101) • C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

DOVE IQTURN
HEAVY DUTY LINE**SOMG-R3P-IQ**

Double-Sided 7° Negative
Side Flank Square Inserts for
Heavy Turning on Steel



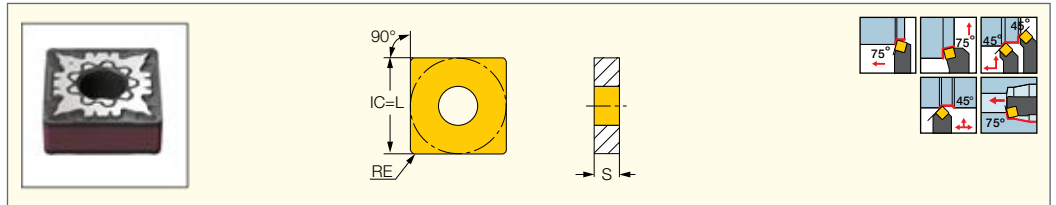
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	a_p (mm)	f (mm/rev)
SOMG 150612-R3P-IQ	15.88	15.88	6.35	1.20	●	●	2.00-9.00	0.30-0.60
SOMG 150616-R3P-IQ	15.88	15.88	6.35	1.60	●	●	2.00-9.00	0.30-0.70
SOMG 190612-R3P-IQ	19.05	19.05	6.35	1.20	●	●	3.00-12.00	0.30-0.80
SOMG 190616-R3P-IQ	19.05	19.05	6.35	1.60	●	●	3.50-12.00	0.35-0.85
SOMG 190624-R3P-IQ	19.05	19.05	6.35	2.40	●	●	3.50-12.00	0.40-1.00
SOMG 250924-R3P-IQ	25.40	25.40	9.52	2.40	●	●	4.00-15.00	0.40-1.00

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-PSROR/L-IQ (40) • PSBOR/L-IQ (40) • PSDON-IQ (37)

SNMG-F3M

Double-Sided Square
Inserts for Stainless Steel
Finishing Applications



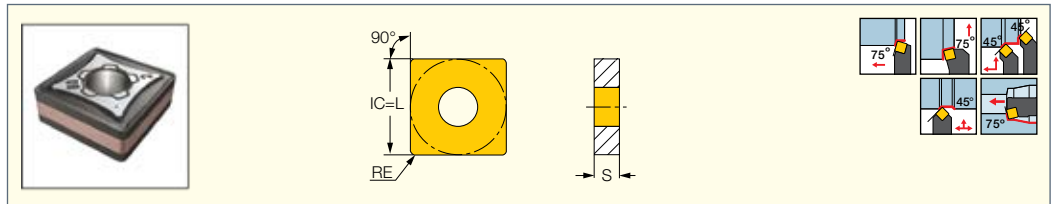
Designation	Dimensions			Tough ↔ Hard						Recommended Machining Data	
	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC804	a_p (mm)	f (mm/rev)
SNMG 090404-F3M	9.52	4.76	0.40		•	•	•	•		0.50-3.50	0.05-0.30
SNMG 090408-F3M	9.52	4.76	0.80	•			•	•		0.50-3.50	0.05-0.30
SNMG 120404-F3M	12.70	4.76	0.40	•			•	•		0.90-3.50	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 109-114, 215-238

For tools, see pages: A-PSKNR/L-09 (101) • C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN
SNMG-M3M

Double-Sided Square Inserts
with a Special Chipformer
for Heavy Machining



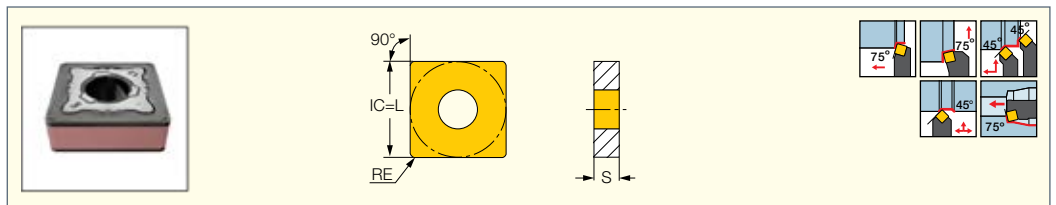
Designation	Dimensions			Tough ↔ Hard						Recommended Machining Data	
	IC	S	RE	IC830	IC6025	IC6015	IC806	IC807	IC804	a_p (mm)	f (mm/rev)
SNMG 090404-M3M	9.52	4.76	0.40	•				•		0.50-4.50	0.15-0.50
SNMG 090408-M3M	9.52	4.76	0.80	•	•	•		•		0.50-4.50	0.15-0.50
SNMG 120408-M3M	12.70	4.76	0.80	•	•	•		•	•	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 109-114, 215-238

For tools, see pages: A-PSKNR/L-09 (101) • C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN
SNMG-R3M

Double-Sided 90° Square
Inserts for Rough Machining on
Stainless and Low Carbon Steel



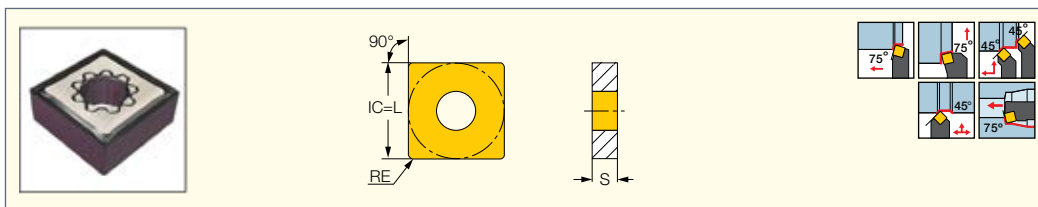
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC830	IC806	a_p (mm)	f (mm/rev)
SNMG 190612 R3M	19.05	19.05	6.35	1.20		•	2.00-11.00	0.30-0.90
SNMG 190616-R3M	19.05	19.05	6.35	1.60	•	•	2.00-11.00	0.30-0.90

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: DSBNR/L (37) • DSDNN (36) • DSSNR/L (36) • PSBNR/L (41) • PSDNN (38) • PSSNR/L (39)

ISOTURN**SNMG-F3S**

Double-Sided 90° Square Inserts for Titanium and Heat Resistant Materials. Used for Finishing Applications.



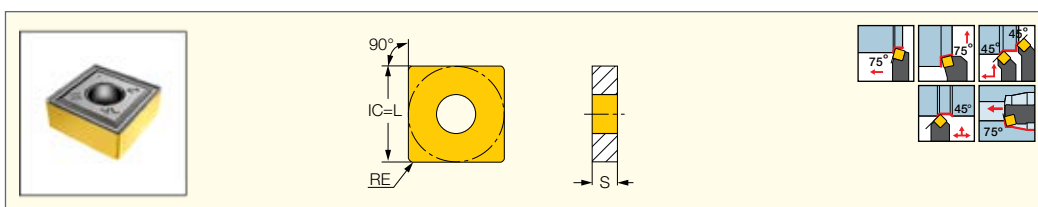
Designation	Dimensions			Tough ↔ Hard		Recommended Machining Data	
	IC	S	RE	IC806	IC804	a_p (mm)	f (mm/rev)
SNMG 090404-F3S	9.52	4.76	0.40	●	●	0.10-1.50	0.05-0.35
SNMG 090408-F3S	9.52	4.76	0.80	●	●	0.10-1.50	0.05-0.35
SNMG 120404-F3S	12.70	4.76	0.40	●	●	0.10-1.50	0.05-0.35
SNMG 120408-F3S	12.70	4.76	0.80	●	●	0.10-1.50	0.05-0.35

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PSKNR/L-09 (101) • C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN**SNMG-VL**

Double-Sided Square Insert with a Chipformer for High Temperature Alloys and Stainless Steel Valves



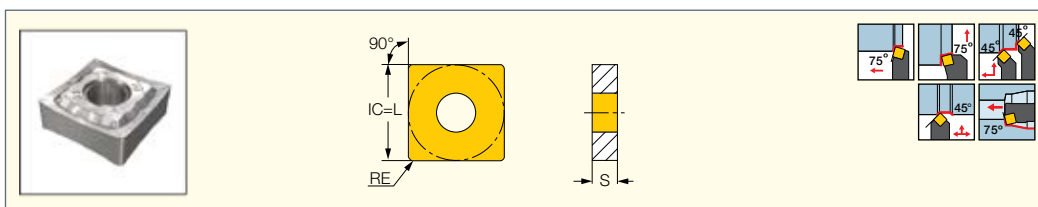
Designation	Dimensions			Tough ↔ Hard		Recommended Machining Data	
	IC	S	RE	IC806	IC907	a_p (mm)	f (mm/rev)
SNMG 120404-VL	12.70	4.76	0.40	●	●	1.00-5.00	0.10-0.25
SNMG 120408-VL	12.70	4.76	0.80	●	●	1.00-5.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN**SNMG-PP**

Double-Sided Square Inserts for Machining Very Ductile Materials at Medium Cutting Conditions



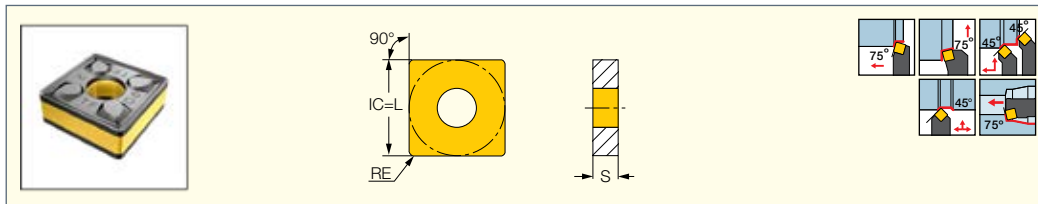
Designation	Dimensions			IC830	Recommended Machining Data	
	IC	S	RE		a_p (mm)	f (mm/rev)
SNMG 120408-PP	12.70	4.76	0.80	●	1.00-4.00	0.14-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

SNMG-TF

Double-Sided Square Inserts
for Machining a Wide Range
of Materials at Medium
Cutting Conditions



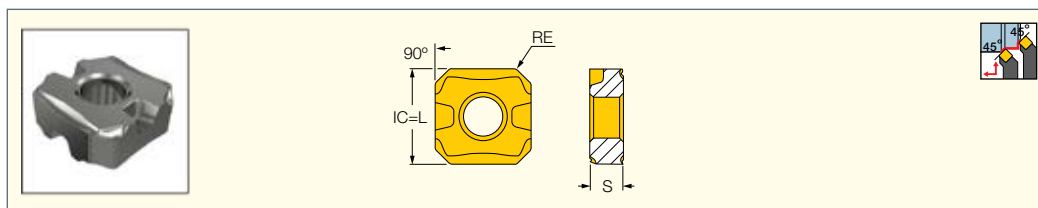
Designation	Dimensions			Tough ↔ Hard								Recommended Machining Data	
	IC	S	RE	IC830	IC8250	IC6015	IC8150	IC20	IC806	IC807	IC907	a_p (mm)	f (mm/rev)
SNMG 090304-TF	9.52	3.17	0.40		•							0.80-3.00	0.10-0.30
SNMG 120404-TF	12.70	4.76	0.40		•						•	1.00-4.00	0.12-0.35
SNMG 120408-TF	12.70	4.76	0.80	•	•	•			•	•	•	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 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

SNMG-EM-M/R

Double-Sided Square Inserts
for Medium Machining on
High Temperature Alloys



Designation	Dimensions			Tough ↔ Hard		Recommended Machining Data	
	IC	S	RE	IC806	IC907	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 109-114, 215-238

For tools, see pages: DSDNN (36) • DSSNR/L (36) • PSDNN (38) • PSDNN-JHP (38) • PSSNR/L (39) • PSSNR/L-JHP (39)

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.

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



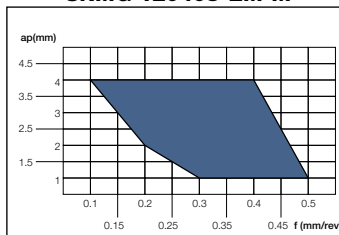
Correct insert position



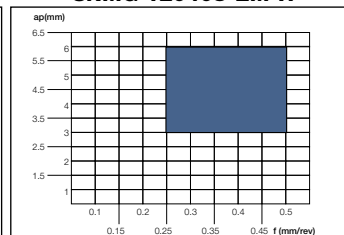
Wrong positioning



Orientation pin

**Chipbreaking Range
SNMG 120408-EM-M**


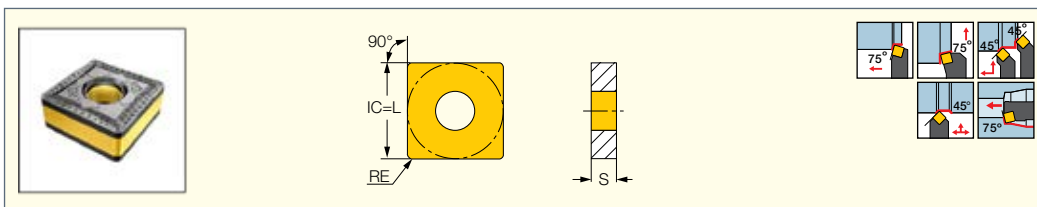
Material: Inconel 718 Vc: 50 m/min With coolant

**Chipbreaking Range
SNMG 120408-EM-R**


Material: Inconel 718 Vc: 50 m/min With coolant

ISOTURN**SNMG-GN**

Double-Sided Square Inserts
for General Applications



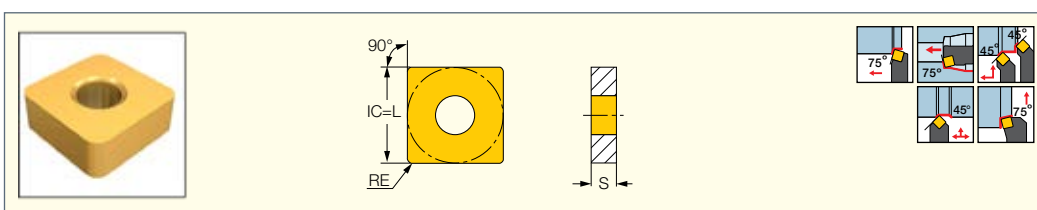
Designation	Dimensions			Tough ↔ Hard								Recommended Machining Data	
	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC20	IC5010	IC428	IC5005	a_p (mm)	f (mm/rev)
SNMG 120408-GN	12.70	4.76	0.80		•	•	•	•	•	•	•	1.00-5.00	0.20-0.45
SNMG 120412-GN	12.70	4.76	1.20				•					1.40-5.00	0.25-0.50
SNMG 150612-GN	15.88	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 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN**SNMA**

Double-Sided Square Inserts
Without a Chipformer for
Short Chipping Materials



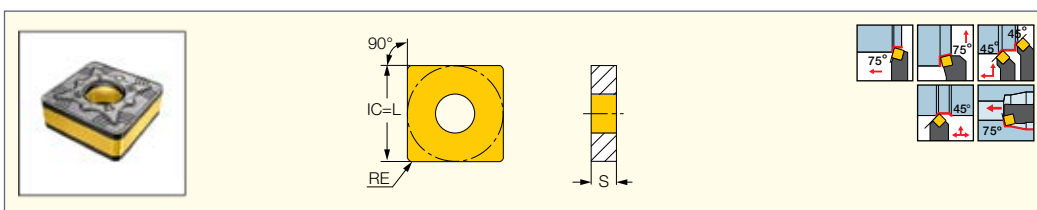
Designation	Dimensions			Tough ↔ Hard				Recommended Machining Data	
	IC	S	RE	IC20	IC5010	IC428	IC5005	a_p (mm)	f (mm/rev)
SNMA 120408	12.70	4.76	0.80	•	•	•	•	1.50-5.00	0.05-0.50
SNMA 120412	12.70	4.76	1.20	•	•	•	•	1.50-5.00	0.10-0.50
SNMA 120416	12.70	4.76	1.60		•	•	•	2.00-6.00	0.10-0.60
SNMA 190612	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 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN**SNMG-NR**

Double-Sided Square Inserts
with a Special Chipformer
for Heavy Machining



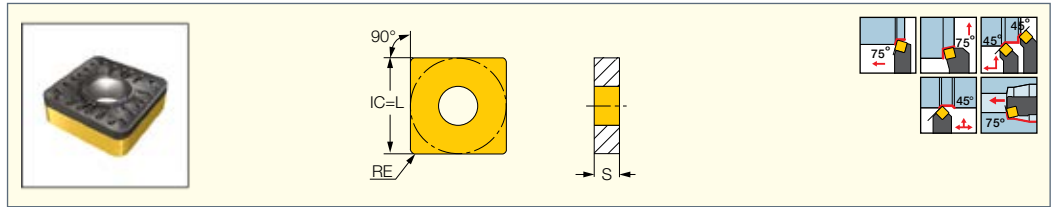
Designation	Dimensions			Tough ↔ Hard									Recommended Machining Data	
	IC	S	RE	IC830	IC8350	IC8250	IC8150	IC5010	IC428	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
SNMG 120412-NR	12.70	4.76	1.20			●			●	●			2.00-5.00	0.30-0.70
SNMG 120416-NR	12.70	4.76	1.60		●	●	●						2.50-6.00	0.30-0.70
SNMG 150608-NR	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 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

SNMM-R3P

Single-Sided Square
Inserts for Rough Turning
Applications on Steel



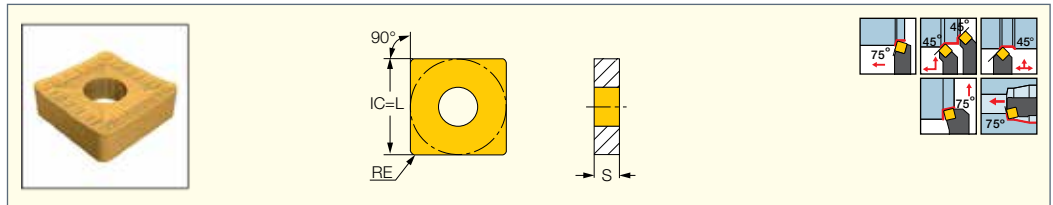
Designation	Dimensions			Tough $\longleftrightarrow$ Hard				Recommended Machining Data	
	IC	S	RE	IC830	IC8350	IC8250	IC8150	a_p (mm)	f (mm/rev)
SNMM 120408-R3P	12.70	4.76	0.80	●		●	●	0.70-7.50	0.20-0.55
SNMM 120412-R3P	12.70	4.76	1.20	●		●	●	1.00-7.50	0.25-0.70
SNMM 120416-R3P	12.70	4.76	1.60	●		●	●	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 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

SNMM-NM

Single-Sided Square Inserts
for Roughing Applications



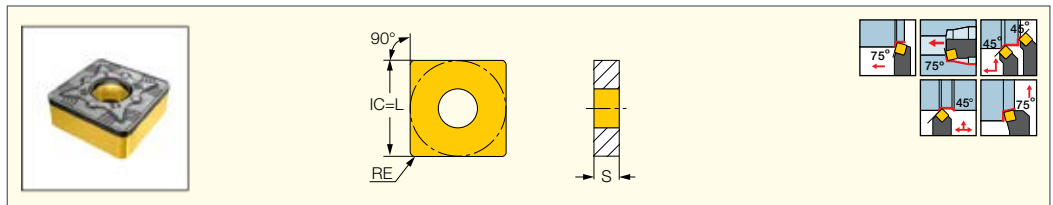
Designation	Dimensions			Tough $\longleftrightarrow$ Hard		Recommended Machining Data	
	IC	S	RE	IC830	IC8250	a_p (mm)	f (mm/rev)
SNMM 190616-NM	19.05	6.35	1.60	●	●	2.50-10.00	0.30-0.70

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: DSBNR/L (37) • DSDNN (36) • DSSNR/L (36) • PSBNR/L (41) • PSDNN (38) • PSSNR/L (39)

SNMM-NR

Single-Sided Square Inserts
with a Special Chipformer
for Heavy Machining



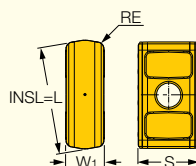
Designation	Dimensions			Tough $\longleftrightarrow$ Hard			Recommended Machining Data	
	IC	S	RE	IC8350	IC8250	IC8150	a_p (mm)	f (mm/rev)
SNMM 190616-NR	19.05	6.35	1.60		●		2.50-8.00	0.35-1.00
SNMM 250724-NR	25.40	7.94	2.40	●	●	●	5.00-15.00	0.35-1.00

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: DSBNR/L (37) • DSDNN (36) • DSSNR/L (36) • PSBNR/L (41) • PSDNN (38) • PSSNR/L (39)

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



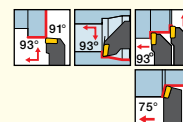
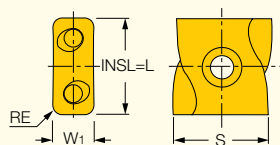
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	W ₁	INSL	S	RE	IC8250	IC8150	a _p (mm)	f (mm/rev)
LOMX 402224-H6P	14.40	40.30	22.60	2.40	●	●	7.00-35.00	1.00-2.00

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PLBOR/L (41)

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



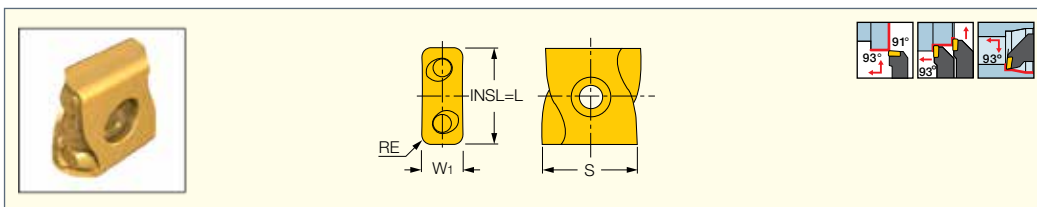
Designation	Dimensions				Tough ↔ Hard									Recommended Machining Data	
	W ₁	INSL	S	RE	IC830	IC8350	IC8250	IC908	IC8150	IC428	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
LNMX 110408R/L-HT	4.75	11.00	11.40	0.80	●	●	●	●	●	●		●	●	0.50-5.00	0.15-0.60
LNMX 110412R/L-HT	4.75	11.00	11.40	1.20	●		●	●	●	●				0.80-5.00	0.20-0.80
LNMX 150608R/L-HT	6.40	15.00	13.40	0.80	●	●	●	●	●	●		●	●	1.00-6.00	0.25-0.60
LNMX 150612R/L-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 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 109-114, 215-238

For tools, see pages: C#-SLANR/L-TANG (44) • PLANR/L-TANG (42) • S-PLANR-TANG (86) • S-SLANR/L-TANG (85) • SLANR/L-15-TANG-JHP (44) • SLANR/L-TANG (43) • SLBNR/L-TANG (45) • SLFNR/L-TANG (45)

LNMX-HM

Tangential Inserts with a Positive Rake Angle for High Metal Removal on Soft and Ductile Materials



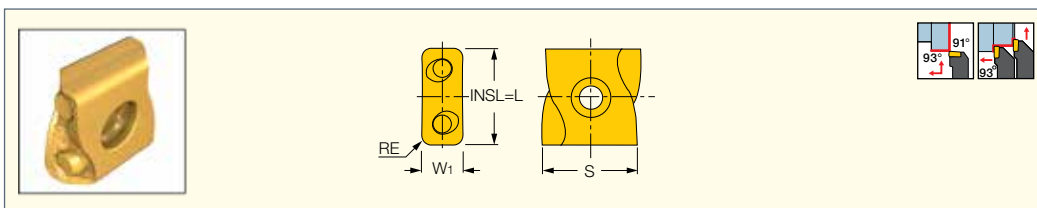
Designation	Dimensions				Tough ↔ Hard					Recommended Machining Data	
	INSL	W ₁	S	RE	IC8250	IC8015	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
LNMX 110408R/L-HM	11.00	4.75	11.40	0.80	•	•		•		1.00-5.00	0.10-0.40
LNMX 110412R/L-HM	11.00	4.75	11.40	1.20	•	•				1.00-5.00	0.10-0.40
LNMX 150608R/L-HM	15.00	6.40	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 109-114, 215-238

For tools, see pages: C#-SLANR/L-TANG (44) • PLANR/L-TANG (42) • S-PLANR-TANG (86) • S-SLANR/L-TANG (85) • SLANR/L-15-TANG-JHP (44) • SLANR/L-TANG (43) • SLFNR/L-TANG (45)

LNMX-WG

Tangentially Clamped Inserts with a Wiper Corner Design for High Production Cutting and Excellent Surface Finish



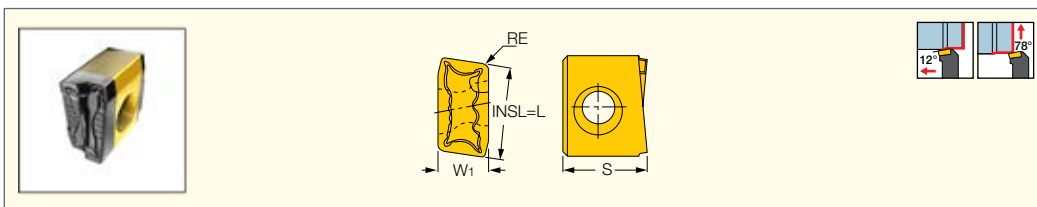
Designation	Dimensions				IC8250	Recommended Machining Data	
	INSL	W ₁	S	RE		a _p (mm)	f (mm/rev)
LNMX 150612R/L-WG	15.00	6.40	13.40	1.20	•	1.50-7.00	0.30-0.80

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-SLANR/L-TANG (44) • PLANR/L-TANG (42) • S-PLANR-TANG (86) • S-SLANR/L-TANG (85) • SLANR/L-15-TANG-JHP (44) • SLANR/L-TANG (43) • SLFNR/L-TANG (45)

LNMX-HF

High Feed (up to 2.4 mm/Rev) Tangentially Clamped Rough Turning Inserts

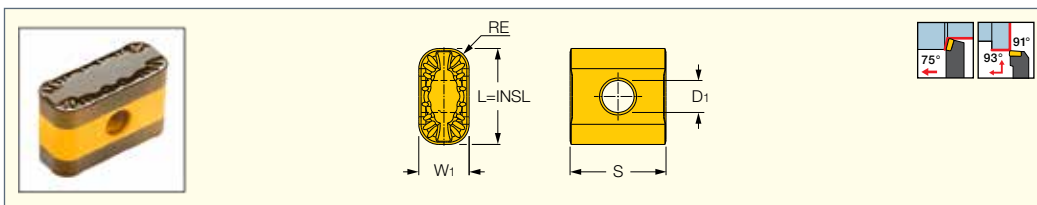


Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	W ₁	INSL	S	RE	IC830	IC8250	IC8150	a _p (mm)	f (mm/rev)
LNMX 1608R/L-HF	8.50	16.00	14.00	1.20	•	•	•	0.50-2.40	1.50-2.40

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

ISOTURN**LNMX 19/30**

Tangentially Clamped Inserts
for Railroad Wheel Re-Turning



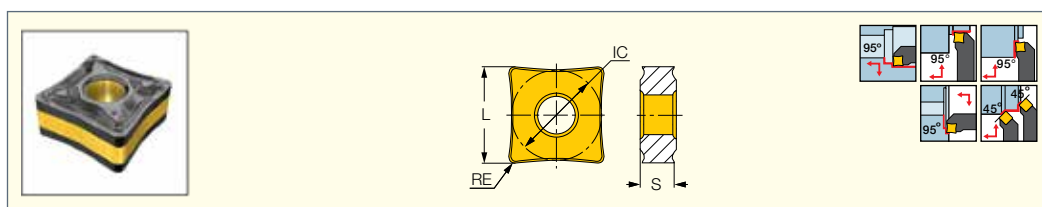
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	W ₁	INSL	S	RE	D ₁	IC8250	IC8150	a _p (mm)	f (mm/rev)
LNMX 191940-WF	10.00	19.05	19.05	4.00	6.35	●	●	0.30-5.00	0.25-1.30
LNMX 191940-WM	10.00	19.05	19.05	4.00	6.35	●	●	0.30-5.00	0.40-1.50
LNMX 301940-WM	12.00	30.00	30.00	4.00	6.35	●	●	0.50-12.00	0.70-1.90
LNMX 301940-WR	12.00	30.00	30.00	4.00	6.35	●	●	0.50-12.00	0.80-1.90

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PRWR/L 175-CA (46) • PRWR/L 177-CA (46)

ISOTURN**QNMG-NF**

Double-Sided Inserts
with Four 80° Corners for
Finishing Applications



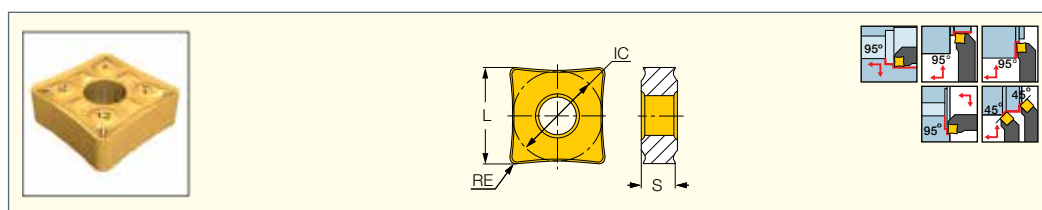
Designation	Dimensions				IC8150	Recommended Machining Data	
	L	IC	S	RE		a _p (mm)	f (mm/rev)
QNMG 120408-NF	13.33	12.70	4.76	0.80	●	0.80-3.00	0.08-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PQFNR/L (47) • PQLNR/L (46) • PQSNR/L (47) • S-PQFNR/L (86) • S-PQLNR/L (86)

ISOTURN**QNMG-TF**

Double-Sided Inserts
with Four 80° Corners for
General Applications



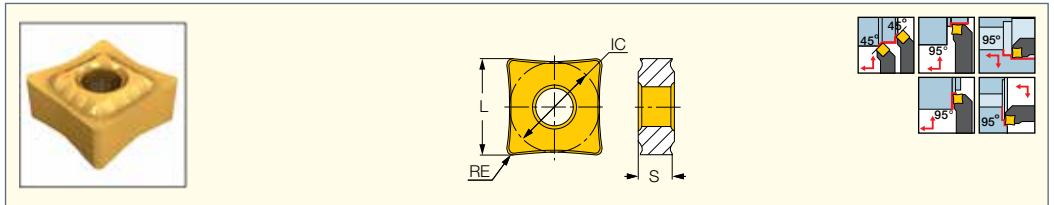
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	a _p (mm)	f (mm/rev)
QNMG 090404-TF	10.32	9.52	4.76	0.40	●	●	●	1.00-4.00	0.12-0.35
QNMG 090408-TF	10.32	9.52	4.76	0.80	●	●	●	1.00-4.00	0.12-0.35
QNMG 120404-TF	13.41	12.70	4.76	0.40	●	●	●	1.00-4.00	0.12-0.35
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 109-114, 215-238

For tools, see pages: PQFNR/L (47) • PQLNR/L (46) • PQSNR/L (47) • S-PQFNR/L (86) • S-PQLNR/L (86)

QNMG-PP

Double-Sided Inserts
with Four 80° Corners for
General Applications



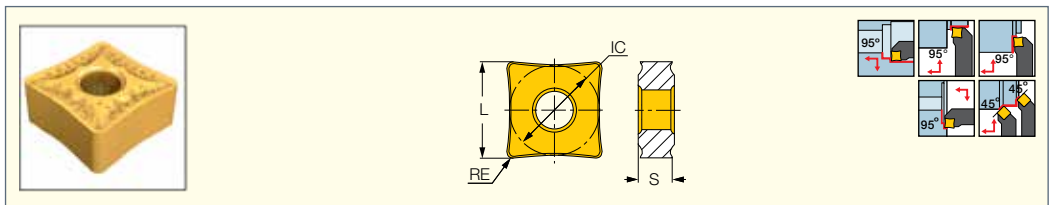
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	a_p (mm)	f (mm/rev)
QNMG 090408-PP	10.32	9.52	4.76	0.80	●		1.00-4.00	0.14-0.30
QNMG 120408-PP	13.33	12.70	4.76	0.80	●	●	1.00-4.00	0.14-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PQFNR/L (47) • PQLNR/L (46) • PQSNR/L (47) • S-PQFNR/L (86) • S-PQLNR/L (86)

QNMG-GN

Double-Sided Inserts
with Four 80° Corners for
General Applications



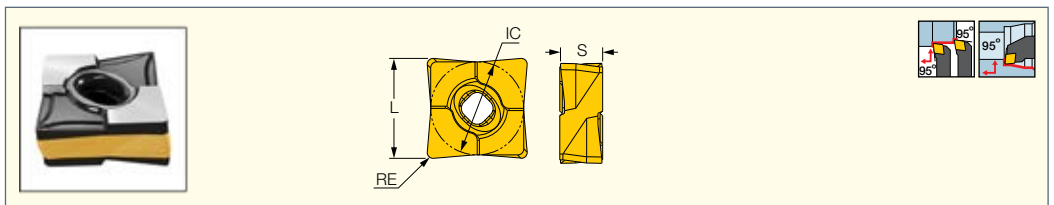
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC830	IC8250	IC8150	IC428	a_p (mm)	f (mm/rev)
QNMG 090408-GN	10.32	9.52	4.76	0.80	●		●		1.00-4.50	0.16-0.45
QNMG 120408-GN	13.33	12.70	4.76	0.80	●	●	●	●	1.00-4.50	0.16-0.45
QNMG 120412-GN	13.25	12.70	4.76	1.20	●	●	●	●	1.50-5.00	0.22-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PQFNR/L (47) • PQLNR/L (46) • PQSNR/L (47) • S-PQFNR/L (86) • S-PQLNR/L (86)

CXMG-F3P

80° Double-Sided and
Double-Positive Inserts
with a Positive Rake for
Finishing on Alloyed Steel



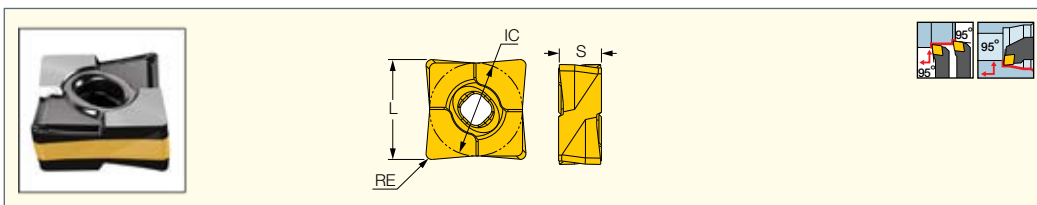
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8150	IC807	a_p (mm)	f (mm/rev)
CXMG 090404-F3P	10.40	9.70	4.65	0.40	●		0.40-2.00	0.05-0.25
CXMG 12T504-F3P	13.83	12.50	5.80	0.40	●		0.40-2.00	0.05-0.25
CXMG 12T508-F3P	13.75	12.50	5.80	0.80	●		0.40-2.00	0.05-0.25
CXMG 090402-F3P	10.40	9.70	4.66	0.20	●	●	0.30-2.00	0.03-0.15

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PCLXR/L (82) • AVC-PCLXR/L (83) • PCLXR/L (48) • PCLXR/L-JHP (48)

LOGIQ4TURN
POSITIVE DOUBLE SIDED**CXMG-M3P**

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Alloyed Steel



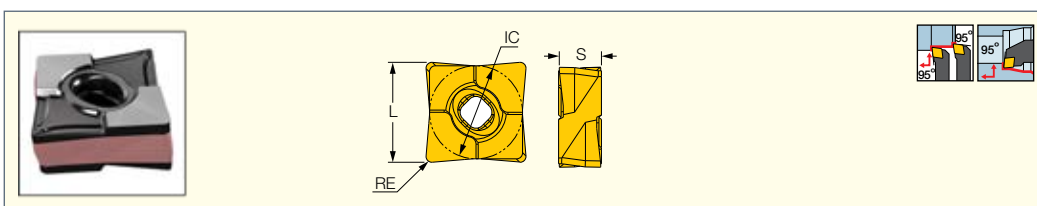
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	a_p (mm)	f (mm/rev)
CXMG 090408-M3P	10.32	9.70	4.65	0.80	●	●	0.80-3.00	0.10-0.50
CXMG 12T508-M3P	13.75	12.80	5.80	0.80	●	●	0.80-5.00	0.10-0.50
CXMG 12T512-M3P	13.68	12.80	5.80	1.20	●	●	1.20-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PCLXR/L (82) • AVC-PCLXR/L (83) • PCLXR/L (48) • PCLXR/L-JHP (48)

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.



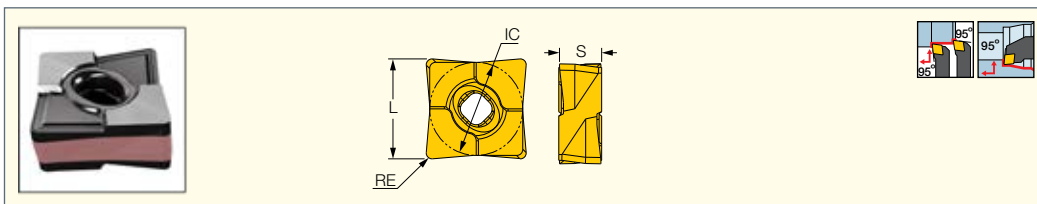
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IC6025	IC806	IC807	a_p (mm)	f (mm/rev)
CXMG 090404-F3M	10.40	9.70	4.65	0.40	●	●	●	0.40-2.00	0.05-0.25
CXMG 12T504-F3M	13.83	12.80	5.80	0.40	●	●	●	0.40-2.00	0.05-0.25
CXMG 12T508-F3M	13.75	12.80	5.80	0.80	●	●	●	0.80-2.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PCLXR/L (82) • AVC-PCLXR/L (83) • PCLXR/L (48) • PCLXR/L-JHP (48)

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.



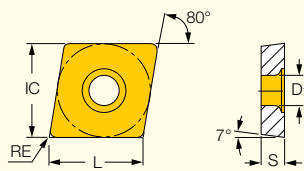
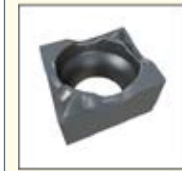
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	RE	S	IC	IC6025	IC806	IC807	a_p (mm)	f (mm/rev)
CXMG 090408-M3M	10.32	0.80	4.65	9.70	●	●	●	0.80-3.00	0.15-0.50
CXMG 12T508-M3M	13.75	0.80	5.80	12.80	●	●	●	0.80-5.00	0.15-0.50
CXMG 12T512-M3M	13.68	1.20	5.80	12.80	●	●	●	1.20-5.00	0.15-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PCLXR/L (82) • AVC-PCLXR/L (83) • PCLXR/L (48) • PCLXR/L-JHP (48)

CCGT-F1P

80° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel



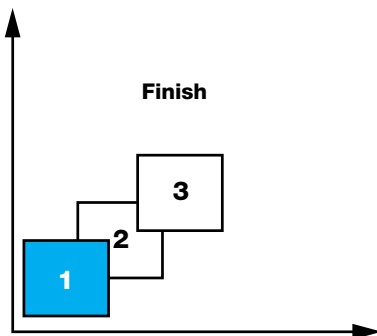
Designation	Dimensions					IC908	Recommended Machining Data	
	L	IC	S	RE	D1		a_p (mm)	f (mm/rev)
CCGT 03X101-F1P	3.60	3.57	1.39	0.10	1.90	●	0.10-0.50	0.01-0.05
CCGT 03X102-F1P	3.60	3.57	1.39	0.20	1.90	●	0.10-0.50	0.02-0.10
CCGT 03X104-F1P	3.60	3.57	1.39	0.40	1.90	●	0.10-0.50	0.05-0.15
CCGT 04T101-F1P	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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97)

ISO Standard Designation			
CCGT	04	T1	04

1	2	3
F	1	P



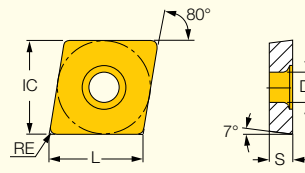
1. Application	
F	Finishing

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

CCMT-F3P

80° Rhombic Positive Flank Inserts, for Semi-Finishing and Finishing Turning of Steel



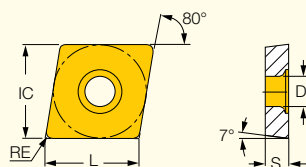
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D1	IC8250	IC8150	a_p (mm)	f (mm/rev)
CCMT 060202-F3P	6.30	6.35	2.38	0.20	2.80	●	●	0.06-1.70	0.03-0.12
CCMT 060204-F3P	6.30	6.35	2.38	0.40	2.80	●	●	0.10-1.70	0.05-0.18
CCMT 09T302-F3P	9.70	9.52	3.97	0.20	4.40	●	●	0.08-2.00	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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-JHP-MC (52) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49)

ISOTURN**CCMT-M3P**

80° Rhombic Positive Flank
Inserts for Medium Machining
Conditions on Steel



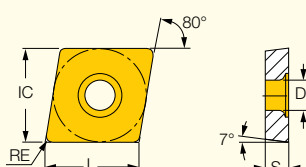
Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	D ₁	IC8250	IC8150	IC807	a _p (mm)	f (mm/rev)
CCMT 060204-M3P	6.30	6.35	2.38	0.40	2.80	●	●		0.50-2.00	0.10-0.25
CCMT 060208-M3P	6.30	6.35	2.38	0.80	2.80	●	●		1.00-4.00	0.10-0.30
CCMT 09T304-M3P	9.70	9.52	3.97	0.40	4.40	●	●		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 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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

ISOTURN**CCMT-M3M**

80° Rhombic Positive Flank
Inserts, for Machining Stainless
and Low Carbon Steel



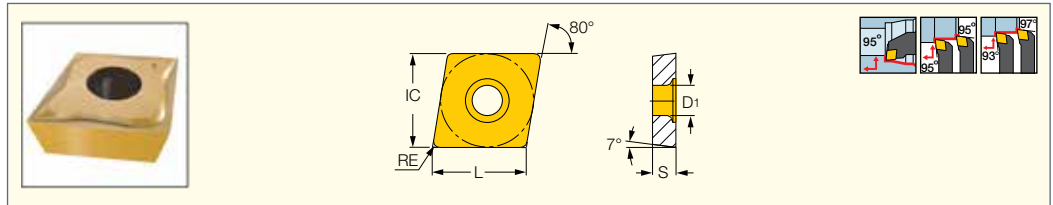
Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	D ₁	IC6025	IC6015	IC807	a _p (mm)	f (mm/rev)
CCMT 060204-M3M	6.30	6.35	2.38	0.40	2.80	●	●		0.40-2.50	0.07-0.23
CCMT 060208-M3M	6.30	6.35	2.38	0.80	2.80	●	●		0.80-2.50	0.10-0.25
CCMT 09T304-M3M	9.70	9.52	3.97	0.40	4.40	●	●		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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

CCMT-CERMET

Single-Sided 80° Rhombic
Cermet Grade Inserts
for Semi-Finishing and
Finishing Applications



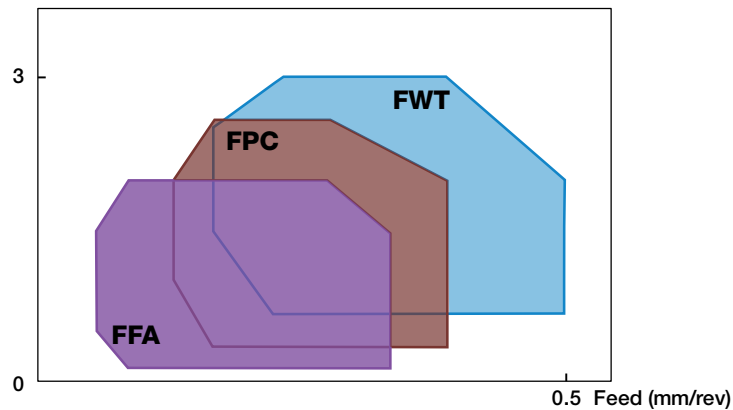
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC20N	IC520N	a_p (mm)	f (mm/rev)
CCMT 09T302-FFA	9.70	9.52	3.97	0.20	•	•	0.03-2.00	0.04-0.15
CCMT 09T302-FWT	9.70	9.52	3.97	0.20	•	•	1.50-3.00	0.00-0.50
CCMT 09T304-FPC	9.70	9.52	3.97	0.40	•	•	0.50-2.50	0.03-0.20
CCMT 09T308-FPC	9.70	9.52	3.97	0.80	•	•	0.50-2.80	0.03-0.22

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

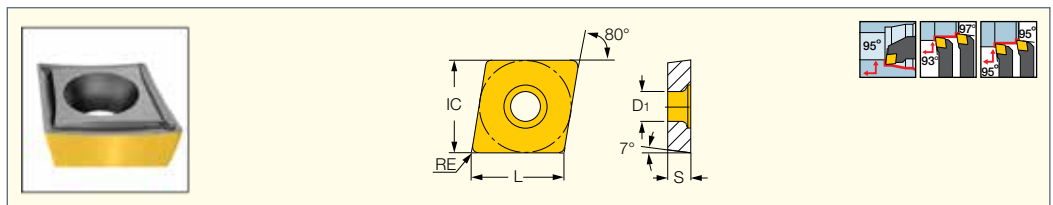
For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-JHP-MC (52) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51)

• SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49)

D.O.C(mm)


CCMT/CCGT-SM

Single-Sided Turning Inserts for
Semi-Finishing and Finishing on
Soft Materials and Exotic Alloys



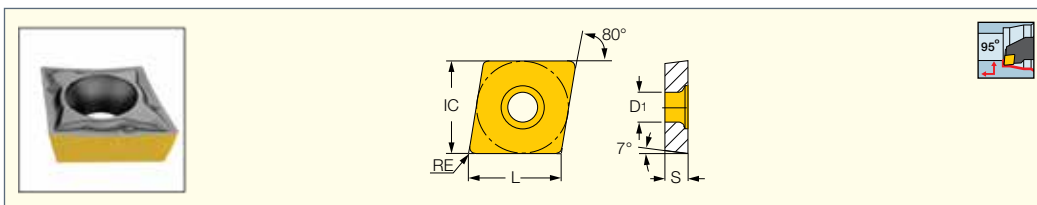
Designation	Dimensions					Tough ↔ Hard											Recommended Machining Data	
	L	IC	S	RE	D ₁	IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC428	IC5005	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
CCGT 060201-SM	6.45	6.35	2.38	0.10	2.80											●	0.25-2.00	0.05-0.20
CCGT 060202-SM	6.45	6.35	2.38	0.20	2.80											●	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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

ISOTURN**CCMT-PF**

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys



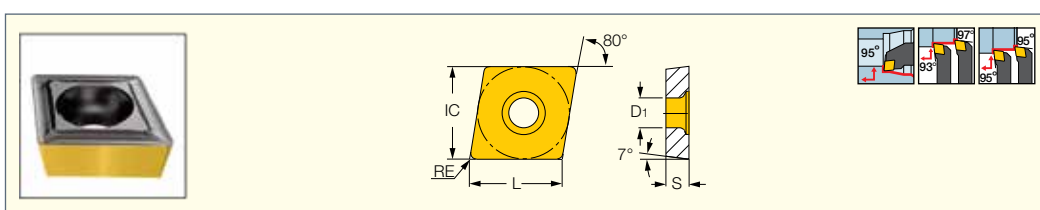
Designation	Dimensions					Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	D ₁	IC830	IC6025	IC6015	IC806	IC807	IC907	IC804	a _p (mm)	f (mm/rev)
CCMT 060202-PF	6.30	6.35	2.38	0.20	2.80	●	●	●	●	●	●	●	0.20-2.50	0.04-0.25
CCMT 060204-PF	6.30	6.35	2.38	0.40	2.80	●	●	●	●	●	●	●	0.40-2.50	0.04-0.30
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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

ISOTURN**CCMT-14**

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning



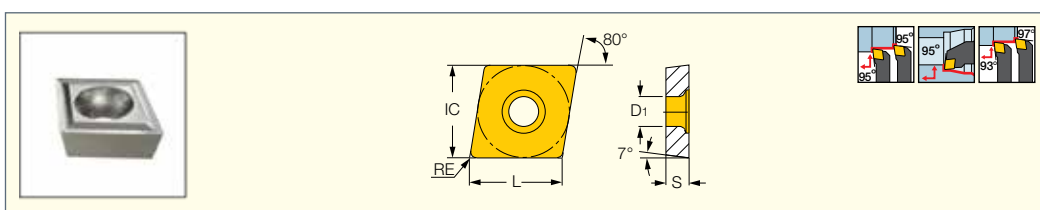
Designation	Dimensions					Tough ↔ Hard							Recommended Machining Data	
	L	IC	S	RE	D ₁	IC830	IC8250	IC20	IC428	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
CCMT 060204-14	6.30	6.35	2.38	0.40	2.80	●	●	●	●	●	●	●	0.50-2.50	0.14-0.25
CCMT 09T304-14	9.70	9.52	3.97	0.40	4.40	●	●	●	●	●	●	●	0.50-3.00	0.14-0.25
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, see pages 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • AVC-SCLCR/L (82) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-JHP-MC (52) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49)

ISOTURN**CCMT/CCGT**

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning



Designation	Dimensions					Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	D ₁	IC8250	IC30N	IC20	IC20N	IC520N	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

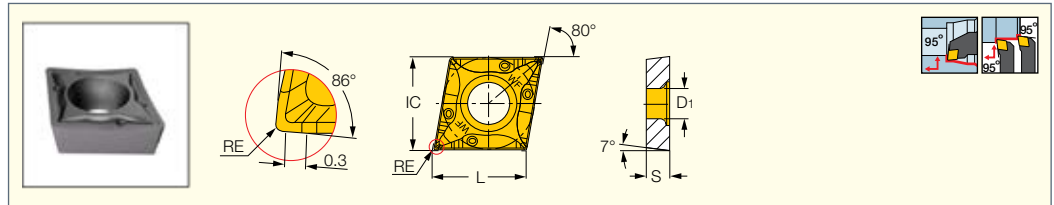
• Use left-hand inserts for left-hand external tools and for right-hand internal tools • For user guide and cutting speed recommendations, see pages 109-114, 215-238

⁽¹⁾ Left-hand insert

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

CCET-WF

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing



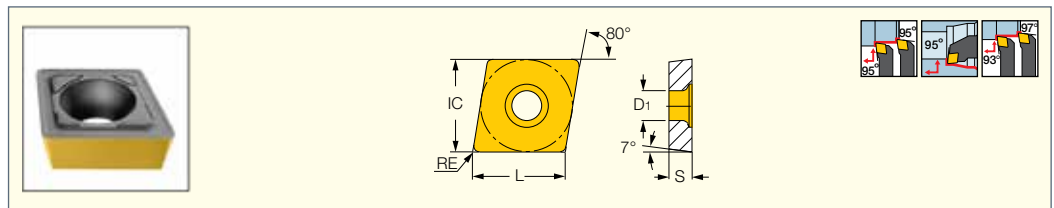
Designation	Dimensions					IC907	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
CCET 0602005-WF	6.30	6.35	2.38	0.05	2.80	●	0.05-2.00	0.01-0.20
CCET 09T3005-WF	9.50	9.52	3.97	0.05	4.40	●	0.05-2.00	0.01-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

CCMT-WG

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing



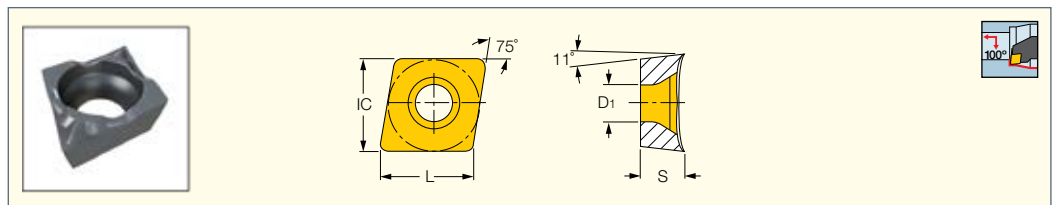
Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	D ₁	IC8250	IC807	IC907	a _p (mm)	f (mm/rev)
CCMT 060204-WG	6.30	6.35	2.38	0.40	2.80		●	●	0.40-2.00	0.10-0.35
CCMT 09T304-WG	9.70	9.52	3.97	0.40	4.40	●			0.40-2.00	0.14-0.30
CCMT 09T308-WG	9.70	9.52	3.97	0.80	4.40	●			0.50-2.50	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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

EPGT-F1P

75° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel



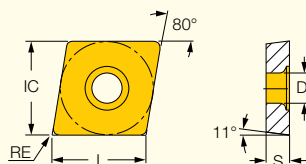
Designation	Dimensions					IC908	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
EPGT 03X101-F1P	3.70	3.57	1.39	0.10	1.90	●	0.10-0.50	0.01-0.05
EPGT 03X102-F1P	3.70	3.57	1.39	0.20	1.90	●	0.10-0.50	0.02-0.10
EPGT 03X104-F1P	3.70	3.57	1.39	0.40	1.90	●	0.10-0.50	0.05-0.15

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-SEXPR/L-03 (98)

ISOTURN**CPGT-SM**

80° Rhombic Inserts with an 11° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys

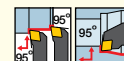
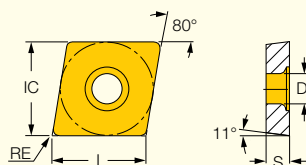


Designation	Dimensions					IC907	Recommended Machining Data	
	L	IC	S	RE	D1		a_p (mm)	f (mm/rev)
CPGT 060201-SM	6.45	6.35	2.38	0.10	2.80	●	0.25-2.00	0.05-0.20
CPGT 060202-SM	6.45	6.35	2.38	0.20	2.80	●	0.25-2.00	0.05-0.30
CPGT 060204-SM	6.45	6.35	2.38	0.40	2.80	●	0.50-3.00	0.10-0.35
CPGT 09T301-SM	9.67	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 109-114, 215-238

ISOTURN**CPMT-PF**

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys



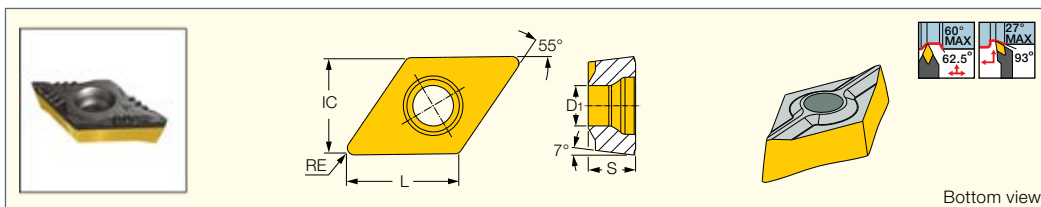
Designation	Dimensions					Tough $\longleftrightarrow$ Hard					Recommended Machining Data	
	L	IC	S	RE	D1	IC830	IC6025	IC6015	IC807	IC907	a_p (mm)	f (mm/rev)
CPMT 060204-PF	6.30	6.35	2.38	0.40	2.80	●	●	●	●	●	0.50-2.50	0.04-0.30
CPMT 060208-PF	6.30	6.35	2.38	0.80	2.80	●	●	●	●	●	0.50-2.50	0.08-0.30
CPMT 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 109-114, 215-238



T-LOCK**DCMT-F3P-SL**

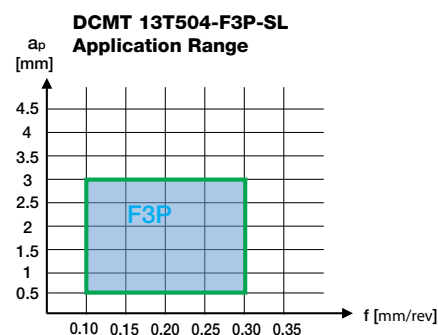
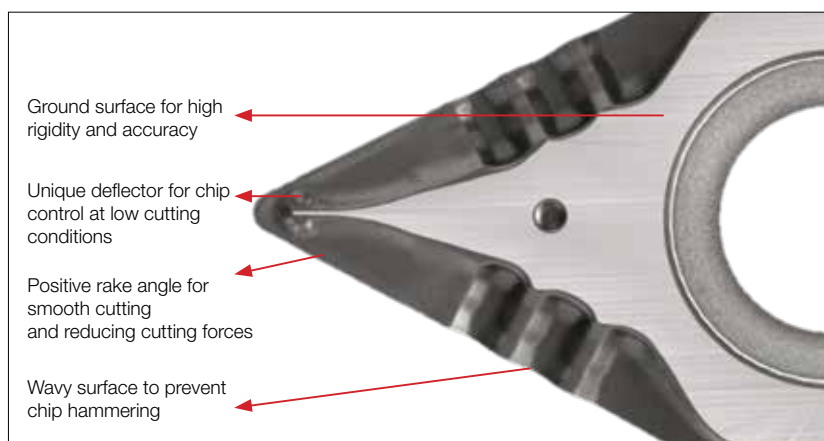
55° Rhombic Inserts with a Positive Flank with a Locating Bottom Ridge for Semi-Finishing and Finishing on Steel



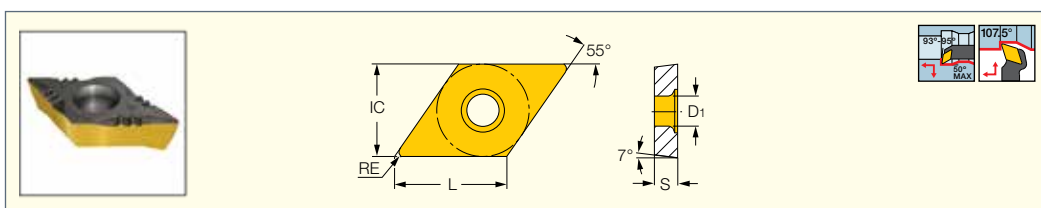
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D ₁	IC8250	IC8150	a _p (mm)	f (mm/rev)
DCMT 13T504-F3P-SL	13.40	11.00	5.11	0.40	4.50	●	●	0.50-3.00	0.05-0.25
DCMT 13T508-F3P-SL	13.40	11.00	5.11	0.80	4.50	●	●	0.90-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SDUCR/L-13-SL (98) • C#-SDJCR/L-13-SL-JHP (53) • C#-SDNCN-13-SL-JHP (57) • SDACR/L-13S-SL-JHP (55) • SDJCR/L-13-SL (53) • SDNCN-13-SL (57)

**ISOTURN****DCMT-F3P**

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel



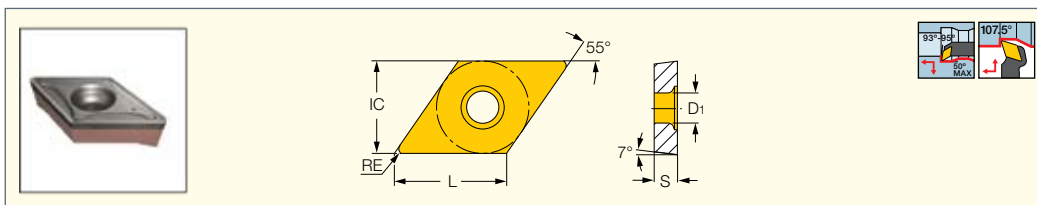
Designation	Dimensions					Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	D ₁	IC830	IC8250	IC8150	IC807	a _p (mm)	f (mm/rev)
DCMT 070202-F3P	7.70	6.35	2.38	0.20	2.80	●	●	●	●	0.06-1.50	0.03-0.12
DCMT 070204-F3P	7.70	6.35	2.38	0.40	2.80	●	●	●	●	0.08-1.50	0.05-0.18
DCMT 11T302-F3P	11.60	9.52	3.97	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 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • E-SDUCR/L-HEAD (99) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-JHP-MC (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • SDNCN (57)

ISOTURN**DCMT-M3M**

55° Rhombic Positive Flank
Inserts, for Machining Stainless
and Low Carbon Steel



Designation	Dimensions					Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	D1	IC6025	IC6015	IC806	IC807	IC907	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
DCMT 11T312-M3M	11.60	9.52	3.97	1.20	4.40	●	●		●		1.20-3.00	0.13-0.35

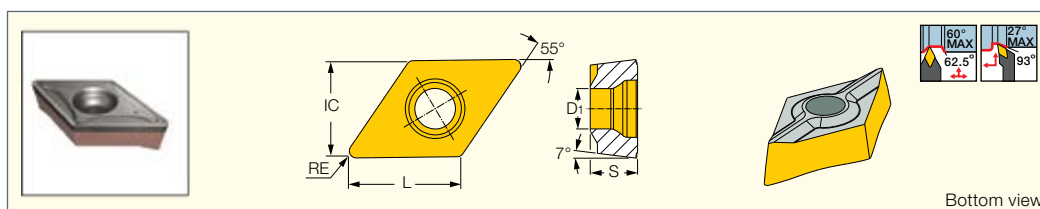
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • E-SDUCR/L-HEAD (99) • IM-SDNCN (58)

• PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

T-LOCK**DCMT-M3M-SL**

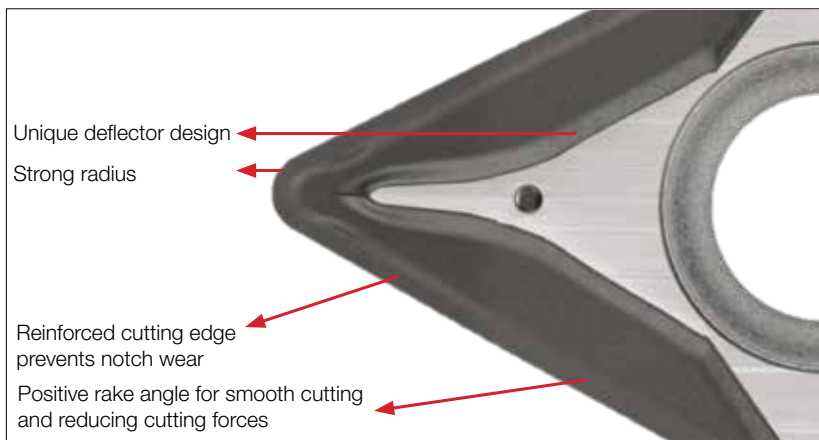
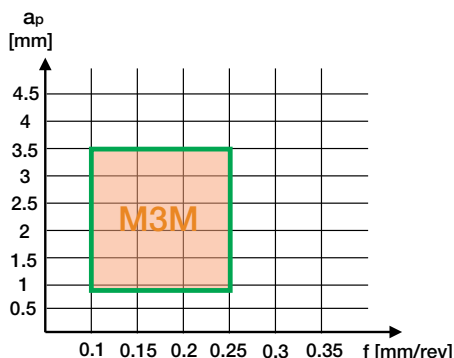
55° Rhombic Inserts with a
Positive Flank and Locating
Bottom Ridge for Machining
Stainless and Low Carbon Steel



Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D1	IC6025	IC6015	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

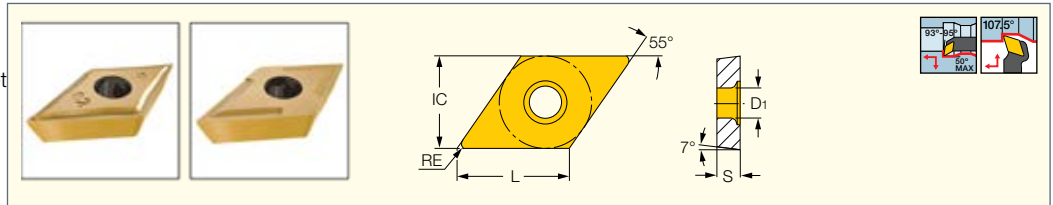
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SDUCR/L-13-SL (98) • C#-SDJCR/L-13-SL-JHP (53) • C#-SDNCN-13-SL-JHP (57) • SDACR/L-13S-SL-JHP (55) • SDJCR/L-13-SL (53) • SDNCN-13-SL (57)

DCMT 13T508-M3M-SL Application Range

DCMT-CERMET

Single-Sided 55° Rhombic Cermet
Grade Inserts for Semi-Finishing
and Finishing Applications

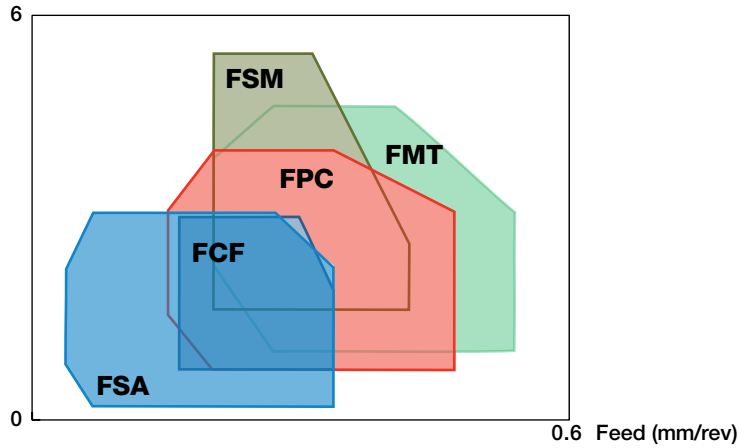


Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC20N	IC520N	a _p (mm)	f (mm/rev)
DCGT 11T302-FSA	11.60	9.52	3.97	0.20	●		0.30-2.00	0.02-0.15
DCGT 11T304-FSA	11.60	9.52	3.97	0.40	●		0.40-2.00	0.03-0.15
DCMT 11T302-FCF	11.60	9.52	3.97	0.20	●		0.50-2.50	0.07-0.22
DCMT 11T302-FSM	11.60	9.52	3.97	0.20		●	0.50-3.00	0.05-0.22
DCMT 11T304-FPC	11.60	9.52	3.97	0.40	●	●	0.50-2.70	0.04-0.25
DCMT 11T304-FSM	11.60	9.52	3.97	0.40		●	0.50-3.00	0.07-0.25
DCMT 11T308-FPC	11.60	9.52	3.97	0.80	●	●	0.50-2.70	0.04-0.25
DCMT 11T312-FMT	11.60	9.52	3.97	1.20		●	1.50-5.00	0.15-0.50

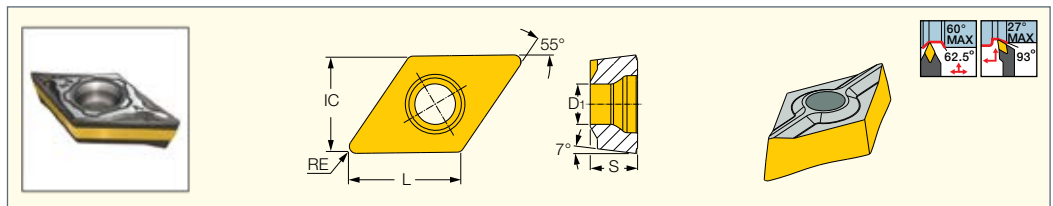
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-JHP-MC (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR/L (53) • SDNCN (57)

D.O.C(mm)


T-LOCK
DCMT-PF-SL

55° Rhombic Inserts with a
Positive Flank and Locating
Bottom Ridge for Finish Turning
on Soft Materials & Exotic Alloys



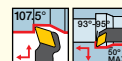
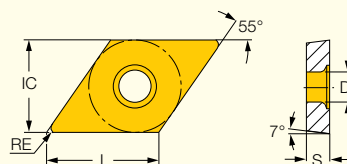
Designation	Dimensions					IC8150	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
DCMT 13T504-PF-SL	13.40	11.00	5.11	0.40	4.50	●	0.50-3.00	0.05-0.25
DCMT 13T508-PF-SL	13.40	11.00	5.11	0.80	4.50	●	0.70-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SDUCR/L-13-SL (98) • C#-SDJCR/L-13-SL-JHP (53) • C#-SDNCN-13-SL-JHP (57) • SDACR/L-13S-SL-JHP (55) • SDJCR/L-13-SL (53) • SDNCN-13-SL (57)

ISOTURN**DCMT-PF**

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys



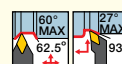
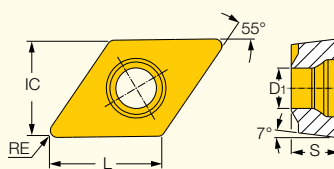
Designation	Dimensions					Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	D1	IC830	IC6025	IC8250	IC6015	IC806	IC807	IC907	IC804	ap (mm)	f (mm/rev)
DCMT 070201-PF	7.70	6.35	2.38	0.10	2.80						•	•		0.30-3.00	0.02-0.25
DCMT 070202-PF	7.70	6.35	2.38	0.20	2.80	•								0.40-3.00	0.03-0.25
DCMT 070204-PF	7.70	6.35	2.38	0.40	2.80	•								0.50-3.50	0.05-0.30
DCMT 070208-PF	7.70	6.35	2.38	0.80	2.80						•	•		0.70-3.00	0.08-0.30
DCMT 11T302-PF	11.60	9.52	3.97	0.20	4.40	•				•	•	•	•	0.30-2.50	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 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • E-SDUCR/L-HEAD (99) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

T-LOCK**DCMT-SM-SL**

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Finish Turning on Soft Materials & Exotic Alloys



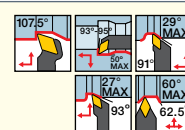
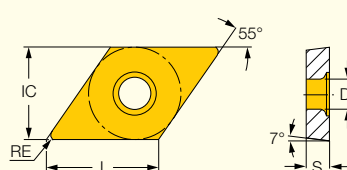
Designation	Dimensions					IC8150	Recommended Machining Data	
	L	IC	S	RE	D1		ap (mm)	f (mm/rev)
DCMT 13T504-SM-SL	13.40	11.00	5.11	0.40	4.50	•	0.50-2.50	0.07-0.27
DCMT 13T508-SM-SL	13.40	11.00	5.11	0.80	4.50	•	1.00-3.00	0.07-0.27

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SDUCR/L-13-SL (98) • C#-SDJCR/L-13-SL-JHP (53) • C#-SDNCN-13-SL-JHP (57) • SDACR/L-13S-SL-JHP (55) • SDJCR/L-13-SL (53) • SDNCN-13-SL (57)

ISOTURN**DCMT/DCGT-SM**

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys



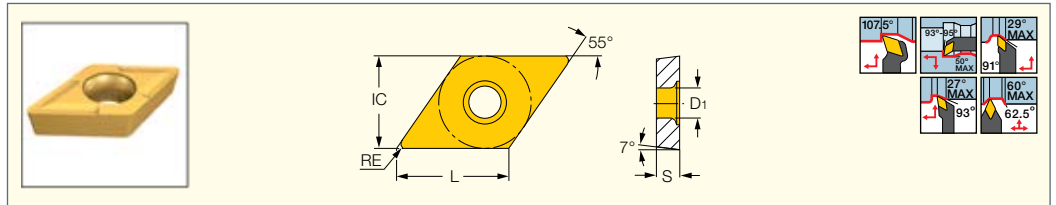
Designation	Dimensions					Tough ↔ Hard										Recommended Machining Data	
	L	IC	S	RE	D ₁	IC8350	IC6025	IC8250	IC530N	IC6015	IC8150	IC520N	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
DCMT 070202-SM	7.70	6.35	2.38	0.20	2.80		●			●				●	●	0.50-2.00	0.04-0.20
DCMT 070204-SM	7.70	6.35	2.38	0.40	2.80		●			●	●		●	●	●	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 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • E-SDUCR/L-HEAD (99) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-JHP-MC (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • SDNCN (57)

DCMT/DCGT

55° Rhombic Inserts with a 7° Positive Clearance for Finishing Applications



Designation	Dimensions					Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	D ₁	IC830	IC8250	IC908	IC30N	IC530N	IC8150	IC20N	IC520N	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

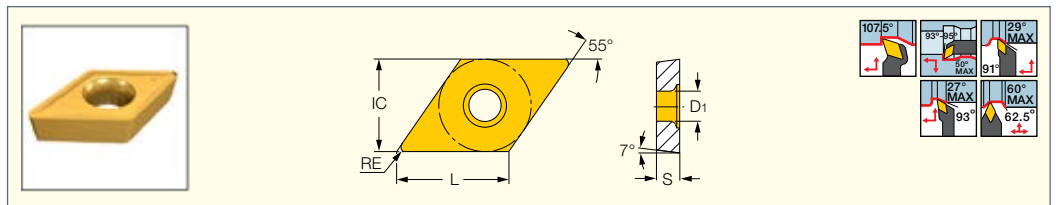
• Right-hand inserts for right-hand external tools and for left-hand internal tools • For user guide and cutting speed recommendations, see pages 109-114, 215-238

⁽¹⁾ Right-hand insert

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • E-SDUCR/L-HEAD (99) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

DCMT-14

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys



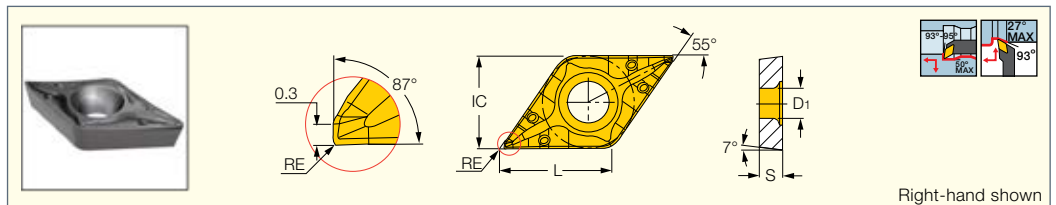
Designation	Dimensions					Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	D ₁	IC830	IC8150	IC20	IC428	IC5005	a _p (mm)	f (mm/rev)
DCMT 11T304-14	11.60	9.52	3.97	0.40	4.40	•	•	•	•	•	1.00-2.50	0.14-0.25
DCMT 11T308-14	11.60	9.52	3.97	0.80	4.40	•	•	•	•	•	1.50-3.00	0.14-0.29

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

DCET-WF

55° Rhombic Wiper Inserts for Finishing Operations at High Feeds



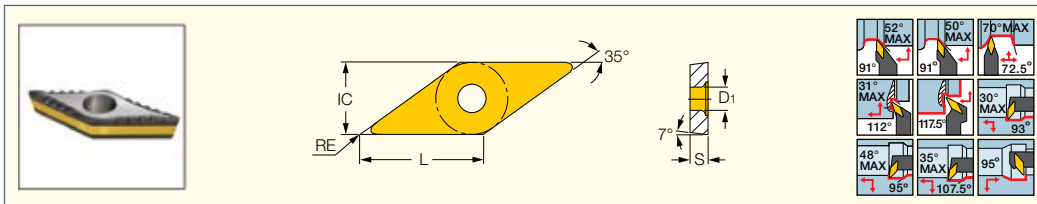
Designation	Dimensions					IC907	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
DCET 0702005R/L-WF	7.70	6.35	2.38	0.05	2.80	•	0.05-3.00	0.01-0.20
DCET 11T3005R/L-WF	11.60	9.52	3.97	0.05	4.40	•	0.05-3.00	0.01-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • E-SDUCR/L-HEAD (99) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • PDACR/L-JHP-MC (56)

ISOTURN**VCMT-F3P**

35° Rhombic Positive Flank
Inserts, for Semi-Finishing and
Finishing Turning of Steel



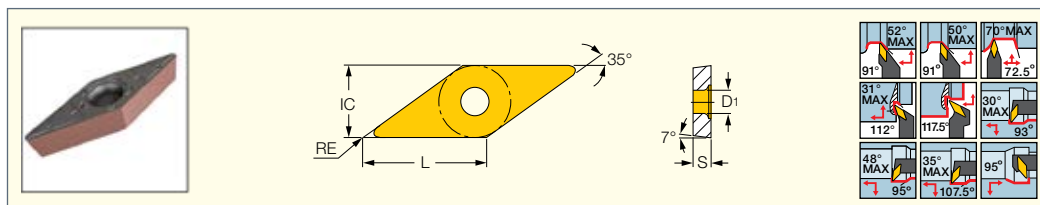
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D ₁	IC8250	IC8150	a _p (mm)	f (mm/rev)
VCMT 110302-F3P	11.10	6.35	3.18	0.20	2.80	●	●	0.06-1.70	0.03-0.14
VCMT 110304-F3P	11.10	6.35	3.18	0.40	2.80	●	●	0.10-1.70	0.05-0.20
VCMT 110308-F3P	11.10	6.35	3.18	0.80	2.80	●	●	0.13-1.70	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 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVJCR/L (414) • A/S-SVQCR/L (413) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • PVACR/L-JHP (60) • PVACR/L-JHP-MC (61) • PVACR/L-S (58) • S/A-SVJCR/L (100) • SVACR/L (60) • SVJCR-PAD (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVPCR/L (62) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCR/L (83)

ISOTURN**VCMT-F3M**

35° Rhombic Positive Flank
Inserts, for Stainless Steel
Finishing Applications



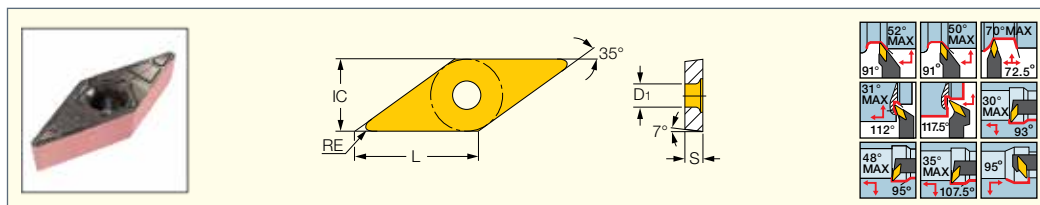
Designation	Dimensions					Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	D ₁	IC6025	IC6015	IC806	IC807	a _p (mm)	f (mm/rev)
VCMT 110302-F3M	11.10	6.35	3.18	0.20	2.85	●	●	●	●	0.06-1.70	0.03-0.14
VCMT 110304-F3M	11.10	6.35	3.18	0.40	2.85	●	●	●	●	0.10-1.70	0.05-0.20
VCMT 110308-F3M	11.10	6.35	3.18	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 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVJCR/L (414) • A/S-SVQCR/L (413) • AVC-SVLCR/L (83) • AVC-SVUCR/L (83) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • PVACR/L-JHP (60) • PVACR/L-JHP-MC (61) • PVACR/L-S (58) • S/A-SVJCR/L (100) • SVACR/L (60) • SVJCR-PAD (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVPCR/L (62) • SVVCN (413) • SVXCR/L (413)

ISOTURN**VCMT-M3M**

35° Rhombic Positive Flank
Inserts, for Machining Stainless
and Low Carbon Steel



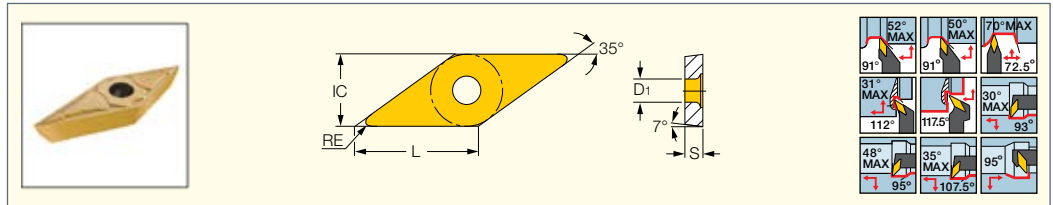
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D ₁	IC6025	IC6015	a _p (mm)	f (mm/rev)
VCMT 160404-M3M	16.60	9.52	4.76	0.40	4.40	●	●	1.00-5.00	0.07-0.25
VCMT 160412-M3M	16.60	9.52	4.76	1.20	4.40	●	●	1.00-5.00	0.13-0.35

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVJCR/L (414) • A/S-SVQCR/L (413) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCR/L (83)

VCMT-FPC-CERMET

35° Rhombic Cermet Positive Flank Inserts for Semi-Finish Turning of Steel and Automotive Components



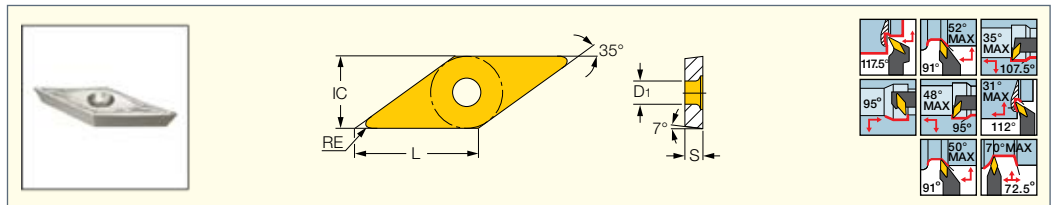
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC20N	IC520N	a _p (mm)	f (mm/rev)
VCMT 160404-FPC	16.60	9.52	4.76	0.40	●	●	0.70-2.00	0.04-0.22
VCMT 160408-FPC	16.60	9.52	4.76	0.80		●	0.70-2.00	0.04-0.22

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVJCR/L (414) • A/S-SVQCR/L (413) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCR/L (83)

VCGT-MD/PF

35° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys



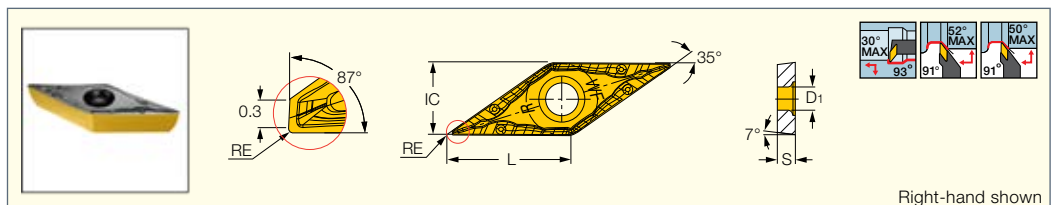
Designation	Dimensions					IC880	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
VCGT 130304-PF	13.00	7.94	3.18	0.40	3.40	●	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SVACR/L (60)

VCET-WF

35° Rhombic Wiper Inserts for Finishing Operations at High Feeds



Right-hand shown

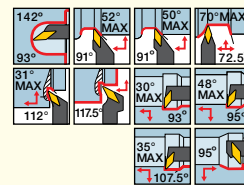
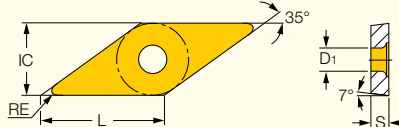
Designation	Dimensions					IC907	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
VCET 1103005R/L-WF	11.10	6.35	3.18	0.05	2.90	●	0.05-4.00	0.01-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • PVACR/L-JHP (60) • PVACR/L-S (58) • S/A-SVJCR/L (100) • SVACR/L (60) • SVJCR-PAD (60) • SVJCR/L (412) • PVACR/L-JHP-MC (61)

ISOTURN**VCMT-SM**

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys



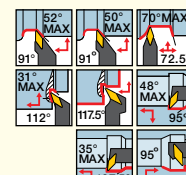
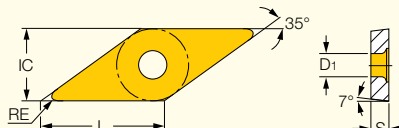
Designation	Dimensions					Tough ↔ Hard											Recommended Machining Data	
	L	IC	S	RE	D _i	IC830	IC6025	IC8250	IC908	IC6015	IC8150	IC806	IC807	IC907	IC4	IC804	a _p (mm)	f (mm/rev)
VCMT 110302-SM	11.10	6.35	3.18	0.20	2.90				●				●	●			0.20-2.50	0.04-0.20
VCMT 110304-SM	11.10	6.35	3.18	0.40	2.90		●		●	●		●	●	●			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		●	●		●	●	●	●	●	●		0.13-1.80	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 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413) • AVC-SVLCR/L (83) • AVC-SVUCR/L (83) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • PVACR/L-JHP (60) • PVACR/L-JHP-MC (61) • PVACR/L-S (58) • S/A-SVJCR/L (100) • SVACR/L (60) • SVJCR-PAD (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVPCR/L (62) • SVVCN (413) • SVXCR/L (413)

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					Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	D1	IC830	IC20	IC20N	IC520N	ap (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 109-114, 215-238

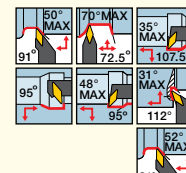
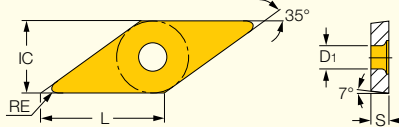
For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413) • AVC-SVLCR/L (83) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVVCN (413) • SVXCR/L (413)

ISOTURN**VCMW**

35° Rhombic Inserts with a 7° Positive Flank for Short Chipping Materials such as Cast Iron



Tolerances:
d = ±0.05
S = ±0.13



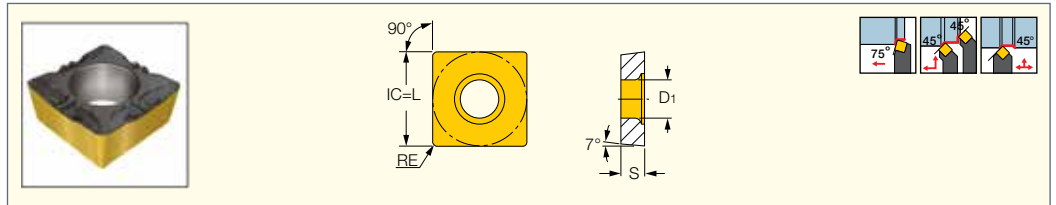
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D1		ap (mm)	f (mm/rev)
VCMW 160404	16.60	9.52	4.76	0.40	4.40	•	0.70-4.00	0.05-0.25
VCMW 160408	16.60	9.52	4.76	0.80	4.40	•	1.00-5.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCR/L (83)

SCMT-F3P

Square Positive Flank Inserts,
for Semi-Finishing and
Finishing Turning of Steel



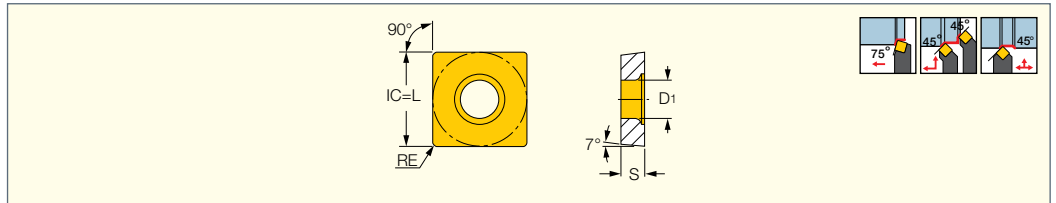
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	S	RE	D ₁	IC8250	IC8150	IC807	a _p (mm)	f (mm/rev)
SCMT 09T304-F3P	9.52	3.97	0.40	4.40	●	●	●	0.11-2.00	0.06-0.25
SCMT 09T308-F3P	9.52	3.97	0.80	4.40	●	●	●	0.15-2.00	0.08-0.32

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SSBCR/L (62) • SSSCR/L (62)

SCMT-M3P

Square Positive Flank Inserts
for Medium Machining
Conditions on Steel

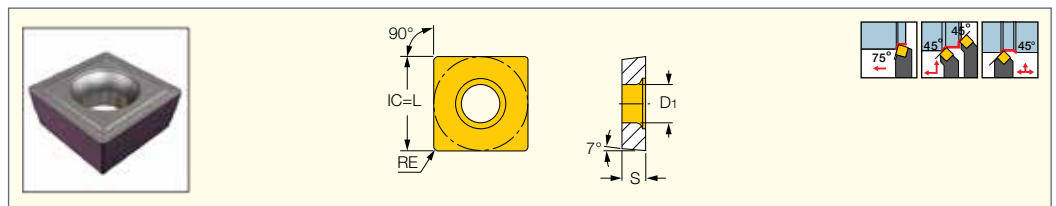


Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	S	RE	D ₁	IC8250	IC8150	IC807	a _p (mm)	f (mm/rev)
SCMT 09T304-M3P	9.52	3.97	0.40	4.40	●	●	●	0.00-0.00	0.00-0.00
SCMT 09T308-M3P	9.52	3.97	0.80	4.40	●	●	●	0.00-0.00	0.00-0.00
SCMT 120404-M3P	12.70	4.76	0.40	5.50	●	●	●	0.00-0.00	0.00-0.00
SCMT 120408-M3P	12.70	4.76	0.80	5.50	●	●	●	0.00-0.00	0.00-0.00
SCMT 120412-M3P	12.70	4.76	1.20	5.50	●	●	●	0.00-0.00	0.00-0.00

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

SCMT-M3M

Square Positive Flank Inserts,
for Machining Stainless
and Low Carbon Steel



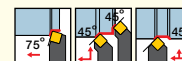
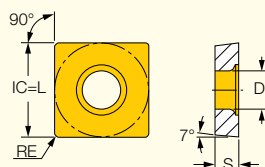
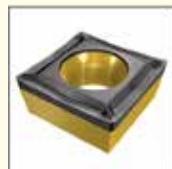
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	S	RE	D ₁	IC6025	IC6015	IC807	a _p (mm)	f (mm/rev)
SCMT 09T304-M3M	9.52	3.97	0.40	4.40	●	●	●	0.40-3.80	0.07-0.25
SCMT 09T308-M3M	9.52	3.97	0.80	4.40	●	●	●	0.80-3.80	0.10-0.30
SCMT 120404-M3M	12.70	4.76	0.40	5.50	●	●	●	0.40-4.00	0.10-0.25
SCMT 120408-M3M	12.70	4.76	0.80	5.50	●	●	●	0.80-4.00	0.12-0.34
SCMT 120412-M3M	12.70	4.76	1.20	5.50	●	●	●	1.20-4.00	0.14-0.43

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SSBCR/L (62) • SSSCR/L (62)

ISOTURN**SCMT-SM**

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys



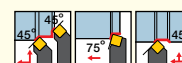
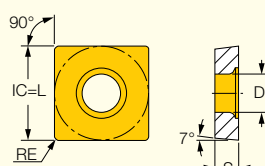
Designation	Dimensions				Tough ↔ Hard							Recommended Machining Data	
	L	S	RE	D ₁	IC830	IC6025	IC8250	IC8150	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
SCMT 09T304-SM	9.52	3.97	0.40	4.40			●	●		●	●	0.50-3.00	0.07-0.25
SCMT 09T308-SM	9.52	3.97	0.80	4.40	●	●	●	●	●	●	●	0.50-3.00	0.10-0.30
SCMT 120404-SM	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 109-114, 215-238

For tools, see pages: SSBCR/L (62) • SSSCR/L (62)

ISOTURN**SCMT-14**

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys



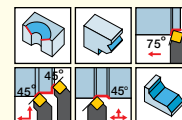
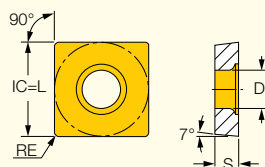
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	S	RE	D ₁	IC8250	IC807	IC907	a _p (mm)	f (mm/rev)
SCMT 09T304-14	9.52	3.97	0.40	4.40				1.00-3.50	0.12-0.30
SCMT 120404-14	12.70	4.76	0.40	5.50	•	•	•	1.00-4.00	0.12-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SSBCR/L (62) • SSSCR/L (62)

ISOTURN**SCMT-19**

Square Inserts with a 7° Positive Flank for Semi-Roughing at Medium to High Feeds



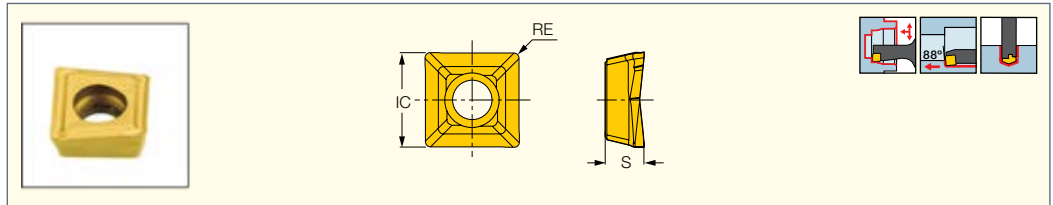
Designation	Dimensions				Tough ↔ Hard					Recommended Machining Data	
	L	S	RE	D ₁	IC830	IC20	IC5005	IC807	IC907	a _p (mm)	f _z (mm/rev)
SCMT 120408-19	12.70	4.76	0.80	5.50	•	•	•	•	•	3.00-8.00	0.08-0.15
SCMT 120412-19	12.70	4.76	1.20	5.50	•	•	•	•	•	3.00-8.00	0.08-0.15

• For cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SSBCR/L (62) • SSSCR/L (62)

XOMT-DT

Inserts for DR Drills
and Boring Bars

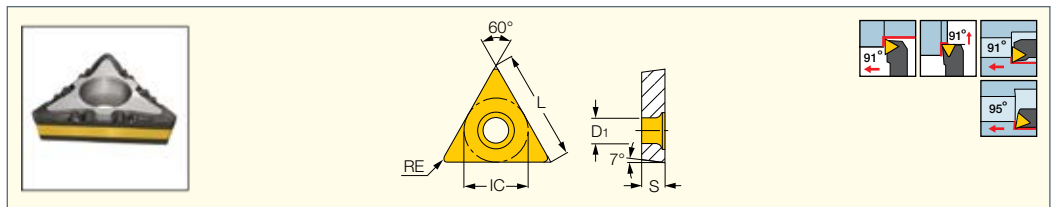


Designation	Dimensions			Tough ↔ Hard					
	IC	S	RE	IC28	IC328	IC250	IC350	IC908	IC520M
XOMT 060204-DT	6.16	2.56	0.40	●	●	●	●	●	●

• Two cutting edges • For hard materials and interrupted cut
For tools, see pages: A-SXFOR-DR (106) • A-SXFOR/L (105)

ISOTURN
TCMT-F3P

Triangular Inserts with a Positive
Flank for Semi-Finishing and
Finish Turning on Steel

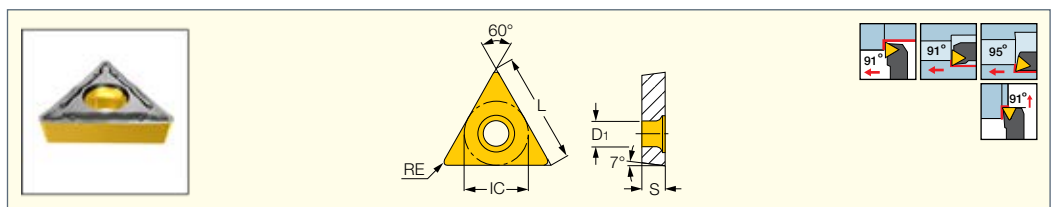


Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	S	RE	D ₁	IC830	IC8250	IC8150	IC807	a _p (mm)	f (mm/rev)
TCMT 090202-F3P	9.60	2.38	0.20	2.50	●	●	●	●	0.06-1.70	0.03-0.14
TCMT 090204-F3P	9.60	2.38	0.40	2.50	●	●	●	●	0.10-1.70	0.05-0.20
TCMT 110202-F3P	11.00	2.38	0.20	2.80	●	●	●	●	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 109-114, 215-238
For tools, see pages: E-STFCR-HEAD (101) • S-MTLCL/L-W (100) • S-STFCR/L (101) • S-STLCR/L (101) • STFCR/L (62) • STGCR/L (63)

ISOTURN
TCMT-PF

Triangular Inserts with a
Positive Flank for Semi-
Finishing and Finishing on Soft
Materials and Exotic Alloys

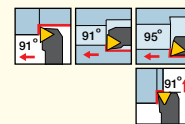
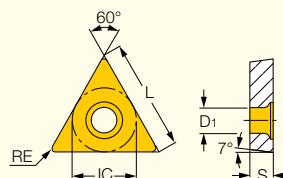


Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D ₁	IC807	IC907	a _p (mm)	f (mm/rev)
TCMT 110202-PF	11.00	6.35	2.38	0.20	2.85	●	●	0.20-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238
For tools, see pages: E-STFCR-HEAD (101) • S-STFCR/L (101) • S-STLCR/L (101) • STFCR/L (62) • STGCR/L (63)

ISOTURN**TCMT-SM**

Triangular Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys



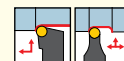
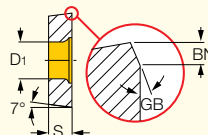
Designation	Dimensions					Tough ↔ Hard									Recommended Machining Data		
	L	IC	S	RE	D ₁	IC830	IC8350	IC8250	IC908	IC8150	IC5010	IC428	IC5005	IC807	IC907	a _p (mm)	f (mm/rev)
TCMT 110204-SM	11.00	6.35	2.38	0.40	2.80		●	●	●	●	●		●	●	●	0.20-3.00	0.05-0.25
TCMT 110208-SM	11.00	6.35	2.38	0.80	2.80			●						●	●	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 109-114, 215-238

For tools, see pages: E-STFCR-HEAD (101) • S-MTLCL/L-W (100) • S-STFCR/L (101) • S-STLCR/L (101) • STFCR/L (62) • STGCR/L (63)

ISOTURN**RCMT-SR**

Round Inserts with a 7° Positive Flank for Medium Profiling on a Wide Range of Materials



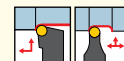
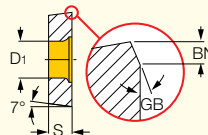
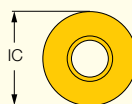
Designation	Dimensions					IC8150	Recommended Machining Data	
	IC	S	D ₁	GB	BN		a _p (mm)	f (mm/rev)
RCMT 0803M0-SR	8.00	3.18	3.40	15.0	0.15	•	1.00-4.50	0.30-0.45
RCMT 1606M0-SR	16.00	6.35	5.50	15.0	0.18	•	2.00-8.00	0.40-0.60

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SRDCN (64) • SRGCR/L (63)

ISOTURN**RCMT-14**

Round Inserts with a 7° Positive Flank for Medium and Finish Profiling on a Wide Range of Materials



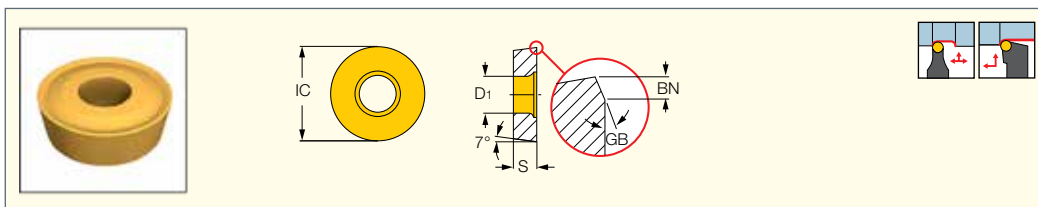
Designation	Dimensions					Tough ↔ Hard								Recommended Machining Data	
	IC	S	D ₁	GB	BN	IC354	IC8250	IC8150	IC20	IC5010	IC806	IC807	IC907	a _p (mm)	f (mm/rev)
RCMT 0803M0-14	8.00	3.18	3.40	15.0	0.15		•	•	•					1.00-4.00	0.30-0.45
RCMT 10T3M0-14	10.00	3.97	4.40	15.0	0.15	•	•	•	•					1.50-5.00	0.30-0.50
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 109-114, 215-238

For tools, see pages: C#-SRGCR-12-JHP (64) • C#-SRGCR/L (64) • SRDCN (64) • SRGCR-12-JHP (63) • SRGCR/L (63)

ISOTURN**RCMX**

Round Inserts with a 7° Positive Flank and Reinforced Cutting Edge for Semi-Roughing and Rough Profiling

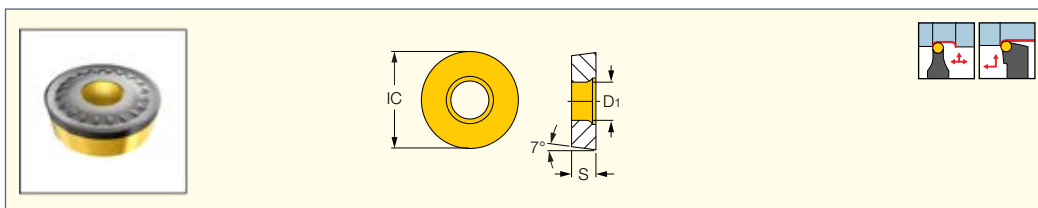


Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	IC	S	D ₁	GB	BN	IC8250	IC8150	a _p (mm)	f (mm/rev)
RCMX 100300	10.00	3.18	3.60	15.0	0.01	●		1.50-5.00	0.30-0.50
RCMX 120400	12.00	4.76	4.20	15.0	0.15	●	●	1.50-6.00	0.30-0.50
RCMX 200600	20.00	6.35	6.50	15.0	0.01	●		2.50-10.00	0.50-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

ISOTURN**RCMX-NR**

Round 7° Inserts with a Positive Flank and Strong Cutting Edge for Rough Turning



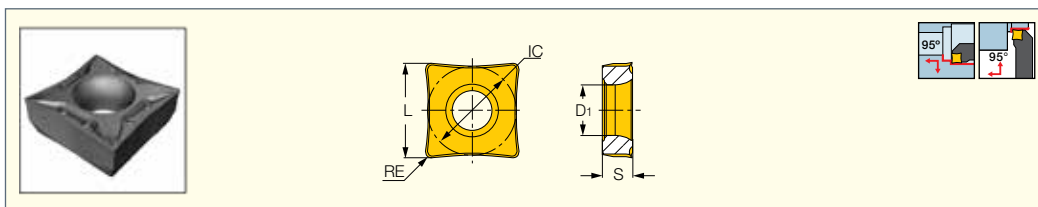
Designation	Dimensions			IC8250	Recommended Machining Data	
	IC	S	D ₁		a _p (mm)	f (mm/rev)
RCMX 250700-NR	25.00	7.94	7.20	●	4.00-10.00	0.50-1.50
RCMX 3209M0-NR	32.00	9.52	10.00	●	7.00-13.00	0.70-2.00

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PRDCN (64) • PRGCR/L (65)

ISOTURN**QCMT-PF**

Four 80° Cornered Insert with a Positive 7° Clearance and Chipformer for Finishing Applications



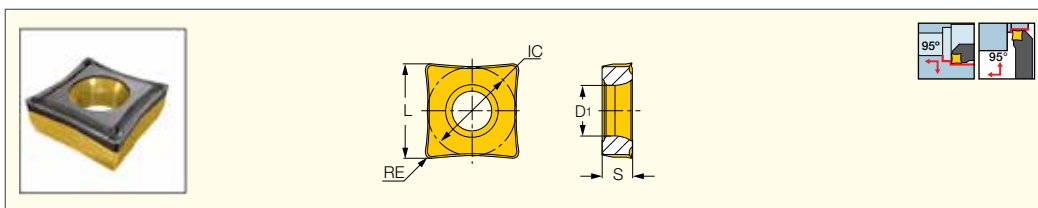
Designation	Dimensions				IC908	Recommended Machining Data	
	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
QCMT 09T302-PF	9.65	3.97	0.20	4.40	●	0.50-2.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PQLCR/L (65) • PQLCR/L-S (65) • S/A-SQLCR/L (96)

ISOTURN**QCMT-SM**

Inserts with a Positive 7° Clearance and Chipformer for Finishing Applications



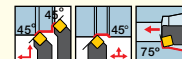
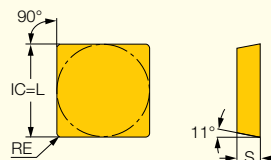
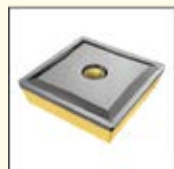
Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	D ₁	IC830	IC8250	IC8150	a _p (mm)	f (mm/rev)
QCMT 09T304-SM	10.40	9.65	3.97	0.40	4.40	●	●	●	0.50-2.50	0.06-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: PQLCR/L (65) • PQLCR/L-S (65) • S/A-SQLCR/L (96)

ISOTURN**SPMR**

Square Inserts with a Positive Chipformer Exerting Low Cutting Forces for Semi-Finishing and Finishing Applications



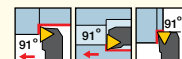
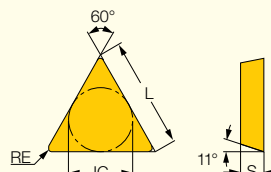
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	S	RE		IC830	IC8250	IC8150	IC20N	a_p (mm)	f (mm/rev)
SPMR 090304	9.52	3.18	0.40			•		•	1.50-5.00	0.15-0.30
SPMR 090308	9.52	3.18	0.80		•	•			1.50-6.00	0.16-0.35
SPMR 120304	12.70	3.18	0.40		•	•	•		1.50-5.00	0.15-0.35
SPMR 120308	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 109-114, 215-238

For tools, see pages: CSDPN (66) • CSSPR/L (66) • S-CSKPR (102)

ISOTURN**TPMR**

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning



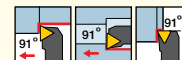
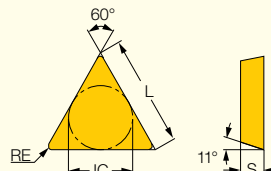
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IC830	IC8350	IC8250	IC20N	IC807	IC907	a_p (mm)	f (mm/rev)
TPMR 090202	9.60	5.56	2.38	0.20						•	1.00-3.00	0.10-0.20
TPMR 090204	9.60	5.56	2.38	0.40			•				1.00-3.50	0.15-0.20
TPMR 110304	11.00	6.35	3.18	0.40	•			•			1.00-3.50	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 109-114, 215-238

For tools, see pages: CTFPR/L (67) • CTGPR/L (67) • S-CTFPR/L (102)

ISOTURN**TPMR-PF**

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning



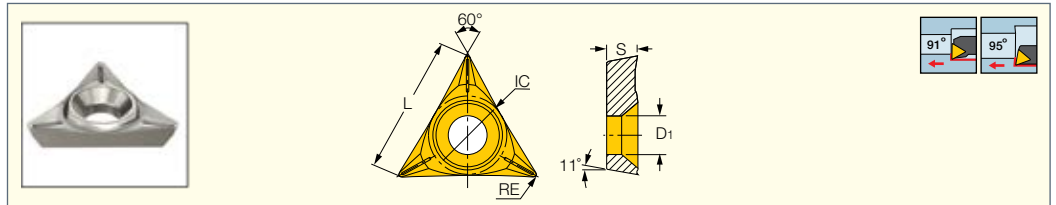
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC8250	IC8150	IC807	IC907	a_p (mm)	f (mm/rev)
TPMR 110304-PF	11.00	6.35	3.18	0.40	•	•	•	•	0.40-3.00	0.08-0.25
TPMR 110308-PF	11.00	6.35	3.18	0.80	•			•	0.50-3.50	0.07-0.28
TPMR 160304-PF	16.50	9.52	3.18	0.40	•	•	•	•	0.50-3.50	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 109-114, 215-238

For tools, see pages: CTFPR/L (67) • CTGPR/L (67) • S-CTFPR/L (102)

TPGT-SP

Super Positive Triangular Inserts
with 11° Clearance for Fine
Boring and Finish Turning



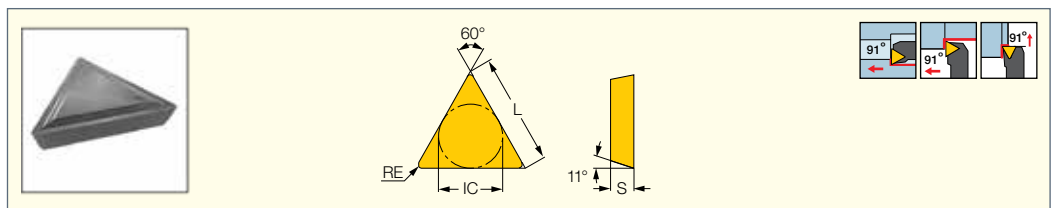
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D ₁	IC908	IC907	a _p (mm)	f (mm/rev)
TPGT 110202-SP	11.00	6.35	2.38	0.20	3.00	●	●	0.40-1.00	0.05-0.15

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: E-STFPR/L-HEAD (102)

TPMR-FTF

11° Positive Triangular Inserts
with a Positive Chipformer,
Low Cutting Forces for Finish
Turning Applications



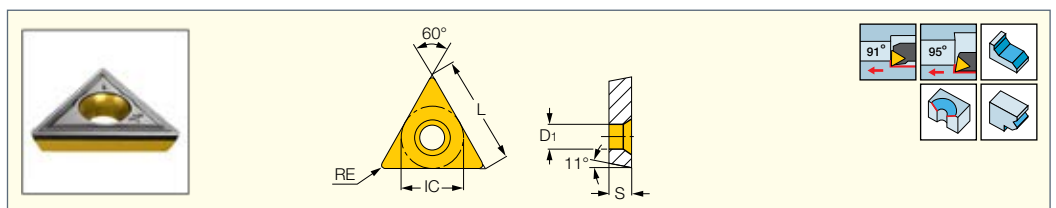
Designation	Dimensions					Recommended Machining Data	
	L	IC	S	RE	IC20N	a _p (mm)	f (mm/rev)
TPMR 110304-FTF	11.00	6.35	3.18	0.40	●	0.50-3.00	0.07-0.25
TPMR 160304-FTF	16.50	9.52	3.18	0.40	●	0.50-3.00	0.07-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: CTFPR/L (67) • CTGPR/L (67) • S-CTFPR/L (102)

TPMT

Triangular 11° Positive Inserts
with a Positive Chipformer
Exerting Low Cutting Forces
for Internal Finish Turning



Designation	Dimensions					Tough ↔ Hard										Recommended Machining Data		
	L	IC	S	RE	D ₁	IC830	IC635	IC50M	IC8350	IC8250	IC8150	IC520M	IC20	IC806	IC807	IC907	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 236-237

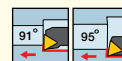
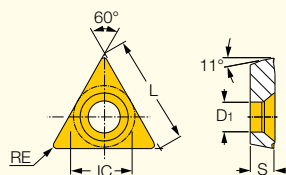
(1) For turning

(2) For turning

For tools, see pages: A/E/S-STFPR/L (103) • A/S-STLPR/L (104) • E-STFPR/L-HEAD (102)

ISOTURN**TPMT-PF**

Triangular 11° Positive
Inserts for Semi-Finishing
and Finishing Applications



Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC ⁽¹⁾	S	RE	D ₁	IC8250	IC8150	a _p (mm)	f (mm/rev)
	TPMT 110204-PF	11.00	6.35	2.38	0.40	3.00	●	●	0.50-3.00

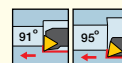
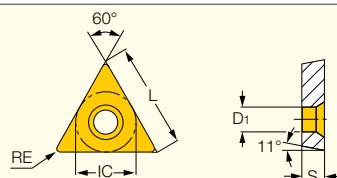
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

⁽¹⁾ Actual di=6.28, to be used in 6.35mm pocket size

For tools, see pages: A/E/S-STFPR/L (103) • A/S-STLPR/L (104) • E-STFPR/L-HEAD (102)

ISOTURN**TPGB**

Triangular Inserts with an
11° Positive Flank for Short
Chipping Materials



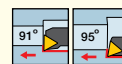
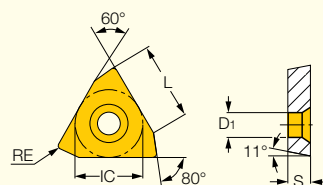
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D _i		a _p (mm)	f (mm/rev)
	TPGB 110204	11.00	6.35	2.38	0.40		3.00	●

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-STFPR/L (103) • A/S-STLPR/L (104) • E-STFPR/L-HEAD (102)

ISOTURN**TPGB-XL**

Triangular Inserts with an
11° Positive Flank for Short
Chipping Materials



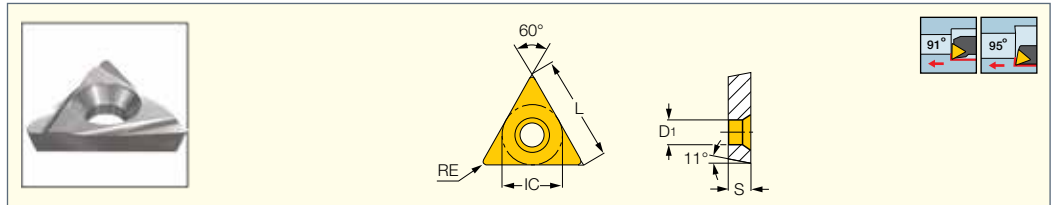
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D _i		a _p (mm)	f (mm/rev)
	TPGB 110204-XL	11.00	6.35	2.38	0.40		3.00	●

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-STFPR/L (103) • A/S-STLPR/L (104) • E-STFPR/L-HEAD (102)

TPGH-R/L

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning



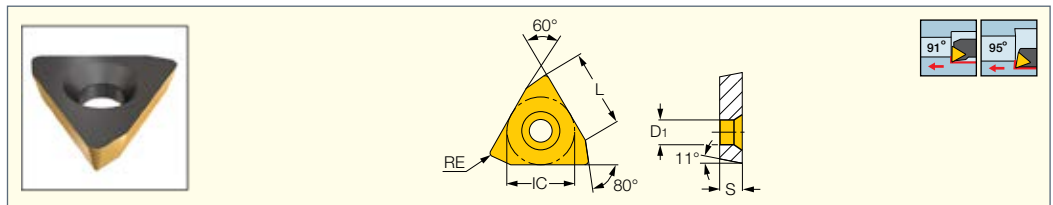
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D ₁	IC908	IC20	a _p (mm)	f (mm/rev)
TPGH 110204-L	11.00	6.35	2.38	0.40	3.00		●	1.00-3.00	0.05-0.25
TPGH 110208-L	11.00	6.35	2.38	0.80	3.00	●		1.00-3.00	0.05-0.25
TPGH 160304-R/L	16.50	9.52	3.18	0.40	4.30		●	1.00-4.00	0.05-0.30
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 109-114, 215-238

For tools, see pages: A/E/S-STFPR/L (103) • A/S-STLPR/L (104)

TPGH-XL

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning



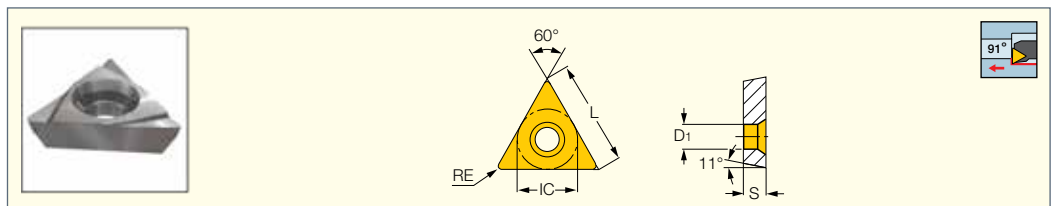
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D ₁		a ₀ (mm)	f (mm/rev)
TPGH 110204-XL	11.00	6.35	2.38	0.40	3.00	●	1.00-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-STFPR/L (103) • A/S-STLPR/L (104) • E-STFPR/L-HEAD (102)

TPGX

Triangular Inserts with an 11° Positive Flank and Ground Chipformer for Finish Turning



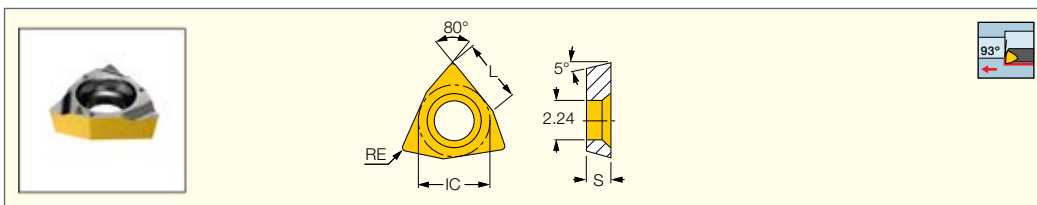
Designation	Dimensions					Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	D ₁	IC908	IC20	IC20N	IC520N	a _p (mm)	f (mm/rev)
TPGX 090202-L	9.52	5.56	2.38	0.20	3.00	●	●	●	●	1.00-2.00	0.10-0.20
TPGX 090204-L	9.52	5.56	2.38	0.40	3.00	●	●	●	●	1.00-2.50	0.15-0.20
TPGX 110302-L	11.00	6.35	3.18	0.20	3.50	●	●	●	●	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 109-114, 215-238

For tools, see pages: A/E-STFPR-X (103) • MG STFPR-X (103)

ISOTURN**WBG**

Trigon Inserts with a 5° Positive Flank Ground Chipformer for Finish Turning



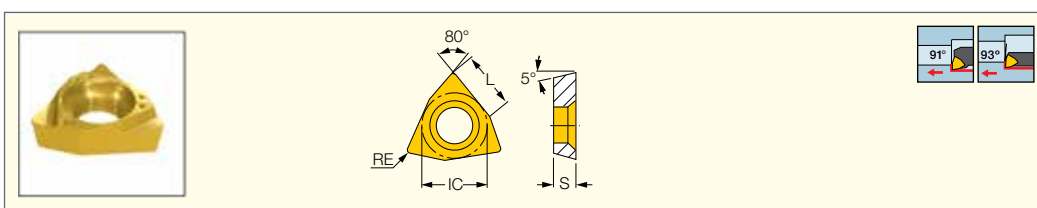
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IC830	IC908	IC807	IC907	a_p (mm)	f (mm/rev)
WBG 060102L	2.18	3.97	1.59	0.20	●	●	●	●	0.10-1.00	0.05-0.10

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: E/S-SWUBR/L (104) • MG-SWUBR/L (105)

ISOTURN**WBMT**

Trigon Inserts with a 5° Positive Flank Ground Chipformer for Finish Turning



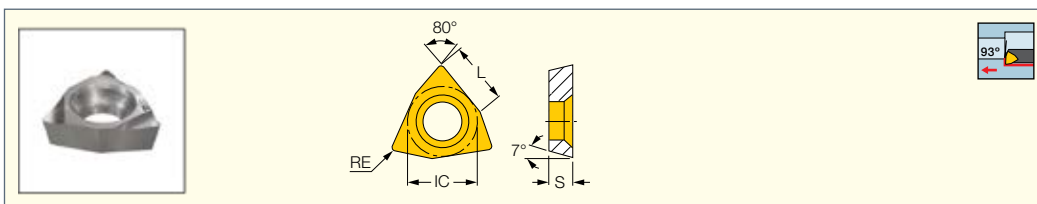
Designation	Dimensions				Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	IC830	IC354	IC350	IC908	IC30N	IC530N	IC20N	IC520N	a_p (mm)	f (mm/rev)
WBMT 060101R/L	2.18	3.97	1.59	0.10				●					0.40-2.00	0.10-0.15
WBMT 060102L	2.18	3.97	1.59	0.20	●	●	●		●	●	●	●	0.40-2.00	0.10-0.15

• WBMT 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 109-114, 215-238

For tools, see pages: E/S-SWUBR/L (104) • MG-SWUBR/L (105)

ISOTURN**WCGT**

Trigon Inserts with a 7° Positive Flank and Chipformer for Finish Turning



Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IC908	IC30N	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

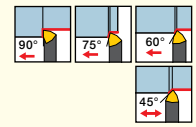
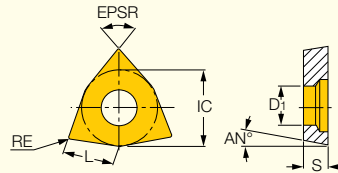
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-SWUCR (105) • MG-SWUCR (105)

ISOTURN

WPEX

80° and 84° Precision
Trigon Inserts with Positive
8° and 12° Clearance for
Finishing Applications



Designation	Dimensions							Tough ↔ Hard		Recommended Machining Data	
	L	S	RE	IC	D ₁	EPSR	AN	IC08	IC908	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 040202L08	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 050302L08	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 050304L08	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 060402L08	6.00	4.00	0.20	9.52	3.70	80.0	8.0	●	●	0.20-3.00	0.05-0.20
WPEX 060402L12	6.00	4.00	0.20	9.52	3.70	80.0	12.0	●	●	0.20-3.00	0.05-0.20
WPEX 060404L08	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

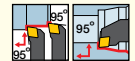
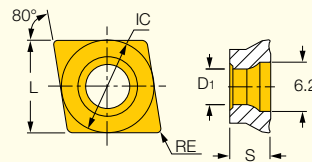
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SWAPR-PAD (66) • SWAPR/L (65) • SWDPR/L (66)

CHAMTURN

CC95MT-SM

Single-Sided 80° Rhombic Inserts
for Finishing (CHAMELEON
Multifunction Pocket System)



Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	D ₁	IC830	IC8250	IC8150	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

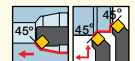
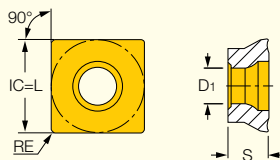
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: S-SUXCR/L-CM (95) • SUXCR/L-CM (49)

CHAMTURN

SC45MT-SM

Single-Sided Square Inserts
for Finishing Applications
(CHAMELEON Multifunction
Pocket System)



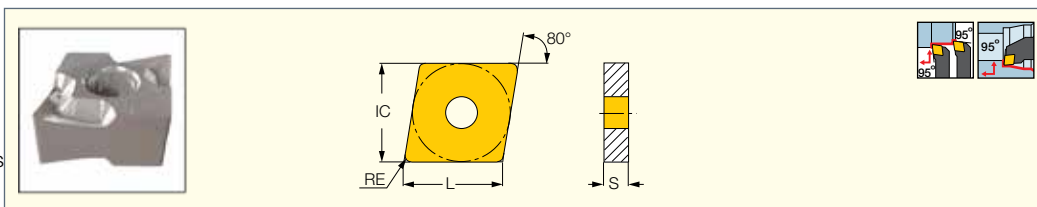
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	S	RE	D ₁	IC830	IC8250	IC8150	a _p (mm)	f (mm/rev)
SC45MT 100508-SM	9.53	5.00	0.80	4.50	●	●	●	0.50-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: S-SUXCR/L-CM (95) • SUXCR/L-CM (49)

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



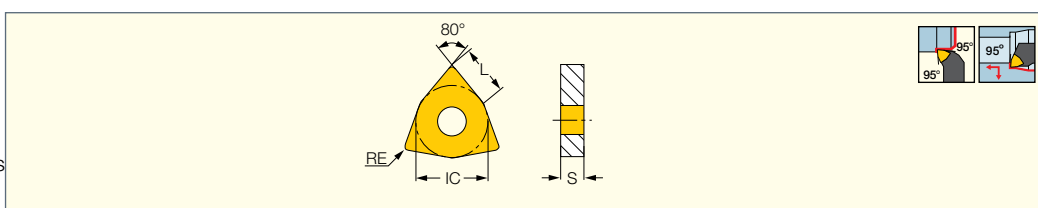
Designation	Dimensions					Recommended Machining Data	
	L	IC	S	RE	IC20	a_p (mm)	f (mm/rev)
CNGG 090402-F3N-P	9.70	9.52	4.76	0.20	●	0.30-3.00	0.10-0.30
CNGG 090404-F3N-P	9.70	9.52	4.76	0.40	●	0.30-3.00	0.10-0.30
CNGG 090408-F3N-P	9.70	9.52	4.76	0.80	●	0.30-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L-X/G (88) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • AVC-PCLNR/L (83)

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



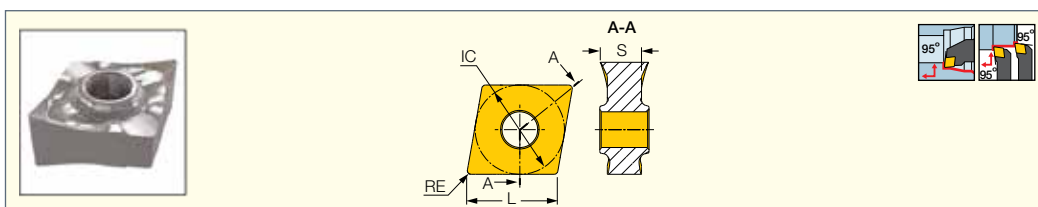
Designation	Dimensions					Recommended Machining Data	
	L	IC	S	RE	IC20	a_p (mm)	f (mm/rev)
WNGG 060402-F3N-P	6.52	9.52	4.76	0.20	●	0.30-3.00	0.10-0.30
WNGG 060404-F3N-P	6.52	9.52	4.76	0.40	●	0.30-3.00	0.10-0.30
WNGG 060408-F3N-P	6.52	9.52	4.76	0.80	●	0.30-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PWLN/L-X/G (C87) • A/S-MWLN/L-W (C86) • A/S-PWLN/L (C87) • DWLN/L (C15) • E-PWLN/L-HEAD (C88) • MULNR/L-12MW (C18) • MWLN/L-CA-W (C111) • MWLN/L-W (C19) • PWLN/L (C13) • PWLN/L-08-JHP (C14) • PWLN/L-X (C16) • PWLN/L-X-JHP (C17) • S-DWLN/L (C80) • S-MULNR-MW (C88)

HELITURN LD**CNGX-M3N**

Double-Sided Positive
Rake Inserts with High
Helical and Sharp Edge
for Medium Machining on
Non-Ferrous Materials



Designation	Dimensions					Recommended Machining Data	
	L	IC	S	RE	IC20	a_p (mm)	f (mm/rev)
CNGX 090604-M3N-P	9.70	9.52	4.40	0.40	●	0.30-3.00	0.10-0.30
CNGX 090608-M3N-P	9.70	9.52	4.40	0.80	●	0.30-3.00	0.10-0.30

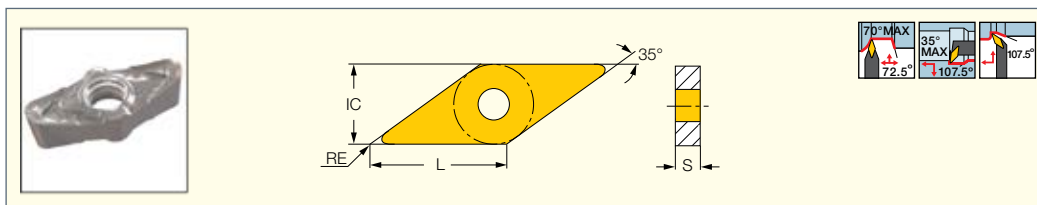
• PCLNR/L...X and A...-PCLNR/L-X are most recommended as they were designed especially for this insert

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L-X/G (88) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20)

VNGU-R3N

Double-Sided Sharp-Edged
Positive Rake Inserts for Rough
Machining on Aluminum and
Other Non-Ferrous Materials



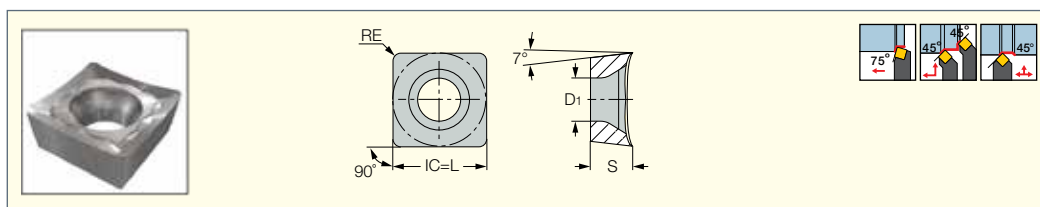
Designation	Dimensions					Recommended Machining Data	
	L	IC	S	RE	IC20	a_p (mm)	f (mm/rev)
VNGU 220616-R3N	22.00	12.70	6.35	1.60	●	0.50-3.00	0.10-0.25
VNGU 220630-R3N	22.00	12.70	6.35	3.00	●	1.50-4.50	0.15-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-SVLFNR-JHP (93) • A-SVQNR/L-AL-JHP (416) • SVHNR/L-JHP (31) • SVNN-JHP (416)

SCGT-AS

Square Inserts with a 7° Positive
Flank, Very Positive Rake
Angle and Sharp Cutting Edge
for Machining Aluminum



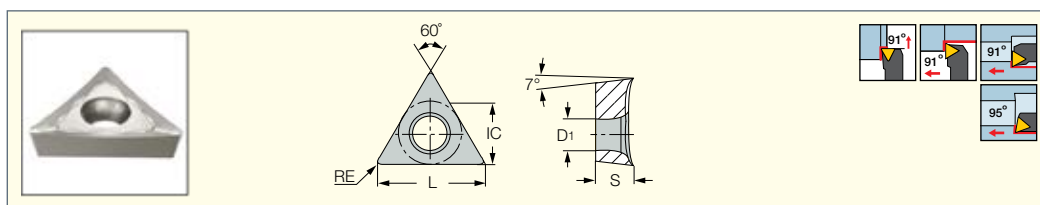
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D1		ap (mm)	f (mm/rev)
SCGT 09T308-AS	9.52	9.52	3.97	0.80	4.40	●	0.50-3.00	0.10-0.30
SCGT 120404-AS	12.70	12.70	4.76	0.40	5.50	●	1.00-4.00	0.10-0.30
SCGT 120408-AS	12.70	12.70	4.76	0.80	5.50	●	1.00-4.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SSBCL/L (62) • SSSCL/L (62)

TCGT-AS

Triangular Inserts with a 7°
Positive Flank, Very Positive
Rake Angle and Sharp Cutting
Edge for Machining Aluminum



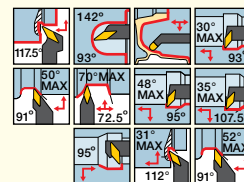
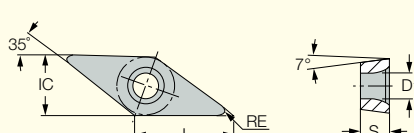
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
TCGT 110204-AS	11.00	6.35	2.38	0.40	2.80	●	0.20-3.00	0.05-0.30
TCGT 16T304-AS	16.50	9.52	3.97	0.40	4.40	●	0.50-3.00	0.05-0.30
TCGT 16T308-AS	16.50	9.52	3.97	0.80	4.40	●	0.50-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: E-STFCR-HEAD (101) • S-MTLCL/L-W (100) • S-STFCR/L (101) • S-STLCR/L (101) • STFCR/L (62) • STGCR/L (63)

ISOTURN**VCGT-AS**

35° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum



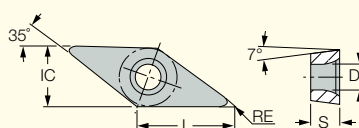
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	D ₁	IC920	IC20	a _p (mm)	f (mm/rev)
VCGT 110302-AS	11.10	6.35	3.18	0.20	2.90	●	●	0.20-2.50	0.05-0.20
VCGT 110304-AS	11.10	6.35	3.18	0.40	2.90		●	0.50-3.00	0.05-0.25
VCGT 160401-AS	16.60	9.52	4.76	0.10	4.40		●	0.20-2.50	0.05-0.20
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 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413) • AVC-SVUCR/L (83) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • PVACR/L-JHP (60) • PVACR/L-S (58) • S/A-SVJCR/L (100) • SVACR/L (60) • SVJCR-PAD (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVPCR/L (62) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCL/L (83) • PVACR/L-JHP-MC (61)

ISOTURN**VCGT-AF**

Inserts with a Very Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing on Aluminum



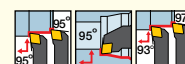
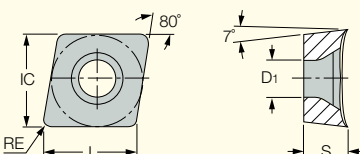
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
VCGT 220508-AF	22.10	12.70	5.56	0.80	5.50	●	1.00-4.50	0.10-0.25
VCGT 220512-AF	22.10	12.70	5.56	1.20	5.50	●	1.00-4.50	0.10-0.30
VCGT 220516-AF	22.10	12.70	5.56	1.60	5.50	●	1.50-4.50	0.10-0.35

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413)

ISOTURN**CCGT-AS**

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum



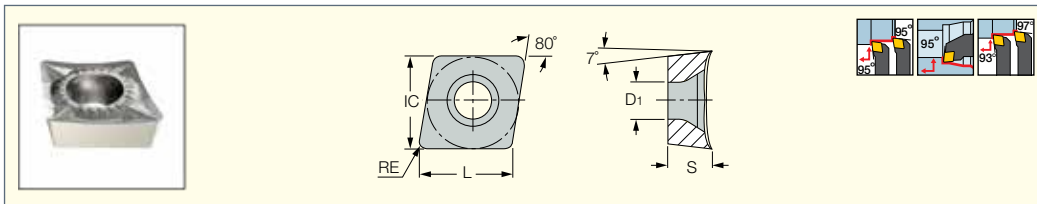
Designation	Dimensions					IC20	Recommended Machining Data	
	L	IC	S	RE	D ₁		a _p (mm)	f (mm/rev)
CCGT 060201-AS	6.40	6.35	2.38	0.10	2.80	●	0.50-2.00	0.10-0.20
CCGT 060202-AS	6.40	6.35	2.38	0.20	2.80	●	0.50-2.00	0.10-0.20
CCGT 060204-AS	6.40	6.35	2.38	0.40	2.80	●	0.50-2.00	0.10-0.25
CCGT 09T301-AS	9.70	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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

ISOTURN**CCGT-AF**

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum



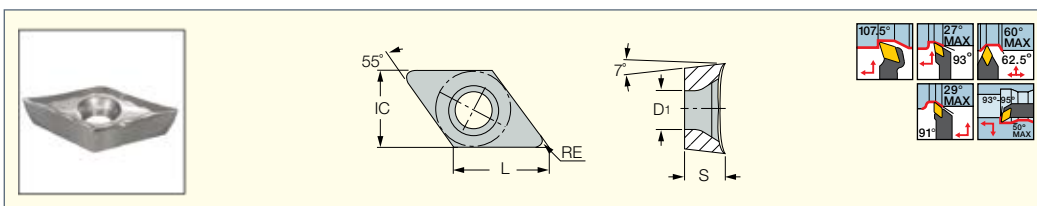
Designation	Dimensions						Recommended Machining Data	
	L	IC	S	RE	D ₁	IC20	a _p (mm)	f (mm/rev)
CCGT 09T308-AF	9.70	9.52	3.97	0.80	4.40	●	0.80-3.00	0.15-0.25
CCGT 120408-AF	12.90	12.70	4.76	0.80	5.50	●	1.00-3.50	0.15-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

ISOTURN**DCGT-AS**

55° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum



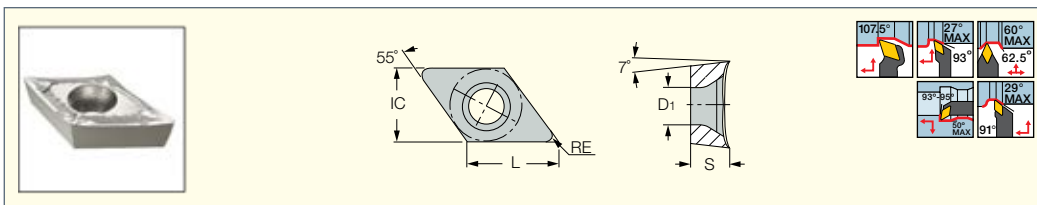
Designation	Dimensions						Recommended Machining Data	
	L	IC	S	RE	D ₁	Tough ↔ Hard IC920 IC20 IC907	a _p (mm)	f (mm/rev)
DCGT 070201-AS	7.75	6.35	2.38	0.10	2.80	● ● ●	0.50-2.00	0.03-0.20
DCGT 070202-AS	7.75	6.35	2.38	0.20	2.80	● ● ●	0.50-2.00	0.05-0.20
DCGT 070204-AS	7.75	6.35	2.38	0.40	2.80	● ● ●	0.50-2.50	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 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • E-SDUCR/L-HEAD (99) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

ISOTURN**DCGT-AF**

Inserts with a Very Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing on Aluminum



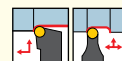
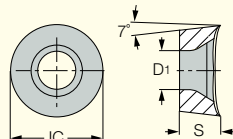
Designation	Dimensions						Recommended Machining Data	
	L	IC	S	RE	D ₁	IC20	a _p (mm)	f (mm/rev)
DCGT 11T304-AF	11.60	9.52	3.97	0.40	4.40	●	0.50-2.50	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

ISOTURN**RCGT-AS**

Round Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum



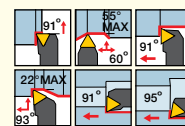
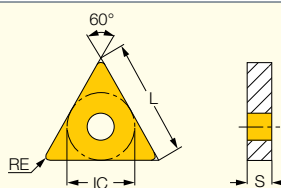
Designation	Dimensions				Recommended Machining Data	
	IC	S	D1	IC20	a_p (mm)	f (mm/rev)
RCGT 0803M0-AS	8.00	3.18	3.40	●	1.00-4.00	0.20-0.40
RCGT 1003M0-AS	10.00	3.18	4.00	●	1.00-5.00	0.20-0.40
RCGT 10T3M0-AS	10.00	3.97	4.40	●	1.00-5.00	0.20-0.40

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: SRDCN (64) • SRGCR/L (63)

ISOTURN**TNMS-12**

Triangular Single-Sided Inserts for Soft and Nonferrous Materials



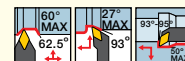
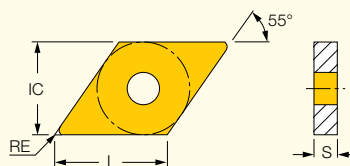
Designation	Dimensions				IC20	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
TNMS 160404-12	16.50	9.52	4.76	0.40	●	0.50-3.00	0.07-0.32
TNMS 160408-12	16.50	9.52	4.76	0.80	●	0.50-3.00	0.10-0.35
TNMS 220404-12	22.00	12.70	4.76	0.40	●	1.00-4.00	0.07-0.32
TNMS 220408-12	22.00	12.70	4.76	0.80	●	1.00-4.00	0.10-0.35

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-PTFNR/L (94)

ISOTURN**DNMS-12**

55° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials



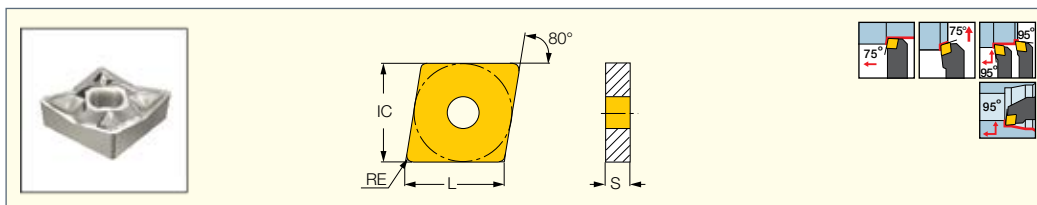
Designation	Dimensions				IC20	Recommended Machining Data	
	L	IC	S	RE		a_p (mm)	f (mm/rev)
DNMS 150408-12	15.50	12.70	4.76	0.80	●	1.00-4.00	0.07-0.35

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-PDJNR/L-JHP (26) • PDJNR/L (25) • PDJNR/L-JHP (25) • AVC-DDUNR/L (84)

CNMS-12

80° Rhombic Single-Sided Inserts
for Soft and Nonferrous Materials



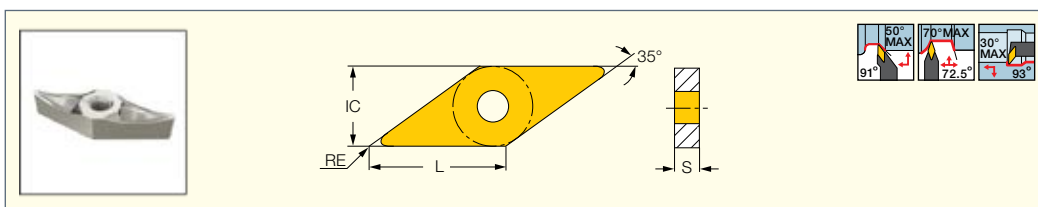
Designation	Dimensions					Recommended Machining Data	
	L	IC	S	RE	IC20	a_p (mm)	f (mm/rev)
CNMS 120408-12	12.90	12.70	4.76	0.80	●	1.00-4.00	0.10-0.35

• For user guide, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20)

VNMS-12

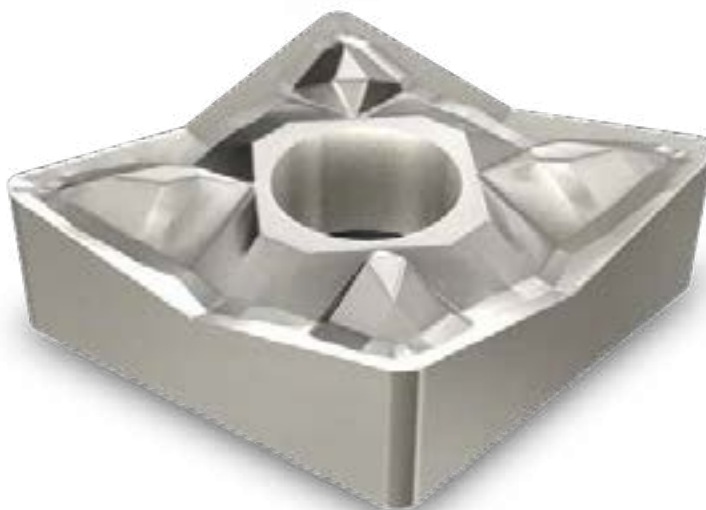
35° Rhombic Single-Sided Inserts
for Soft and Nonferrous Materials



Designation	Dimensions					Recommended Machining Data	
	L	IC	S	RE	IC20	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

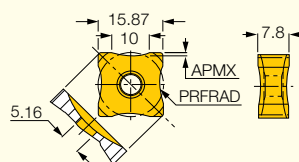
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: MVJNR/L (30) • MVVNN (31)



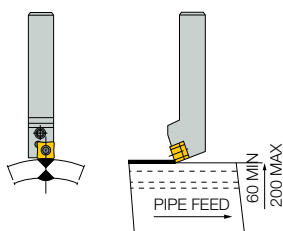
ISOTURN**SNMX 150708R-..**

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 (47)

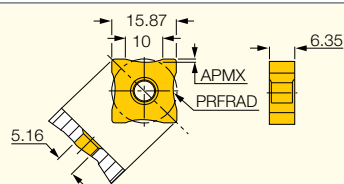


These inserts remove the burr immediately after the welding process (material temperature is usually 300-400°C).
Cutting speed varies from 40 to 150 m/min, depending on the diameter of the tube.

$$\text{Recommended: } R = \frac{D(\text{pipe})}{2} + (1-2 \text{ mm})$$

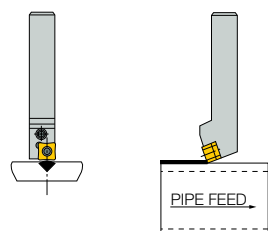
ISOTURN**SNMX 150608R-..**

Pipe Skiving Inserts Used to Remove the Burr of Welded Tubes



Designation	Dimensions		IC418
	PRFRAD	APMX	
SNMX 150608R-15	15.00	0.86	●
SNMX 150608R-90	90.00	0.14	●

For tools, see pages: PSANR/L (47)

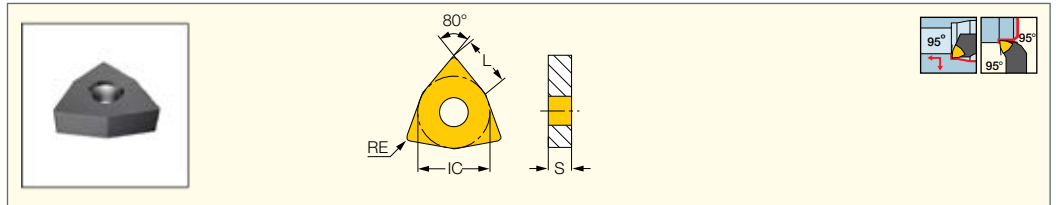


These inserts remove the burr immediately after the welding process (material temperature is usually 300-400° C).
Cutting speed varies from 40 to 150 m/min, depending on the diameter of the tube.

$$\text{Recommended: } R = \frac{D(\text{pipe})}{2} + (1-2 \text{ mm})$$

WNGA-Ceramic

Double-Sided Flat Rake Ceramic Inserts for Machining Cast Iron



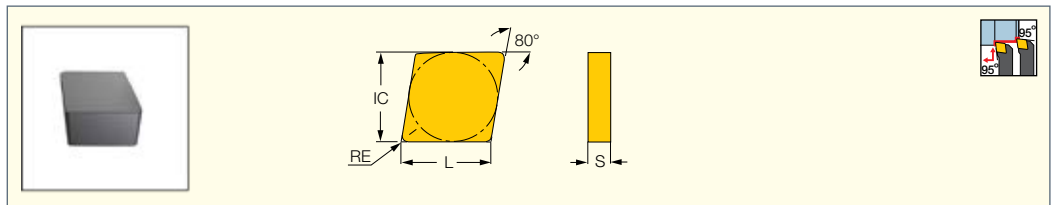
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IS8	IS80	IS6	a_p (mm)	f (mm/rev)
WNGA 080408T	8.70	12.70	4.76	0.80	●	●	●	2.00-4.00	0.20-0.60
WNGA 080412T	8.70	12.70	4.76	1.20	●	●	●	2.00-5.00	0.03-0.95

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLN/L-08-JHP (7) • DWLN/L (7) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • PWLN/L-X-JHP-MC (10) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

CNGN-Ceramic

80° Rhombic Double-Sided Ceramic Inserts with a T-Land for Machining Cast Iron, Hardened Steel and Nickel Based Alloys



Designation	Dimensions				Tough ↔ Hard								Recommended Machining Data	
	L	IC	S	RE	W7	S35	S25	S8	S80	IN23	IN22	IN420	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 120408T0225-WG ⁽¹⁾	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
CNGN 160612T	16.12	15.88	6.35	1.20				●					1.00-5.00	0.10-0.50

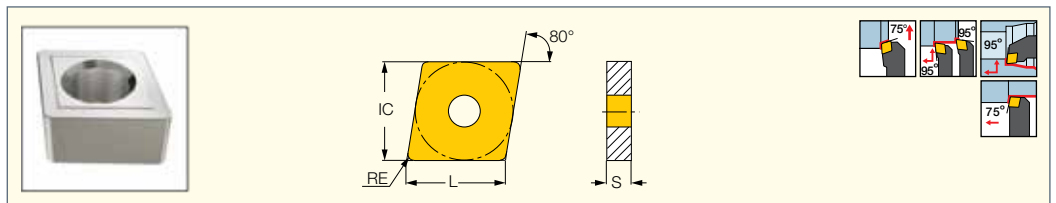
• For user guide, see pages 109-114, 215-238

⁽¹⁾ Minimum cutting width

For tools, see pages: CCLNR/L (78)

CNMG-Ceramic

80° Rhombic Double-Sided Inserts with a T-Land for Machining Cast Iron and Hardened Steel



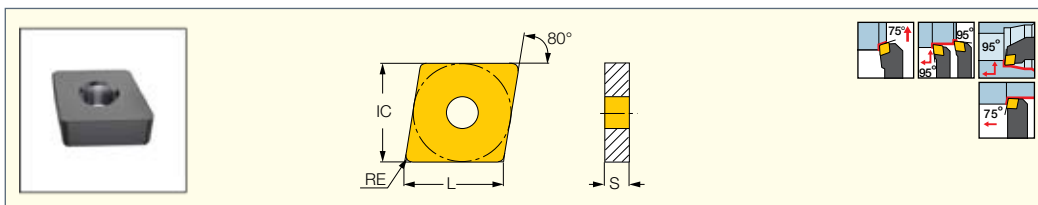
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IN23	IN22	a_p (mm)	f (mm/rev)
CNMG 120404T	12.90	12.70	4.76	0.40	●		0.00-0.00	0.00-0.00
CNMG 120408T	12.90	12.70	4.76	0.80	●	●	0.00-0.00	0.00-0.00

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (23) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CNGA-Ceramic**

80° Rhombic Double-Sided Inserts with a T-Land for Machining Cast Iron and Hardened Steel



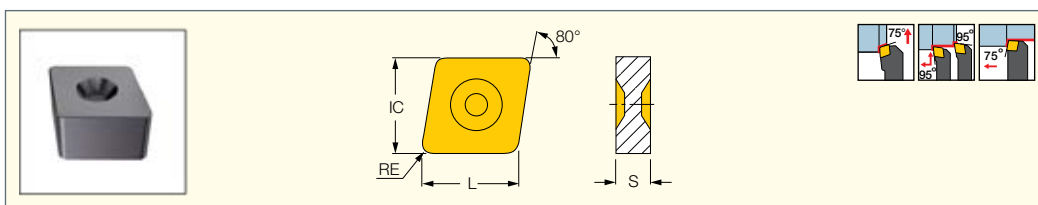
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IS8	IS80	IS6	IN23	IN22	IN420	a_p (mm)	f (mm/rev)
CNGA 120404T	12.90	12.70	4.76	0.40	•	•	•	•	•	•	1.00-3.00	0.05-0.20
CNGA 120408T	12.90	12.70	4.76	0.80	•	•	•	•	•	•	1.00-4.00	0.05-0.20
CNGA 120412T	12.90	12.70	4.76	1.20	•	•	•	•	•	•	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, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • A/S-PCLNR/L-X/G (88) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DGBNR/L (23) • DCLNR/L (22) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-L12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCBNR/L (19) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91)

ISOTURN**CNGX-Ceramic**

80° Rhombic Double-Sided Dimpled Ceramic Inserts with a T-Land for Machining Cast Iron



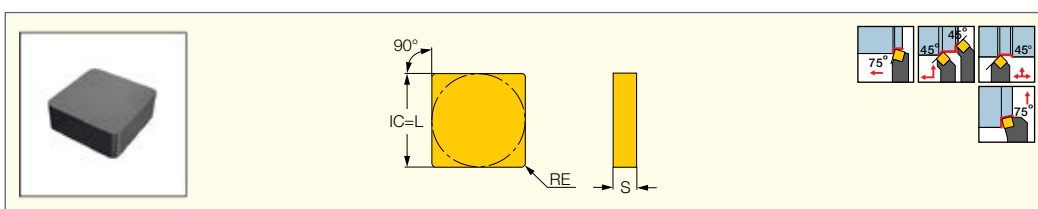
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IS8	IS80	IS6	a_p (mm)	f (mm/rev)
CNGX 120712T	12.90	12.70	7.94	1.20	•	•	•	1.00-3.00	0.07-0.43
CNGX 120716T	12.90	12.70	7.94	1.60	•	•	•	1.00-3.00	0.07-0.43

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: TCBNR/L-CH (78) • TCKNR/L-CH (78) • TCLNR/L-CH (78)

ISOTURN**SNGN-Ceramic**

Square Double-Sided Ceramic Inserts with a Flat Rake for Machining Cast Iron, Hardened Steel and Super Alloys

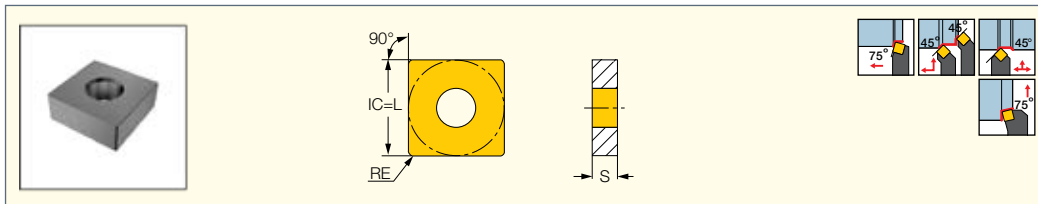


Designation	Dimensions			Tough ↔ Hard								Recommended Machining Data	
	IC	S	RE	W7	IS8	IS80	IS6	IN23	IN22	IN420	IN110	a_p (mm)	f (mm/rev)
SNGN 120404T	12.70	4.76	0.40	•	•	•	•	•	•	•	•	0.10-3.50	0.10-0.50
SNGN 120408T	12.70	4.76	0.80	•	•	•	•	•	•	•	•	0.10-3.50	0.10-0.50
SNGN 120412T	12.70	4.76	1.20	•	•	•	•	•	•	•	•	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
SNGN 150716T	15.88	6.35	1.60	•	•	•	•	•	•	•	•	0.10-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

ISOTURN**SNGA-Ceramic**

Square Double-Sided
Ceramic Inserts with a Flat
Rake for Machining Cast
Iron and Hardened Steel



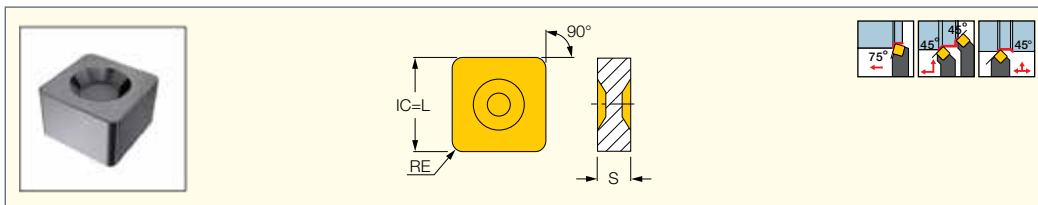
Designation	Dimensions			Tough ↔ Hard				Recommended Machining Data	
	IC	S	RE	IS8	IN23	IN22	IN420	a_p (mm)	f (mm/rev)
SNGA 120404T	12.70	4.76	0.40			•		0.10-3.00	0.05-0.30
SNGA 120408T	12.70	4.76	0.80	•	•	•	•	0.10-3.50	0.05-0.30
SNGA 120412T	12.70	4.76	1.20	•	•			0.10-4.00	0.05-0.30
SNGA 120416T	12.70	4.76	1.60	•				0.10-4.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN**SNGX-Ceramic**

Square Double-Sided Dimpled
Ceramic Inserts with a Flat
Rake for Machining Cast Iron

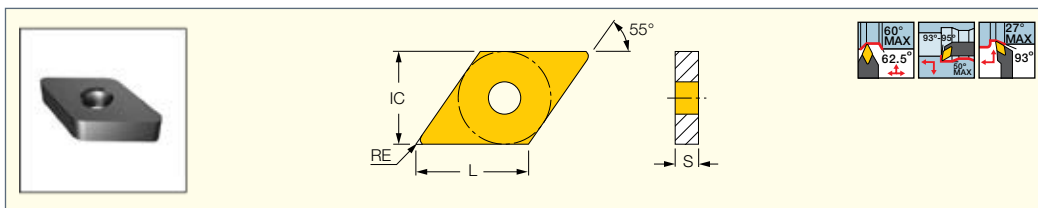


Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	IC	S	RE	L	IS8	IS80	IS6	a_p (mm)	f (mm/rev)
SNGX 120712T	12.70	7.94	1.20	12.70	•	•	•	0.10-5.00	0.10-0.50
SNGX 120716T	12.70	7.94	1.60	12.70	•	•	•	0.10-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

ISOTURN**DNGA-Ceramic**

55° Rhombic Double-Sided
Ceramic Inserts for Machining
Cast Iron and Hardened Steel



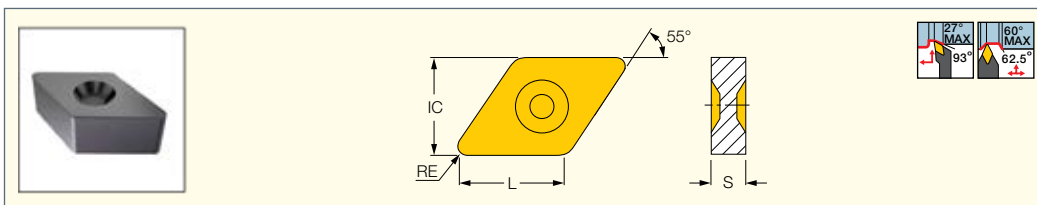
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	IS8	IN23	IN22	IN420	a_p (mm)	f (mm/rev)
DNGA 150404T	15.50	12.70	4.76	0.40		•	•		0.10-3.00	0.07-0.50
DNGA 150408T	15.50	12.70	4.76	0.80	•	•	•	•	0.10-3.50	0.07-0.50
DNGA 150412T	15.50	12.70	4.76	1.20		•			0.10-4.00	0.07-0.50
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 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNGX-Ceramic**

55° Rhombic Double-Sided
Dimpled Ceramic Inserts
for Machining Cast Iron



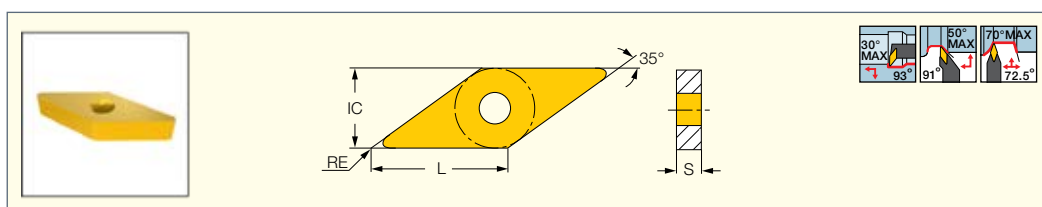
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IS8	IS80	IS6	a_p (mm)	f (mm/rev)
DNGX 150712T	12.70	12.70	7.94	1.20	•	•	•	0.10-4.00	0.10-0.50
DNGX 150716T	15.50	12.70	7.94	1.60	•	•	•	0.10-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: TDJNR/L-CH (79) • TDNNN-CH (79)

ISOTURN**VNGA-Ceramic**

35° Rhombic Double-Sided
Ceramic Inserts with a
T-Land for Machining Cast
Iron and Hardened Steel



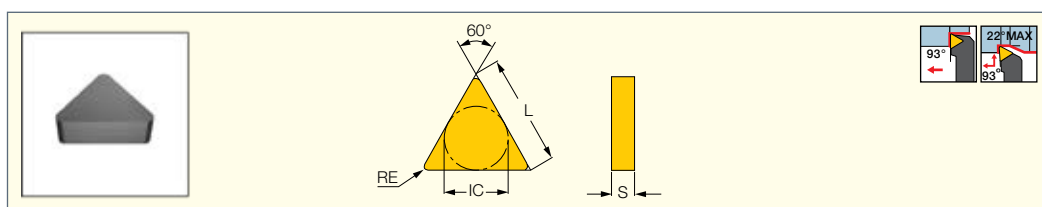
Designation	Dimensions				Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	IN22	IN420	a_p (mm)	f (mm/rev)
VNGA 160404T	16.60	9.52	4.76	0.40	•	•	0.70-2.50	0.06-0.30
VNGA 160408T	16.60	9.52	4.76	0.80	•	•	0.80-3.00	0.08-0.35

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: MVJNR/L (30) • MVVNN (31)

ISOTURN**TNGN-Ceramic**

Triangular Double-Sided
Ceramic Inserts for Machining
Cast Iron, Hardened Steel
and Nickel Based Alloys



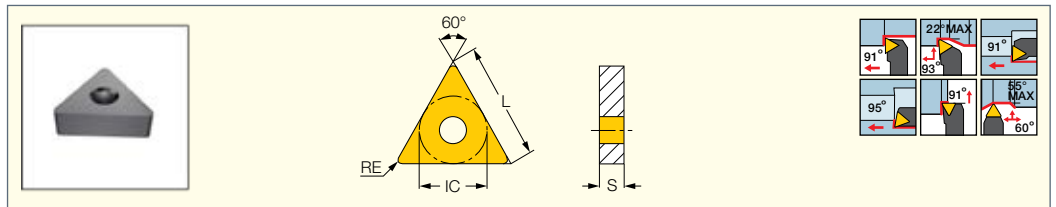
Designation	Dimensions				Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	IN7	IS8	IS80	IN23	IN22	IN420	a_p (mm)	f (mm/rev)
TNGN 160408T	16.50	9.52	4.76	0.80	•	•	•	•	•	•	1.00-3.50	0.10-0.35
TNGN 160412T	16.50	9.52	4.76	1.20	•	•	•	•	•	•	0.10-4.00	0.10-0.40
TNGN 220408T	22.00	12.70	4.76	0.80	•	•	•	•	•	•	0.10-5.00	0.10-0.50
TNGN 220712T	22.00	12.70	7.94	1.20	•	•	•	•	•	•	0.10-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: CTJNR/L (79)

TNGA-Ceramic

Triangular Double-Sided Ceramic Inserts for Machining Super Alloys and Hardened Steel



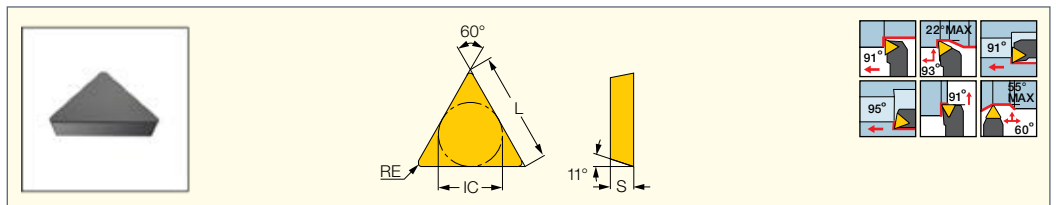
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IN23	IN22	IN420	a_p (mm)	f (mm/rev)
TNGA 160404T	16.50	9.52	4.76	0.40	●	●	●	0.10-3.00	0.07-0.50
TNGA 160408T	16.50	9.52	4.76	0.80	●	●	●	0.10-3.50	0.07-0.50
TNGA 160412T	16.50	9.52	4.76	1.20	●	●	●	0.10-4.00	0.07-0.50
TNGA 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 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • C#-DTGNR/L (34) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

TPGN-Ceramic

Triangular Ceramic Inserts with an 11° Positive Flank for Machining Hardened Steel



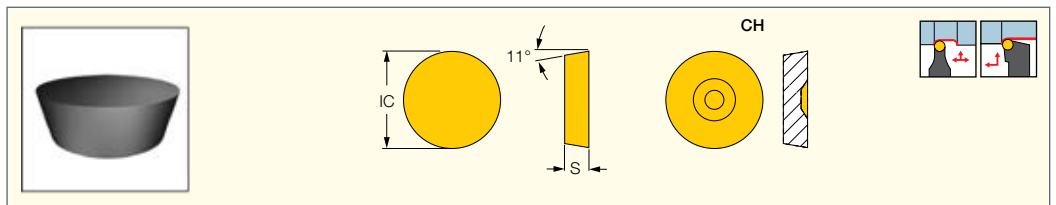
Designation	Dimensions				Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	IN23	IN22	IN420	a_p (mm)	f (mm/rev)
TPGN 090204T	9.60	5.56	2.38	0.40	●	●	●	0.10-1.50	0.07-0.30
TPGN 110304T	11.00	6.35	3.18	0.40	●	●	●	0.10-1.50	0.07-0.30
TPGN 110308T	11.00	6.35	3.18	0.80	●	●	●	0.10-3.00	0.07-0.40
TPGN 160304T	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 109-114, 215-238

For tools, see pages: CTFPR/L (67) • CTGPR/L (67) • S-CTFPR/L (102)

RPGN-Ceramic

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel



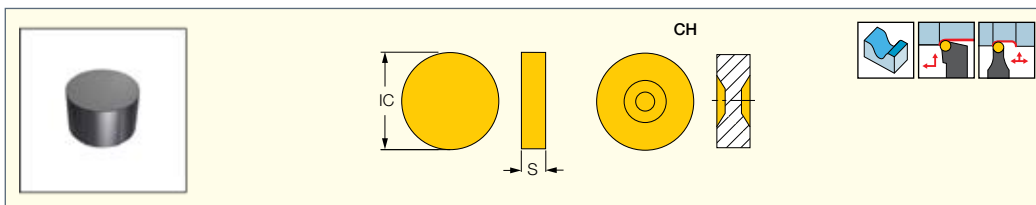
Designation	Dimensions		Tough ↔ Hard			Recommended Machining Data	
	IC	S	IW7	IS35	IS25	a_p (mm)	f (mm/rev)
RPGN 090300E	9.52	3.17	●	●	●	0.10-2.00	0.07-0.20
RPGN 120400E	12.70	4.76	●	●	●	0.10-3.00	0.07-0.20
RPGN 120400E-CH ⁽¹⁾	12.70	4.76	●	●	●	0.10-3.00	0.07-0.20
RPGN 120400T	12.70	4.76	●	●	●	0.10-3.00	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 109-114, 215-238

⁽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		Tough ↔ Hard						Recommended Machining Data	
	IC	S	IW7	IS35	IS25	IN23	IN22	IN420	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	●						1.00-2.00	-
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 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

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

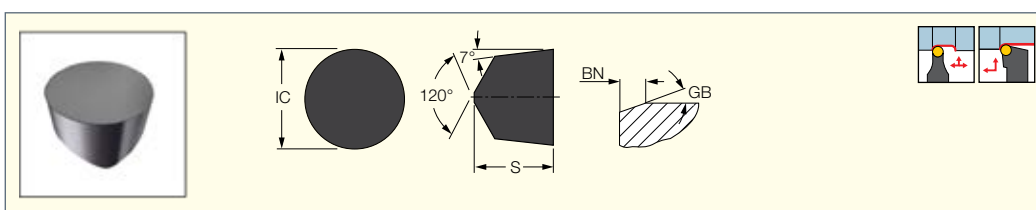
⁽¹⁾ For milling nickel based superalloys; reference recommendations for milling Inconel 718: 0.12 mm/t 900-1000 m/min

⁽²⁾ Insert with a dimple

For tools, see pages: CRDNN (80) • CRGNNR/L (80)

ISOTURN**RCGX-Ceramic**

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel



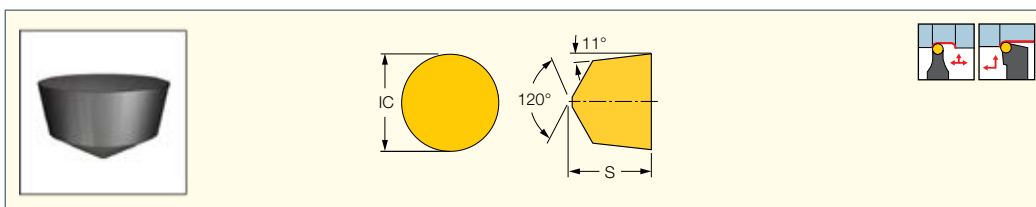
Designation	Dimensions				Tough ↔ Hard				Recommended Machining Data	
	IC	S	GB	BN	IW7	IS35	IS25	IN23	a_p (mm)	f (mm/rev)
RCGX 090700E	9.52	7.94	25.0	0.20	●	●	●		0.10-3.00	0.07-0.50
RCGX 090700T	9.52	7.94	25.0	0.20	●	●	●	●	0.10-3.00	0.07-0.50
RCGX 120700E	12.70	7.94	25.0	0.20	●	●	●		0.10-4.00	0.07-0.50
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 109-114, 215-238

For tools, see pages: CRDCN (80) • CRGCR/L (80)

ISOTURN**RPGX-Ceramic**

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel

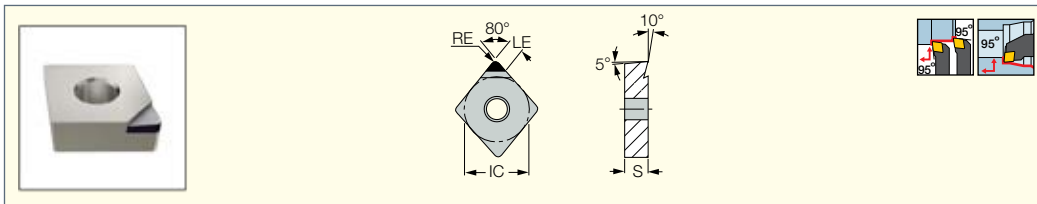


Designation	Dimensions		Tough ↔ Hard			Recommended Machining Data	
	IC	S	IW7	IS35	IS25	a_p (mm)	f (mm/rev)
RPGX 090700E	9.52	7.94		●	●	0.50-3.00	0.10-0.45
RPGX 090700T	9.52	7.94	●	●	●	0.50-3.00	0.10-0.45
RPGX 120700E	12.70	7.94		●	●	0.50-4.50	0.10-0.45
RPGX 120700T	12.70	7.94	●	●	●	0.50-4.50	0.10-0.45

• Tools can be supplied on request. • For user guide and cutting speed recommendations, see pages 109-114, 215-238

ISOTURN**CNMA (PCD)**

80° Rhombic Inserts with a Single PCD Top Corner Tip and Positive Rake for Finishing Applications



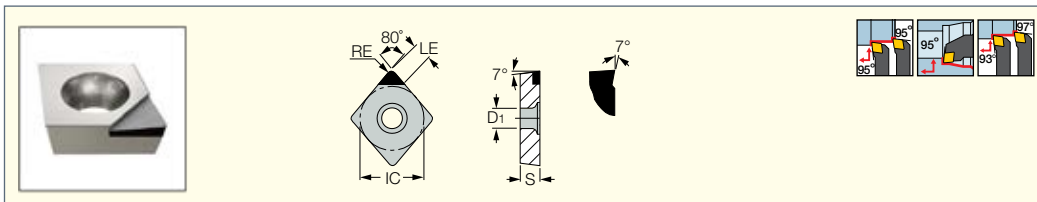
Designation	Dimensions						Recommended Machining Data	
	L	IC	S	RE	LE	ID5	a _p (mm)	f (mm/rev)
CNMA 120404D	12.90	12.70	4.76	0.40	3.9	●	0.10-3.00	0.05-0.26
CNMA 120408D	12.90	12.70	4.76	0.80	3.6	●	0.10-3.00	0.05-0.26

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CCMT (PCD)**

Inserts with a Single PCD Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Aluminum



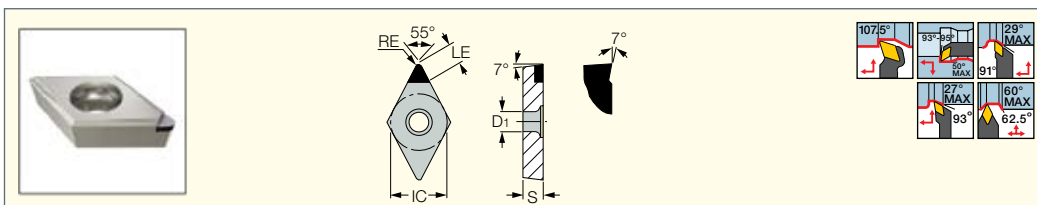
Designation	Dimensions						ID5	Recommended Machining Data	
	L	IC	S	RE	LE	D ₁		a _p (mm)	f (mm/rev)
CCMT 060202D	6.30	6.35	2.38	0.20	3.1	2.80	●	0.08-3.00	0.05-0.30
CCMT 060204D	6.30	6.35	2.38	0.40	3.0	2.80	●	0.10-3.00	0.05-0.30
CCMT 09T304D	9.70	9.52	3.97	0.40	3.9	4.40	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

ISOTURN**DCMT (PCD)**

55° Rhombic Inserts with a Single PCD Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Applications



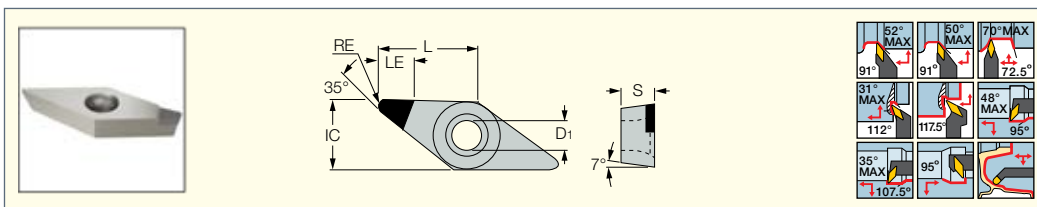
Designation	Dimensions						ID5	Recommended Machining Data	
	L	IC	S	RE	LE	D ₁		a _p (mm)	f (mm/rev)
DCMT 11T302D	11.60	9.52	3.97	0.20	3.7	4.40	●	0.10-3.00	0.05-0.30
DCMT 11T304D	11.60	9.52	3.97	0.40	3.6	4.40	●	0.10-3.00	0.05-0.30
DCMT 11T308D	11.60	9.52	3.97	0.80	3.3	4.40	●	0.10-3.00	0.05-0.29

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

ISOTURN**VCMT (CBN)**

35° Rhombic Single
Braze Tip Corner Inserts
for Finishing Cast Iron



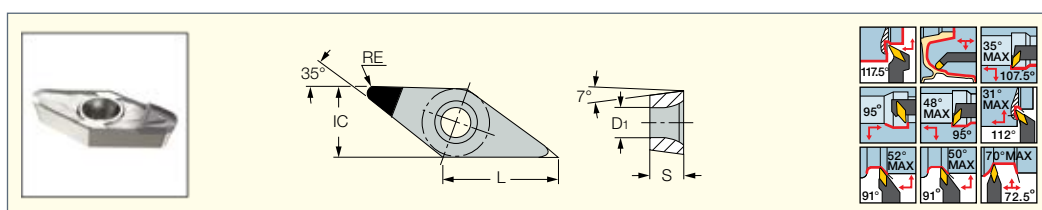
Designation	Dimensions					IB55	Recommended Machining Data	
	IC	S	RE	L	D1		a_p (mm)	f (mm/rev)
VCMT 160404T	9.52	4.76	0.40	16.60	4.40	●	0.10-3.00	0.05-0.30
VCMT 160408T	9.52	4.76	0.80	16.60	4.40	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCR/L (83)

ISOTURN**VCGT-DW (PCD)**

Inserts with 7° Clearance
and a Single PCD Top
Corner Tip Chipformer for
Machining Aluminum



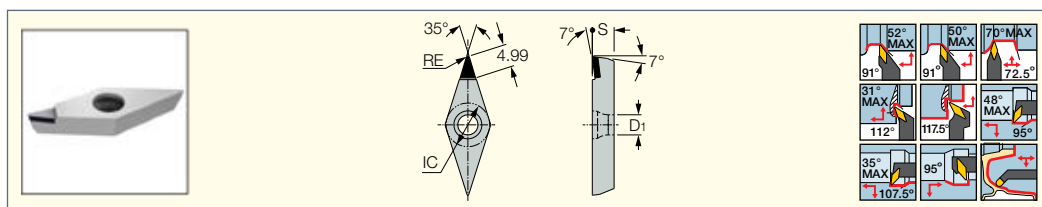
Designation	Dimensions					ID5	Recommended Machining Data	
	L	IC	S	RE	D1		a_p (mm)	f (mm/rev)
VCGT 160404-DW	16.60	9.52	4.76	0.40	4.40	●	0.10-3.00	0.05-0.30
VCGT 160408-DW	16.60	9.52	4.76	0.80	4.40	●	0.10-3.00	0.05-0.30
VCGT 160412-DW	16.60	9.52	4.76	1.20	4.40	●	0.10-3.00	0.05-0.30
VCGT 220516-DW	22.10	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 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCR/L (83)

ISOTURN**VCGT (PCD)**

35° Rhombic Single Braze
Tip Corner Inserts for
Finishing Aluminum (PCD)



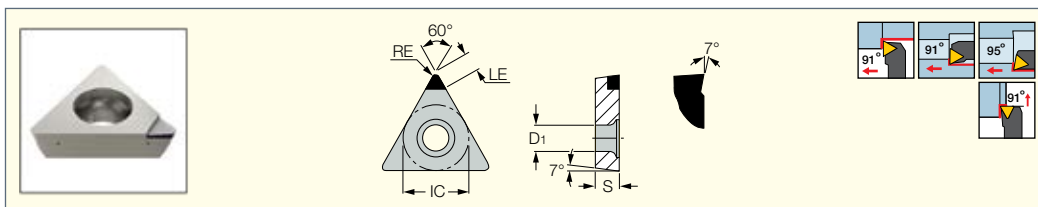
Designation	Dimensions					ID5	Recommended Machining Data	
	IC	S	RE	L	D1		a_p (mm)	f (mm/rev)
VCGT 160404D	9.52	4.76	0.40	16.60	4.40	●	0.10-3.00	0.05-0.30
VCGT 160408D	9.52	4.76	0.80	16.60	4.40	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVUCR/L (414) • A/S-SVQCR/L (413) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVVCN (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVVCN (413) • SVXCR/L (413) • AVC-SVLCR/L (83)

ISOTURN**TCMT (PCD)**

Inserts with a Single PCD
Top Corner Tip, 7° Clearance
and Positive Rake Angle
for Finishing Aluminum



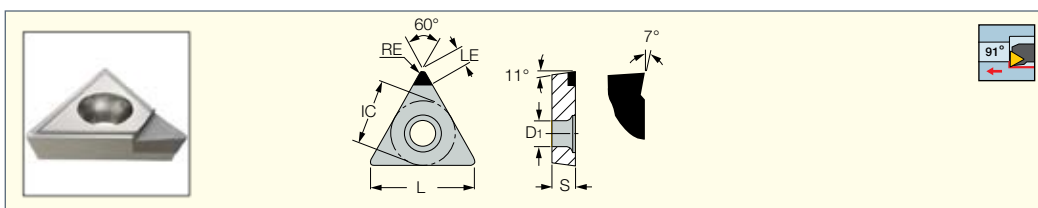
Designation	Dimensions						ID5	Recommended Machining Data	
	L	IC	S	RE	LE	D ₁		a _p (mm)	f (mm/rev)
TCMT 110204D	11.00	6.35	2.38	0.40	3.8	2.80	●	0.10-3.00	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: E-STFCR-HEAD (101) • S-STFCR/L (101) • S-STLCR/L (101) • STFCR/L (62) • STGCR/L (63)

ISOTURN**TPGX (PCD)**

Triangular Inserts with a Single
PCD Top Corner Tip, 11°
Clearance and Positive Rake
Angle for Finishing Aluminum



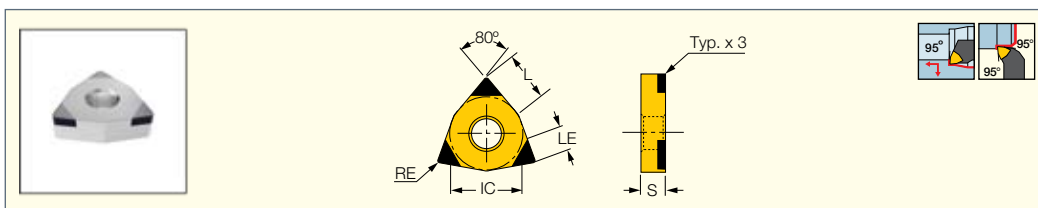
Designation	Dimensions						ID5	Recommended Machining Data	
	L	IC	S	RE	LE	D ₁		a _p (mm)	f (mm/rev)
TPGX 090202	9.52	5.56	2.38	0.20	3.0	2.50	●	0.10-3.00	0.05-0.30
TPGX 090204	9.52	5.56	2.38	0.40	3.0	2.50	●	0.10-3.00	0.05-0.30
TPGX 110302	11.00	6.35	3.18	0.20	3.4	3.50	●	0.10-3.00	0.05-0.30
TPGX 110304	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 109-114, 215-238

For tools, see pages: A/E-STFPR-X (103) • MG STFPR-X (103)

ISOTURN**WNGA-M3 (CBN)**

Multi-Cornered CBN Inserts for
Machining Hardened Steel



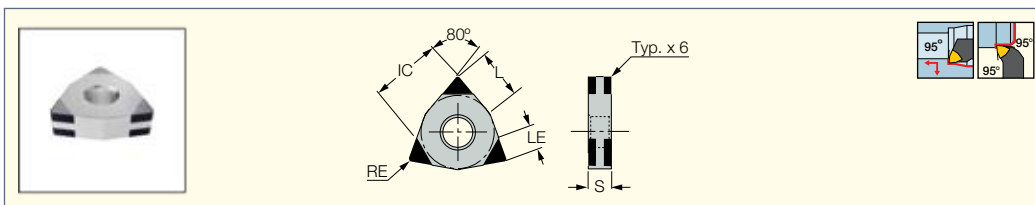
Designation	Dimensions						IB20H	Recommended Machining Data	
	L	IC	S	RE	LE			a _p (mm)	f (mm/rev)
WNGA 080408-M3	8.70	12.70	4.76	0.80	2.2		●	0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLNR/L-08-JHP (7) • DWLN/L (7) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • PWLN/L-X-JHP-MC (10) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

ISOTURN**WNGA-MC/M6 (CBN)**

Multi-Cornered CBN Inserts for Machining Hardened Steel



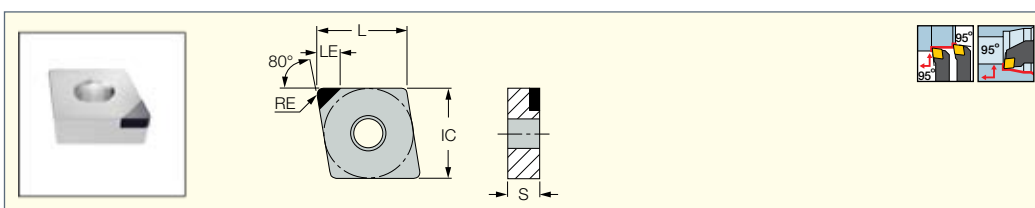
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	IB55	IB10HC	a_p (mm)	f (mm/rev)
WNGA 080404T-MC	8.70	12.70	4.76	0.40	3.1	●		0.05-0.50	0.05-0.20
WNGA 080408-M6	8.70	12.70	4.76	0.80	2.2		●	0.05-0.50	0.05-0.20
WNGA 080408T-MC	8.70	12.70	4.76	0.80	3.1	●		0.05-0.50	0.05-0.20
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 109-114, 215-238

For tools, see pages: A/S-MWLN/L-W (89) • A/S-PWLN/L (90) • C#-MULNR/L-MW (13) • C#-PWLN/L-08-JHP (7) • DWLN/L (7) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • MWLN/L-W (15) • PWLN/L (6) • PWLN/L-08-JHP (6) • PWLN/L-X (8) • PWLN/L-X-JHP (9) • PWLN/L-X-JHP-MC (10) • S-DWLN/L (85) • S-MULNR-MW (91) • DWLN/L-JHP-MC (8)

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					Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	LE	IB90	IB85	IB20H	IB55	IB50	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

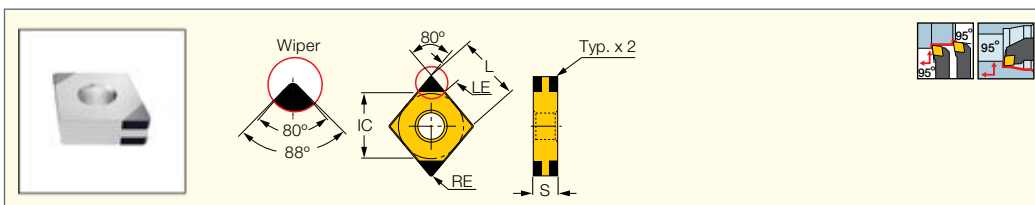
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

⁽¹⁾ Wiper insert for high feed finishing, eliminates grinding.

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CNMA-MW4 (CBN)**

80° Rhombic Inserts with 4 CBN Wiper Edge Tips for Machining Hardened Steel



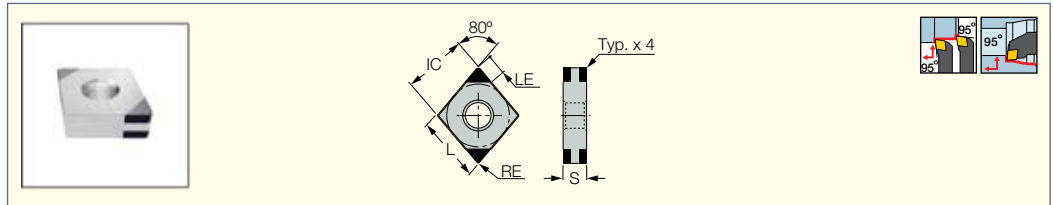
Designation	Dimensions					IB25HC	Recommended Machining Data	
	L	IC	S	RE	LE		a_p (mm)	f (mm/rev)
CNMA 120408-MW4	12.90	12.70	4.76	0.80	2.2	●	0.05-0.50	0.05-0.40
CNMA 120412-MW4	12.90	12.70	4.76	1.20	2.4	●	0.05-0.50	0.05-0.40

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

CNGA-4 (CBN)

4-Cornered CBN Inserts for
Machining Hardened Steel



Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	LE	IB25HC	IB55	IB10HC	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

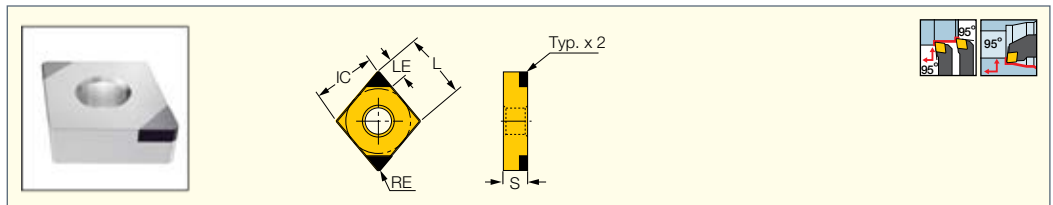
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

⁽¹⁾ Wiper corner configuration

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

CNGA-2 (CBN)

80° Rhombic Inserts with 2 CBN
Tips for Machining Hardened
Steel, Sintered Metals and
High Temperature Alloys



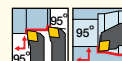
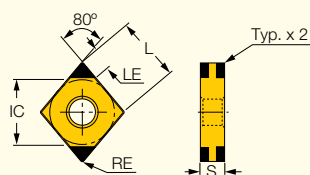
Designation	Dimensions					Tough ↔ Hard						Recommended Machining Data	
	L	IC	S	RE	LE	IB10S	IB05S	IB20H	IB20HC	IB10H	IB10HC	a _p (mm)	f (mm/rev)
CNGA 120404-F2	12.90	12.70	4.76	0.40	2.3	•	•		•		•	0.05-0.50	0.05-0.20
CNGA 120404-M2	12.90	12.70	4.76	0.40	2.3			•	•		•	0.05-0.30	0.05-0.20
CNGA 120404-R2	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 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CNGG-M4HF/M4HM (CBN)**

80° Rhombic Inserts with 4
Chipbreaking CBN Tips for
Machining Hardened Steel



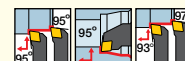
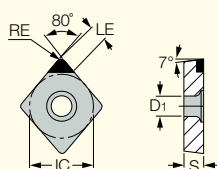
Designation	Dimensions						IB25HA	Recommended Machining Data	
	L	IC	S	RE	LE			a_p (mm)	f (mm/rev)
CNGG 120408-M4HF	12.90	12.70	4.76	0.80	2.2		●	0.20-0.75	0.05-0.20
CNGG 120412-M4HM	12.90	12.70	4.76	1.20	2.4		●	0.50-1.00	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PCLNR/L (87) • C#-MULNR/L-MW (13) • C#-PCLNR/L-12-JHP (18) • C#-PCLNR/L-X (21) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (22) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PCLNR/L (17) • PCLNR/L-12-JHP (18) • PCLNR/L-CA (107) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • PCLNR/L-X-JHP-MC (20) • S-DCLNR/L (85) • S-MULNR-MW (91) • A/S-PCLNR/L-X/G (88) • DCLNR/L-JHP-MC (22)

ISOTURN**CCGW/CCMT (CBN)**

80° Rhombic Inserts with
a Single CBN Top Corner
Tip and 7° Clearance for
Machining Hardened Steel



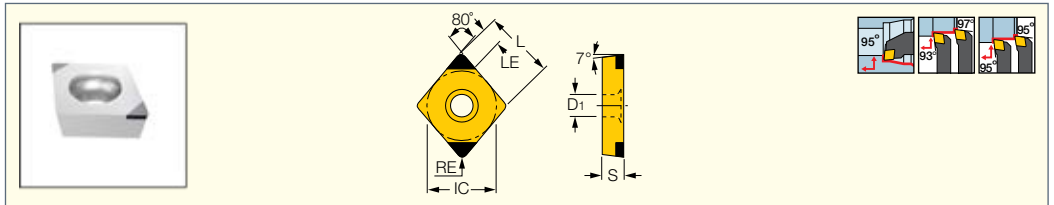
Designation	Dimensions						Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	LE	D ₁	IB05H	IB55	IB10H	a_p (mm)	f (mm/rev)
CCGW 03X102T01015-1	3.63	3.57	1.39	0.20	2.0	1.90	●		●	0.05-0.50	0.05-0.20
CCGW 03X104T01015-1	3.63	3.57	1.39	0.40	2.3	1.90	●		●	0.05-0.50	0.05-0.20
CCGW 04T102T01015-1	4.44	4.37	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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

CCGW/CCMW-2 (CBN)

80° Positive Rhombic Inserts
with 2 CBN Tips for Machining
Hardened Steel, Sintered Metals
and High Temperature Alloys



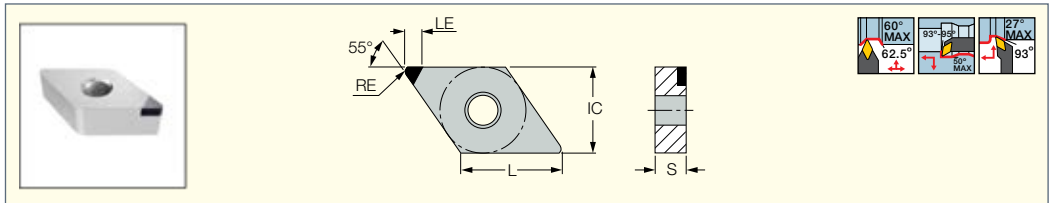
Designation	Dimensions						Tough ↔ Hard					Recommended Machining Data	
	IC	L	S	RE	LE	D ₁	IB05S	IB20H	IB20HC	IB10H	IB10HC	a _p (mm)	f (mm/rev)
CCGW 060202-F2	6.35	6.30	2.38	0.20	2.3	2.80			●		●	0.05-0.50	0.05-0.20
CCGW 060204-F2	6.35	6.30	2.38	0.40	2.3	2.80			●		●	0.05-0.50	0.05-0.20
CCGW 09T304-F2	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 109-114, 215-238

For tools, see pages: A/E/S-SCLCR/L (97) • C#-SCLCR/L-JHP (50) • E-SCLCR/L-HEAD (96) • PCLCR/L-S (51) • PCLCR/L-S-JHP (51) • SCACR/L-S (50) • SCLCR-PAD (50) • SCLCR/L (49) • AVC-SCLCR/L (82) • PCLCR/L-JHP-MC (52)

DNMA (CBN)

CBN Inserts with a Flat Rake
for Machining Hardened Steel



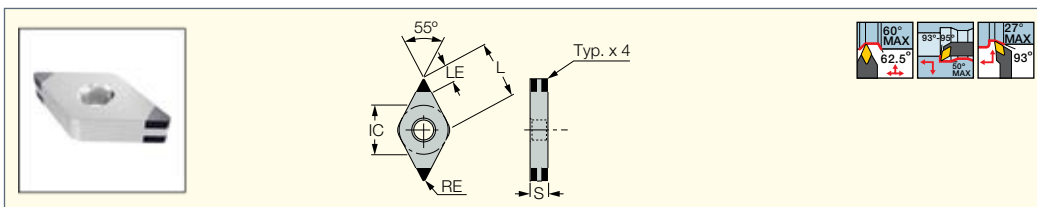
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	IB55	IB50	a _p (mm)	f (mm/rev)
DNMA 150404T	15.50	12.70	4.76	0.40	2.8	●		0.05-0.50	0.05-0.20
DNMA 150408T	15.50	12.70	4.76	0.80	3.2	●	●	0.05-0.50	0.05-0.20
DNMA 150412T	15.50	12.70	4.76	1.20	3.0	●		0.05-0.50	0.05-0.20
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
DNMA 150612T	15.50	12.70	6.35	1.20	3.0	●	●	0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/S-PDUNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNGA-4 (CBN)**

55° Rhombic 4-Cornered
CBN Inserts for Machining
Hardened Steel



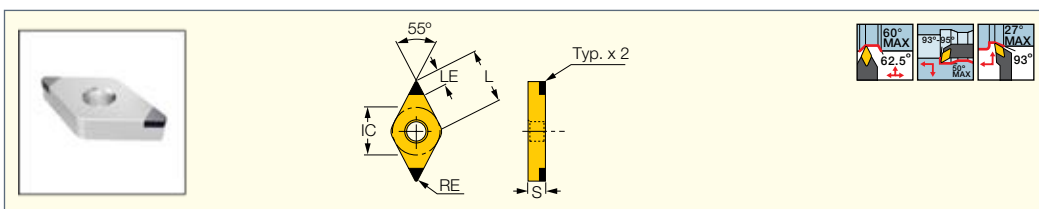
Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	LE	IB25HC	IB55	IB10HC	a_p (mm)	f (mm/rev)
DNGA 150404T-MC	15.50	12.70	4.76	0.40	2.9		•		0.05-0.50	0.05-0.18
DNGA 150408-M4	15.50	12.70	4.76	0.80	2.1	•		•	0.05-0.50	0.05-0.18
DNGA 150408T-MC	15.50	12.70	4.76	0.80	3.0		•		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 109-114, 215-238

For tools, see pages: A/S-PDJNR/L (92) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • AVC-DDUNR/L (84) • DDJNR/L-JHP-MC (27)

ISOTURN**DNGA-2 (CBN)**

55° Rhombic Inserts with 2 CBN
Tips for Machining Hardened
Steel, Sintered Metals and
High Temperature Alloys



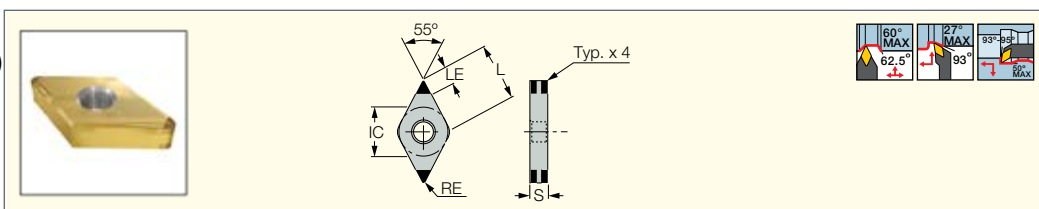
Designation	Dimensions					Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	LE	IB10S	IB20H	IB20HC	IB10H	IB10HC	a_p (mm)	f (mm/rev)
DNGA 150404-F2	15.50	12.70	4.76	0.40	2.5			•		•	0.10-0.50	0.05-0.30
DNGA 150404-M2	15.50	12.70	4.76	0.40	2.5	•		•		•	0.10-0.50	0.05-0.30
DNGA 150408-F2	15.50	12.70	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 109-114, 215-238

For tools, see pages: C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • DDJNR/L-JHP-MC (27)

ISOTURN**DNGG-M4HF/M4HM (CBN)**

55° Rhombic Inserts with 4
Chipbreaking CBN Tips for
Machining Hardened Steel



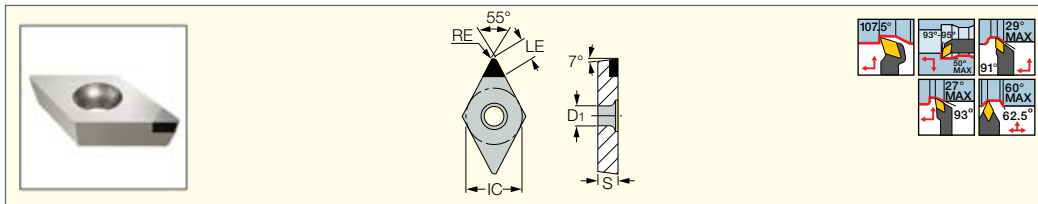
Designation	Dimensions					IB25HA	Recommended Machining Data	
	L	IC	S	RE	LE		a_p (mm)	f (mm/rev)
DNGG 150408-M4HF	15.50	12.70	4.76	0.80	2.1	•	0.20-0.75	0.05-0.20
DNGG 150412-M4HM	15.50	12.70	4.76	1.20	2.0	•	0.50-1.00	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • PDJNR/L (25) • PDJNR/L-JHP (25) • S-DDUNR/L (92) • DDJNR/L-JHP-MC (27)

ISOTURN**DCMT (CBN)**

55° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel



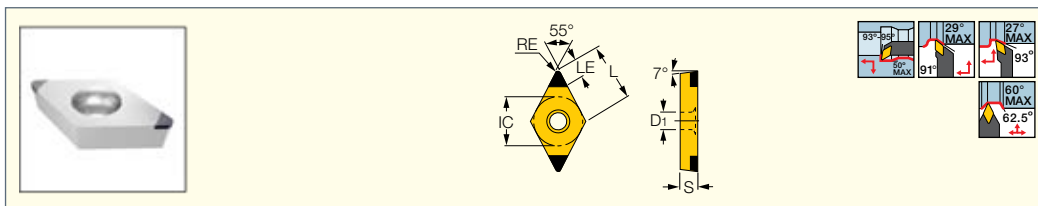
Designation	Dimensions						IB55	Recommended Machining Data	
	L	IC	S	RE	LE	D ₁		a _p (mm)	f (mm/rev)
DCMT 11T304T	11.60	9.52	3.97	0.40	3.4	4.40	●	0.05-0.50	0.05-0.20
DCMT 11T308T	11.60	9.52	3.97	0.80	3.1	4.40	●	0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • IM-SDNCN (58) • PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

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						Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	LE	D ₁	IB05S	IB20H	IB20HC	IB10H	IB10HC	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

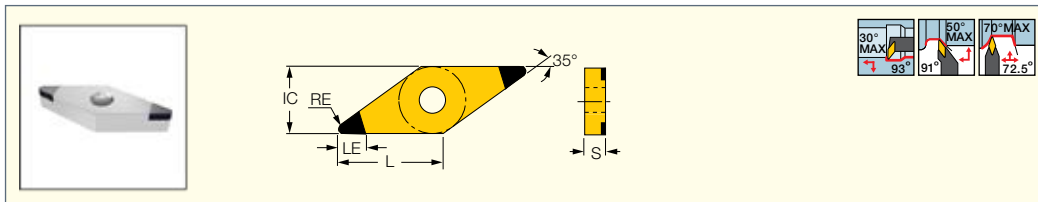
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E/S-SDUCR/L (98) • AVC-SDUCR/L (82) • C#-SDJCR-JHP (54) • C#-SDJCR/L (54) • C#-SDNCN (58) • E-SDUCR/L-HEAD (99) • IM-SDNCN (58)

• PDACR/L-JHP (56) • PDACR/L-S (52) • SDACR/L (55) • SDHCR/L (54) • SDJCR-PAD (54) • SDJCR/L (53) • SDNCN (57) • PDACR/L-JHP-MC (56)

ISOTURN**VNGA-2 (CBN)**

35° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys



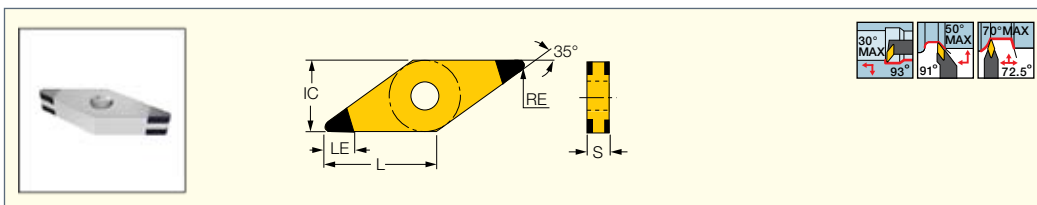
Designation	Dimensions					Tough ↔ Hard					Recommended Machining Data	
	L	IC	S	RE	LE	IB10S	IB20H	IB20HC	IB10H	IB10HC	a _p (mm)	f (mm/rev)
VNGA 160404-F2	16.60	9.52	4.76	0.40	3.1			●		●	0.05-0.50	0.05-0.30
VNGA 160404-M2	16.60	9.52	4.76	0.40	3.1	●		●		●	0.05-0.50	0.05-0.30
VNGA 160408-F2	16.60	9.52	4.76	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 109-114, 215-238

For tools, see pages: MVJNR/L (30) • MVVNN (31)

ISOTURN**VNGA-4 (CBN)**

35° Rhombic Inserts with
4 CBN Tips for Machining
Hardened Steel



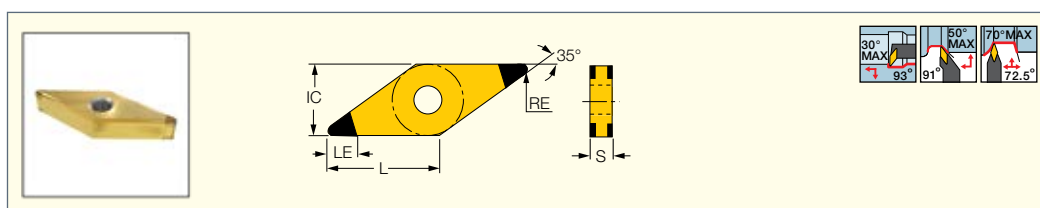
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	IB25HC	IB10HC	a_p (mm)	f (mm/rev)
VNGA 160408-M4	16.60	9.52	4.76	0.80	2.2	●	●	0.05-0.30	0.02-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: MVJNR/L (30) • MVVNN (31)

ISOTURN**VNGG-M4HM (CBN)**

35° Rhombic Insert with 4
Chipbreaking CBN Tips for
Machining Hardened Steel



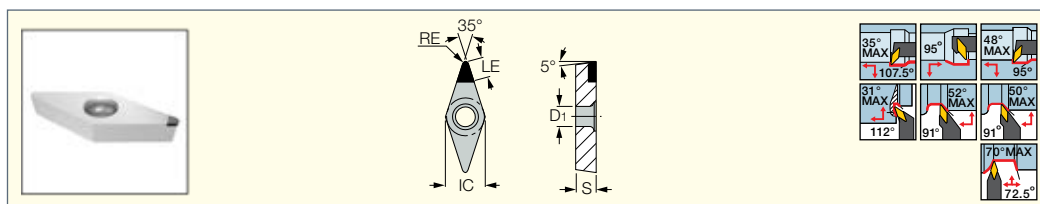
Designation	Dimensions					IB25HA	Recommended Machining Data	
	L	IC	S	RE	LE		a_p (mm)	f (mm/rev)
VNGG 160408-M4HM	16.60	9.52	4.76	0.80	2.2	●	0.50-0.80	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: MVJNR/L (30) • MVVNN (31)

ISOTURN**VBMT (CBN)**

Single Corner CBN Tipped
Inserts with a Flat Rake for
Machining Hardened Steel

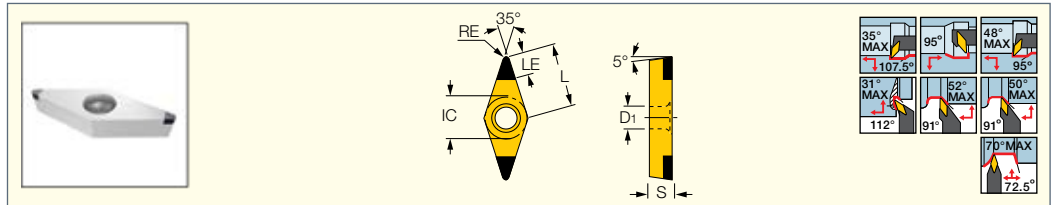


Designation	Dimensions						Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	D ₁	IB55	IB50	a_p (mm)	f (mm/rev)
VBMT 160404T	16.60	9.52	4.76	0.40	4.5	4.40	●	●	0.05-0.39	0.05-0.11

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

VBGW/VBMW-2 (CBN)

35° Positive Rhombic
Inserts with 2 CBN Tips for
Machining Hardened Steel

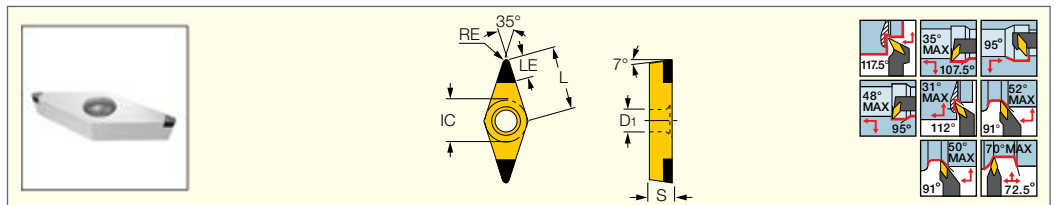


Designation	Dimensions						Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	LE	D ₁	IB20H	IB20HC	IB10H	IB10HC	a _p (mm)	f (mm/rev)
VBGW 110304-F2	11.10	6.35	3.18	0.40	3.1	2.80		•		•	0.10-0.50	0.05-0.20
VBGW 160404-F2	16.60	9.52	4.76	0.40	3.1	4.40		•		•	0.10-0.50	0.05-0.20
VBGW 160408-F2	16.60	9.52	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 109-114, 215-238

VCGW-2 (CBN)

35° Positive Rhombic
Inserts with 2 CBN Tips for
Machining Hardened Steel



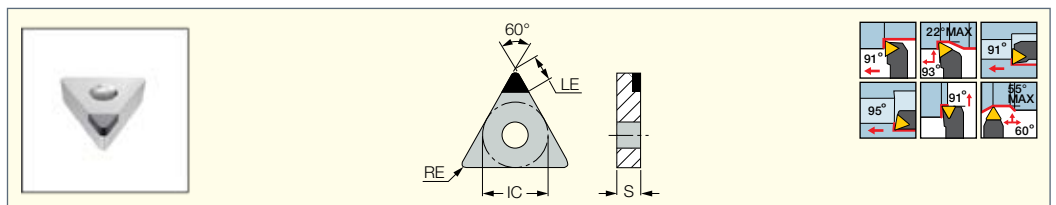
Designation	Dimensions						Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	D ₁	IB20HC	IB10HC	a _p (mm)	f (mm/rev)
VCGW 160404-F2	16.60	9.52	4.76	0.40	3.1	4.40	•	•	0.10-0.50	0.05-0.30
VCGW 160404-M2	16.60	9.52	4.76	0.40	3.1	4.40	•	•	0.10-0.50	0.05-0.30
VCGW 160408-F2	16.60	9.52	4.76	0.80	2.2	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 109-114, 215-238

For tools, see pages: A/S-SVLBCR/L (100) • A/S-SVLFCR/L; A-SVJCR/L (414) • A/S-SVQCR/L (413) • AVC-SVLCR/L (83) • C#-SVJCR/L (59) • C#-SVJCR/L-JHP (59) • C#-SVJCR/L (61) • HSK A63WH-SVJCR/L (60) • SVJCR/L (412) • SVJCR/L-16-JHP (412) • SVJCR/L (413) • SVJCR/L (413)

TNMA (CBN)

Triangular Inserts with a Single
Corner CBN Tip for Machining
Cast Iron and Hardened Steel



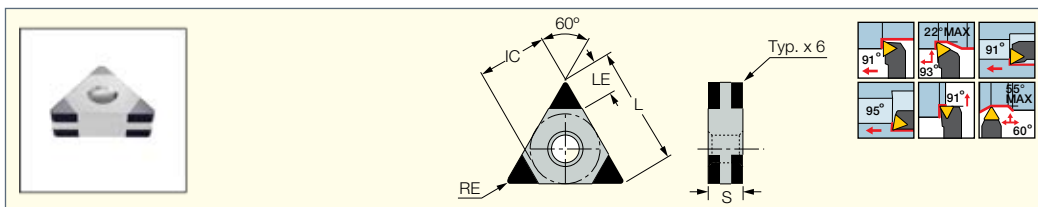
Designation	Dimensions						Tough ↔ Hard				Recommended Machining Data	
	L	IC	S	RE	LE		IB90	IB85	IB55	IB50	a _p (mm)	f (mm/rev)
TNMA 160404T	16.50	9.52	4.76	0.40	3.9			•	•	•	0.05-0.50	0.05-0.25
TNMA 160408T	16.50	9.52	4.76	0.80	3.5		•		•		0.05-0.50	0.05-0.25

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • DTGMR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGMR/L (32) • PTGMR/L-X (32) • PTGMR/L-X-JHP (33) • PTGMR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

ISOTURN**TNGA-MC/M6 (CBN)**

Triangular Multi-Cornered
CBN Inserts for Machining
Hardened Steel



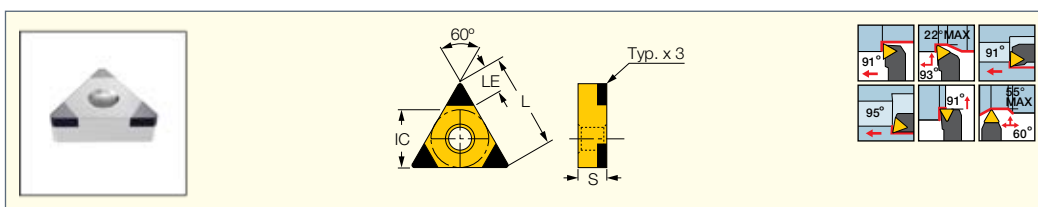
Designation	Dimensions					Tough ↔ Hard			Recommended Machining Data	
	L	IC	S	RE	LE	IB25HC	IB55	IB10HC	a_p (mm)	f (mm/rev)
TNGA 160404T-MC	16.50	9.52	4.76	0.40	3.2		•		0.05-0.50	0.05-0.20
TNGA 160408-M6	16.50	9.52	4.76	0.80	1.9	•		•	0.05-0.50	0.05-0.20
TNGA 160408T-MC	16.50	9.52	4.76	0.80	1.9		•		0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

ISOTURN**TNGA-M3 (CBN)**

Triangular Inserts with 3 CBN
Tips for Machining Hardened
Steel, Sintered Metals and
High Temperature Alloys



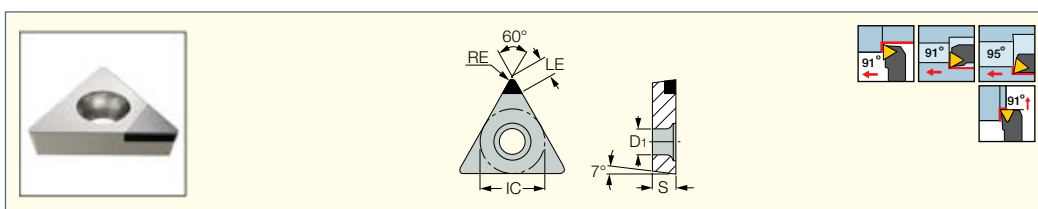
Designation	Dimensions					Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	IB10S	IB20H	a_p (mm)	f (mm/rev)
TNGA 160404-M3	16.50	9.52	4.76	0.40	2.2	•		0.10-0.50	0.05-0.30
TNGA 160408-M3	16.50	9.52	4.76	0.80	1.9	•	•	0.05-0.50	0.05-0.30
TNGA 160412-M3	16.50	9.52	4.76	1.20	2.4	•		0.10-0.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A-PTFNR/L-X/G (94) • DTGNR/L (34) • MTENN-W (35) • MTJNR/L-W (35) • PTFNR-CA (108) • PTFNR/L (34) • PTGNR/L (32) • PTGNR/L-X (32) • PTGNR/L-X-JHP (33) • PTGNR/L-X-JHP-MC (33) • S-MTLNR/L-W (95) • S-PTFNR/L (94)

ISOTURN**TCMT (CBN)**

Triangular Positive Inserts with
a Single CBN Flat Rake Tip for
Machining Hardened Steel



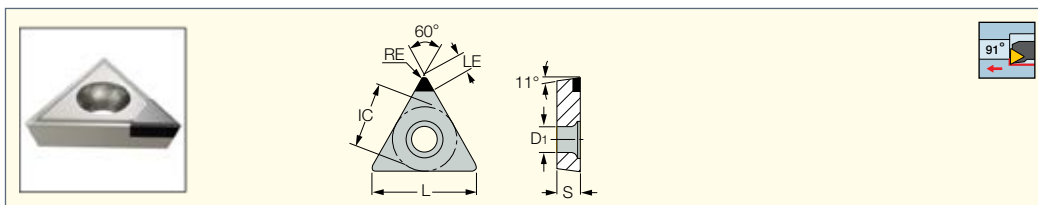
Designation	Dimensions						Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	D_1	IB55	IB50	a_p (mm)	f (mm/rev)
TCMT 110204T	11.00	6.35	2.38	0.40	3.5	2.85	•	•	0.05-0.50	0.05-0.13

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: E-STFCR-HEAD (101) • S-STFCR/L (101) • S-STLCR/L (101) • STFCR/L (62) • STGCR/L (63)

TPGX (CBN)

Triangular Inserts with a Single CBN Top Corner Tip, 11° Clearance for Machining Cast Iron and Hardened Steel



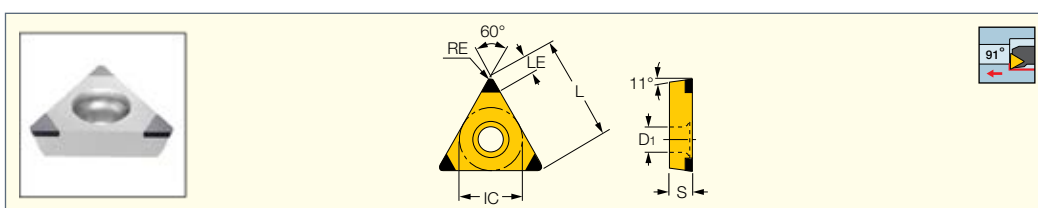
Designation	Dimensions						Tough ↔ Hard		Recommended Machining Data	
	L	IC	S	RE	LE	D ₁	IB90	IB50	a _p (mm)	f (mm/rev)
TPGX 090202T	9.52	5.56	2.38	0.20	2.5	2.50	●	●	0.05-0.05	0.03-0.20
TPGX 090204T	9.52	5.56	2.38	0.40	2.6	2.50	●	●	0.05-0.05	0.03-0.20
TPGX 110302T	11.00	6.35	3.18	0.20	3.3	3.50	●	●	0.05-0.05	0.03-0.20
TPGX 110304T	11.00	6.35	3.18	0.40	3.0	3.50	●	●	0.05-0.05	0.03-0.20

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-STFPR-X (103) • MG STFPR-X (103)

TPGW-M3 (CBN)

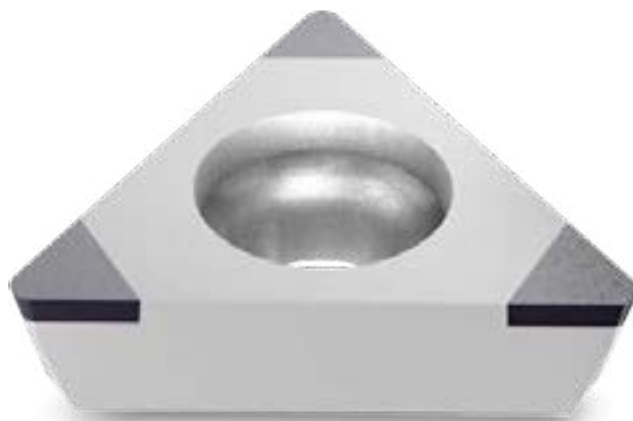
Triangular Positive Inserts with 3 CBN Tips for Machining Sintered Metals and High Temperature Alloys



Designation	Dimensions						IB05S	Recommended Machining Data	
	L	IC	S	RE	LE	D ₁		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

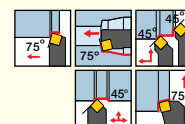
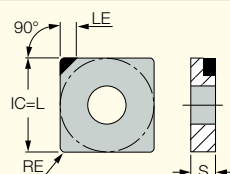
• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: A/E-STFPR-X (103)



ISOTURN**SNMA (CBN)**

Square CBN Tipped Inserts with a Single Flat Rake for Machining Cast Iron and Hardened Steel



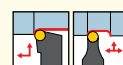
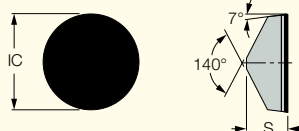
Designation	Dimensions				IB55	Recommended Machining Data	
	IC	S	RE	LE		a_p (mm)	f (mm/rev)
SNMA 120408T	12.70	4.76	0.80	4.5	●	0.05-0.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 109-114, 215-238

For tools, see pages: C#-MULNR/L-MW (13) • DSBNR/L (37) • DSDNN (36) • DSKNR/L (36) • DSSNR/L (36) • HSK A63WH-MULNR-J12MWX2 (14) • HSK A63WH-MULNR/L-MW (13) • HSK A63WH-MUMNN-MW (14) • MULNR/L-12MW (12) • PSBNR/L (41) • PSDNN (38) • PSDNN-JHP (38) • PSKNR/L (38) • PSKNR/L-CA (107) • PSSNR-CA (108) • PSSNR/L (39) • PSSNR/L-JHP (39)

ISOTURN**RCGX (CBN)**

CBN Round Inserts with a Flat Rake for Machining Cast Iron and Hardened Steel



Designation	Dimensions		IB90	Recommended Machining Data	
	IC	S		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 109-114, 215-238





Grades	ISO	Coating Layers
IC520N PVD COATED CERMET	P05-P25 M05-M15	TiN TiCN
IC530N PVD COATED CERMET	P10-P30 M10-M20	TiN TiCN
S.T. IC804	S05-S15	TiAlN AlTiN
S.T. IC806	S10-S20 M05-M15	TiAlN AlTiN
S.T. IC807	P10-P20 M05-M15 S10-S20 K15-K30 H05-H15	TiN TiAlN
S.T. IC830	P30-P45 M25-M45	TiN TiAlN
IC907	P10-P20 M05-M15 S10-S20 K15-K30 H05-H15	TiAlN
IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	TiAlN
IC428	K05-K20	Al ₂ O ₃ TiC
S.T. IC5005	K05-K20 P05-P15	TiN Al ₂ O ₃ TiCN
S.T. IC5010	K10-K25	TiN Al ₂ O ₃ TiCN
S.T. IC6015	M05-M25 S15-S25	TiN Al ₂ O ₃ TiCN
S.T. IC6025	M15-M35 S20-S30	TiN Al ₂ O ₃ TiCN
S.T. IC8150	P05-P25 K10-K25 M10-M20	TiN Al ₂ O ₃ TiCN
S.T. IC8250	P10-P35 M15-M25	TiN Al ₂ O ₃ TiCN
S.T. IC8350	P20-P45 M20-M30	TiN Al ₂ O ₃ TiCN

S.T. SUMO TEC ■ PVD COATED ■ CVD COATED

Recommended Applications

A hard cermet **TiCN + TiN PVD** coated grade. Used for turning, semi-finishing and finishing operations. Recommended for steels at high cutting speeds and low feeds, provides excellent surface finish, resistance to wear and plastic deformation. Features excellent wear resistance and prevents build-up edge.

A cermet **TiCN + TiN PVD** coated grade. Used for turning, semi-finishing and finishing operations. Recommended for steels at medium to high cutting speeds and low to medium feeds, provides excellent surface finish and prevents build-up edge.

A very hard submicron substrate with **AlTiN + TiAlN PVD** coating and a special **SUMO TEC** surface treatment. Suitable for semi finishing and finishing operations of hard high temperature alloys at relatively high cutting speeds.

A hard submicron substrate with **AlTiN + TiAlN PVD** coating and a special **SUMO TEC** surface treatment. First choice for turning of high temperature alloys. Suitable also for titanium alloys, at medium to relatively high cutting speeds.

A hard submicron substrate with **TiAlN + TiN PVD** coating and a special **SUMO TEC** surface treatment. Suitable for turning of steel, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at medium cutting speeds.

TiAlN + TiN PVD coated grade with a special **SUMO TEC** surface treatment on very tough substrate for turning of steel and stainless steel at low to medium speeds and medium to high feeds. The grade is recommended for interrupted cut and machining at unstable conditions.

A hard submicron substrate with **TiAlN PVD** coating. Suitable for turning of steel, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at medium cutting speeds.

A tough submicron substrate with **TiAlN PVD** coating. Recommended for general use in turning operations on large variety of materials as well as steel, alloy steels, austenitic stainless steel high temperature alloys at low to medium cutting speeds.

A **TiC + Al₂O₃** multilayer **CVD** coated grade. Used for turning and grooving of grey and nodular cast iron at medium to high cutting speeds.

A hard substrate with **MTCVD TiCN** and a thick alpha **Al₂O₃ CVD** coating with a special **SUMO TEC** surface treatment. Used for turning of grey and nodular cast iron at high cutting speeds with stable conditions.

A hard substrate with **MTCVD TiCN** and a thick alpha **Al₂O₃ CVD** coating with a special **SUMO TEC** surface treatment. Used for machining of grey and nodular cast iron at medium to high cutting speeds with good resistance to chipping.

A hard substrate with **MTCVD TiCN** and a thick alpha **Al₂O₃ CVD** coating with cobalt enriched outer layer and a special **SUMO TEC** surface treatment. Used for finishing and medium turning of stainless steel at high cutting speeds. Features long tool life and high wear resistance.

A tough substrate with **MTCVD TiCN** and a thick alpha **Al₂O₃ CVD** coating and a special **SUMO TEC** surface treatment. Recommended for machining stainless steel at high feeds and unfavorable conditions at medium cutting speed.

A hard substrate with a cobalt enriched layer, **MTCVD TiCN** and a thick **Al₂O₃ CVD** coating with a special **SUMO TEC** surface treatment. Recommended for high speed machining of steels and martensitic stainless steel with moderate feeds at stable conditions. Features excellent thermal stability and resistance to wear and plastic deformation.

A tough substrate with a cobalt enriched layer combined with **MTCVD TiCN** and a thick alpha **Al₂O₃ CVD** coating with a special **SUMO TEC** surface treatment. Recommended for general use machining of steels and martensitic stainless steel in a wide range of conditions, features high toughness and wear resistance.

A very tough substrate with a cobalt enriched layer combined with **MTCVD TiCN** and a thick alpha **Al₂O₃ CVD** coating with a special **SUMO TEC** surface treatment. Recommended for steels and martensitic stainless steel. Features high toughness with excellent results at unstable conditions and interrupted cut.

Grades	ISO	Coating Layers
IC20N	P05-P25 M05-M15	
IC30N	P10-P30 M10-M20 H10-H25	
IC08	M10-M30 N10-N25 S10-S30	
IC20	N05-N25 S05-S20 K10-K20 H05-H15	
IB05S	S05	
IB10H	H10	
IB10HC	H10	TiN
IB10S	S10	
IB20H	H20	
IB25HA	H25	TiN
IB25HC	H25	TiN
IB50	K01-K10 H01-H10	
IB55	K05-K15 H10-H25	
IB90	K05-K15 S01-S10	
ID5	N01-N10	

CERMET
 UNCOATED
 CBN
 PCD

Recommended Applications

A hard cermet grade, used for turning applications. Recommended for steels at high cutting speeds and low feeds, provides excellent surface finish. Features improved wear resistance and prevents build-up edge.

A cermet grade, used for turning applications. Recommended for steels and stainless steel at medium to high cutting speeds and low feeds, provides excellent surface finish. Features very good wear resistance and prevents build-up edge.

An uncoated submicron carbide grade, used for steels, stainless steel and high temperature alloys at low cutting speeds.

An uncoated carbide grade. Used for turning of aluminum and other nonferrous materials at medium to high cutting speeds. Suitable also for high temperature and titanium alloys machining at low cutting speeds.

Uncoated grade that contains 95% PCBN composed of super fine grain size in a special binder. Used for finishing operations with continuous conditions on sintered metals at high cutting speeds. Features high hardness and ensures very good surface finish.

Extra fine grain **53% PCBN**. Used for finishing operations of hardened steels at medium to high cutting speeds in continuous up to light interrupted cutting conditions. Features very good wear resistance with excellent surface finish results.

Extra fine grain **53% PCBN** with **TiN PVD** coating for hardened steel turning. Excellent crater wear resistance for high speed machining. Newly developed **PCBN** substrate for high speed cutting.

Fine grain, composed of fine grain size in a special binder, very hard **95% PCBN** grade. Used for finishing operations on sintered metals at high cutting speeds and also for valve seats and Titanium alloys at continuous up to light interrupted cutting conditions. Features high hardness and good wear resistance.

A combination of coarse and fine grain **65% PCBN**. Used as a general purpose grade for finishing operations of hardened steels at medium cutting speeds in continuous up to medium interrupted cutting conditions. Features good balance between wear resistance and impact resistance.

TiN PVD coated, very tough grade **75% PCBN**. Used for hardened steel turning. High chipping resistance & extremely tough substrate for all-round use.

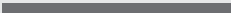
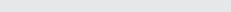
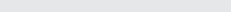
TiN PVD coated, medium grained PCBN particles are bound with special binder **75% PCBN** substrate. Used for medium and light interrupted cut turning of hardened steel. The surface is coated with dedicated coating material.

A **50% PCBN** used for finishing operations of hardened steels (**45-65 HRc**) at medium to high cutting speeds in continuous conditions. Features excellent wear resistance with very high surface finish results.

A **55% PCBN** used for finishing operations of hardened steels (**45-65 HRc**) at medium cutting speeds in continuous up to light interrupted cutting conditions. Features very good toughness properties at medium feeds and depths of cut.

A **90% PCBN** used for finishing operations of cast iron at high cutting speeds and also for medium speeds on hardened steels with heavy interrupted cutting conditions. Features very high toughness and impact resistance.

A **PCD** brazed tip, suitable for machining aluminum and other nonferrous materials at very high cutting speeds.

Grades	ISO	Coating Layers
IN110 WHITE CERAMICS	K01-K10 S01-S10	
IN22 BLACK CERAMICS	H05-H25 K05-K10	
IN23 BLACK CERAMICS	K05-K15 H10-H30	
IS6 SILICON NITRIDE	K01-K10	
IS8 SILICON NITRIDE	K01-K20	
IS9 SILICON NITRIDE	S20-S30	
IS25 SiAlON	S10-S20	
IS35 SiAlON	S15-S25	
IS80 SILICON NITRIDE	K01-K20	
IN420 BLACK CERAMICS	K05-K10 H05-H25	
IW7 WHISKER CERAMICS	S20-S30 H05-H25	

Recommended Applications

White ceramic features high toughness and wear resistance, used for high speed turning of cast iron, especially high speed dry machining of cylinder liner.

Black Ceramic (Al₂O₃ + TiCN), mainly used for high speed machining of light roughing & finishing of hardened steel. Also suitable for finishing operation of chilled cast iron.

Black Ceramic (Al₂O₃ + TiCN), mostly recommended for machining cast iron at finish to medium conditions. Also suitable for light interrupted cut of hardened steel.

SiAlON High fracture toughness and thermal shock resistance. Used for very high speed machining (up to 1200 m/min) roughing to finishing of cast iron, especially for automotive parts.

A **Silicon Nitride** grade. High wear resistance with good toughness and thermal shock resistance. Used for high speed machining roughing to finishing of cast iron.

A **Silicon Nitride** ceramic grade. A very tough grade with high cutting edge stability. Used for roughing to finishing applications on Ni base high temperature alloys and ductile cast iron.

Reinforced **SiAlON** composite grade, features high hardness, excellent for machining at continuous conditions of high temperature alloys such as Inconel, Waspaloy etc.

Reinforced **SiAlON** composite grade, provides high hardness with excellent toughness for machining high temperature alloys such as Inconel, Waspaloy etc. Suitable for high feeds and depth of cut.

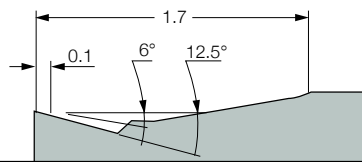
A **Si₃N₄** ceramic grade with **CVD** coating. High wear resistance with good toughness and thermal shock resistance. Used for high speed machining roughing to finishing of cast iron.

Black Ceramic (Al₂O₃ + TiCN) with **TiN PVD** coating, used for high speed finishing machining of hardened steel. Improved tool life up to 50% compared to uncoated grade.

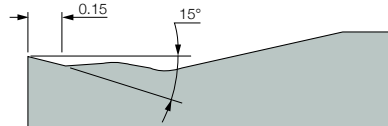
Whiskers reinforced ceramic grade, provides high hardness with good toughness for machining Ni based high temperature alloys such as Inconel, Waspaloy etc.



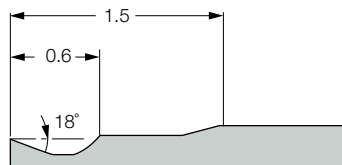
Chipformers for Finishing

F3P Chipformer


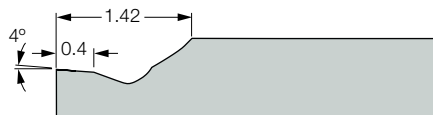
Double-sided insert with a positive rake angle to reduce cutting forces for finish machining on steel.

F3M Chipformer


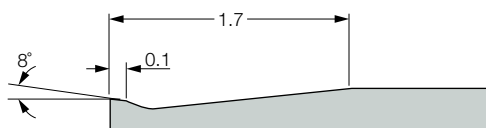
Double-sided insert with a positive rake angle for finish machining on stainless steel. Its unique deflector geometry with a wavy surface prevents chip hammering.

SF Chipformer


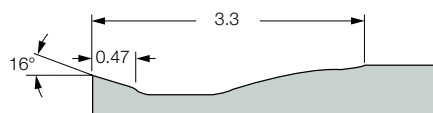
A unique super-finishing chipformer that controls chip flow at very low feeds and cutting depths. Designed to reduce crater wear.

NF Chipformer


Double-sided for semi-finishing and finishing applications. Low cutting forces are due to a very sharp edge and positive rake.

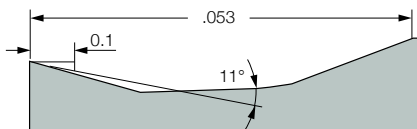
WF Chipformer


Wiper geometry for high feed finishing on soft and gummy materials. Small depths of cut.

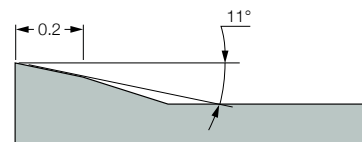
VL Chipformer


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.

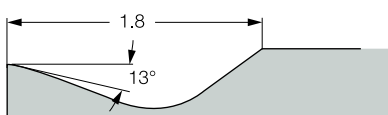
Chipformers for Medium Machining

M3P Chipformer


Double-sided insert for medium machining on steel with a reinforced cutting edge to increase tool life.

M3M Chipformer


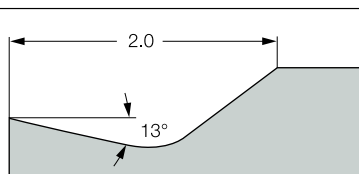
Double-sided insert for medium machining on stainless steel with a reinforced cutting edge that prevents notch wear at tight radii to increase tool life.

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.

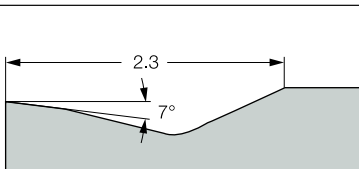
Chipformers for Medium Machining

PP Chipformer



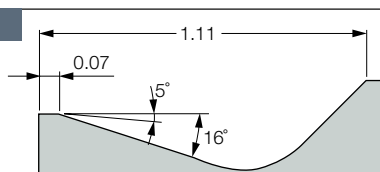
Double-sided, very positive rake, sharp- and positive radial edge for heat-resistant alloys, stainless steel, aluminum alloys and soft, low carbon steel.

GN Chipformer



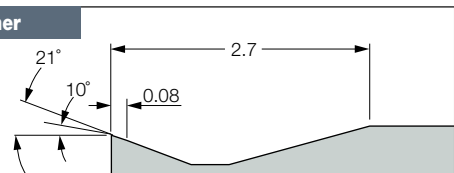
Double-sided for general applications. Secure cutting edge for medium- and semi-roughing on steel and cast iron.

EM-M Chipformer



Double-sided sharp cutting edge with a 16° positive rake angle for machining high temperature alloys at $ap < 3$ mm.

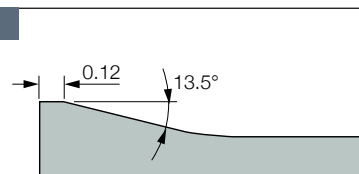
12 Chipformer



Single-sided for medium to rough machining on aluminum and soft materials.

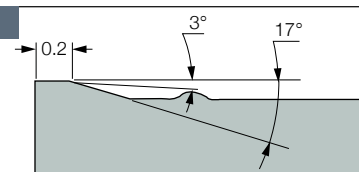
Chipformers for Roughing

R3P Chipformer



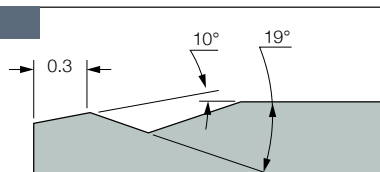
Chip-breaker for rough machining on steel with a positive rake angle and reinforced cutting edge for better performance and longer tool life.

R3M Chipformer



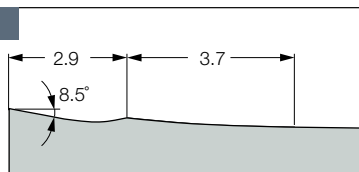
Double-sided insert for rough machining on stainless steel with a unique deflector geometry to improve chip control. Includes a wavy surface to prevent chip hammering.

T3P Chipformer



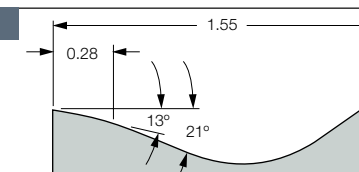
Double-sided 6° negative flank trigone insert for high feed turning on steel.

TNM Chipformer



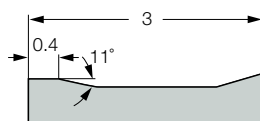
Double-sided trigon for roughing applications. Feed ranges: from 0.25 to 0.65 mm/rev. Depth of cut from 2 to 7 mm.

EM-R Chipformer

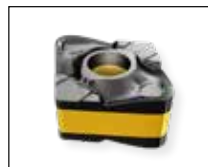
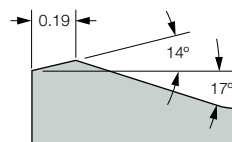


Double-sided sharp cutting edge with a 13° positive rake angle for machining high temperature alloys at $ap < 6$ mm.

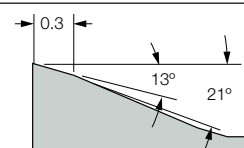
Chipformers for Roughing

NR Chipformer


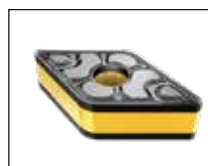
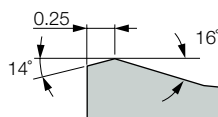
Double-sided sharp cutting edge with a 13° positive rake angle for machining high temperature alloys at $ap < 6$ mm.

M4PW Chipformer


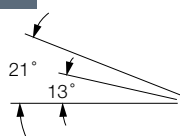
Double-sided for roughing applications. Feed range: 0.25 mm/rev to 0.8 mm/rev. Depth of cut from 2.00 to 10.0 mm.

M4MW Chipformer


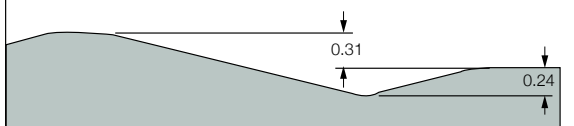
Chipformer for heavy machining applications on stainless steel. The inserts feature a very positive radial helical cutting edge and a positive rake angle.

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.

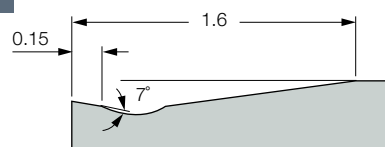
HM Chipformer


Feed range: 0.08 mm/rev to 0.75 mm/rev. Depth of cut from 1.5 mm to 8.0 mm.

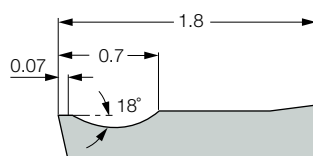
H6P Chipformer


Tangential insert with 4 cutting edges for high metal removal on steel up to 35mm DOC

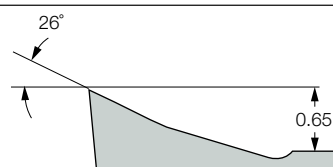
Main Chipformers for Positive Clearance Inserts

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.

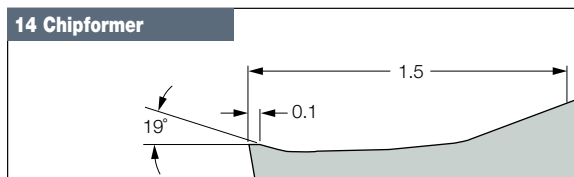
SM Chipformer


Finishing and boring applications. Feed range: 0.06-0.25 mm/rev. DOC 0.5-2.5 mm.

AS Chipformer


For general use machining on aluminum and soft materials.

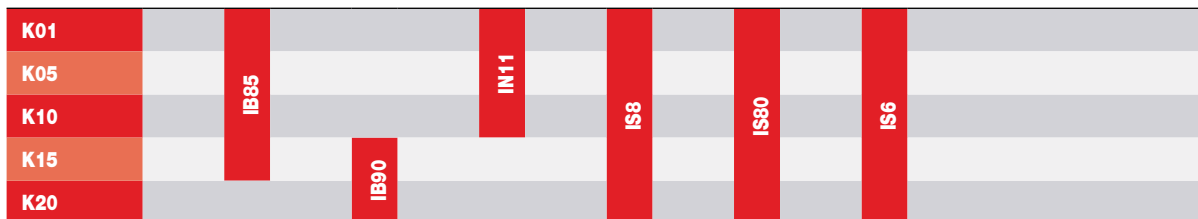
Additional Chipformer for Positive Clearance Inserts



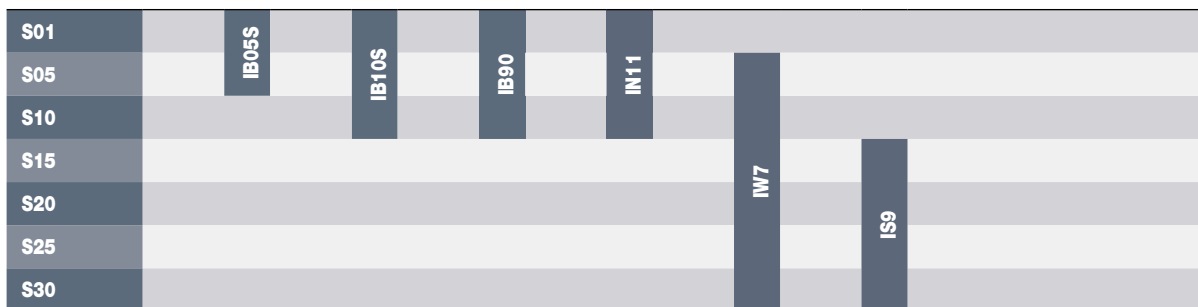
Semi-finishing and finishing.
Medium feeds.

Application Range of Ceramic Inserts According to ISO Standard

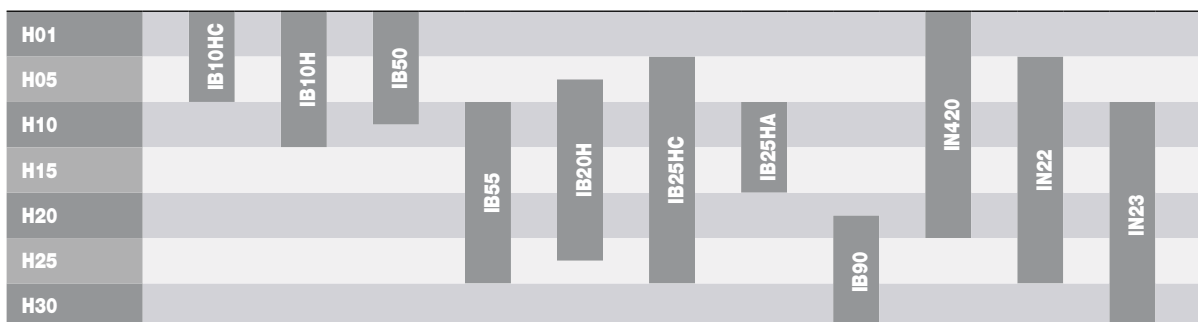
Turning Grey and Nodular Cast Iron



Turning Nickel Based High Temperature Alloys



Turning Hardened Steel 45-65 HRc

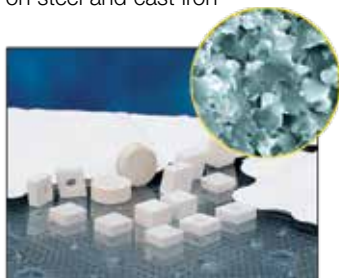


Ceramic Cutting Tools

IN11 Al₂O₃

High Speed Finishing on Cast Iron and Steel

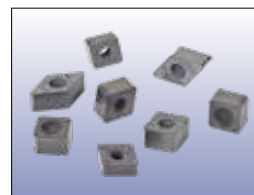
- Improves toughness and wear resistance
- ZrO₂ additive
- Good for high speed turning on steel and cast iron



IS6 SiAlON

Features

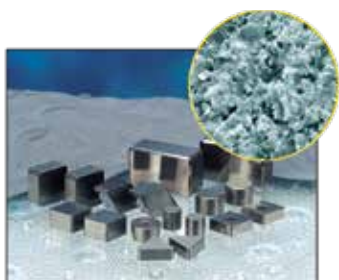
- High speed roughing and finish machining on cast iron
- Higher cutting speeds, when compared to SiN based ceramic grades
- Can be used for both wet and dry machining
- Suitable for turning automotive parts such as brake drums, brake disks, etc.
- High productivity in rough turning on steel mill rolls composed of high-Cr steel, HSS (High Speed Steel) and adamite



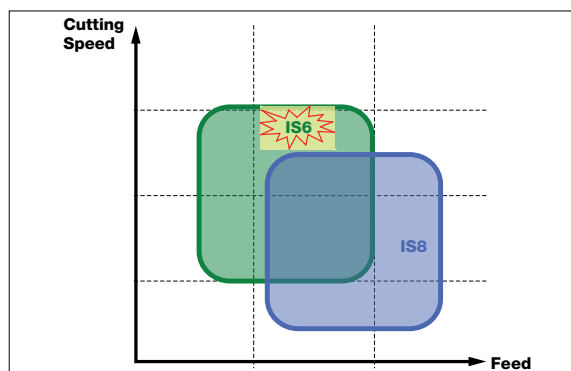
IN22 Al₂O₃-TiCN

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



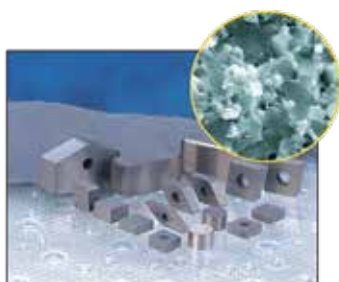
Application Range for Machining Cast Iron



IN23 Al₂O₃-TiC

Medium-to-Finishing Cutting on Cast Iron

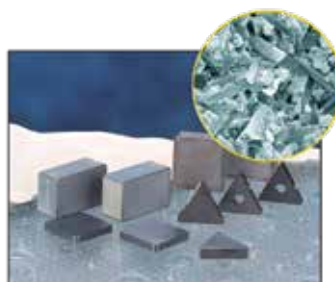
- Light interrupted turning on grey cast iron and nodular cast iron
- Milling with finishing conditions on grey cast iron



IS8 Si₃N₄

Turning and Milling of Grey Cast Iron

- Roughing and interrupted (1) cutting on cast iron
- Machining on nodular cast iron and superalloy



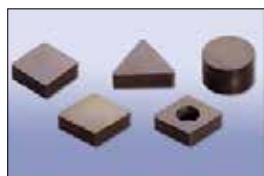
(1) Coolant is not recommended for interrupted cutting.

IS80 CVD Coated Si3N4**High Speed Rough Turning on Grey Cast Iron**

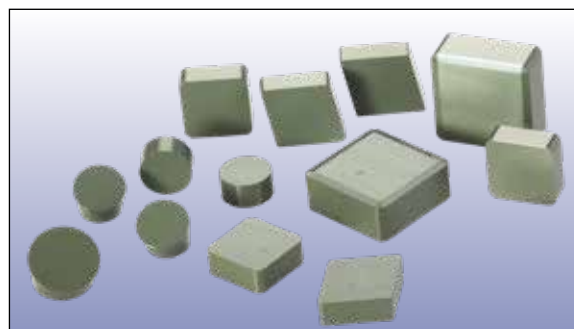
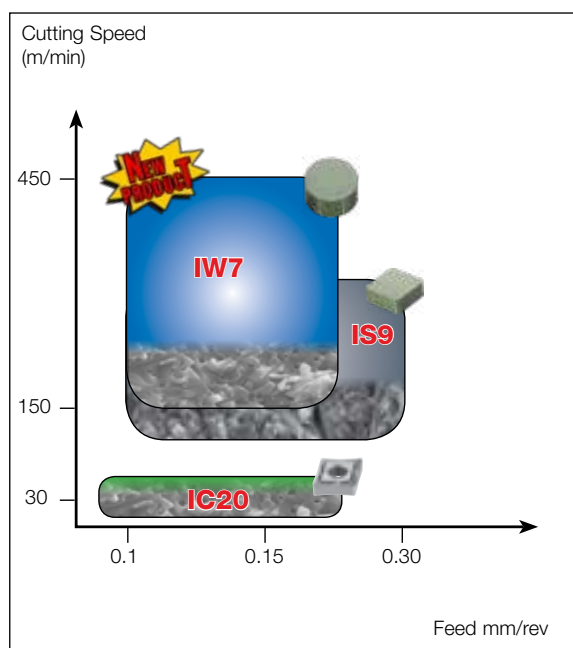
- Multi-layered coating on IS8 matrix
- Roughing and interrupted (1) cutting on cast iron

**IS9 Si3N4****Turning Nickel Based Alloys**

- Very tough Si3N4 ceramic grade with high cutting edge stability
- Machining on nickel based high temperature alloys, in roughing to finishing applications
- Honing is the standard edge preparation

**IW7 AL2O3+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



(1) Coolant is not recommended for interrupted cutting.

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.



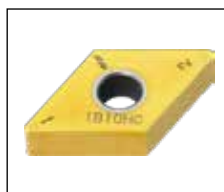
CBN Content	65%
Binder	TiN-Al

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.

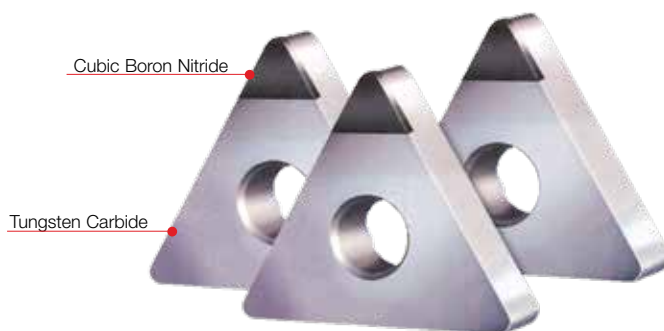


CBN Content	95%
Binder	Co-Al-WC

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 ↑	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.
		Toughness ↓	IB55	60	Semi-finishing on hardened steel (45 - 65 HRC) and nodular cast iron. Interrupted cutting.
ISO-H COATED		Wear Resistance ↑	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.
		Toughness ↓	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		ISCAR New Grade	Composition (% CBN)	Features and Applications
ISO-K	Cast Iron & Hard Metal	Wear Resistance ↑	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.
		Toughness ↓	IB90	90	High speed cutting on cast iron, cutting cemented tungsten carbide, sintered metal and super alloy.

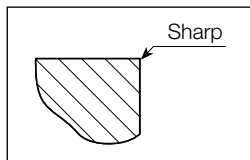
Grades & Applications for High Temperature Alloys

	Material		ISCAR New Grade	Composition (% CBN)	Features and Applications
ISO-S	Exotic Materials	Wear Resistance ↑	IB05S	95	Super fine grain CBN for machining ferrous sintered metals.
			IB10S	95	For machining valve seats, sintered metals and Ti alloys.
		Toughness ↓	IB90	90	Cutting cemented tungsten carbide, sintered metal and super alloy.

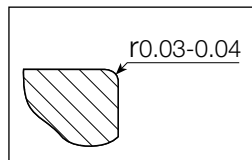
Edge Preparation and Recommended Applications

T-Land Sizes for Standard Items

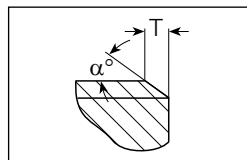
Grade	IN22	IN23	IS80	IS8	IS9	IN11	IB50	IB55	IB85	IB90	IS6	IW7	IN420
T (mm)	0.20	0.20	0.20	0.20	0.10	0.20	0.14	0.14	0.14	0.14	0.20	0.10	0.2
α°	25°	25°	25°	25°	25°	20°	20°	20°	20°	20°	25°	25°	25°



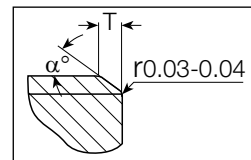
F For finishing and super finishing



E For semi-finishing and finishing
 $f < 0.2 \text{ mm/rev}$



T For semi-roughing and roughing
 $f > 0.2 \text{ mm/rev}$



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?

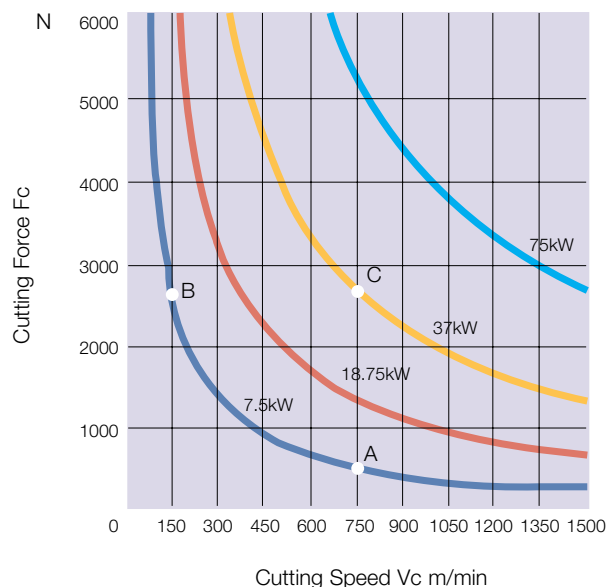
ISCANITE is primarily used on cast iron and high temperature alloys, brass and composites. Steel is the only material usually avoided because of various chemical incompatibilities.

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 a 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

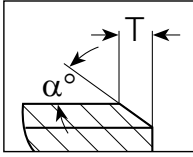
It is preferable to machine at higher cutting speeds and lower cutting forces (Point A is preferred over Point B.) In this case, pressure is reduced on the workpiece and any tendency of the workpiece to move or vibrate. If the available machine power is higher, or the machine can be stepped up. The use of 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 cutting speed and feed on machining conditions: higher cutting speeds are recommended and possible for silicon nitride inserts.



New Edge Preparations

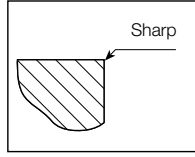
For the following grades: IB10HC, IB10H, IB20H, IB25HC, IB25HA, IB05S, IB10S.

Existing

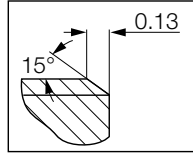


T For continuous and interrupted cut

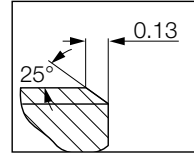
New Edge Preparation Program



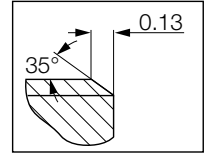
S For high surface finish



F For finishing at continuous cut

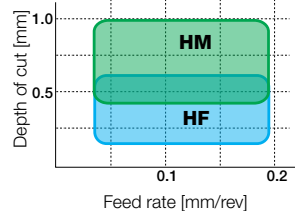
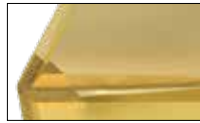


M For medium, continuous up to light interrupted cut



R For light to heavy interrupted cut-rough machining

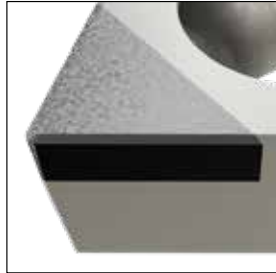
Chip Breaking Area for Hardened Steel



New Innovative Chipbreakers for Hardened Steel

CBN inserts with two types of chipbreakers: HF and HM

Existing Method



No chip control suitable for long linear cuts

New Chipbreakers

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.

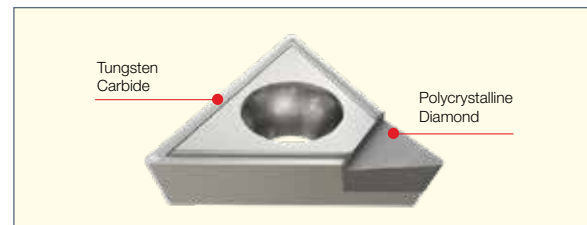


PCD Inserts

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

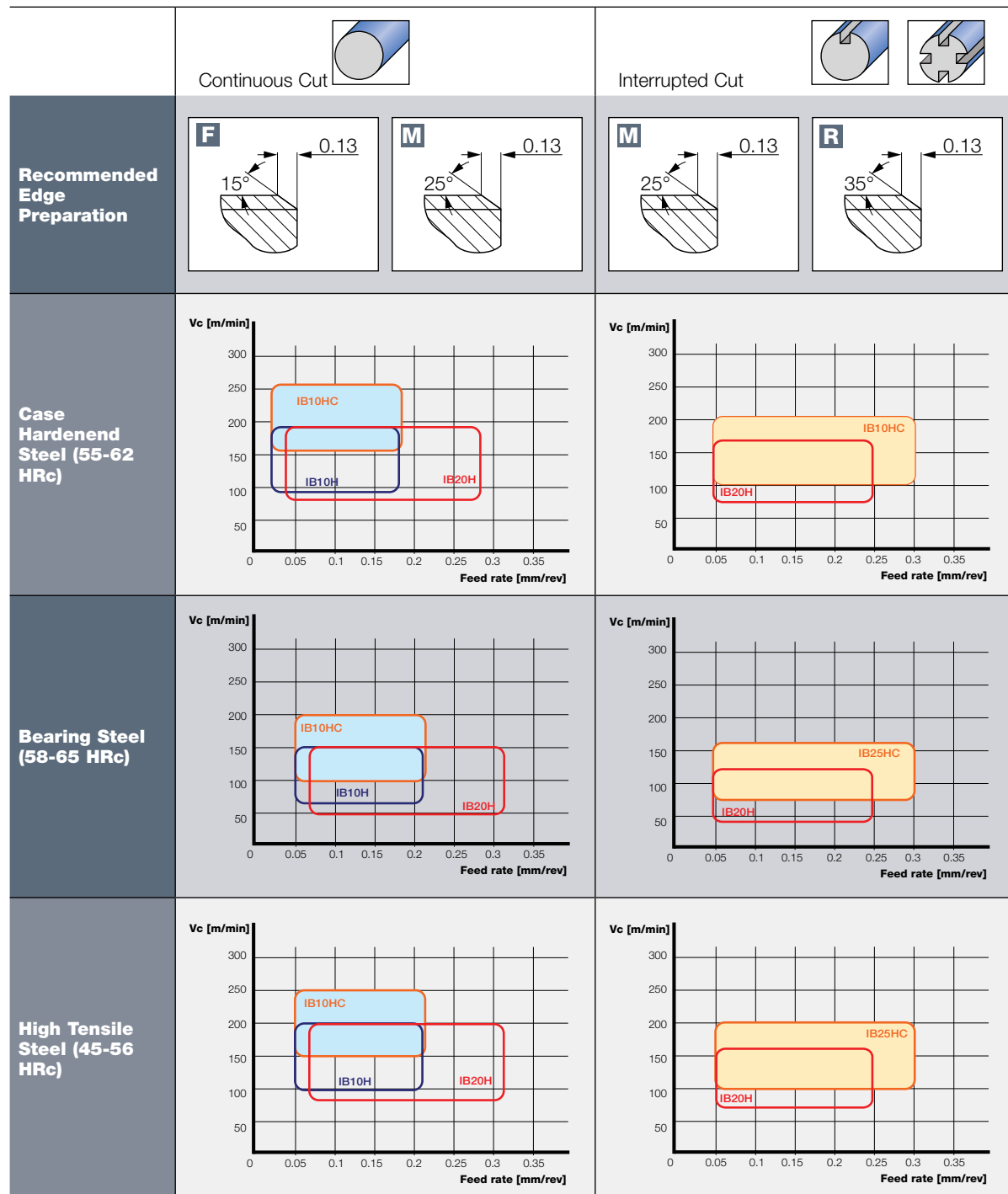
Binder	Diamond Size	Grade	Feature and Application
High Cobalt	8-9 μm	ID5	Suitable for Al alloy (Si < 12%), Cu alloy General purpose cutting of nonferrous metal

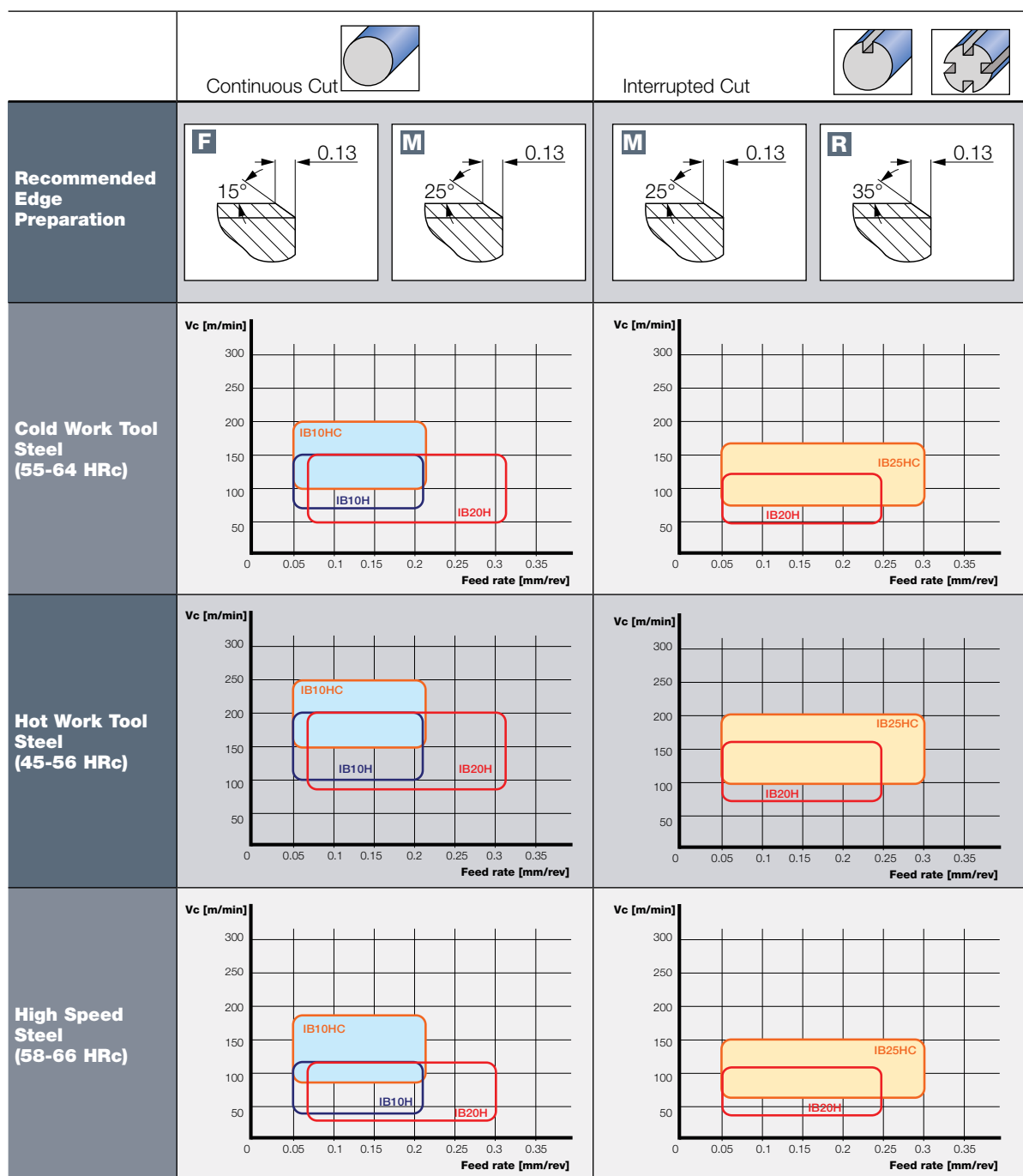
Recommended Cutting Condition Turning

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

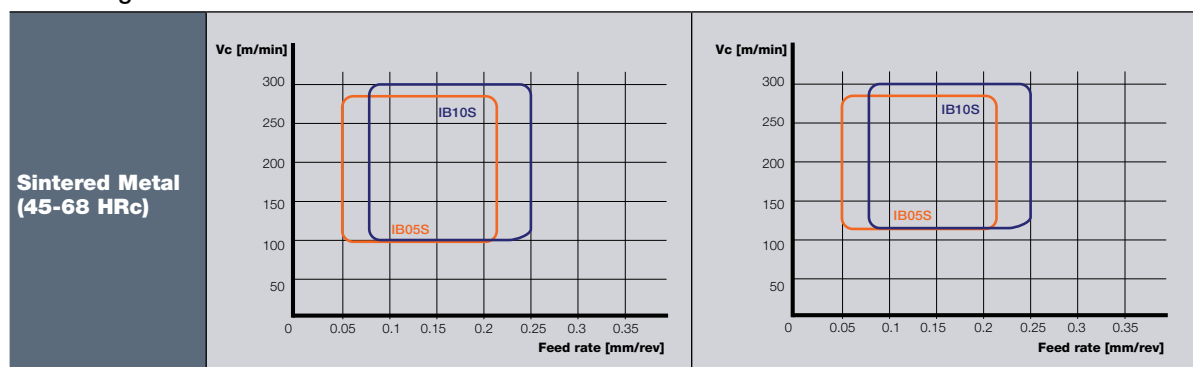
Cutting Parameters and Application Recommendations

Machining Areas of ISO-H Grades





Machining Areas of ISO-S Grades



Machining Data for Turning

ISO	Material	Condition	Tensile Strength Rm [N/mm ² =MPa]	Hardness HB	Material 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
		Quench and tempered	930	275	7
			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/mm ² =MPa]	Hardness HB	Material No.
M	Stainless steel	Austenitic	600	180	14

ISO	Material	Condition	Tensile Strength Rm [N/mm ² =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/mm ² =MPa]	Hardness HB	Material No.
N	Aluminum - wrought alloy	Not cureable		60	21
		cured		100	22
	Aluminum - cast, alloyed	<=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/mm ² =MPa]	Hardness HB	Material No.
S	High temp. alloys	Fe based Annealed		200	31
		Cured		280	32
		Annealed		250	33
	Super alloys	Ni or Co based Cured		350	34
		Cast		320	35
	Titanium		Rm 400		36
	Ti alloys	Alpha+beta alloys cured	Rm 1050		37

ISO	Material	Condition	Tensile Strength Rm [N/mm ² =MPa]	Hardness HB	Material No.
H	Hardened steel	Hardened		55 HRC	38
		Hardened		60 HRC	39
	Chilled cast iron	Cast		400	40
	Cast iron	Hardened		55 HRC	41

Cutting Speed

Cermet		Cermet+PVD		Carbide +PVD	Carbide+CVD		
IC20N	IC30N	IC520N	IC530N	IC3028/830	IC8250	IC8150	IC5005/428
250-400	230-380	250-420	230-400	120-200	230-380	280-420	300-450
220-350	200-330	220-380	200-350	100-170	200-340	240-380	260-400
180-320	160-300	180-350	160-320	80-150	170-300	200-340	220-360
210-340	190-320	210-370	190-340	90-160	190-320	220-360	240-380
160-300	140-280	160-330	140-300	80-130	160-280	180-320	200-340
180-320	160-300	180-350	160-320	80-150	170-300	200-340	220-360
170-300	150-280	170-330	150-300	70-130	160-280	200-320	220-340
160-250	140-230	160-280	140-250	60-120	140-250	190-300	210-320
150-220	130-200	150-250	130-230	50-100	120-220	180-280	200-300
180-300	160-280	180-330	160-300	80-130	170-280	200-320	220-340
150-220	130-200	150-250	130-230	50-100	120-220	180-280	200-300
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	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	

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.

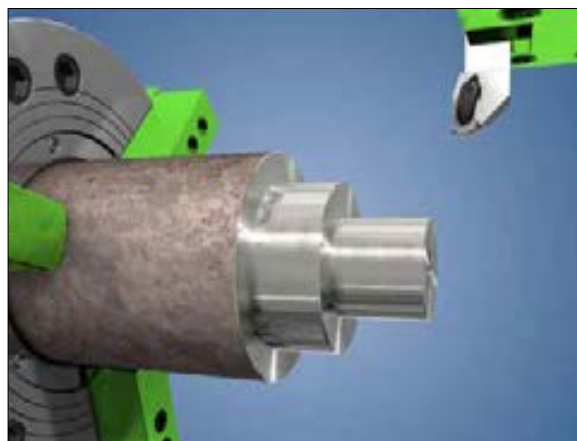
There are a few guidelines to follow to achieve the best results and high productivity when machining hard materials:

- 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.

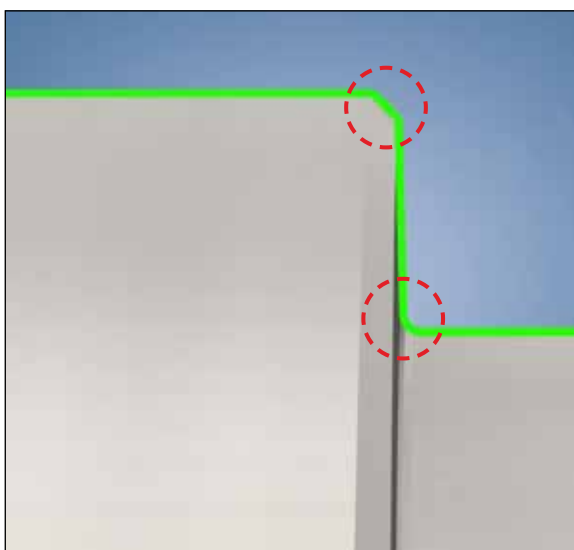
Important points when planning the "soft" machining process:

- 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.

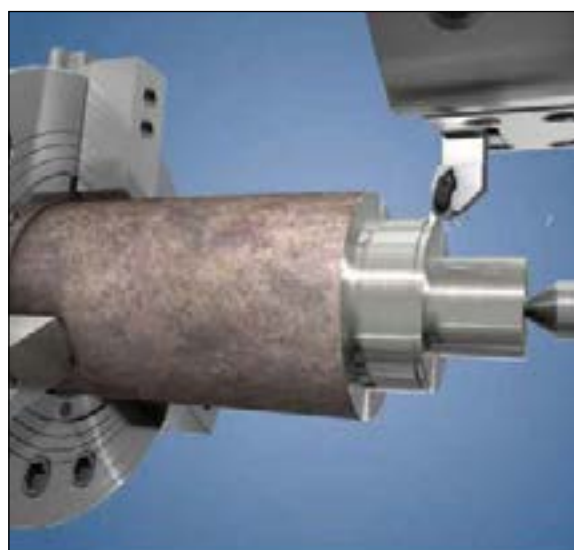


Rigid clamping of the workpiece and toolholder

- 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



Use tailstock in long parts