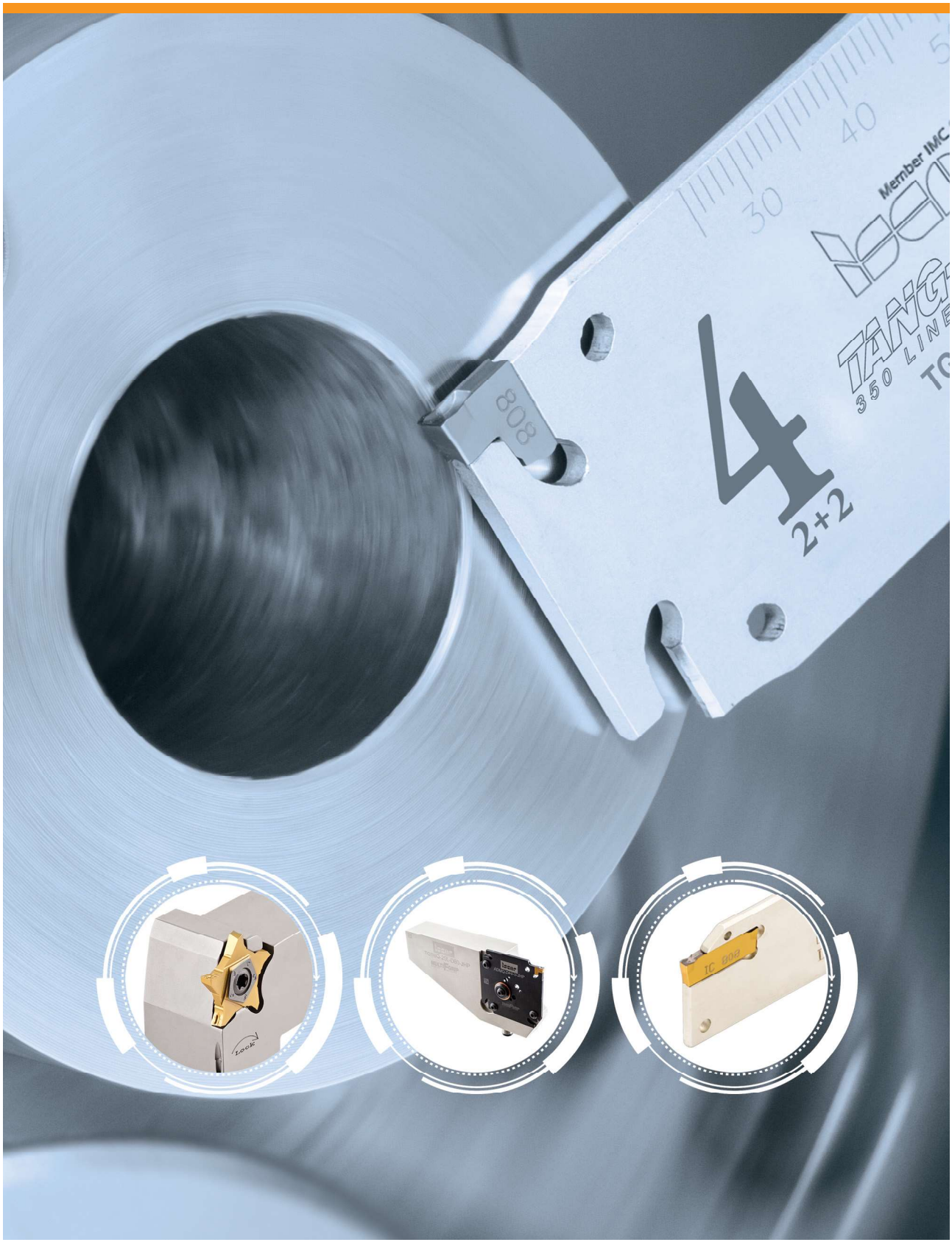
PARTING



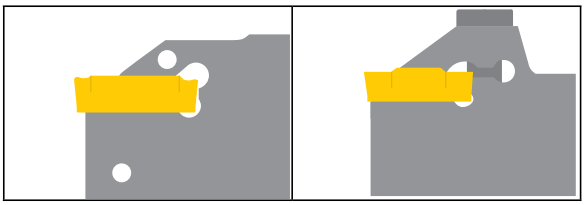
CONTENTS

Clamping Systems

DO-GRIP

- First choice for parting
- Double-ended insert
- Self-clamped for deeper grooving and parting medium to large diameters
- Screw-clamped for small diameters
- See also **HELI-GRIP**, page 259

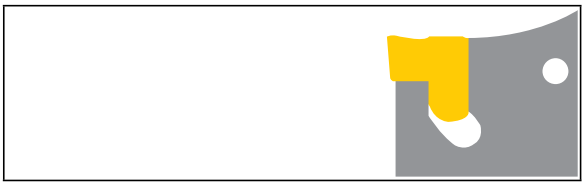
FIRST CHOICE!



Self-clamped Screw-clamped

TANG-GRIP

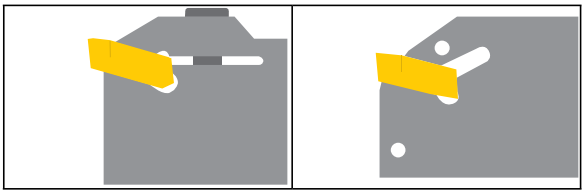
- Very rigid clamping in a tangentially oriented pocket
- Enables machining at very high feed rates and provides excellent straightness and surface finish
- Recommended for parting large diameter parts and for interrupted cuts
- Offers a free, unobstructed chip flow



TANG-GRIP

CUT-GRIP

- Single-ended insert
- Self- and screw-clamped options

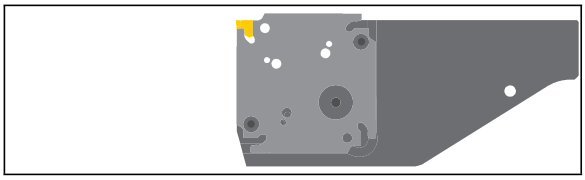


Screw-clamped Self-clamped

LOGIQ F GRIP

HIGH FEED GRIP HOLDER

- Unique adaptation for Quad /Square type adapters with 4 pockets
- Outstanding stability, vibration free parting system also on big diameters
- Improves insert life, surface finish and workpiece straightness due to robust design
- Enables reduction of cutting width due to excellent stability, leading to material savings
- **Ø120mm** bar can be cut with only 3 mm insert width
- Guarantees high productivity, especially when using **TAG N...HF** inserts with feed of up to 0.4 mm\rev.
- Economical adapters with 4 pockets
- User friendly, easy to operate
- Saves set up time after pocket replacement; adapter can be positioned with new pocket without set up
- Several adapters can be clamped on one tool block
- The tools and adapters are designed for **JET-CUT** cooling up to 140 Bar

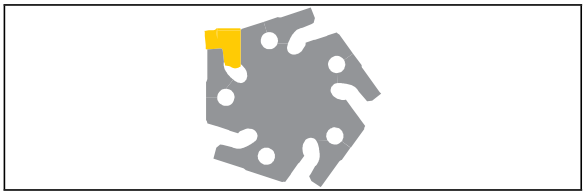


LOGIQ-F-GRIP

TANG 5 GRIP

PARTING AND GROOVING

- Economical pentagonal adapters with 5 pockets
- No setup time after pocket replacement
- Several adapters can be clamped on one holder
- The tools and adapters are designed for **JET-CUT** cooling up to 340 Bar



TANG-5-GRIP

PENTACUT

- 5 cutting edges
- Fast edge indexing
- For shallow grooving and up to 20 mm parting diameter
- **PENTA-IQ** for parting up to 40mm bar diameter

PENTACUT PENTAIQ

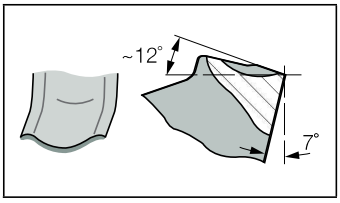
Main Chipformers

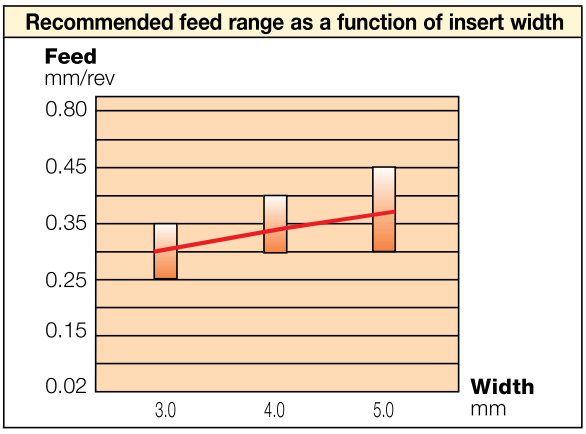
HF-Type

- For high feed machining only!
- Reinforced cutting edge (negative rake)
- Should be used with short extension tools

$$f \approx \frac{W\ insert}{12}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✗	✗	✗	✓





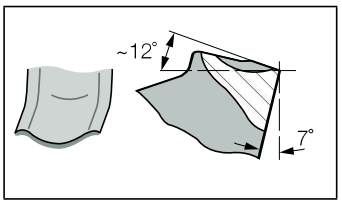
C-Type

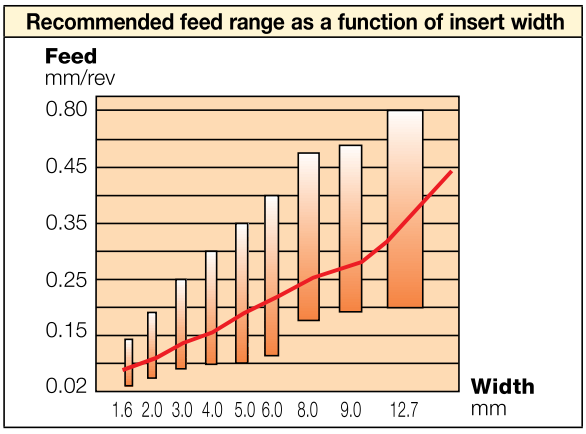
- First choice for parting of bars, hard materials and tough applications
- A positive rake, single cavity with negative land and shoulders provides extra cutting-edge strength
- Medium-to-high feed

$$f \approx \frac{W\ insert}{18}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✗	✓ (IC20 only)	✓ (IC20 only)	✓

Recommendations are for neutral inserts.
For R/L inserts, reduce feed by 20-40%.



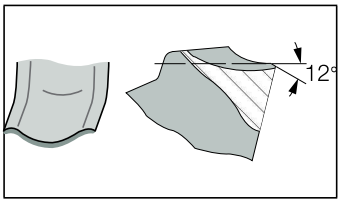


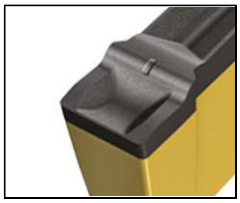
MF Type

- Parting and Grooving Insert for Soft and Hard Materials, Medium Feed

$$f \approx \frac{W\ insert}{21}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✗	✓





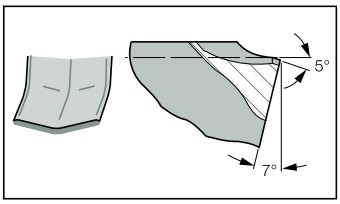
JT-Type

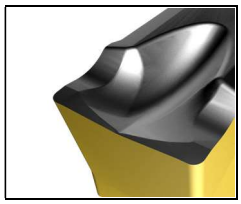
Based on the J-type chipformer with a T-land reinforced frontal cutting edge.

- Provides a solution for the intermediate range between the strong and negative C-type configuration and the positive edged J-type chipformer.
- Can be used on a wide range of materials.
- Same manner as the J-type, but it can be used at higher feeds due to its reinforced edge.

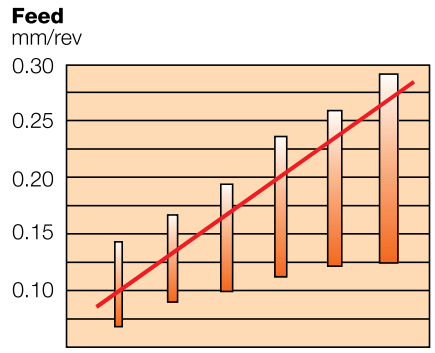
$$f \approx \frac{W\ insert}{24}\ [mm/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✗	✓





Recommended feed range as a function of insert width



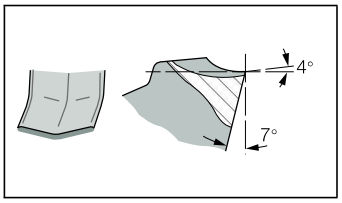
J-Type

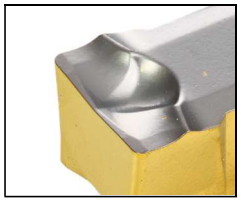
- First choice for soft materials, parting tubes, small diameters and thin-walled parts
- Cutting edge with positive rake
- Low-to-medium feed

$$f \approx \frac{W\ insert}{26}\ [mm/rev]$$

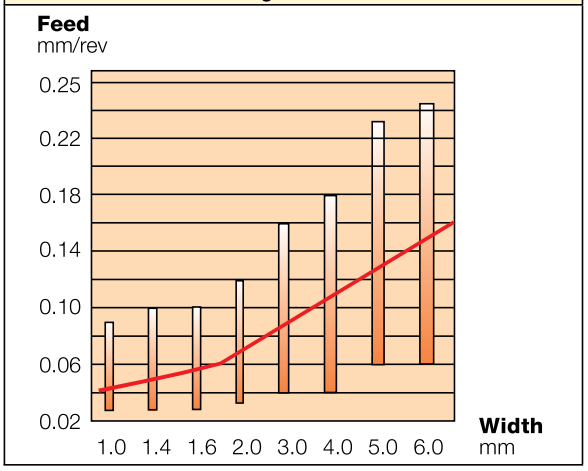
Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✓	✗

Recommendations are for neutral inserts.
For R/L inserts, reduce feed by 20-40%.





Recommended feed range as a function of insert width

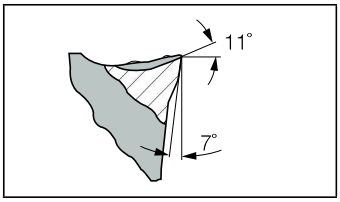


Z-Type

- Cutting edge with high positive rake, suitable for parting tubes, thin walled arts and for small diameters
- Suitable for soft materials
- Excellent for cutting bearing steel and stainless steel
- Low-to-medium feeds

$$f \approx \frac{\text{W insert}}{28} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✓	✗

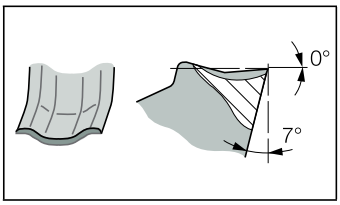


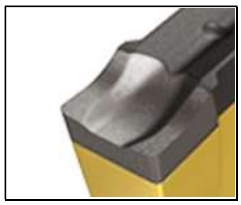
LF

- Parting and Grooving Insert for Stainless Steel & soft materials
- Miniature Parts
- Low Feeds

$$f \approx \frac{\text{W insert}}{31} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✓	✗	✗

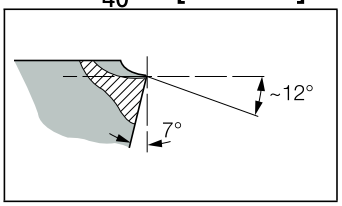




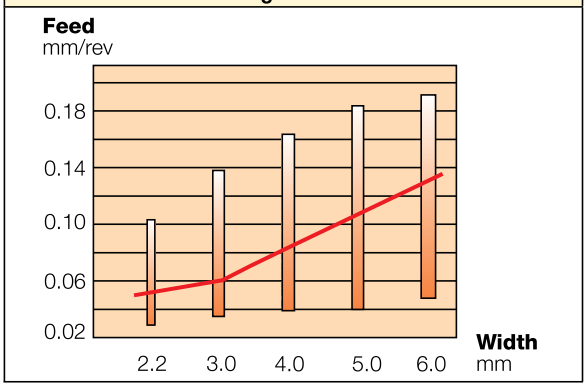
UA/UT-Type

- A chipformer for use at low feeds
- Recommended for CrNi alloys and low carbon steel, especially in the bearing industry and on similar, ductile materials
- The narrow chipformer design ensures short deformed chips and provides improved performance
- **UA** and **UT** are similar chipformers. **UT** is slightly tighter than the **UA** chipformer

$$f \approx \frac{\text{W insert}}{40} \text{ [mm/rev]}$$



Recommended feed range as a function of insert width

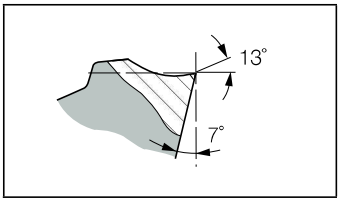


P-Type

- Very positive rake inclination and sharp cutting edge
- For soft materials, slim parts and general parting
- Low feeds

$$f \approx \frac{\text{W insert}}{55} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✓	✗	✓	✗

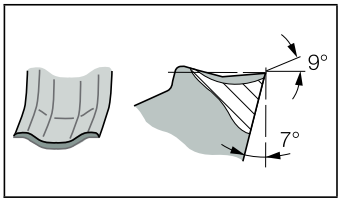


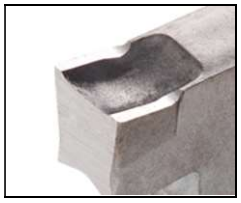
A-Type

- Positive rake, sharp edge
- For parting aluminum
- In grade **IC20**

$$f \approx \frac{\text{W insert}}{43} \text{ [mm/rev]}$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✗	✗	✗	✓	✗



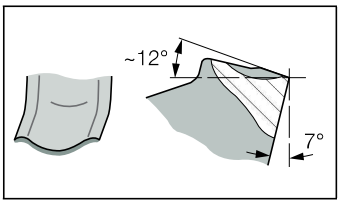


M-Type

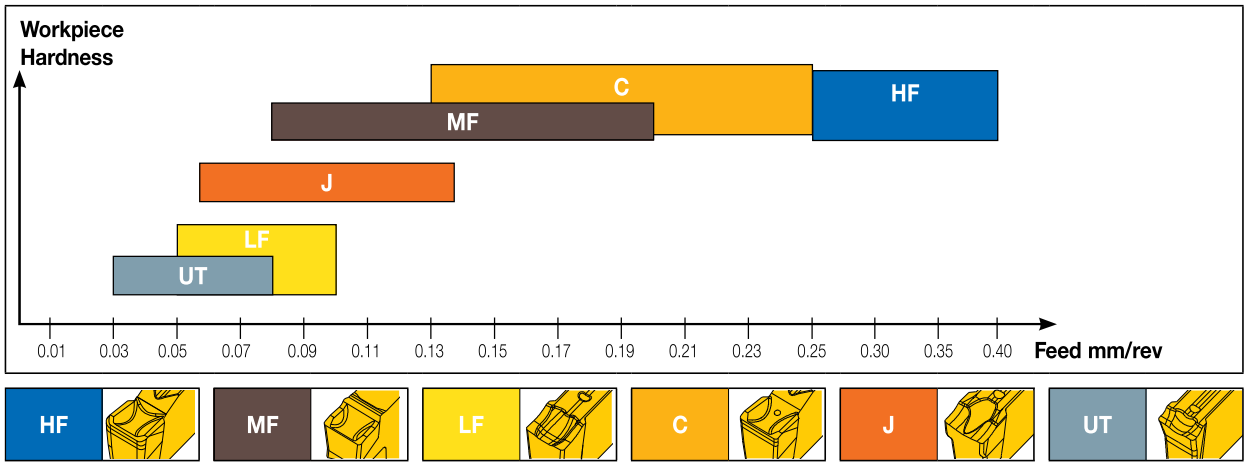
- Similar to C-type, but with modified edge (smaller K-land)
- Improved chip control at medium feed

$$f \approx \frac{\text{W insert}}{22} \text{ [mm/rev]}$$

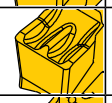
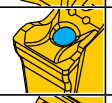
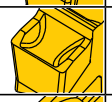
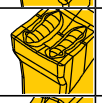
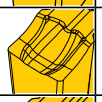
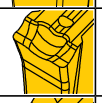
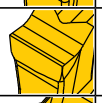
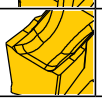
Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
✓	✗	✓	✗	✗



Main Chipformers Recommended Feed



Selection of Chipformers for Various Workpiece Materials

	Inserts		Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials	Cast Iron
		HF	✔	✘	✘	✘	✔
		C	✔	✘	✔ (IC20 only)	✔ (IC20 only)	✔
High		W	✔	✘	✘	✘	✔
		C-jet (Coolant)	✔	✔	✔	✘	✘
		MF	✔	Medium to high feed	✔	✘	✔
		JT	✔	✔	✔	✘	✔
Feed		J	✔	✔	✔	✔	✘
		Z	✔	✔	✔	✔	✘
		LFT	✔	✔	✔	✘	✘
		LF	✔	✔	✔	✘	✘
Low		UT	✔	✘	✘	✘	✘
		P	✔	✔	✘	✔	✘
		A	✘	✘	✘	✔	✘

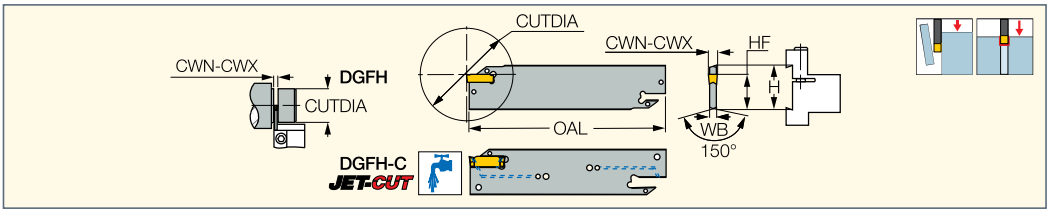
✔ First choice

DO-GRIP

DO-GRIP TWISTED 2-SIDED HELI-GRIP

DGFH

Parting and Grooving Blades with and without Coolant Channels Carrying DO-GRIP and HELI-GRIP Inserts



Designation	H	CWN[4]	CWX[5]	WB	OAL	HF	CUTDIA	Insert
DGFH 26-1.4	26.0	1.40	1.40	2.50 [7]	110.00	21.4	26.0	DG. 14..
DGFH 26-2 [1]	26.0	1.90 [6]	2.50	1.60	110.00	21.4	39.0 [8]	DG. 1.../DG. 2...
DGFH 26-3 [1]	26.0	3.00 [6]	3.18	2.40	110.00	21.4	39.0 [8]	DG. 1.../DG. 3...
DGFH 26C-3 [2]	26.0	3.00	3.18	2.40	110.00	21.4	39.0 [8]	DGNC/DGRC/DGLC 3...
DGFH 26-4	26.0	4.00	4.00	3.20	110.00	21.4	80.0	DG. 4.../GRIP 4...
DGFH 32-1.4	32.0	1.40	1.40	2.50 [7]	150.00	24.8	26.0	DG. 14
DGFH 32-2 [1]	32.0	1.90 [6]	2.50	1.80	150.00	24.8	39.0 [8]	DG. 1.../DG. 2...
DGFH 32-3 [1]	32.0	3.00 [6]	3.18	2.40	150.00	24.8	39.0 [8]	DG. 1.../DG. 3...
DGFH 32C-3 [2]	32.0	3.00	3.18	2.40	150.00	24.8	39.0 [8]	DGNC/DGRC/DGLC 3...
DGFH 32-4	32.0	4.00	4.00	3.20	150.00	24.8	100.0	DG. 4.../GRIP 4...
DGFH 32C-4 [3]	32.0	4.00	4.00	3.20	150.00	24.8	69.0	DGNC/DGRC/DGLC 4...
DGFH 32-5	32.0	5.00	5.00	4.00	150.00	24.8	120.0	DG. 5.../GRIP 5...
DGFH 32-6	32.0	6.00	6.35	5.20	150.00	24.8	120.0	DG. 6.../GRIP 6...
DGFH 45-3	45.0	3.00 [6]	3.18	2.40	225.00	38.0	160.0	DG. 1.../DG. 3...
DGFH 45-4	45.0	4.00	4.10	3.20	225.00	38.0	160.0	DG. 4.../GRIP 4...
DGFH 45-5	45.0	4.80	5.00	4.00	225.00	38.0	160.0	DG. 5.../GRIP 5...
DGFH 45-6	45.0	6.00	6.40	5.20	225.00	38.0	160.0	DG. 6.../GRIP 6...

• DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified • For user guide, see pages 540-547

[1] For CUTDIA 50 mm, use single-ended insert (should be modified by the user)

[2] Blades with frontal coolant holes (JET-CUT) • For CUTDIA 50 mm, use single-ended insert (should be modified by the user)

[3] These blades are suitable for turning, using GRIP 4 inserts • Blades with frontal coolant holes (JET-CUT)

[4] Minimum cutting width

[5] Maximum cutting width

[6] For DG. 1... insert, modify holder

[7] Thickness at the D.O.C. area is 1.0 mm

[8] Maximum diameter with double-sided inserts.

Inserts: DGN-LF/LFT • DGN-MF • DGN/DGNC/DGNM-C • DGR/L-C DGRC/LC-C • DGN/DGNM-J/JS/JT • DGR/L-J/JS • DGN-P • DGN-UT/UA • DGN-W • DGN-WP • DGN-Z • DGR-P • DGR-WP • DGR-Z/ZS • GRIP • GRIP (full radius)

Holders: C#-TBK-R/L • HSK A-WH-TBK-R/L • SGTBF • SGTBK • SGTBR/L • SGTBU/SGTBN • UBHCR/L

Spare Parts

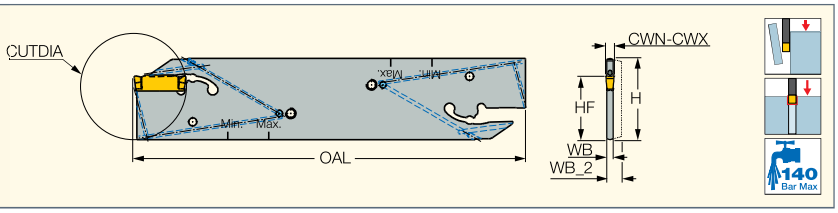
Designation						
DGFH 26-1.4	EDG 23B*					
DGFH 26-2	EDG 23A*					
DGFH 26-3	EDG 23A*					
DGFH 26C-3	EDG 23A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 26-4	EDG 23A*					
DGFH 32-1.4	EDG 23B*					
DGFH 32-2	EDG 33A*					
DGFH 32-3	EDG 33A*					
DGFH 32C-3	EDG 33A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 32-4	EDG 33A*					
DGFH 32C-4	EDG 33A*	SGC 340	SGCU 341*	CGF 343*	CF 343*	CGM 343*
DGFH 32-5	EDG 33A*					
DGFH 32-6	EDG 33A*					
DGFH 45-3	EDG 33A*					
DGFH 45-4	EDG 33A*					
DGFH 45-5	EDG 33A*					
DGFH 45-6	EDG 33A*					

* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED JETCUT

DGFH-JHP

Parting and Grooving Blades with Channels for Low and High-Pressure Coolant Carrying DO-GRIP Inserts



Designation	CWN[2]	CWX[3]	WB	WB_2	OAL	H	HF	CUTDIA	Insert			
DGFH 32-2-JHP [1]	1.90 [4]	2.50	1.80	2.5	150.00	32.0	24.8	39.0	DG. 1.../DG. 2...		SGC 340	EDG 33A-JHP*
DGFH 32-3-JHP	3.00 [4]	3.18	2.50	-	152.00	32.0	24.8	90.0	DG. 1.../DG. 3...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-4-JHP	4.00	4.00	3.20	-	152.00	32.0	24.9	90.0	DG. 4.../GRIP 4...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-5-JHP	5.00	5.00	4.00	-	152.00	32.0	24.9	90.0	DG. 5.../GRIP 5...	SR M2.0X2.5DIN916	SGC 340	EDG 33A-JHP*
DGFH 32-6-JHP [1]	6.00	6.35	5.20	-	160.00	32.0	24.9	90.0	DG. 6.../GRIP 6...		SGC 340	EDG 33A-JHP*

- For user guide and accessories, see pages 540-547

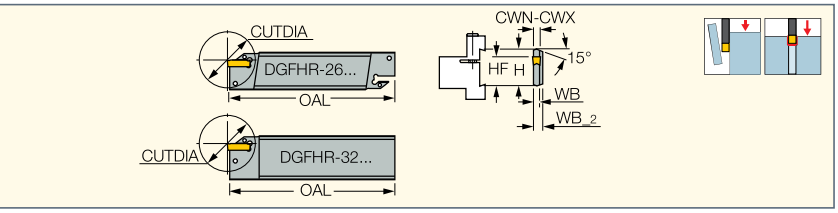
[1] Only an upper channel
[2] Minimum cutting width
[3] Maximum cutting width
[4] For DG. 1... insert, modify holder
* Optional, should be ordered separately

Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-W • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS • GRIP • GRIP (full radius)
Holders: TGTBU-JHP

DO-GRIP TWISTED 2-SIDED

DGFHR/L

Parting and Grooving Reinforced Blades Carrying DO-GRIP Inserts



Designation	H	CWN[1]	CWX[2]	WB_2	WB	OAL	HF	CUTDIA[3]	Machines	Insert	
DGFHR 26T16-2	26.0	1.90	2.50	8.0	1.70	110.00	21.4	42.0	TNS-30	DG. 1.../DG. 2..	EDG 23A*
DGFHR/L 26T23-2	26.0	1.90	2.50	8.0	1.60	110.00	21.4	42.0	TNS-30/112	DG. 1.../DG. 2..	EDG 23A*
DGFHR/L 26T16-3	26.0	3.00	3.18	8.0	2.40	110.00	21.4	30.0	TNS-30	DG. 1.../DG. 3..	EDG 23A*
DGFHR/L 26T23-3	26.0	3.00	3.18	8.0	2.40	110.00	21.4	42.0	TNS-30/42	DG. 1.../DG. 3..	EDG 23A*
DGFHR/L 32T22-2	32.0	1.90	2.50	8.0	1.60	110.00	24.8	42.0	TNS-42	DG. 1.../DG. 2..	EDG 33A*
DGFHR/L 32T33-3	32.0	3.00	3.18	8.0	2.40	110.00	24.8	60.0	TNS-42/60/65	DG. 1.../DG. 3..	EDG 33A*
DGFHR/L 32T33-4	32.0	4.00	4.00	8.0	3.40	110.00	24.8	60.0	TNS-42/60/65	DG. 4.../GRIP 4..	EDG 33A*
DGFHL 32T41-4	32.0	4.00	4.00	10.0	3.40	110.00	24.8	80.0	TNS-65/80/480	DG. 4.../GRIP 4..	EDG 33A*
DGFHR 32T41-4	32.0	4.00	4.00	8.0	3.40	110.00	24.8	80.0	TNS-65/80/480	DG. 4.../GRIP 4..	

- Insert limit is Tmax=18 mm. If deeper penetration is required, the insert should be modified into single-ended by the user.
- DG..1.0 insert can be mounted into pocket sizes 2 and 3. in which case the pocket width has to be modified - see page 480
- For user guide, see pages 540-547

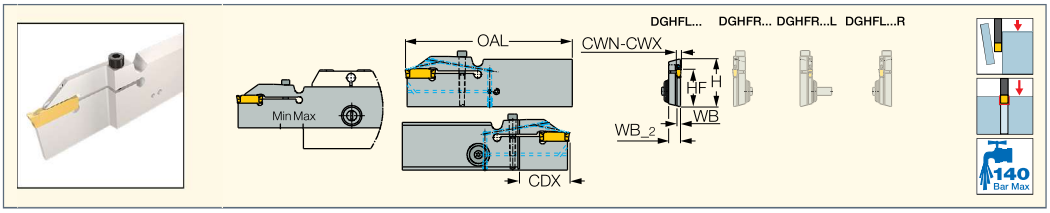
[1] Minimum cutting width • For DG: 1.0 insert - modify holder
[2] Maximum cutting width
[3] The specified limit refers to the tool
* Optional, should be ordered separately

Inserts: DGN-LF/LFT • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS
Holders: C#-TBK-R/L • HSK A-WH-TBK-R/L • SGTBF • SGTBR/L • SGTBU/SGTBN • UBHCR/L

DO-GRIP TWISTED 2-SIDED JETCUT

DGFHR/L-BC-JHP

Parting and Grooving Reinforced Blades with Channels for High-Pressure Coolant Carrying DO-GRIP Inserts



Designation	CWN(1)	CWX(2)	WB_2	WB	OAL	H	HF	CDX(3)	Insert				
DGFHR/L 32BC-3T33-JHP	3.00	3.18	7.9	2.40	111.00	32.0	24.8	33.00	DG. 3..	SR M4-21532	HW 3.0	SGC 340	SR M3X3DIN913
DGFHL 32BC-3T33R-JHP	3.00	3.18	7.9	2.40	111.00	32.0	24.8	33.00	DG. 3..	SR M4-21532	HW 3.0	SGC 340	SR M3X3DIN913
DGFHR 32BC-3T33L-JHP	3.00	3.18	7.9	2.40	111.00	32.0	24.8	33.00	DG. 3..	SR M4-21532	HW 3.0	SGC 340	SR M3X3DIN913

- For user guide and accessories, see pages 540-547

(1) Minimum cutting width • For DG: 1.0 insert - modify holder

(2) Maximum cutting width

(3) The specified limit refers to the tool

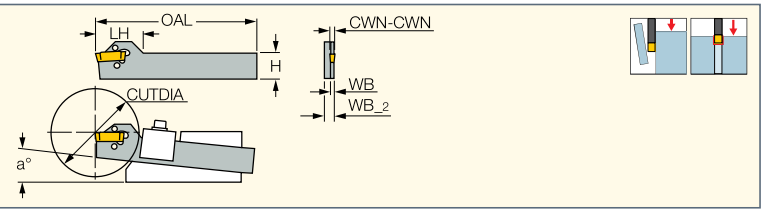
Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Holders: TGTBU-JHP

DO-GRIP TWISTED 2-SIDED

DGFS

Blades for Multi-Spindle Machines, Replacement for HSS and Brazed Tools



Designation	H	CWN(7)	CWX(8)	CUTDIA	WB	WB_2	OAL	LH	a°	
DGFS 0-12-2 (1)	12.7	1.90	2.50	32.0	1.60	3.2	110.00	32.0	0	EDG 33B*
DGFS 0-17-2 (2)	17.4	1.90	2.50	35.0	1.60	3.2	110.00	32.0	0	EDG 33B*
DGFS 0-17-3 (2)	17.4	3.00	3.18	60.0	2.40	3.2	110.00	32.0	0	EDG 33B*
DGFS 5-17-2 (3)	17.4	1.90	2.50	35.0	1.60	3.2	110.00	32.0	5	EDG 33B*
DGFS 5-17-3 (3)	17.4	3.00	3.18	60.0	2.40	3.2	110.00	32.0	5	EDG 33B*
DGFS 5-17-4 (3)	17.4	4.00	4.00	60.0	3.20	3.2	110.00	32.0	5	EDG 33B*
DGFS 5-22-2 (4)	22.2	1.90	2.50	50.0	1.60	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-22-3 (5)	22.2	3.00	3.18	75.0	2.40	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-22-4 (5)	22.2	4.00	4.00	80.0	3.20	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-24-3	23.8	3.00	3.18	80.0	2.40	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-28-2 (6)	28.5	1.90	2.50	65.0	1.60	3.2	150.00	32.0	5	EDG 33B*
DGFS 5-28-4 (6)	28.5	4.00	4.00	100.0	3.20	3.2	150.00	32.0	5	EDG 33B*

- DG..1.0 insert can be mounted into pocket sizes 2 and 3. in which case the pocket width has to be modified -see page 480
- For user guide, see pages 540-547

(1) Toolholder assembly X18-1,46,47-WT,160-CL,354-CL,701-ACL,702,702-CL,703,703-CL,704,704-CL,6921,6925

(2) Toolholder assembly E-7,47,102-CL,103-CL,161-A-CL,162-A-CL

(3) Toolholder assembly 226,226-CL,275,275-CL,276-CL,361-CL,431,630,707-A,707-A-CL

(4) Toolholder assembly 100-CL,274,277,277-CL,274-CL,370,383-CL, 6722,6754,6755,6854,6855,6922,51,51-CL,353-CL,167,370-CL

(5) Toolholder assembly 100-CL,274,277,277-CL,274-CL,370,383-CL, 6722,6754,6755,6854,6855,51,51-CL,353-CL,167,370-CL

(6) Toolholder assembly 278,278-CL,279,279-CL,280,280-CL,281,281-CL,375-CL,359-CL,372-CL,A6120,52,52-CL

(7) Minimum cutting width • For DG: 1.0 insert - modify holder

(8) Maximum cutting width

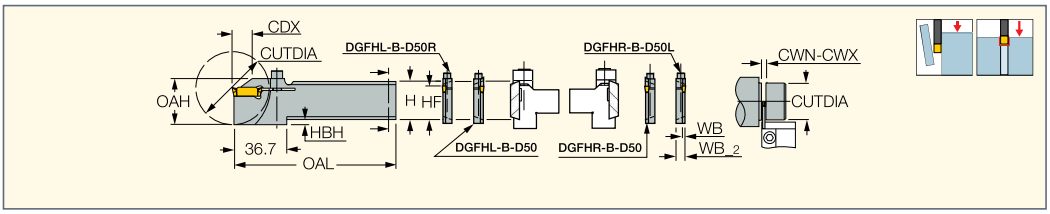
* Optional, should be ordered separately

Inserts: DGN-LF/LFT • DGN/DGNC/DGNM-C • DGR/L-C DGRC/LC-C • DGN/DGNM-J/JS/JT • DGR/L-J/JS • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGR-P • DGR-WP • DGR-Z/ZS • GRIP • GRIP (full radius)

DO-GRIP TWISTED 2-SIDED

DGFHR/L-B-D..(R/L)

Reinforced Type Blades with Screw Clamping



Designation	H[4]	CWN[5]	CWX[6]	WB	WB_2	OAL	OAH	HF	HBH	CDX[7]	CUTDIA[8]	Insert		
DGFHR/L 26B-2D50 [1]	26.0	1.90	2.50	1.60	8.0	110.00	33.7	21.4	3.6	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-2D50R [2]	26.0	1.90	2.50	1.60	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR 26B-2D50L [2]	26.0	1.90	2.50	1.60	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR/L 26B-3D50 [1]	26.0	3.00	3.18	2.40	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-3D50R [2]	26.0	3.00	3.18	2.40	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHR 26B-3D50L [2]	26.0	3.00	3.18	2.40	8.0	110.00	31.5	21.4	3.7	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHR/L 32B-2D50 [3]	32.0	1.90	2.50	1.60	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHL 32B-2D50R [2]	32.0	1.90	2.50	1.60	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR 32B-2D50L [2]	32.0	1.90	2.50	1.60	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHR/L 32B-3D50 [3]	32.0	3.00	3.18	2.40	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHL 32B-3D50R [2]	32.0	3.00	3.18	2.40	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHR 32B-3D50L [2]	32.0	3.00	3.18	2.40	8.0	120.00	31.5	24.8	-	18.00	50.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0

- Insert (double sided) limit is CDX=18 mm, If deeper penetration is required the insert should be changed to a single-ended insert DGNM type.
- DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified-see page 480
- For user guide, see pages 540-547

[1] For Traub machines, model TNC 30, TNM 28, TNS 26/30/42/112, TNA 300, TNK 260
[2] For Tornos Bechler, Emco 2000/20, 2000/26 machines
[3] For TRAUB machines, model TNC 42/65, TNM 42/65, TNS 42/60/65, TNA 300/400
[4] Mounted on all ISCAR standard blocks
[5] Minimum cutting width • For DG: 1.0 insert - modify holder
[6] Maximum cutting width
[7] Cutting depth maximum
[8] The specified limit refers to the tool

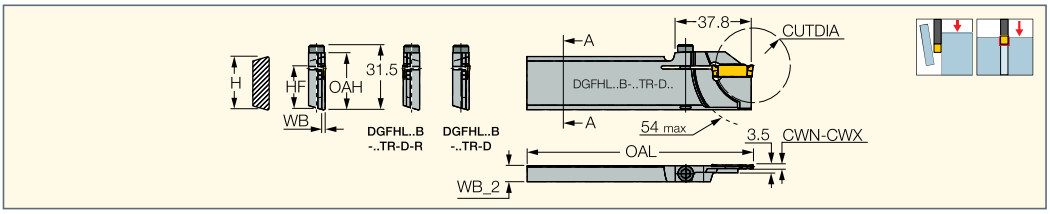
Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Holders: C#-TBK-R/L • HSK A-WH-TBK-R/L • SGTBF • SGTBR/L • SGTBU/SGTBN • UBHCR/L

DO-GRIP TWISTED 2-SIDED

DGFHL-26B-TR-D

Reinforced Type Blades with Screw Clamping for TRAUB and Index Machines



Designation	H[2]	CWN[3]	CWX[4]	WB	WB_2	OAL	OAH	HF	CUTDIA[5]	Insert		
DGFHL 26B-1.5TR-D20 [1]	26.0	1.00	1.50	1.20	7.9	110.00	27.9	21.4	20.0	DG. 1.../DG. 15..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-2TR-D36	26.0	1.90 [6]	2.50	1.60	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 2..	SR M5X20-01172	HW 3.0
DGFHL 26B-2TR-D36R	26.0	1.90 [6]	2.50	1.60	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 2..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-3TR-D36	26.0	3.00 [6]	3.18	2.40	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 3..	SR M4X20 DIN912	HW 3.0
DGFHL 26B-3TR-D36R	26.0	3.00 [6]	3.18	2.40	7.9	110.00	27.9	21.4	36.0	DG. 1.../DG. 3..	SR M5X20-01172	HW 3.0

- Insert limit is Tmax=18 mm. If deeper penetration is required, the insert should be modified into single-ended by the user
- DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified - see page 480
- For user guide, see pages 540-547

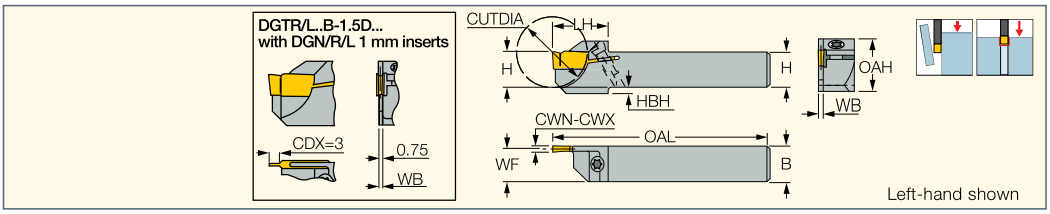
[1] Do not use DG.. 1.4 on this tool!
[2] Mounted on all ISCAR standard blocks
[3] Minimum cutting width
[4] Maximum cutting width
[5] The specified limit refers to the tool
[6] For DG: 1.0 insert - modify holder

Inserts: DGN-LF/LFT • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

DO-GRIP TWISTED 2-SIDED

DGTR/L-B-D-SH

Parting and Grooving Short Head Tools for CNC and Swiss Automatics



Designation	CWN[2]	CWX[3]	H	B	WB	WF	LH	CUTDIA	OAH	HBH	OAL	Insert		
DGTR/L 8B-1.4SH	1.40	1.40	8.0	8.0	1.00	7.50	18.0	10.0	15.4	2.0	125.00	DG. 14..	SR 16-236 P[a]	T-15/5
DGTR/L 10B-1.4D20SH	1.40	1.40	10.0	10.0	1.00	9.50	18.0	20.0	13.7	2.0	120.00	DG. 14..	SR 16-236 P[a]	T-15/5
DGTR/L 10B-1.5D20SH [1]	1.00	1.50	10.0	10.0	1.00	9.50	19.0	20.0	15.7	2.0	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 10B-2D20SH	1.90	2.50	10.0	10.0	1.60	9.20	19.0	20.0	15.7	2.0	120.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-1.4D24SH	1.40	1.40	12.0	12.0	1.00	11.50	19.0	24.0	15.7	-	120.00	DG. 14..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-1.5D24SH [1]	1.00	1.50	12.0	12.0	1.00	11.40	19.0	24.0	15.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-2D24SH	1.90	2.50	12.0	12.0	1.60	11.20	19.0	24.0	15.7	-	120.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR 12B-2D24SH-L85	1.90	2.50	12.0	12.0	1.60	11.20	19.0	24.0	15.7	-	85.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR/L 12B-3D24SH	3.00	3.18	12.0	12.0	2.40	10.80	19.0	24.0	15.7	-	120.00	DG. 3.../DG. 10..	SR 16-236 P[a]	T-15/5
DGTR/L 16B-1.5D25SH [1]	1.00	1.50	16.0	16.0	1.20	15.40	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 16B-2D25SH	1.90	2.50	16.0	16.0	1.60	15.20	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 2..	SR 16-236 P[a]	T-15/5
DGTR/L 16B-3D25SH	3.00	3.18	16.0	16.0	2.40	14.80	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 3..	SR 16-236 P[a]	T-15/5
DGTR/L 20B-1.5D25SH [1]	1.00	1.50	20.0	20.0	1.20	19.40	19.5	25.4	23.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P[a]	T-15/5
DGTR/L 20B-3D25SH	3.00	3.18	20.0	20.0	2.40	18.80	19.5	25.4	23.7	-	120.00	DG. 1.../DG. 3..	SR 16-236 P[a]	T-15/5

- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3. For insert depth capacity table and modification instructions

For the 2 and 3 holder pockets, see page 480 • For user guide, see pages 540-547

[1] Do not use DG.. 1.4 on this tool!

[2] Minimum cutting width

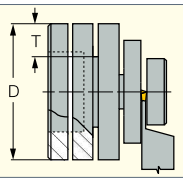
[3] Maximum cutting width

[a] Recommended tightening torque for this item: 3 N*m (26.5 lbf*in)

Inserts: DGN-LF/LFT • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Depth Capacity DGTR/L-B-D

Depth of Cut as Function of Workpiece Diameter (DGN/R/L-100... excluded)



Designation	øDmax																
DGTR/L 10B-1.4D20	—	—	—	—	—	—	—	—	—	20	23	26	32	45	76	NL	
DGTR/L 12B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 20B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 10B-2D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 12B-2D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-2D32	—	—	—	—	32	35	37	41	47	55	69	93	150	400	NL	NL	NL
DGTR/L 20B-2D35	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-2D35	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 12B-3D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-3D35	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 20B-3D40	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-3D40	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
Depth T →	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

NL- No Limit

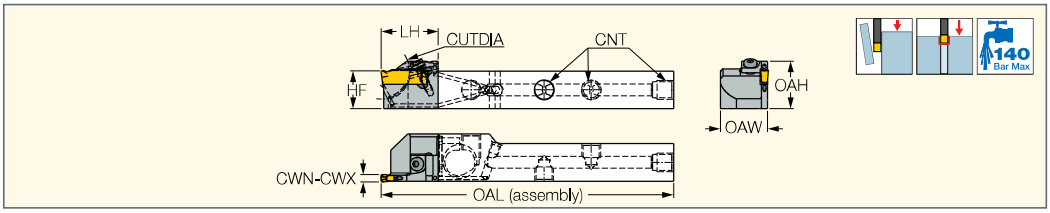
Example:

For 9 mm depth of groove on a 75 mm workpiece diameter, six tools may be used.

NEOSWISS INDEXABLE HEADS DO-GRIP TWISTED 2-SIDED

NQCH-DGTR/L-D-SH-JHP

Screw Lock JETCUT Modular Heads for Swiss Type Machines - Double-Sided Parting Inserts



Designation	CWN(1)	CWX(2)	HF	OAW	OAH	LH	OAL	CUTDIA	Insert		
NQCH12-DGTL-2D24SH-JHP	1.90	2.50	12.1	20.00	16.20	24.0	124.00	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH12-DGTR-2D24SH-JHP	1.90	2.50	12.1	20.00	16.20	24.2	124.20	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH16-DGTL-2D24SH-JHP	1.90	2.50	16.1	20.00	20.20	24.0	124.00	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH16-DGTR-2D24SH-JHP	1.90	2.50	16.1	20.00	20.20	24.2	124.20	24.0	DGN 2	SR M3X10DIN912	HW 2.5
NQCH12-DGTL-3D24SH-JHP	3.00	3.18	12.1	20.00	16.20	24.0	124.00	24.0	DGN 3	SR M3X10DIN912	HW 2.5
NQCH12-DGTR-3D24SH-JHP	3.00	3.18	12.1	20.00	16.20	24.2	124.20	24.0	DGN 3	SR M3X10DIN912	HW 2.5
NQCH16-DGTL-3D24SH-JHP	3.00	3.18	16.1	20.00	20.20	24.0	124.00	24.0	DGN 3	SR M3X10DIN912	HW 2.5
NQCH16-DGTR-3D24SH-JHP	3.00	3.18	16.1	20.00	20.20	24.2	124.20	24.0	DGN 3	SR M3X10DIN912	HW 2.5

(1) Minimum cutting width

(2) Maximum cutting width

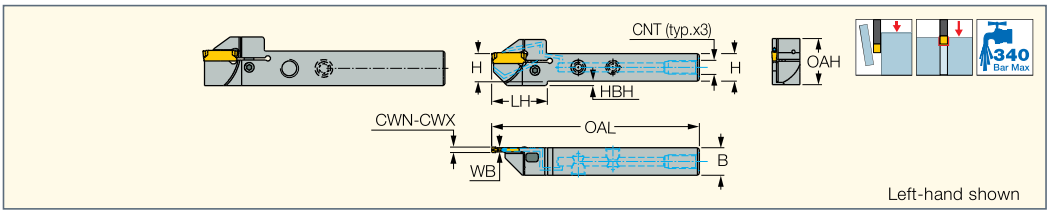
Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-W • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Holders: NQCH-JHP

DO-GRIP TWISTED 2-SIDED JETCUT

DGTR/L-B-D-JHP-SL

Parting and Grooving Side Lock Type Tools with High-Pressure Coolant for CNC and Swiss Automatics



Designation	CWN(1)	CWX(2)	H	B	WB	LH	CUTDIA(3)	OAH	HBH	OAL	Insert	CNT
DGTR/L 12B-2D24-JHP-SL	1.90	2.50	12.0	12.0	1.70	29.4	24.0	25.7	6.5	100.00	DG. 2...	5/16"-24 UNF
DGTR/L 16B-2D35-JHP-SL	1.90	2.50	16.0	16.0	1.70	32.0	35.0	26.7	2.6	120.00	DG. 2...	5/16"-24 UNF
DGTL 20B-2D35-JHP-SL	1.90	2.50	20.0	20.0	1.70	32.0	35.0	28.1	-	140.00	DG. 2...	1/8"-28 BSPP
DGTR 20B-2D35-JHP-SL	1.90	2.50	20.0	20.0	1.70	32.0	35.0	28.1	-	140.00	DG. 2..	1/8"-28 BSPP
DGTR/L 12B-3D24-JHP-SL	3.00	3.18	12.0	12.0	2.40	29.4	24.0	25.7	6.5	100.00	DG. 3..	5/16"-24 UNF
DGTR/L 16B-3D35-JHP-SL	3.00	3.18	16.0	16.0	2.40	32.0	35.0	26.7	2.6	120.00	DG. 3..	5/16"-24 UNF
DGTR/L 20B-3D40-JHP-SL	3.00	3.18	20.0	20.0	2.40	35.6	40.0	28.1	-	140.00	DG. 3..	1/8"-28 BSPP
DGTR/L 25B-2D35-JHP-SL	1.90	2.50	25.0	25.0	1.70	32.1	35.0	33.1	-	140.00	DG. 2..	1/8"-28 BSPP
DGTR/L 25B-3D40-JHP-SL	3.00	3.18	25.0	25.0	2.40	35.6	40.0	33.1	-	140.00	DG. 3..	1/8"-28 BSPP
DGTR 25B-4D40-JHP-SL	4.00	4.76	25.0	25.0	3.40	34.6	40.0	33.0	-	140.00	DG..4..	1/8"-28 BSPP

• For insert depth capacity table and modification instructions for the holder pockets, see page 480 • For user guide, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

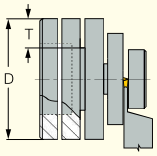
(3) Maximum cutting diameter

Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Depth Capacity

DGTR/L-B-D-JHP-SL

Depth of Cut as Function of Workpiece Diameter (DGN/R/L-100... excluded)



Designation	øDmax																
DGTR/L 12B-2D24-JHP-SL	—	—	—	—	—	—	—	—	24	26	27	28	30	32	36	42	52
DGTR/L 16B-2D35-JHP-SL	—	—	—	—	—	—	—	—	24	26	27	28	30	32	36	42	52
DGTR/L 20B-2D35-JHP-SL	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 25B-2D35-JHP-SL	—	—	—	65	70	75	80	90	100	120	140	180	250	410	1200	NL	NL
DGTR/L 12B-3D24-JHP-SL	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 16B-3D35-JHP-SL	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 20B-3D40-JHP-SL	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-3D40-JHP-SL	50	55	60	67	75	85	100	115	140	200	350	NL	NL	NL	NL	NL	NL
Depth T →	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

NL - No Limit

Example:

For a 9 mm depth of groove on a 75 mm workpiece diameter, six tools may be used.

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
DGTR/L ...2-JHP-SL	3-4	4-5	5-6
DGTR/L ...3-JHP-SL	5-6	6-7	7-8

Spare Parts

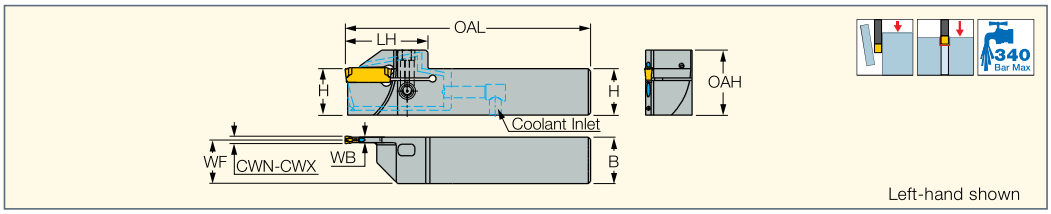
Designation							
DGTR/L 12B-2D24-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 20B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTL 12B-3D24-JHP-SL	PIN-32121	SR M5-24145	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR 12B-3D24-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-3D35-JHP-SL	PIN-32121	SR M5-24145-RL		SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 20B-3D40-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTL 25B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360		HW 5.0	
DGTR 25B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTL 25B-3D40-JHP-SL					BLD HW2.5		SW6-SD
DGTR/L 25B-3D40-JHP-SL	PIN-32121	SR M5-24145-RL		PLG G1/8 TL360		HW 5.0	
DGTR 25B-3D40-JHP-SL					BLD HW2.5*		SW6-SD*

* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED JETCUT

DGTR/L-B-D-JHP-SL-MC

Parting and Grooving Side Lock Type Tools with Bottom Inlets for High-Pressure Coolant



Designation	CWN(1)	CWX(2)	H	B	WB	WF	LH	CUTDIA(3)	OAH	OAL	Insert
DGTR/L 20B-2D35-JHP-SL-MC	1.90	2.50	20.0	20.0	1.70	19.15	32.1	35.0	28.10	102.10	DG. 2...
DGTR/L 20B-3D40-JHP-SL-MC	3.00	3.18	20.0	20.0	2.40	18.80	35.6	40.0	28.10	105.60	DG. 3...
DGTR/L 25B-2D35-JHP-SL-MC	1.90	2.50	25.0	25.0	1.70	24.15	32.1	35.0	33.10	117.10	DG. 2...
DGTR/L 25B-3D40-JHP-SL-MC	3.00	3.18	25.0	25.0	2.40	23.80	35.6	40.0	33.10	120.60	DG. 3...

- For insert depth capacity table and modification instructions for the holder pockets, see page 480
- For user guide, see pages 540-547

(1) Minimum cutting width

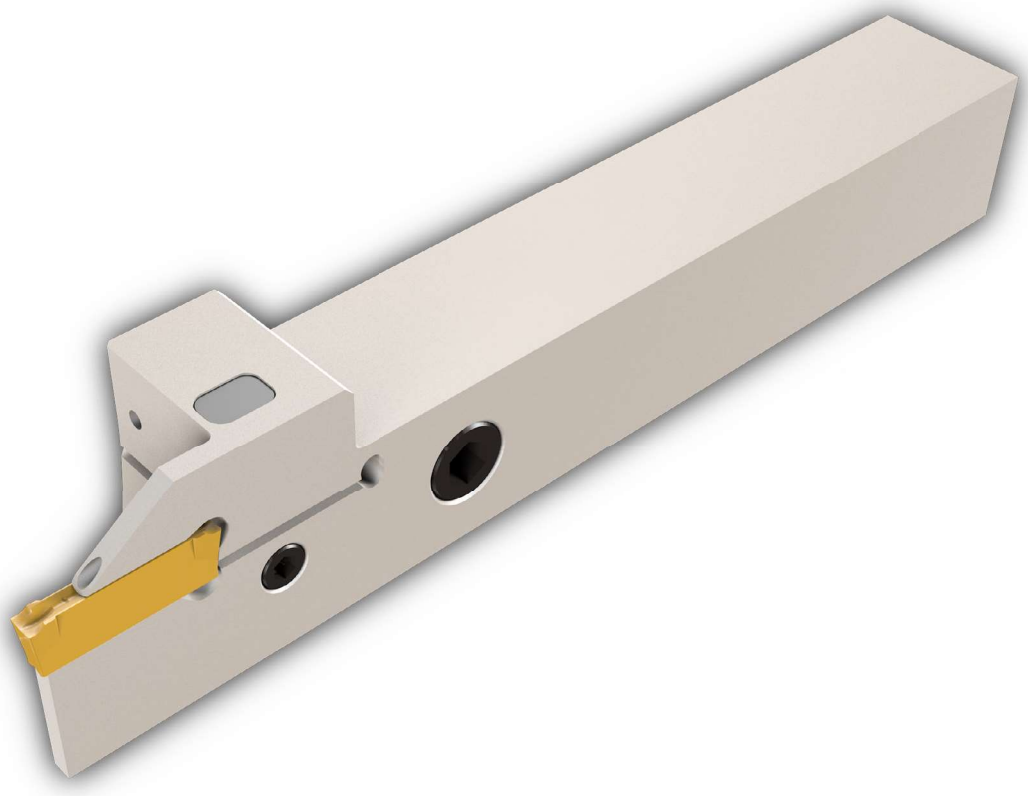
(2) Maximum cutting width

(3) Maximum cutting diameter

Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Spare Parts

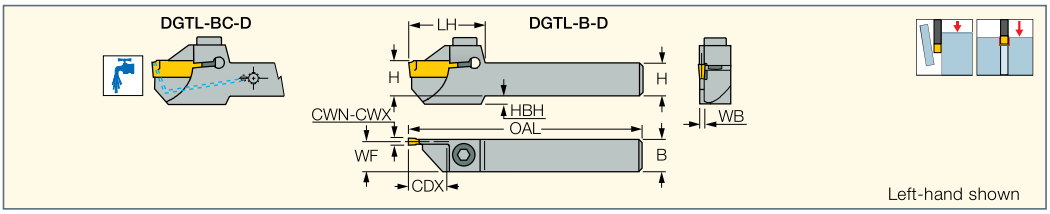
Designation							
DGTR/L-B-D-JHP-SL-MC	SR M5-24145-RL	SR M8X10 DIN913	PIN-32121	SW6-SD	BLD HW2.5	SR M3X3DIN913	SR M2.5X2.5 DIN913



DO-GRIP TWISTED 2-SIDED JETCUT

DGTR/L-B/BC-D

Integral Shank Reinforced Parting and Grooving Tools Especially for DGNC Type of Inserts



Designation	CWN[3]	CWX[4]	H	B	WB	OAL	LH	CDX[5]	WF	HBH	CSP[6]	Insert
DGTR/L 10B-1.4D20	1.40	1.40	10.0	10.0	1.00	140.00	23.6	10.00	9.50	2.0	0	DG. 14..
DGTR/L 12B-1.4D30	1.40	1.40	12.0	12.0	1.00	140.00	29.6	15.00	11.50	3.5	0	DG. 14..
DGTR/L 16B-1.4D30	1.40	1.40	16.0	16.0	1.00	140.00	29.6	15.00	15.50	-	0	DG. 14..
DGTR/L 20B-1.4D30	1.40	1.40	20.0	20.0	1.00	140.00	29.6	15.00	19.50	-	0	DG. 14..
DGTR/L 10B-2D30	1.90	2.50	10.0	10.0	1.60	140.00	29.6	15.00	9.20	6.6	0	DG. 1.../DG. 2..
DGTR/L 12B-2D30	1.90	2.50	12.0	12.0	1.60	140.00	29.6	15.00	11.20	3.5	0	DG. 1.../DG. 2..
DGTR/L 16B-2D32	1.90	2.50	16.0	16.0	1.60	140.00	30.6	16.00	15.20	-	0	DG. 1.../DG. 2..
DGTR/L 20B-2D35	1.90	2.50	20.0	20.0	1.60	140.00	32.1	17.50	19.20	-	0	DG. 1.../DG. 2..
DGTR/L 25B-2D35	1.90	2.50	25.0	25.0	1.60	140.00	32.1	17.50	24.20	-	0	DG. 1.../DG. 2..
DGTR/L 12B-3D30	3.00	3.18	12.0	12.0	2.40	140.00	29.6	15.00	10.80	3.5	0	DG. 1.../DG. 3..
DGTR/L 16B-3D35	3.00	3.18	16.0	16.0	2.40	140.00	32.1	16.00	14.80	2.6	0	DG. 1.../DG. 3..
DGTR/L 16BC-3D35 [1]	3.00	3.18	16.0	16.0	2.40	140.00	31.1	16.00	14.80	2.6	1	DGNC/DGRC/DGLC 3...
DGTR/L 20B-3D40 [2]	3.00	3.18	20.0	20.0	2.40	140.00	35.6	20.00	18.80	-	0	DG. 1.../DG. 3..
DGTR/L 20BC-3D40 [1]	3.00	3.18	20.0	20.0	2.40	140.00	34.6	20.00	18.80	-	1	DGNC/DGRC/DGLC 3...
DGTR/L 25B-3D40 [2]	3.00	3.18	25.0	25.0	2.40	140.00	35.6	20.00	23.80	-	0	DG. 1.../DG. 3..

- Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width tools
- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3.
- For insert depth capacity table and modification instructions for the 2 and 3 holder pockets, see page 480
- For user guide, see pages 540-547

[1] Tools for inserts with coolant holes for high temperature alloys and stainless steel

[2] Insert's Tmax=18 mm, for deeper penetration modify insert into single-ended

[3] Minimum cutting width

[4] Maximum cutting width

[5] The specified limit refers to the tool

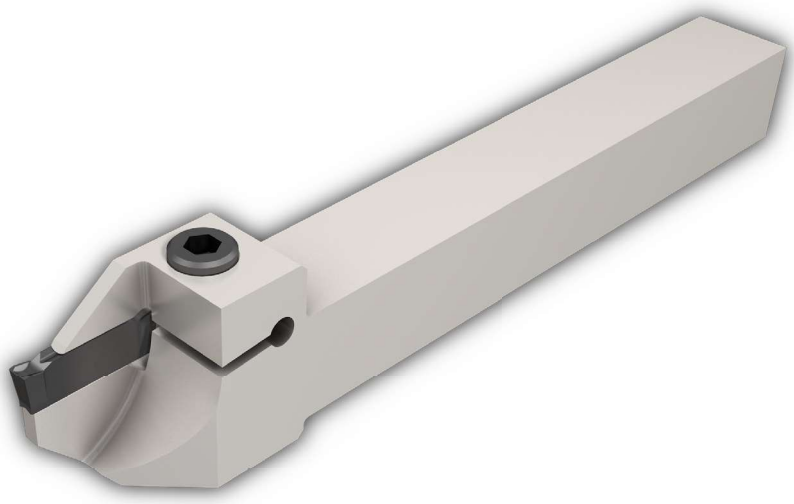
[6] 0 - Without coolant supply, 1 - With coolant supply

Inserts: DGN-LF/LFT • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Spare Parts

Designation						
DGTR/L 10B-1.4D20	SR M5X12 DIN912	HW 4.0				
DGTR/L 12B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 20B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 10B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 12B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-2D32	SR M4X14 DIN912	HW 3.0				
DGTR/L 20B-2D35	SR M4X14 DIN912	HW 3.0				
DGTL 25B-2D35	SR M5X12 DIN912	HW 4.0				
DGTR 25B-2D35	SR M4X14 DIN912	HW 3.0				
DGTR/L 12B-3D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-3D35	SR M5X12 DIN912	HW 4.0				
DGTR/L 16BC-3D35	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*
DGTR/L 20B-3D40	SR M5X12 DIN912	HW 4.0				
DGTR/L 20BC-3D40	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*
DGTR/L 25B-3D40	SR M5X12 DIN912	HW 4.0				

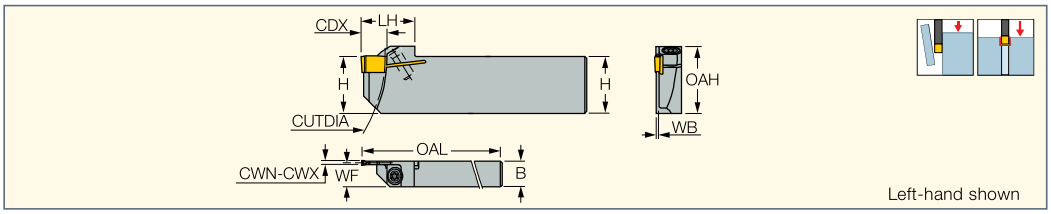
* Optional, should be ordered separately



DO-GRIP TWISTED 2-SIDED

DGTR/L-B-T-SH

Reinforced Parting and Grooving Short Head Tools Carrying DGN Double-Ended Inserts



Designation	CWN(1)	CWX(2)	H	B	WB	WF	OAL	LH	CUTDIA	CDX(3)	OAH		
DGTR/L 2009B-1.5T9SH	1.00	1.50	20.0	9.0	1.20	8.40	100.00	19.0	95.0	9.00	23.7	SR 16-236 P	T-15/5

- Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width
- For user guide, see pages 540-547

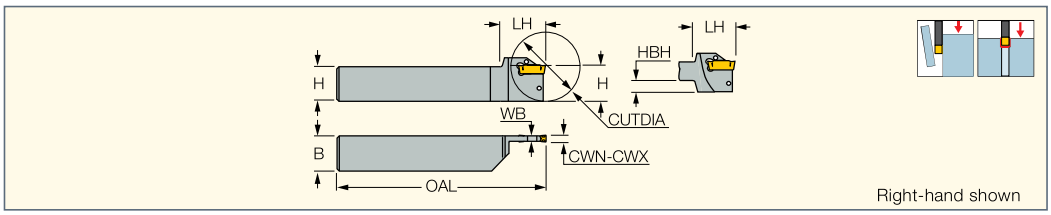
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

Inserts: DGN-P • DGN/DGNM-J/JS/JT • DGR-P • DGR/L-J/JS

DO-GRIP TWISTED 2-SIDED

DGTR/L

Integral Shank Parting and Grooving Tools



Designation	CWN(1)	CWX(2)	H	B	WB	OAL	LH	HBH	CUTDIA	Insert	
DGTR/L 1010-2	1.90	2.50	10.0	10.0	1.80	150.00	29.0	6.6	35.0	DG. 1.../DG. 2..	EDG 33B*
DGTR/L 1212-2	1.90	2.50	12.0	12.0	1.80	150.00	29.0	6.6	35.0	DG. 1.../DG. 2..	EDG 33B*
DGTR/L 1616-2	1.90	2.50	16.0	16.0	1.80	150.00	29.0	2.6	35.0	DG. 1.../DG. 2..	EDG 33B*
DGTR/L 2012-2	1.90	2.50	20.0	12.0	1.80	125.00	29.0	-	35.0	DG. 1.../DG. 2..	EDG 33A*
DGTR/L 1212-3	3.00	3.18	12.0	12.0	2.50	150.00	29.0	6.6	35.0 (3)	DG. 1.../DG. 3..	EDG 33B*
DGTR/L 1616-3	3.00	3.18	16.0	16.0	2.50	150.00	29.0	6.6	35.0 (4)	DG. 1.../DG. 3..	EDG 33B*
DGTR/L 2012-3	3.00	3.18	20.0	12.0	2.50	125.00	29.0	-	35.0 (3)	DG. 1.../DG. 3..	EDG 33A*
DGTR/L 2020-3	3.00	3.18	20.0	20.0	2.50	125.00	29.0	-	35.0 (3)	DG. 1.../DG. 3..	EDG 33A*
DGTR/L 2525-3	3.00	3.18	25.0	25.0	2.50	150.00	29.0	-	35.0 (3)	DG. 1.../DG. 3..	EDG 33A*
DGTR/L 2020-4	4.00	4.76	20.0	20.0	3.40	125.00	31.0	-	51.0	DG. 4.../GRIP 4..	EDG 33A*
DGTR/L 2525-4	4.00	4.76	25.0	25.0	3.40	150.00	31.0	-	51.0	DG. 4.../GRIP 4..	EDG 33A*
DGTR/L 2020-5	4.80	5.00	20.0	20.0	4.00	125.00	33.0	-	59.0	DG. 5.../GRIP 5..	EDG 33A*
DGTR/L 2525-5	4.80	5.00	25.0	25.0	4.00	150.00	33.0	-	76.0	DG. 5.../GRIP 5..	EDG 33A*
DGTR/L 2525-6	6.00	6.35	25.0	25.0	5.30	150.00	33.0	-	76.0	DG. 6.../GRIP 6..	EDG 33A*

- Insert limit is Tmax=18 mm. If deeper penetration is required, the insert should be modified into single-ended by the user
- DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified - see page 480
- For user guide, see pages 540-547

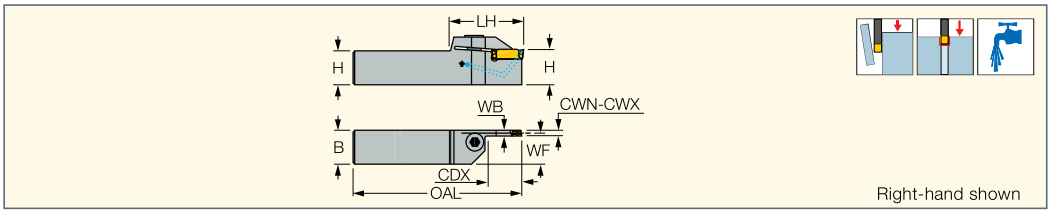
(1) Minimum cutting width
(2) Maximum cutting width
(3) Dmax=43 mm when single-ended insert is used
(4) Dmax=43(1.69") when single-ended insert is used
* Optional, should be ordered separately

Inserts: DGN-LF/LFT • DGN-MF • DGN/DGNC/DGNM-C • DGR/L-C DGRC/LC-C • DGN/DGNM-J/JS/JT • DGR/L-J/JS • DGN-P • DGN-UT/UA • DGN-W • DGN-WP • DGN-Z • DGR-P • DGR-WP • DGR-Z/ZS • GRIP • GRIP (full radius)

DO-GRIP TWISTED 2-SIDED JETCUT

DGTR/L-BC-T

Parting and Grooving Tools with Coolant Holes Carrying JET-CUT Inserts



Designation	H	B	CWN(1)	CWX(2)	OAL	WB	WF	LH	CDX(3)	Insert
DGTR/L 20BC-4T25	20.0	20.0	4.00	4.00	140.00	3.40	18.30	42.0	25.00	DGNC/DGRC/DGLC 4...
DGTR/L 25BC-4T25	25.0	25.0	4.00	4.00	140.00	3.40	23.30	42.0	25.00	DGNC/DGRC/DGLC 4...

- For user guide, see pages 540-547

(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum

Inserts: DGN-UT/UA • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Spare Parts

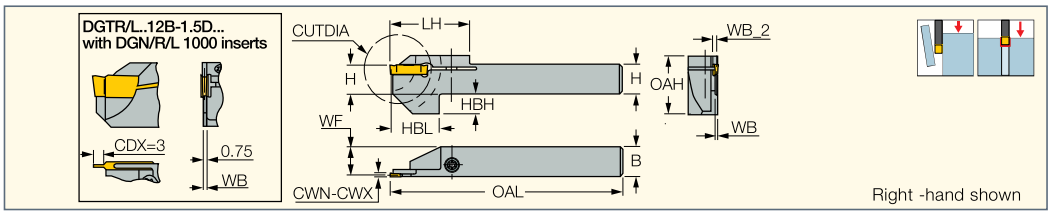
Designation						
DGTR/L-BC-T	SR M6X16 DIN912	SGCU 341*	CGF 343*	CF 343*	CGM 343*	HW 5.0

* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED

DGTR/L-B-D-TR

Reinforced Parting and Grooving Tools Carrying Double-Ended DO-GRIP Inserts



Designation	CWN(1)	CWX(2)	H	B	WB	WB_2	WF	OAL	LH	HBL	CUTDIA	OAH	HBH	Insert
DGTR/L 12B-1.4D20-TR12	1.40	1.40	12.0	12.0	1.00	2.3	11.50	95.00	32.5	20.00	20.0	23.7	8.0	DG. 14..
DGTL 12B-1.5D20-TR12	1.00	1.50	12.0	12.0	1.20	2.3	11.30	95.00	32.5	20.00	20.0	23.7	8.0	DG. 1.../DG. 15..
DGTR 12B-1.5-D20-TR12	1.00	1.50	12.0	12.0	1.20	2.3	11.30	95.00	32.5	20.00	20.0	23.7	8.0	DG. 1.../DG. 15..

- Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width! • For TRAUB machines, model TNL 12/7
- For user guide, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

Inserts: DGN-P • DGN/DGNM-J/JS/JT • DGR-P • DGR/L-J/JS

Spare Parts

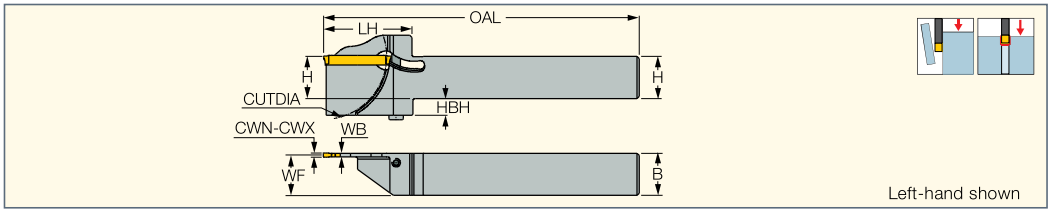
Designation		
DGTR/L-B-D-TR	SR 16-236 P(a)	T-15/5

(a) 3N*M(26.5LBF*in)

DO-GRIPXL

DGTR/L-XL

Integral Shank Reinforced Parting and Grooving Tools for Parting Up to 65 mm Diameters



Designation	CW	CUTDIA	H	B	WB	OAL	LH	WF	HBH		
DGTR/L 20B-2XL-D60	2.00	60.0	20.0	20.0	1.74	150.00	43.2	19.10	8.0	SR M4X35DIN912	HW 3.0
DGTR/L 25B-2XL-D60	2.00	60.0	25.0	25.0	1.74	150.00	43.2	24.10	3.0	SR M4X35DIN912	HW 3.0
DGTR/L 20B-3XL-D65	3.00	65.0	20.0	20.0	2.40	150.00	43.2	18.80	12.0	SR M5X40DIN912	HW 4.0
DGTR/L 25B-3XL-D65	3.00	65.0	25.0	25.0	2.40	150.00	43.2	23.80	7.0	SR M5X40DIN912	HW 4.0

- For insert depth capacity table, see page 478 • For user guide, see pages 540-547

Inserts: DGN-C-XL • DGN-J-XL • DGR/L-C-XL • DGR/L-J-XL

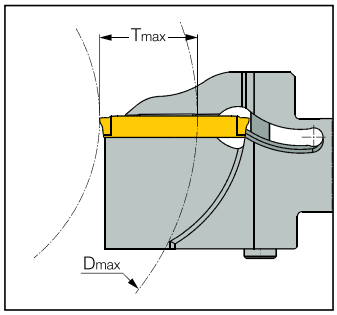
Depth of Cut as Function of Workpiece Diameter

Tmax/Dmax for DGTR/L...-2XL

T max	D max
15	No limit
16	600
17	300
18	200
19	150
20	130
21	120
22	100
23	90
24	85
25	80
26	75
27	70
28	65
29	63
30	60

Tmax/Dmax for DGTR/L...-3XL

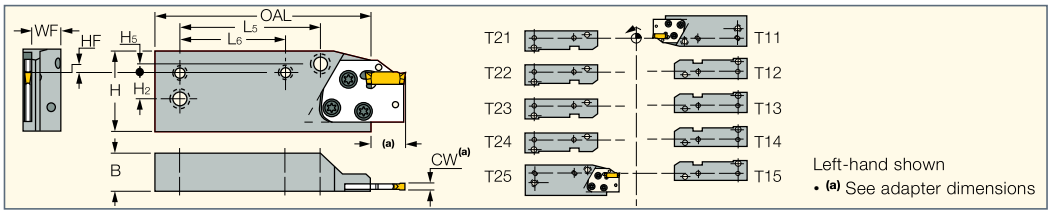
T max	D max
15	No limit
16	1000
17	400
18	300
19	230
20	180
21	150
22	130
23	115
24	105
25	95
26	90
27	85
28	80
29	75
30	72
31	70
32.5	65



DO-GRIP TWISTED 2-SIDED

DGHAL-DECO

Holders for DGAD Adapters for Tornos Bechler Deco Machines



Left-hand shown
• (a) See adapter dimensions

Designation	H	B	OAL	WF	HF	H2	H5	L6	L5
DGHAL DECO 7-10 (1)	40.3	18.2	106.00	15.0	-	12.8	4.8	52.00	69.00
DGHAL DECO 13 (2)	42.0	35.2	115.00	28.7	2.0	16.0	16.0	60.00	60.00
DGHAL DECO 20-26 (2)	44.8	23.2	120.00	20.0	4.0	17.0	17.0	65.00	65.00

• DGAD-... HGAD-... adapters should be ordered separately
(1) Positioning combinations: T11; T25
(2) Positioning combinations: All
Tools: DGAD-B-D • DGAD/HGAD • SCLCR-PAD • SDJCR-PAD • SVJCR-PAD • SWAPR-PAD • TGAD

Spare Parts

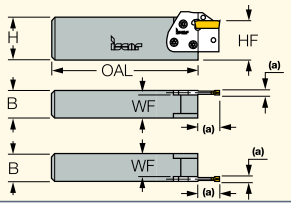
Designation							
DGHAL DECO 7-10	SR 14-519-L9.7(a)	HW 4.0	SR 16-212-L9.5	T-20/5	SR 16-212	SR M5X25DIN912	
DGHAL DECO 13	SR 14-519-L9.7(a)	HW 5.0	SR 16-212-L7.5	T-20/5	SR 16-212	SR M6X25 DIN912	
DGHAL DECO 20-26	SR 14-519-L12.8(a)	HW 5.0	SR 16-212-L7.5	T-20/5	SR 16-212	SR M6X25 DIN912	EZ 104

(a) Recommended tightening torque: 9 N*m (80lbf*in)

DO-GRIP TWISTED 2-SIDED

HMSN-New Britain

Holders for Grooving and Turning Adapters for New Britain Multi-Spindle Bar Machines



(a) See adapter dimensions

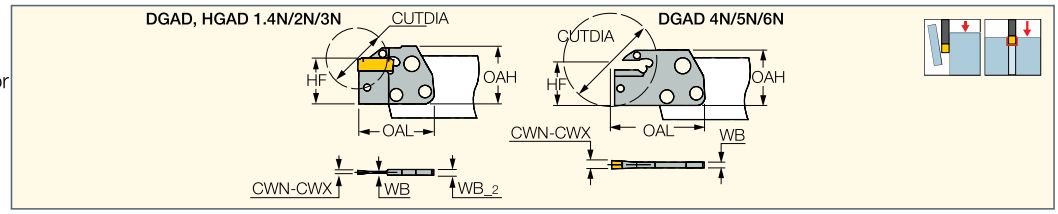
Designation	H	B	HF	OAL	WF	S1(2)			
HMSN 35/3722 (1)	36.5	22.4	34.5	181.70	18.4	226	SR 16-212	SR 14-519	T-20/5

• DGAD-... HGAD-..., adapters should be ordered separately
(1) For models #42; #52; #60; #61; #62; #602
(2) Comparable Empire block
Tools: DGAD-B-D • DGAD/HGAD • SCLCR-PAD • SDJCR-PAD • SVJCR-PAD • SWAPR-PAD

DO-GRIP TWISTED 2-SIDED

DGAD/HGAD

Parting and Grooving Adapters for DO-GRIP Double-Ended Inserts



Designation	CWN(2)	CWX(3)	WB	WB_2	OAH	HF	OAL	CUTDIA	
DGAD 1.4N	1.40	1.40	1.00	3.2	30.0	24.0	41.50	28.0	EDG 23B*
DGAD 2N	1.90 (4)	2.50	1.60	3.2	30.0	24.0	41.50	32.0	EDG 33A*
DGAD 3N (1)	3.00 (4)	3.18	2.40	4.0	30.0	24.0	41.50	32.0	EDG 33A*
HGAD 3N	3.00	3.00	2.40	4.0	30.0	24.0	50.50	50.0	EDG 23B*
DGAD 4N	4.00	4.00	3.20	-	30.0	24.0	50.50	50.0	EDG 33A*
DGAD 5N	4.80	5.00	4.00	-	30.0	24.0	50.50	50.0	EDG 33A*
DGAD 6N	6.00	6.35	5.20	-	30.0	24.0	50.50	50.0	EDG 33A*

- DG..1.0 insert can be mounted into pocket sizes 2 and 3 in which case the pocket width has to be modified - see page 480
- For user guide, see pages 540-547

(1) Only the DGN/R/L inserts are suitable for this adapter
(2) Minimum cutting width
(3) Maximum cutting width
(4) For 1 mm inserts, modify adapter
* Optional, should be ordered separately

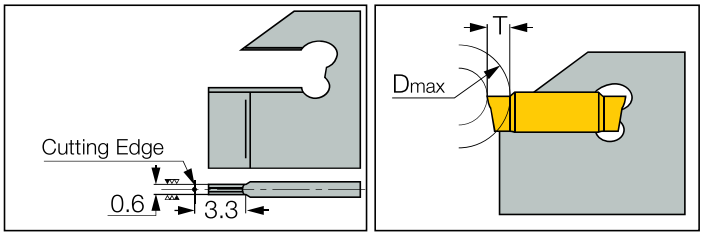
Inserts: DGN-P • DGN-UT/UA • DGN-W • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS • GRIP • GRIP (full radius) • HGN-C • HGN-J • HGN-UT • HGR/L-C • HGR/L-J/JS

Holders: MAHPR/L-JHP • MAHR/L-JHP • MAHR/L • MAHPR/L • C#-MAHD • C#-MAHPD • C#-MAHDR-45 • C#-MAHDOR • HSK A63WH-MAHUR/L • HSK A63WH-MAHDR-45 • HSK A63WH-MAHDOR • IM-MAHD • IM-MAHPD • C#-MAHD-JHP • C#-MAHPD-JHP • MAHR/L-JHP-MC • HMSN-New Britain • DGHAL-DECO

Depth Capacity for DGN/R-1002J Insert on Standard Holders

Depth: T		D max
Up to	1.2	No limit
	1.3	830
	1.4	218
	1.5	126
	1.6	88.4
	1.7	68.2
	1.8	55.6
	1.9	46.9
	2.0	40.7
	2.1	36.0

Depth: T		D max
Up to	2.2	32.3
	2.3	29.3
	2.4	26.7
	2.5	24.8
	2.6	23.2
	2.7	21.7
	2.8	20.5
	2.9	19.4
	3.0	18.4



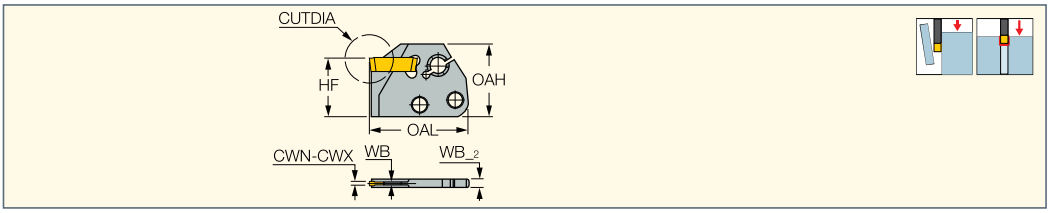
Standard Holders Modification

To achieve no limitation on the workpiece diameter up to 3 mm depth, the steel support under the insert should be ground, as per the shown sketch.

DO-GRIP TWISTED 2-SIDED

DGAD-B-D

Parting and Grooving Screw-Clamped Adapters for DO-GRIP Double-Ended Inserts



Designation	CWN(2)	CWX(3)	WB	WB_2	OAL	CUTDIA	HF	OAH
DGAD 1.4B-D16	1.40	1.40	1.00	3.2	36.80	16.0	24.0	30.3
DGAD 1.5B-D20 (1)	1.00	1.50	1.00	3.2	41.00	20.0	24.0	30.3
DGAD 2B-D20	1.90	2.50	1.60	3.2	41.00	20.0	24.0	30.3

- Up to 3 mm depth, without any limitation on the diameter
- DG..1.0 insert can also be mounted into pocket sizes 2 and 3, In which case the pocket width has to be modified-see page 480
- For user guide, see pages 540-547

(1) Do not use DG.. 1.4 on this tool!
(2) Minimum cutting width
(3) Maximum cutting width

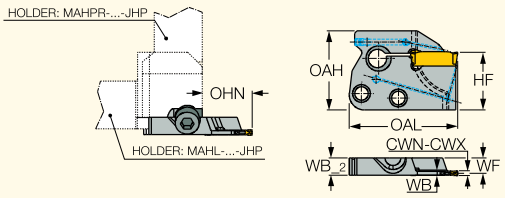
Inserts: DGN-LF/LFT • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Holders: C#-MAHD-JHP • C#-MAHPD-JHP • MAHR/L-JHP-MC • MAHPR/L-JHP • MAHR/L-JHP • MAHR/L • MAHPR/L • C#-MAHD • C#-MAHPD • C#-MAHDR-45 • C#-MAHDOR • HSK A63WH-MAHUR/L • HSK A63WH-MAHDR-45 • HSK A63WH-MAHDOR • IM-MAHD • IM-MAHPD • HMSN-New Britain • DGHAL-DECO

DO-GRIP TWISTED 2-SIDED JETCUT
MODULARGRIP

DGPAD-JHP

Adapters with High-Pressure Coolant Channels for DO-GRIP Parting and Grooving Inserts



Designation	CWN(1)	CWX(2)	CUTDIA	OHN(3)	WF	WB	WB_2	OAL	OAH	HF	Insert
DGPAD 2R/L-D22-JHP	1.90	2.50	22.0	21.0	6.40	1.60	7.2	45.50	33.0	24.0	DG. 2...
DGPAD 2R/L-D32-JHP	1.90	2.50	32.0	21.0	6.40	1.60	7.2	45.50	33.0	24.0	DG. 2...
DGPAD 3R/L-D32-JHP	3.00	3.18	32.0	21.0	6.00	2.40	7.2	45.50	33.0	24.0	DG. 3...
DGPAD 2R/L-D42-JHP	1.90	2.50	42.0	21.0	6.30	1.70	7.2	49.00	33.0	24.0	DG. 2...

- For user guide and accessories, see pages 540-547

(1) Minimum cutting width

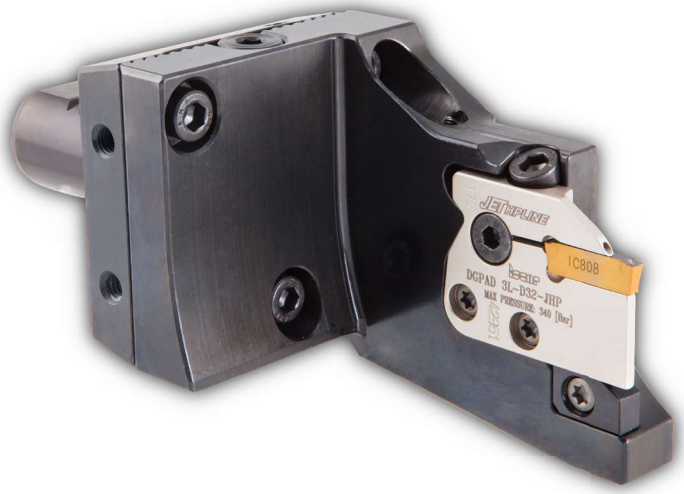
(2) Maximum cutting width

(3) Minimum overhang

Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Flow Rate vs. Pressure

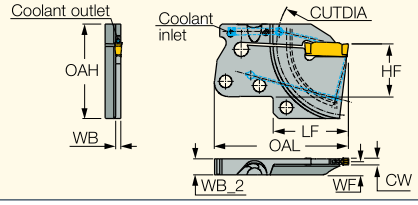
Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
DGPAD 2R/L-D22-JHP	5	6	7
DGPAD 2R/L-D32-JHP	5	6	7
DGPAD 3R/L-D32-JHP	8.5	10	12



DO-GRIP TWISTED 2-SIDED JETCUT

DGPAD-XL-JHP

Parting and Grooving Extra Long Adapters with Coolant Channels Carrying DO-GRIP Inserts



Designation	CW	CUTDIA	WF	WB	WB_2	LF	OAL	OAH	HF	Insert
DGPAD-XL 3R/L-D52-JHP	3.00	52.0	6.00	2.40	7.2	27.70	54.40	43.00	34.0	DG. 3...
DGPAD-XL 3L-D65-JHP	3.00	65.0	6.00	2.40	7.2	34.20	60.40	43.00	34.0	DG. 3...
DGPAD-XL 3R-D65-JHP	3.00	65.0	6.00	2.40	7.2	34.20	60.00	43.00	34.0	DG. 3...

- For user guide and accessories, see pages 540-547

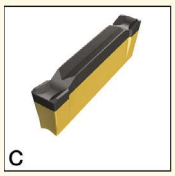
Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

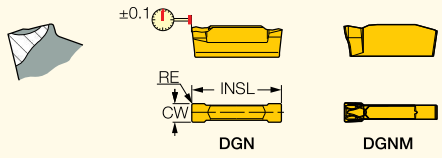
Holders: ABC MAHDR-#-XL-JHP • MAHPR/L-XL-JHP • MAHR/L-MG-XL-JHP • MAHR/L-MG-XL-JHP-MC • TR TNK36 MAHDL-R-XL-JHP • TR45TNL MAHDN-R-XL-JHP • V## MAHD#-#-XL-##-JHP

DO-GRIP TWISTED 2-SIDED

DGN/DGNC/DGNM-C

Double-Sided Parting Inserts for Parting and Grooving Bars, Hard Materials and Tough Applications





Designation	Dimensions CW	CWTOL[3]	RE	RETOL[4]	CDX[5]	INSL	Tough ↔ Hard IC328	IC830	IC928	IC1030	IC1028	IC354	IC5400	IC1010	IC308	IC808	IC908	IC30N	IC20	IC807	IC907	Recommended Machining Data f groove (mm/rev)
DGN 2002C	2.00	0.03	0.20	0.020	18.00	19.90	●	●		●	●	●	●	●		●	●		●			0.05-0.16
DGN 2202C	2.20	0.03	0.20	0.020	18.00	19.80	●	●		●	●	●	●	●	●	●	●	●	●		●	0.05-0.16
DGN 2502C	2.50	0.03	0.20	0.020	18.00	20.70			●	●				●			●					0.08-0.20
DGN 3102C	3.10	0.04	0.20	0.020	18.00	20.10	●	●		●	●	●	●	●	●	●	●	●	●	●	●	0.10-0.25
DGNC 3102C [1]	3.10	0.04	0.20	0.020	18.00	21.00										●	●					0.10-0.25
DGNM 3202C [2]	3.18	0.04	0.20	0.020	- [6]	20.40	●					●					●					0.10-0.25
DGN 4003C	4.00	0.04	0.30	0.030	- [6]	18.80	●	●		●	●	●		●	●	●	●	●	●	●		0.10-0.30
DGNC 4003C [1]	4.00	0.04	0.30	0.030	- [6]	19.00										●	●					0.10-0.30
DGN 4803C	4.80	0.04	0.30	0.030	- [6]	19.90	●															0.12-0.35
DGN 5003C	5.00	0.04	0.30	0.030	- [6]	19.10	●	●		●	●	●		●		●	●	●	●			0.12-0.35
DGN 6303C	6.35	0.04	0.35	0.030	- [6]	19.10	●	●			●	●		●		●	●		●			0.15-0.40

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 540-547

[1] Inserts with coolant holes, recommended coolant pressure 10 bar minimum

[2] Single-ended insert

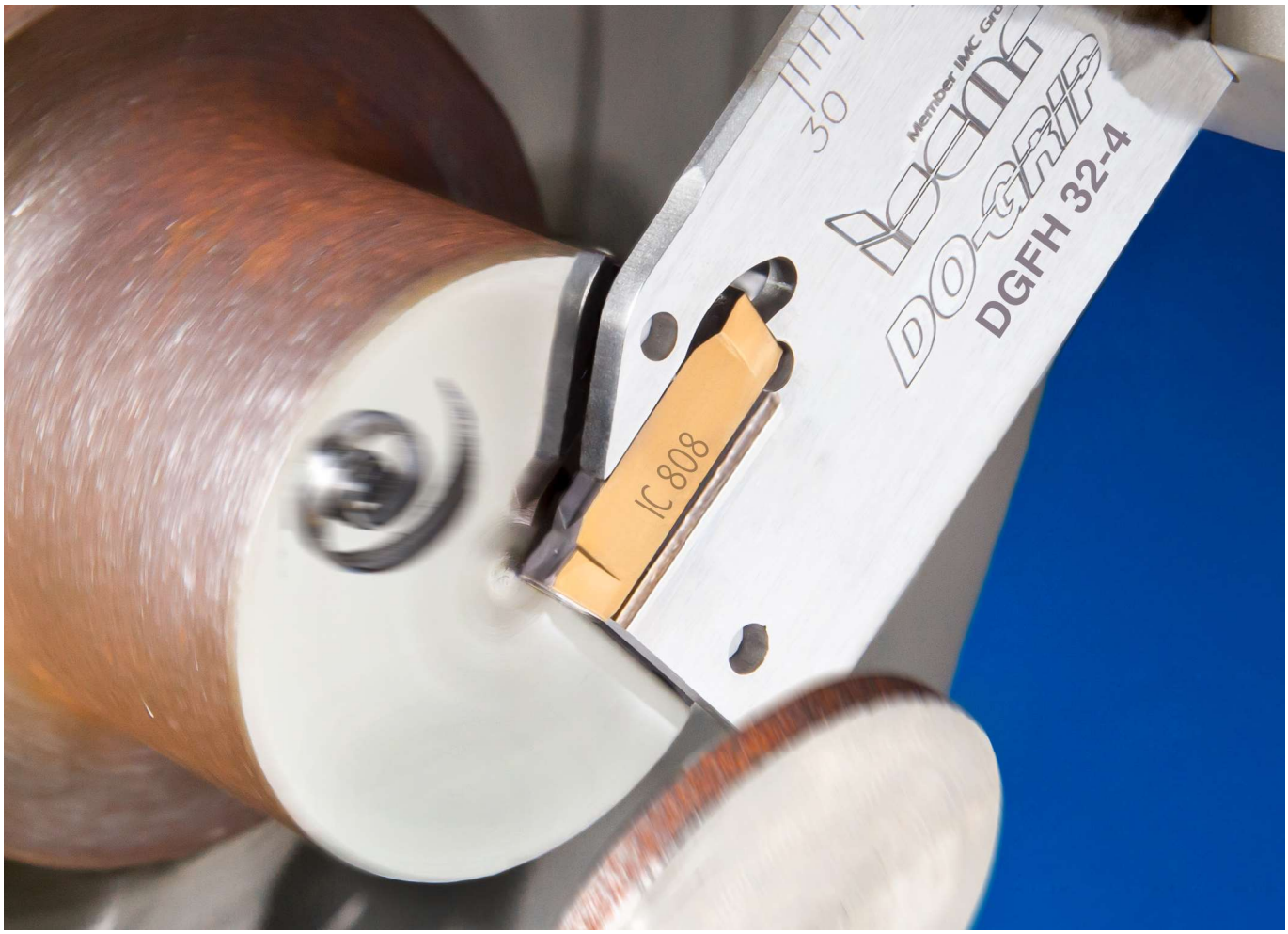
[3] Cutting width tolerance (+/-)

[4] Corner radius tolerance (+/-)

[5] Cutting depth maximum

[6] No depth limit

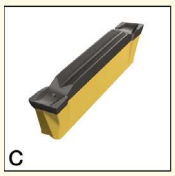
Tools: C#-HELIR/L • C#-HFIR/L-MC • CR HFIR-M • D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • DGTR/L-BC-T • HELIR/L • HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHR/L-4T • HFHR/L-5T • HFHR/L-6T • HFIR/L-MC • HFPAD-4 • HFPAD-5 • HFPAD-6 • HFPAD-JHP • HGPAD • HGPAD-JHP • IM-HFIR-MC • NQCH-DGTR/L-D-SH-JHP

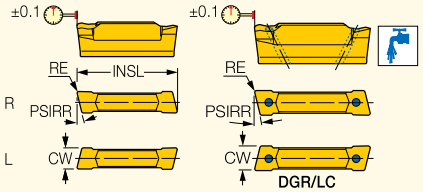


DO-GRIP TWISTED 2-SIDED

DGR/L-C DGRC/LC-C

Double-Sided Inserts for Parting Bars, Hard Materials and Tough Applications





Designation	Dimensions CW	RE	CDX(2)	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC808	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGL 2202C-6D	2.20	0.20	18.00	6.0	-	20.80	●		●	●	●	●		●	●	0.04-0.12
DGR 2202C-6D	2.20	0.20	18.00	-	6.0	20.80	●	●	●	●	●	●	●	●	●	0.04-0.12
DGL 3102C-15D	3.10	0.20	18.00	15.0	-	21.00	●	●	●	●						0.08-0.14
DGL 3102C-6D	3.10	0.20	18.00	6.0	-	21.00	●	●	●	●	●	●	●	●	●	0.08-0.18
DGLC 3102C-6D (1)	3.10	0.20	18.00	6.0	-	21.00							●	●		0.08-0.18
DGR 3102C-15D	3.10	0.20	18.00	-	15.0	20.90	●	●	●	●		●		●		0.08-0.14
DGR 3102C-6D	3.10	0.20	18.00	-	6.0	21.00	●	●	●	●	●	●	●	●	●	0.08-0.18
DGR 3102C-8D	3.10	0.20	18.00	-	8.0	21.10	●	●	●	●						0.05-0.15
DGRC 3102C-6D (1)	3.10	0.20	18.00	-	6.0	20.90							●	●		0.08-0.18
DGL 4003C-4D	4.00	0.30	- (3)	4.0	-	18.90	●		●	●	●	●		●	●	0.08-0.20
DGLC 4003C-4D (1)	4.00	0.30	- (3)	4.0	-	19.00							●			0.08-0.20
DGR 4003C-4D	4.00	0.30	- (3)	-	4.0	18.80	●	●		●	●	●		●	●	0.08-0.20
DGRC 4003C-4D (1)	4.00	0.30	- (3)	-	4.0	19.00							●	●		0.08-0.20
DGR 4800CS-4D	4.80	0.02	- (3)	-	4.0	19.70	●									0.05-0.15
DGR 4800CS-8D	4.80	0.02	- (3)	-	8.0	19.70	●									0.05-0.15
DGR 4803C-4D	4.80	0.30	- (3)	-	4.0	20.30	●									0.10-0.25
DGR 4803C-8D	4.80	0.30	- (3)	-	8.0	20.30	●									0.10-0.20
DGL 5003C-4D	5.00	0.30	- (3)	4.0	-	19.10	●				●				●	0.10-0.25
DGR 5003C-4D	5.00	0.30	- (3)	-	4.0	19.20	●				●				●	0.10-0.25
DGL 6303C-4D	6.35	0.35	- (3)	4.0	-	19.10	●				●				●	0.12-0.30
DGR 6303C-4D	6.35	0.35	- (3)	-	4.0	19.10	●				●				●	0.12-0.30

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 540-547

(1) Inserts with coolant holes, recommended coolant pressure 10 bar minimum

(2) Cutting depth maximum

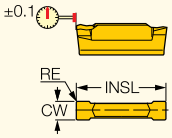
(3) No depth limit

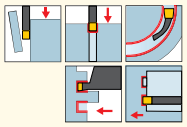
Tools: C#-HELIR/L • D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • DGTR/L-BC-T • HELIR/L • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGN-W

Double-Sided Inserts with Central Ridged Chipformer for Parting and Grooving Hard Materials and Interrupted Cuts





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC1030	IC354	Recommended Machining Data f groove (mm/rev)
DGN 5003W	5.00	0.30	0.04	0.030	19.00	●	●	●	0.12-0.33

• No depth limit • For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

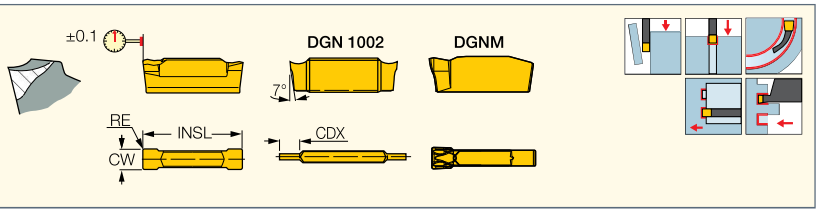
(2) Corner radius tolerance (+/-)

Tools: C#-HELIR/L • C#-HFIR/L-MC • CR HFIR-M • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGTR/L • HELIR/L • HFAER/L-5T, 6T • HFAIR/L-DG • HFFR/L-T • HFHR/L-5T • HFIR/L-MC • HFPAD-5 • HFPAD-JHP • HGPAD • HGPAD-JHP • IM-HFIR-MC • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGN/DGNM-J/JS/JT

Double-Sided Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts



Designation	Dimensions						Tough ↔ Hard													Recommended Machining Data
	CW	CWTOL[3]	RE	RETOL[4]	CDX[5]	INSL	IC328	IC830	IC928	IC1030	IC1028	IC354	IC5400	IC1010	IC308	IC808	IC908	IC20	IC807	IC907	f groove (mm/rev)
DGN 1002J	1.00	0.02	0.16	0.020	3.00	21.00	●			●	●			●			●				0.02-0.07
DGN 1402J	1.40	0.03	0.16	0.020	15.00	15.80	●	●		●	●	●		●	●	●	●				0.03-0.12
DGN 1502J	1.50	0.03	0.16	0.020	18.00	20.90	●			●	●			●			●				0.03-0.12
DGN 2002JT	2.00	0.03	0.20	0.020	18.00	19.80										●					0.04-0.14
DGN 2200JS [1]	2.20	0.03	0.02	0.020	18.00	19.00	●	●		●				●							0.03-0.08
DGN 2202J	2.20	0.03	0.20	0.020	18.00	19.80	●	●		●	●	●	●	●	●	●	●	●	●		0.04-0.12
DGN 2202JT	2.20	0.03	0.20	0.020	18.00	19.80		●					●			●					0.04-0.14
DGN 3100JS [1]	3.10	0.04	0.02	0.020	18.00	19.70	●			●				●	●						0.03-0.10
DGN 3102J	3.10	0.04	0.20	0.020	18.00	20.10	●	●		●	●	●	●	●	●	●	●	●		●	0.04-0.16
DGN 3102JT	3.10	0.04	0.20	0.020	18.00	20.10		●					●			●				●	0.05-0.18
DGN 3202J	3.18	0.04	0.20	0.020	18.00	20.10											●				0.04-0.16
DGNM 3202J [2]	3.18	0.04	0.20	0.020	- [6]	20.30	●			●		●		●			●				0.04-0.16
DGN 4003J	4.00	0.04	0.30	0.030	- [6]	18.90	●	●		●	●	●		●	●	●	●	●	●		0.05-0.18
DGN 4003JT	4.00	0.04	0.30	0.030	- [6]	18.90		●													0.05-0.18
DGN 4803J	4.80	0.04	0.30	0.030	- [6]	20.40	●														0.05-0.20
DGN 5003J	5.00	0.04	0.30	0.030	- [6]	19.00	●	●		●	●	●		●		●	●	●			0.05-0.20
DGN 5003JT	5.00	0.04	0.30	0.030	- [6]	19.00			●								●				0.05-0.20
DGN 6303J	6.35	0.04	0.35	0.030	- [6]	19.10	●	●		●	●	●		●		●	●	●			0.05-0.25
DGN 6303JT	6.35	0.04	0.35	0.030	- [6]	19.10			●								●				0.05-0.25

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative frontal edge; most suitable for soft materials at low to medium feeds
- For cutting speed recommendations and user guide, see pages 540-547

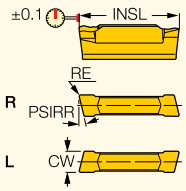
[1] Sharp corners
[2] Single-ended insert
[3] Cutting width tolerance (+/-)
[4] Corner radius tolerance (+/-)
[5] Cutting depth maximum
[6] No depth limit

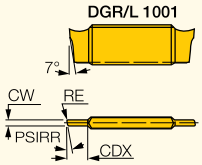
Tools: C#-HELIR/L • C#-HFIR/L-MC • CR HFIR-M • D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B-D-TR • DGTR/L-B-T-SH • DGTR/L-B/BC-D • DGTR/L-BC-T • HELIR/L • HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHR/L-4T • HFHR/L-5T • HFHR/L-6T • HFIR/L-MC • HFPAD-4 • HFPAD-5 • HFPAD-6 • HFPAD-JHP • HGPAD • HGPAD-JHP • IM-HFIR-MC • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGR/L-J/JS

Double-Sided Inserts for Parting Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts





Designation	Dimensions CW	RE	CDX(2)	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGL 1001J-8D	1.00	0.07	3.00	21.00	-	8.0							●		●		0.02-0.06
DGR 1001J-8D	1.00	0.07	3.00	21.00	8.0	-	●			●		●	●		●		0.02-0.06
DGL 1400JS-15D (1)	1.40	0.02	14.00	15.40	-	15.0	●		●								0.03-0.07
DGR 1400JS-15D (1)	1.40	0.02	14.00	15.40	15.0	-	●	●	●	●		●	●		●		0.03-0.07
DGL 1402J-8D	1.40	0.16	14.00	15.80	-	8.0	●			●							0.03-0.08
DGR 1402J-8D	1.40	0.16	14.00	15.80	8.0	-	●	●	●	●			●		●		0.03-0.08
DGR 1500J-8D	1.50	0.05	18.00	20.90	8.0	-	●	●	●	●		●	●				0.03-0.08
DGL 2200JS-15D (1)	2.20	0.02	18.00	20.60	-	15.0	●		●	●	●		●		●		0.03-0.07
DGL 2200JS-6D (1)	2.20	0.02	18.00	20.60	-	6.0	●			●			●		●		0.03-0.08
DGR 2200JS-15D (1)	2.20	0.02	18.00	20.60	15.0	-	●		●	●	●	●	●		●	●	0.03-0.07
DGR 2200JS-6D (1)	2.20	0.02	18.00	20.60	6.0	-	●	●	●	●	●	●	●		●		0.03-0.08
DGL 2202J-6D	2.20	0.20	18.00	21.00	-	6.0	●		●	●	●	●			●	●	0.03-0.10
DGR 2202J-15D	2.20	0.20	18.00	21.00	15.0	-	●	●	●	●							0.03-0.08
DGR 2202J-6D	2.20	0.20	18.00	21.00	6.0	-	●	●	●	●	●	●			●	●	0.03-0.10
DGL 3100JS-15D (1)	3.10	0.02	18.00	20.60	-	15.0	●			●	●		●		●		0.03-0.07
DGL 3100JS-6D (1)	3.10	0.02	18.00	20.60	-	6.0	●			●			●		●		0.03-0.08
DGR 3100JS-15D (1)	3.10	0.02	18.00	20.60	15.0	-	●	●	●	●	●	●	●		●		0.03-0.07
DGR 3100JS-6D (1)	3.10	0.02	18.00	20.60	6.0	-	●	●	●	●	●	●	●		●		0.03-0.08
DGL 3102J-15D	3.10	0.20	18.00	21.00	-	15.0	●		●	●							0.04-0.10
DGL 3102J-6D	3.10	0.20	18.00	21.00	-	6.0	●	●	●	●	●	●			●	●	0.04-0.14
DGR 3102J-15D	3.10	0.20	18.00	21.00	15.0	-	●		●	●	●	●			●		0.04-0.10
DGR 3102J-6D	3.10	0.20	18.00	21.00	6.0	-	●	●	●	●	●	●		●	●	●	0.04-0.14
DGR 4000JS-15D (1)	4.00	0.00	- (3)	19.30	15.0	-	●		●								0.04-0.10
DGL 4003J-4D	4.00	0.30	- (3)	18.90	-	4.0	●		●	●	●	●			●	●	0.04-0.15
DGR 4003J-4D	4.00	0.30	- (3)	18.90	-	4.0	●	●		●	●	●		●	●	●	0.04-0.15
DGR 4800JS-4D (1)	4.80	0.03	- (3)	19.80	-	4.0	●										0.04-0.12
DGR 4800JS-8D (1)	4.80	0.03	- (3)	19.80	-	8.0	●										0.04-0.14
DGR 4803J-4D	4.80	0.30	- (3)	19.80	-	4.0	●										0.04-0.18
DGR 4803J-8D	4.80	0.30	- (3)	19.80	-	8.0	●										0.04-0.15
DGL 5003J-4D	5.00	0.30	- (3)	19.80	-	4.0	●				●						0.05-0.20
DGR 5003J-4D	5.00	0.30	- (3)	19.80	-	4.0	●			●	●					●	0.05-0.20
DGL 6303J-4D	6.35	0.35	- (3)	19.10	-	4.0	●				●						0.05-0.25
DGR 6303J-4D	6.35	0.35	- (3)	19.10	-	4.0	●										0.05-0.25

• For cutting speed recommendations and user guide, see pages 540-547

(1) Sharp corners

(2) Cutting depth maximum

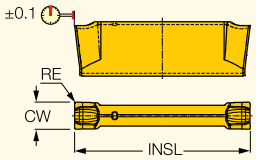
(3) No depth limit.

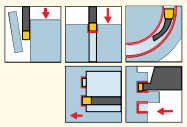
Tools: C#-HELIR/L • D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B-D-TR • DGTR/L-B-T-SH • DGTR/L-B/BC-D • DGTR/L-BC-T • HELIR/L • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGN-LF/LFT

Double-Sided Inserts for Parting and Grooving Stainless Steel





Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC830	IC928	IC1030	IC5400	IC1010	IC808	IC908	Recommended Machining Data f groove (mm/rev)
DGN 2002LF	2.00	0.03	0.20	0.020	18.00	19.80	●			●	●	●		0.03-0.08
DGN 2202LF	2.20	0.03	0.20	0.020	18.00	19.80		●	●	●	●		●	0.03-0.08
DGN 2502LF	2.50	0.03	0.20	0.020	18.00	19.80			●		●			0.03-0.08
DGN 3102LF	3.10	0.04	0.20	0.020	18.00	20.10	●	●	●	●	●	●	●	0.04-0.10
DGN 3102LFT	3.10	0.04	0.20	0.020	18.00	21.10		●					●	0.04-0.12

- The LFT chipformer features basically the same design as the LF chipformer, except that it is reinforced by a T-land to improve its durability in interrupted-cut or on hard materials applications. It can be applied at higher feeds than the LF chipformer
- For cutting speed recommendations and user guide, see pages 540-547

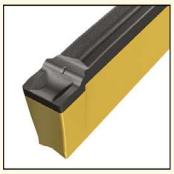
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

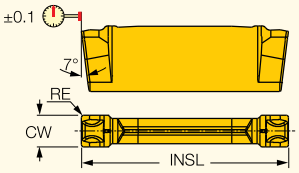
Tools: DGAD-B-D • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • NQCH-DGTR/L-D-SH-JHP

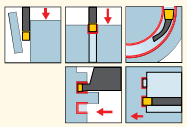
DO-GRIP TWISTED 2-SIDED

DGN-MF

Double-Sided Inserts for Parting and Grooving Soft and Hard Materials at Medium Feeds







Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	INSL	Tough ↔ Hard IC830	IC1030	IC5400	IC1010	IC808	Recommended Machining Data f groove (mm/rev)
DGN 2002MF	2.00	0.20	0.04	18.00	19.90	●	●	●	●	●	0.04-0.12
DGN 2202MF	2.20	0.20	0.04	18.00	19.90		●		●		0.04-0.12
DGN 3002MF	3.00	0.20	0.04	18.00	20.10			●			0.06-0.18
DGN 3102MF	3.10	0.20	0.04	18.00	20.10	●	●	●	●	●	0.06-0.18
DGN 4003MF	4.00	0.30	0.04	- (3)	18.80	●				●	0.08-0.20

- For cutting speed recommendations and user guide, see pages 540-547

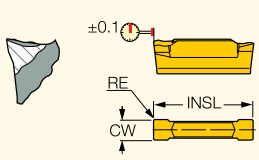
(1) Cutting width tolerance (+/-)
(2) Cutting depth maximum
(3) No depth limit

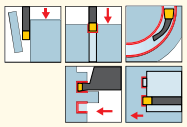
Tools: C#-HELIR/L • C#-HFIR/L-MC • CR HFIR-M • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • HELIR/L • HFAER/L-4 • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHR/L-4T • HFIR/L-MC • HFPAD-4 • HFPAD-JHP • HGPAD • HGPAD-JHP • IM-HFIR-MC • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGN-Z

Double-Sided Inserts for Parting Tubes, Thin-Walled and Small Parts





Designation	Dimensions CW	CDX(1)	CWTOL(2)	RE	RETOL(3)	INSL	Tough ↔ Hard IC1030	IC1010	IC808	IC908	Recommended Machining Data f groove (mm/rev)
DGN 2002Z	2.00	18.00	0.03	0.20	0.020	20.90	●	●	●	●	0.03-0.12
DGN 3002Z	3.00	18.00	0.03	0.20	0.020	20.90			●	●	0.03-0.16

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting depth maximum

(2) Cutting width tolerance (+/-)

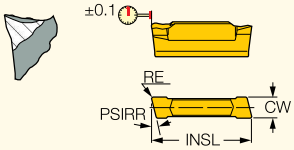
(3) Corner radius tolerance (+/-)

Tools: D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGR-Z/ZS

Double-Sided Inserts with Very Positive Rake for Parting Tubes and Thin-Walled and Small Parts



Designation	Dimensions CW	RE	INSL	CDX(2)	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
DGR 2000ZS-15D (1)	2.00	0.02	20.40	18.00	15.0	●	0.03-0.07
DGR 2000ZS-6D (1)	2.00	0.02	20.40	18.00	6.0	●	0.03-0.08
DGR 2002Z-15D	2.00	0.20	20.90	18.00	15.0	●	0.03-0.10
DGR 2002Z-6D	2.00	0.20	20.90	18.00	6.0	●	0.03-0.10
DGR 3000ZS-15D (1)	3.00	0.02	20.40	18.00	15.0	●	0.03-0.10
DGR 3000ZS-6D (1)	3.00	0.02	20.40	18.00	6.0	●	0.03-0.12
DGR 3002Z-6D	3.00	0.20	20.90	18.00	6.0	●	0.03-0.14

- For cutting speed recommendations and user guide, see pages 540-547

(1) Sharp corners

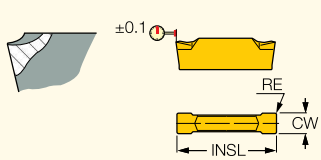
(2) Cutting depth maximum

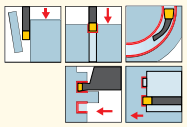
Tools: D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGN-UT/UA

Double-Sided Inserts for Parting and Grooving Cr-Ni Alloys, Low Carbon Steel and Ductile Materials at Low Feeds





Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC328	IC1030	IC1028	IC354	IC350	IC1010	IC308	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGN 2202UA	2.20	0.03	0.20	0.020	18.00	19.90	●		●	●						0.04-0.13
DGN 2202UT	2.20	0.03	0.20	0.020	18.00	19.60					●			●		0.03-0.11
DGN 3003UA	3.00	0.03	0.25	0.020	18.00	20.50	●	●	●	●		●	●		●	0.04-0.15
DGN 3003UT	3.00	0.03	0.25	0.020	18.00	20.50							●	●		0.04-0.13
DGN 4003UA	4.00	0.04	0.30	0.020	- (4)	19.40	●			●						0.05-0.16
DGN 4003UT	4.00	0.04	0.30	0.020	- (4)	19.30	●			●				●		0.04-0.15
DGN 5003UT	5.00	0.04	0.30	0.020	- (4)	19.00	●		●				●	●		0.05-0.18
DGN 6008UT	6.00	0.04	0.80	0.050	- (4)	19.10	●			●			●	●		0.06-0.20

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

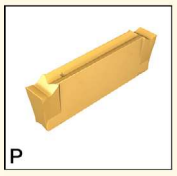
(4) No depth limit

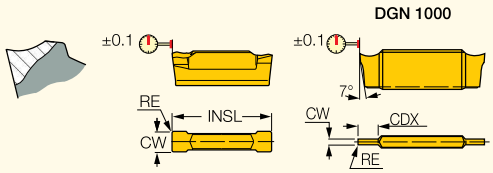
Tools: C#-HELIR/L • D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • DGTR/L-BC-T • HELIR/L • HGPAD • HGPAD-JHP • NQCH-DGTR/L-D-SH-JHP

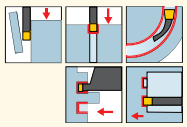
DO-GRIP TWISTED 2-SIDED

DGN-P

Double-Sided Inserts for Parting and Grooving Soft Materials, Thin and Miniature Parts







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	CDX(3)	IC508	Recommended Machining Data f groove (mm/rev)
DGN 1000P	1.00	0.05	0.02	0.020	20.00	3.00	●	0.02-0.05
DGN 1500P	1.50	0.05	0.02	0.020	20.00	18.00	●	0.02-0.07
DGN 2000P	2.00	0.05	0.02	0.020	20.00	18.00	●	0.02-0.08
DGN 3000P	3.00	0.05	0.02	0.020	20.00	18.00	●	0.02-0.10

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

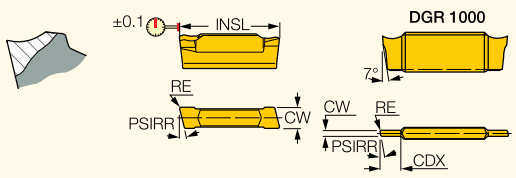
(3) Cutting depth maximum

Tools: D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFHR/L-BC-JHP • DGFS • DGPAD-JHP • DGPAD-XL-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B-D-TR • DGTR/L-B-T-SH • DGTR/L-B/BC-D • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGR-P

Double-Sided Inserts for Parting Soft Materials, Thin and Miniature Parts



Designation	Dimensions CW	RE	INSL	CDX(1)	PSIRR	IC508	Recommended Machining Data f groove (mm/rev)
DGR 1000P-15D	1.00	0.05	20.60	2.90	15.0	●	0.02-0.03
DGR 1000P-6D	1.00	0.05	20.60	2.90	6.0	●	0.02-0.04
DGR 1500P-15D	1.50	0.05	20.60	18.00	15.0	●	0.02-0.04
DGR 1500P-6D	1.50	0.05	20.60	18.00	6.0	●	0.02-0.05
DGR 2000P-15D	2.00	0.05	20.60	18.00	15.0	●	0.02-0.05
DGR 2000P-6D	2.00	0.05	20.60	18.00	6.0	●	0.02-0.07

- For cutting speed recommendations and user guide, see pages 540-547

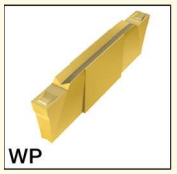
(1) Cutting depth maximum

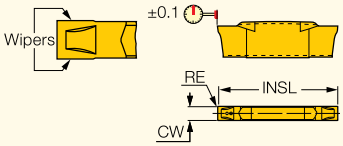
Tools: D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFS • DGPAD-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B-D-TR • DGTR/L-B-T-SH • DGTR/L-B/BC-D • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGN-WP

Double-Sided Parting and Grooving Inserts with a Wiper Design for High Flatness and Surface Finish





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (mm/rev)
DGN 1900WP	1.90	0.05	0.02	0.020	6.00	19.70	●	●	0.04-0.12
DGN 2400WP	2.39	0.05	0.02	0.020	6.00	20.40	●	●	0.05-0.14

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

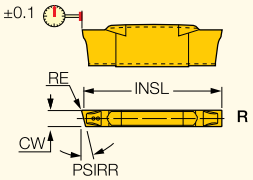
(3) Cutting depth maximum

Tools: D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHL-26B-TR-D • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFS • DGPAD-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

DGR-WP

Double-Sided Parting Inserts with a Wiper Design for High Flatness and Surface Finish



Designation	Dimensions CW	RE	CDX(1)	INSL	PSIRR	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (mm/rev)
DGR 1900WP-12D	1.90	0.05	6.00	19.70	12.0	●	●	0.04-0.10
DGR 1900WP-5D	1.90	0.05	6.00	19.70	5.0	●		0.04-0.10
DGR 2400WP-12D	2.39	0.05	6.00	20.40	12.0	●	●	0.04-0.10
DGR 2400WP-5D	2.39	0.05	6.00	20.40	5.0	●		0.04-0.12

- For cutting speed recommendations and user guide, see pages 540-547

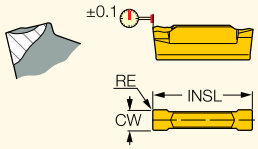
(1) Cutting depth maximum

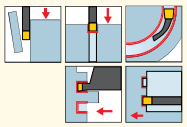
Tools: D/HGAD RE/LE-JHP • DGAD-B-D • DGAD/HGAD • DGAQ • DGAQ-JHP • DGFH • DGFH-JHP • DGFHR/L • DGFHR/L-B-D..(R/L) • DGFS • DGPAD-JHP • DGTR/L • DGTR/L-B-D-JHP-SL • DGTR/L-B-D-JHP-SL-MC • DGTR/L-B-D-SH • DGTR/L-B/BC-D • NQCH-DGTR/L-D-SH-JHP

DO-GRIP TWISTED 2-SIDED

HGN-C

Parting and Grooving Inserts for Parting Bars, Hard Materials and Tough Applications





Designation	Dimensions CW	RE	CWTOL(1)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	IC908	Recommended Machining Data f groove (mm/rev)
HGN 3003C	3.00	0.30	0.05	15.80	●	●	●	●	●	0.08-0.20

• No depth limit • For cutting speed recommendations and user guide, see pages 540-547

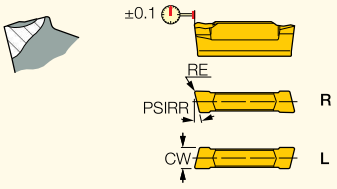
(1) Cutting width tolerance (+/-)

Tools: C#-HELIR/L • D/HGAD RE/LE-JHP • DGAD/HGAD • HELIR/L • HFPAD-3 • HFPAD-JHP • HGAIR/L-3 • HGFH • HGHR/L-3 • HGPAD • HGPAD-JHP

DO-GRIP TWISTED 2-SIDED

HGR/L-C

Inserts for Parting Bars, Hard Materials and Tough Applications



Designation	Dimensions CW	RE	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	Recommended Machining Data f groove (mm/rev)
HGL 3003C-6D	3.00	0.30	15.60	6.0	-	●		0.06-0.16
HGR 3003C-6D	3.00	0.30	15.60	-	6.0	●	●	0.06-0.16

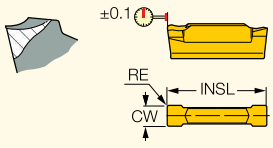
• No depth limit • For cutting speed recommendations and user guide, see pages 540-547

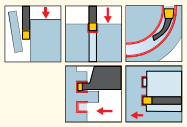
Tools: D/HGAD RE/LE-JHP • DGAD/HGAD • HELIR/L • HGFH

DO-GRIP TWISTED 2-SIDED

HGN-J

Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	Recommended Machining Data f groove (mm/rev)
HGN 3002J	3.00	0.20	0.05	0.030	16.10	●	●	●	●	0.04-0.15

• No depth limit • For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

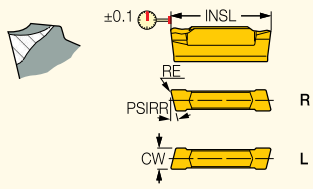
(2) Corner radius tolerance (+/-)

Tools: C#-HELIR/L • D/HGAD RE/LE-JHP • DGAD/HGAD • HELIR/L • HFPAD-3 • HFPAD-JHP • HGAIR/L-3 • HGFH • HGHR/L-3 • HGPAD • HGPAD-JHP

DO-GRIP TWISTED 2-SIDED

HGR/L-J/JS

Double-Sided Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts



Designation	Dimensions CW	RE	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC354	Recommended Machining Data f groove (mm/rev)
HGL 3000JS-15D (1)	3.00	0.02	15.0	-	15.20	●			0.03-0.07
HGR 3000JS-15D (1)	3.00	0.02	-	15.0	15.20	●			0.03-0.07
HGL 3002J-6D	3.00	0.20	6.0	-	15.70	●			0.04-0.12
HGR 3002J-6D	3.00	0.20	-	6.0	15.70	●	●	●	0.04-0.12

• No depth limit • For cutting speed recommendations and user guide, see pages 540-547

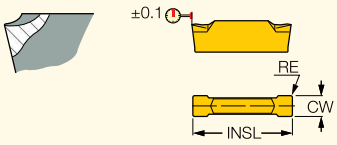
(1) Sharp corners

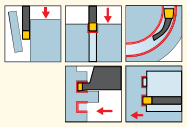
Tools: D/HGAD RE/LE-JHP • DGAD/HGAD • HELIR/L • HGFH

DO-GRIP TWISTED 2-SIDED

HGN-UT

Double-Sided Inserts for Parting and Grooving Low Feeds on Cr-Ni Alloys and Low Carbon Steel





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC354	Recommended Machining Data f groove (mm/rev)
HGN 3003UT	3.00	0.30	0.05	0.030	15.80	●	●	0.04-0.13

• No depth limit • For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

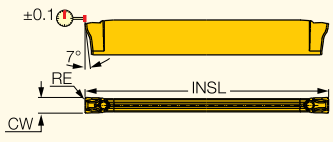
(2) Corner radius tolerance (+/-)

Tools: C#-HELIR/L • D/HGAD RE/LE-JHP • DGAD/HGAD • HELIR/L • HFPAD-3 • HFPAD-JHP • HGAIR/L-3 • HGFH • HGHR/L-3 • HGPAD • HGPAD-JHP

DO-GRIPXL

DGN-C-XL

Extra Long Parting and Grooving Inserts for Parting Bars Up to 65 mm Diameters, Hard Materials and Tough Applications



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC830	IC5400	IC808	Recommended Machining Data f groove (mm/rev)
DGN 2002C-XL	2.05	0.20	0.04	0.030	30.00	32.00	●	●	●	0.05-0.16
DGN 3002C-XL	3.00	0.20	0.04	0.030	32.50	35.00	●		●	0.07-0.20

• For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

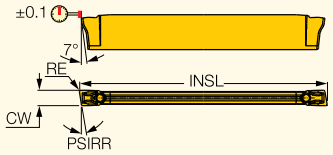
(3) Cutting depth maximum

Tools: DGTR/L-XL

DO-GRIPXL

DGR/L-C-XL

Extra Long Double-Sided Inserts for Parting Bars, Hard Materials and Tough Applications



Right-hand shown

Designation	Dimensions CW	RE	CDX(1)	PSIRL	PSIRR	INSL	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
DGL 2002C-6D-XL	2.00	0.20	30.00	6.0	-	32.00	●	●	0.05-0.12
DGR 2002C-6D-XL	2.00	0.20	30.00	-	6.0	32.00	●	●	0.05-0.12
DGL 3002C-6D-XL	3.00	0.20	32.50	6.0	-	35.00	●	●	0.08-0.18
DGR 3002C-6D-XL	3.00	0.20	32.50	-	6.0	35.00	●	●	0.08-0.18

- For cutting speed recommendations and user guide, see pages 540-547

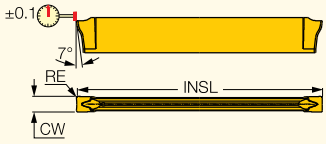
(1) Cutting depth maximum

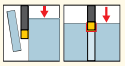
Tools: DGTR/L-XL

DO-GRIPXL

DGN-J-XL

Extra Long Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	INSL	Tough ↔ Hard IC830	IC5400	IC808	Recommended Machining Data f groove (mm/rev)
DGN 2002J-XL	2.05	0.20	0.04	0.030	30.00	32.00	●	●	●	0.04-0.14
DGN 3002J-XL	3.00	0.20	0.04	0.030	32.50	35.00	●		●	0.04-0.16

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

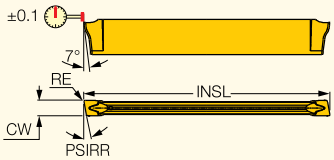
(3) Cutting depth maximum

Tools: DGTR/L-XL

DO-GRIPXL

DGR/L-J-XL

Extra Long Double-Sided Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts



Right-hand shown

Designation	Dimensions CW	RE	CDX(1)	PSIRL	PSIRR	INSL	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
DGL 2002J-6D-XL	2.00	0.20	30.00	6.0	-	32.00	●	●	0.04-0.10
DGR 2002J-6D-XL	2.00	0.20	30.00	-	6.0	32.00	●	●	0.04-0.10
DGL 3002J-6D-XL	3.00	0.20	32.50	6.0	-	35.00	●	●	0.04-0.14
DGR 3002J-6D-XL	3.00	0.20	32.50	-	6.0	35.00	●	●	0.04-0.14

- For cutting speed recommendations and user guide, see pages 540-547

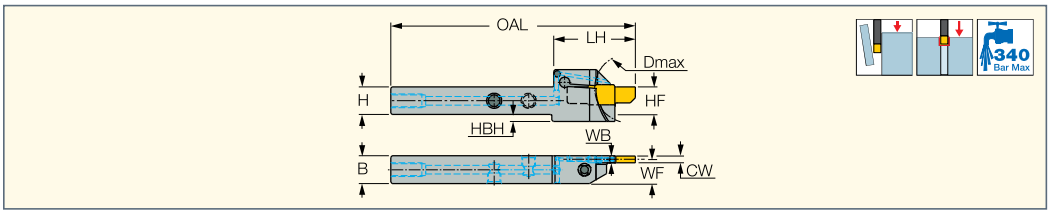
(1) Cutting depth maximum

Tools: DGTR/L-XL

ISCARPARTING
JETCUT

BGTR/L-B-JHP

Integral Shank Parting and Grooving Tools with Coolant Channels Carrying Narrow Inserts for Parting up to 20 mm Bars



Designation	CWN(1)	CWX(2)	H	HF	B	WB	OAL	LH	D max(3)	WF	HBH
BGTR/L 16B-D20-JHP	0.80	1.50	16.0	16.0	16.0	4.00	142.00	47.5	40.0 (4)	14.00	4.0
BGTR/L 20B-D20-JHP	0.80	1.50	20.0	20.0	20.0	4.00	142.00	47.5	40.0 (4)	18.00	-
BGTR/L 25B-D20-JHP	0.80	1.50	25.0	25.0	25.0	4.00	142.00	47.5	40.0 (4)	23.00	-

- For user guide, see pages 540-547

(1) Minimum cutting width
(2) Maximum cutting width
(3) The specified limit refers to the tool
(4) for grooving

Inserts: BGM N-J • BGM R/L-J
Holders: AVC-D80-VH • C#-ADE • C#-ADES • C#-ASHA • C#-ASHR/L • C#-ASHR/L-45 • DT30/2 ASH# 16/20-1-35080 • HSK A-WH-ASHR/L-1 • HSK A63WH-ASHN-45 • HSK A63WH-ASHR/L-2 • HSK A63WH-ASHR/L-3 • HSK A63WH-ASHR/L-45

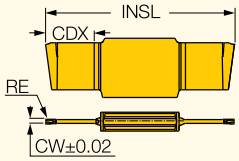
Spare Parts

Designation				
BGTR/L 16B-D20-JHP	SR M5X16 DIN912		SR 5/16UNF TL360	HW 4.0
BGTR/L 20B-D20-JHP	SR M5X16 DIN912	HW 3.0	PLG G1/8 TL360	HW 5.0
BGTL 25B-D20-JHP	SR M5X16 DIN912	HW 3.0	PLG G1/8 TL360	HW 5.0
BGTR 25B-D20-JHP	SR M5X16 DIN912	HW 4.0	PLG G1/8 TL360	HW 5.0

ISCARPARTING

BGM N-J

Narrow Material Cost Saving Inserts for Grooving and Parting up to 20 mm Bar Diameters



Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	INSL	IC1008	Recommended Machining Data f groove (mm/rev)
BGM N0801J	0.80	0.02	0.10	0.020	10.00	38.70	●	0.02-0.05
BGM N1001J	1.00	0.02	0.10	0.020	10.00	38.70	●	0.02-0.08
BGM N1201J	1.20	0.02	0.10	0.020	10.00	38.70	●	0.03-0.10
BGM N1501J	1.50	0.02	0.10	0.020	10.00	38.70	●	0.05-0.12

- For cutting speed recommendations and user guide, see pages 540-547

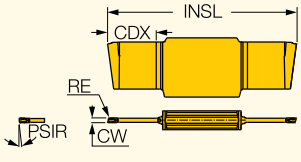
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

Tools: BGTR/L-B-JHP

ISCARPARTING

BGM R/L-J

Narrow Material Cost Saving Inserts for Parting up to 20 mm Bar Diameters



Designation	Dimensions CW	RE	INSL	CDX	PSIR	IC1008	Recommended Machining Data f groove (mm/rev)
BGM R/L1001J-15D	1.00	0.10	38.70	10.00	15.0	●	0.02-0.06
BGM R/L1001J-6D	1.00	0.10	38.70	10.00	6.0	●	0.02-0.08

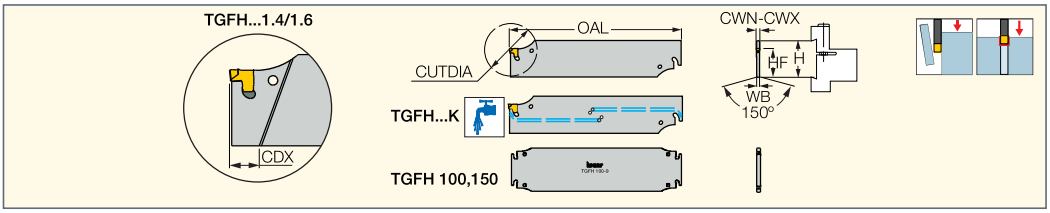
- For cutting speed recommendations and user guide, see pages 540-547

Tools: BGTR/L-B-JHP

TANG-GRIP

TANG-GRIP PARTING LINE
SUMO-GRIP HEAVY DUTY LINE

TGFH/R/L
Blades with a Tangentially Oriented Pocket Carrying TANG-GRIP Single-Ended Inserts for Parting and Grooving



Designation	H	CWN[2]	CWX[3]	WB	OAL	CDX	HF	CUTDIA	CSP[4]	Insert		
TGFH 19-1.4	19.0	1.40	1.40	1.05 [5]	86.00	9.60	15.7	30.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 19-1.6	19.0	1.60	1.60	1.30 [6]	86.00	11.00	15.7	32.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 19-2	19.0	1.80	2.40	1.65	86.00	-	15.7	38.0	0	TAG 2	ETG 2*	
TGFH 26-1.4	26.0	1.40	1.40	1.05 [5]	110.00	8.30	21.4	29.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 26-1.6	26.0	1.60	1.60	1.30 [6]	110.00	10.00	21.4	35.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 26-2	26.0	1.80	2.40	1.65	110.00	-	21.4	50.0	0	TAG 2	ETG 2*	
TGFH 26-3	26.0	2.80	3.50	2.50	110.00	-	21.4	75.0	0	TAG 3	ETG 3-4*	
TGFH 26K-3 [1]	26.0	2.80	3.50	2.50	110.00	-	21.4	75.0	1	TAG 3	ETG 3-4-SH*	SGC 340
TGFH 26-4	26.0	3.70	4.50	3.40	110.00	-	21.4	80.0	0	TAG 4	ETG 3-4*	
TGFH 26-5	26.0	4.70	5.50	4.00	150.00	-	21.4	80.0	0	TAG 5	ETG 5-7*	
TGFH 32-1.4	32.0	1.40	1.40	1.05 [5]	150.00	7.10	24.8	29.0	0	TAG 1.4	ETG 1.4/1.6*	
TGFH 32-1.6	32.0	1.60	1.60	1.30 [5]	150.00	10.00	24.8	38.0	0	TAG 1.6	ETG 1.4/1.6*	
TGFH 32-2	32.0	1.80	2.40	1.65 [5]	150.00	-	24.8	50.0	0	TAG 2	ETG 2*	
TGFH 32-3	32.0	2.80	3.50	2.50	150.00	-	24.8	100.0	0	TAG 3	ETG 3-4*	
TGFH 32K-3 [1]	32.0	2.80	3.50	2.50	150.00	-	24.8	100.0	1	TAG 3	ETG 3-4-SH*	SGC 340
TGFH 32-4	32.0	3.70	4.50	3.40	150.00	-	24.8	100.0	0	TAG 4	ETG 3-4*	
TGFH 32K-4 [1]	32.0	3.70	4.50	3.40	150.00	-	24.8	100.0	1	TAG 4	ETG 3-4-SH*	SGC 340
TGFH 32-5	32.0	4.70	5.50	4.00	150.00	-	24.8	120.0	0	TAG 5	ETG 5-7*	
TGFH 32-6	32.0	5.70	6.50	5.20	150.00	-	24.8	120.0	0	TAG 6	ETG 5-7*	
TGFH 32-7	32.0	6.80	7.50	6.00	148.00	-	24.8	120.0	0	TAG 7	ETG 5-7*	
TGFH 45-3	45.0	2.80	3.50	2.50	225.00	-	38.1	160.0	0	TAG 3	ETG 3-4*	
TGFH 45-4	45.0	3.70	4.50	3.40	225.00	-	38.1	160.0	0	TAG 4	ETG 3-4*	
TGFH 45-5	45.0	4.70	5.50	4.00	225.00	-	38.1	160.0	0	TAG 5	ETG 5-7*	
TGFH 45-6	45.0	5.70	6.50	5.20	225.00	-	38.1	160.0	0	TAG 6	ETG 5-7*	
TGFH 45-7	45.0	6.80	7.50	6.00	225.00	-	38.1	160.0	0	TAG 7	ETG 5-7*	
TGFH 52-7	52.6	6.80	7.50	6.00	190.00	-	45.2	190.0	0	TAG 7	ETG 5-7*	
TGFH 53-7	52.6	6.80	7.50	6.00	260.00	-	45.2	220.0	0	TAG 7	ETG 5-7*	
TGFH 52K-8 [1]	52.6	7.70	8.50	7.20	190.00	-	45.2	190.0	1	TAG 8	ETG 8-12*	
TGFH 53K-8 [1]	52.6	7.70	8.50	7.20	260.00	-	45.2	215.0	1	TAG 8	ETG 8-12*	
TGFH 52K-9 [1]	52.6	8.70	10.00	8.20	190.00	-	45.2	190.0	1	TAG 9	ETG 8-12*	
TGFH 53K-9 [1]	52.6	8.70	10.00	8.20	260.00	-	45.2	215.0	1	TAG 9	ETG 8-12*	
TGFHR/L 53K-12 [1]	52.6	11.70	12.70	10.00	260.00	-	45.2	215.0	1	TAG 12	ETG 8-12*	
TGFH 100-9	100.0	8.70	10.00	8.20	460.00	-	92.5	450.0	0	TAG 9	ETG 8-12*	
TGFH 100-12	100.0	11.70	12.70	10.00	460.00	-	92.5	450.0	0	TAG 12	ETG 8-12*	
TGFH 150-12	150.0	11.70	12.70	10.00	610.00	-	142.5	600.0	0	TAG 12	ETG 8-12*	

- For user guide, see pages 540-547

[1] With coolant holes, the recommended coolant pressure is 10 bar min.; cooling tube SGCU 341 should be ordered separately
[2] Minimum cutting width
[3] Maximum cutting width
[4] 0 - Without coolant supply, 1 - With coolant supply
[5] Thickness beyond the D.O.C. area is 2.50 mm
[6] Thickness beyond the D.O.C. area is 1.60 mm
* Optional, should be ordered separately

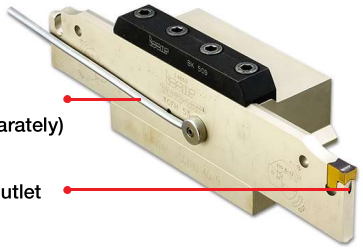
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS • TAGB/TAGBA

Holders: C#-TBK-R/L • HSK A-WH-TBK-R/L • SGTBF • SGTBK • SGTBR/L • SGTBU/SGTBN • UBHCR/L

K TYPE COOLANT

Coolant inlet SGCU-341
(should be ordered separately)

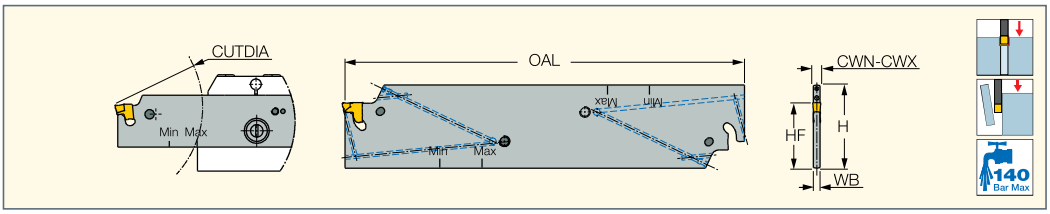
Coolant outlet



TANG-GRIP PARTING LINE JETCUT

TGFH-JHP

Parting and Grooving Blades with Channels for Low and High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	H	CWN(2)	CWX(3)	WB	OAL	HF	CUTDIA	Insert		
TGFH 26C-3-JHP	26.0	2.80	3.50	2.50	140.00	21.4	75.0	TAG 3	SGC 340	ETG 3-4-SH*
TGFH 32C-3-JHP	32.0	2.80	3.50	2.50	150.00	24.8	90.0	TAG 3	SGC 340	ETG 3-4-SH*
TGFH 26C-4-JHP	26.0	3.70	4.50	3.40	140.00	21.4	75.0	TAG 4	SGC 340	ETG 3-4-SH*
TGFH 32C-4-JHP	32.0	3.70	4.50	3.40	150.00	24.8	90.0	TAG 4	SGC 340	ETG 3-4-SH*
TGFH 32C-5-JHP	32.0	4.70	5.50	4.00	160.00	24.8	120.0	TAG 5	SGC 340	ETG 5-7*
TGFH 32C-6-JHP (1)	32.0	5.70	6.50	5.20	160.00	24.8	120.0	TAG 6	SGC 340	ETG 5-7*

- For user guide and accessories, see pages 540-547

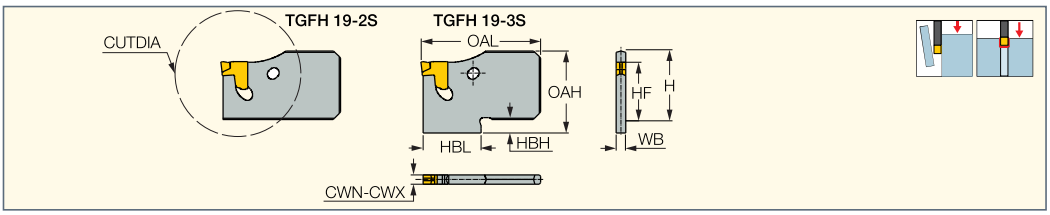
(1) Only an upper channel
(2) Minimum cutting width
(3) Maximum cutting width
* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS
• TAGB/TAGBA
Holders: TGTBU-JHP

TANG-GRIP PARTING LINE

TGFH-S

Parting and Grooving Single-Sided Blades Carrying TANG-GRIP Inserts



Designation	H	CWN(1)	CWX(2)	WB	OAL	HF	OAH	HBH	HBL	CDX(3)	CUTDIA	
TGFH 19-2S	19.0	1.80	2.40	1.65	32.00	15.7	19.0	-	-	12.00	36.0	ETG 2*
TGFH 19-3S	19.0	2.80	3.50	2.50	34.60	15.7	22.0	3.0	15.5	16.00	40.0	ETG 3-4-SH*

- For Dmax and Tmax drawing, see SGBHR/L holder

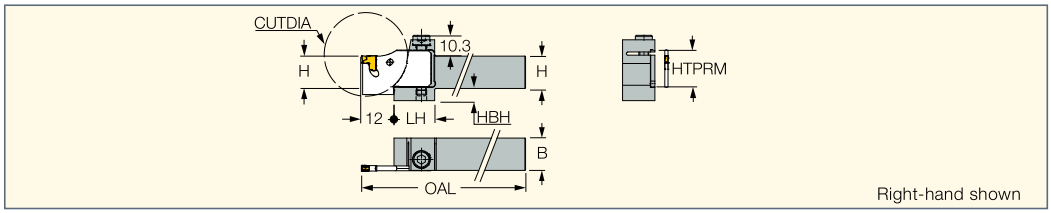
(1) Minimum cutting width
(2) Maximum cutting width
(3) Cutting depth maximum
* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

SELF-GRIP

SGBHR/L

Tool Blocks for SELF-GRIP Single-Sided Blades



Designation	H	B	HBH	OAL	HTPRM	LH	CDX(1)	CUTDIA
SGBHR/L 1010	10.0	10.0	10.0	154.00	19.0	20.0	16.00	40.0
SGBHR 1212	12.0	12.0	8.0	154.00	19.0	20.0	16.00	40.0
SGBHR 1414	14.0	14.0	6.0	154.00	19.0	20.0	16.00	40.0
SGBHR/L 1616	16.0	16.0	6.0	154.00	19.0	20.0	16.00	40.0
SGBHR/L 2020	20.0	20.0	2.0	154.00	19.0	20.0	16.00	40.0
SGBHR/L 2525	25.0	25.0	-	154.00	19.0	20.0	16.00	40.0

- For Dmax and Tmax dimensions, see TGFH-S adapters

(1) Cutting depth maximum
Tools: TGFH-S

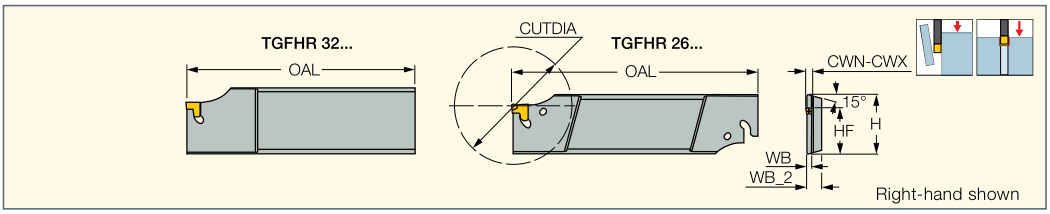
Spare Parts

Designation			
SGBHL 1010	SET ESG 1	SR M5X25DIN912	HW 4.0
SGBHR 1010		SR M5X25DIN912	HW 4.0
SGBHR 1212		SR M5X25DIN912	HW 4.0
SGBHR 1414	SET ESG 1	SR M5X25DIN912	HW 4.0
SGBHR/L 1616		SR M5X25DIN912	HW 4.0
SGBHL 2020		SR M5X25DIN912	HW 4.0
SGBHR 2020	SET ESG 1	SR M5X25DIN912	HW 4.0
SGBHR/L 2525		SR M5X25DIN912	HW 4.0

TANG-GRIP PARTING LINE

TGFHR/L

Single- and Double-Ended Parting and Grooving Reinforced Blades Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	H	CWN(1)	CWX(2)	WB	WB_2	OAL	HF	CUTDIA	
TGFHL 26T16-2	26.0	1.80	2.40	1.65	7.9	110.50	21.4	43.0	ETG 2*
TGFHR 26T16-3	26.0	2.80	3.50	2.50	7.9	110.50	21.4	43.0	ETG 3-4-SH*
TGFHR/L 26T23-2	26.0	1.80	2.40	1.65	7.9	110.50	21.4	46.0	ETG 2*
TGFHR/L 26T23-3	26.0	2.80	3.50	2.50	7.9	110.50	21.4	46.0	ETG 3-4-SH*
TGFHR/L 32T22-2	32.0	1.80	2.40	1.65	7.9	110.50	24.8	42.0	ETG 2*
TGFHR/L 32T22-3	32.0	2.80	3.50	2.50	7.9	110.50	24.8	42.0	ETG 3-4-SH*
TGFHR/L 32T33-3	32.0	2.80	3.50	2.50	7.9	110.50	24.8	66.0	ETG 3-4-SH*
TGFHR/L 32T33-4	32.0	3.70	4.50	3.40	7.9	110.50	24.8	66.0	ETG 3-4-SH*

- For user guide, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

* Optional, should be ordered separately

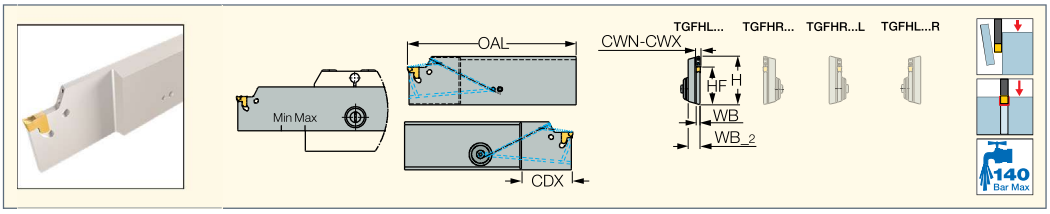
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: C#-TBK-R/L • HSK A-WH-TBK-R/L • SGTBF • SGTBK • SGTBR/L • SGTBU/SGTBN • UBHCR/L

TANG-GRIP PARTING LINE JETCUT

TGFHR/L-JHP

Parting and Grooving Reinforced Blades with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	WB_2	WB	OAL	H	HF	CDX(3)	Insert		
TGFHR/L 32C-3T33-JHP	2.80	3.50	7.9	2.50	110.50	32.0	24.8	33.00	TAG 3	ETG 3-4-SH*	SGC 340
TGFHL 32C-3T33R-JHP	2.80	3.50	7.9	2.50	110.50	32.0	24.8	33.00	TAG 3	ETG 3-4-SH*	SGC 340
TGFHR 32C-3T33L-JHP	2.80	3.50	7.9	2.50	110.50	32.0	24.8	33.00	TAG 3	ETG 3-4-SH*	SGC 340

- For user guide and accessories, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

* Optional, should be ordered separately

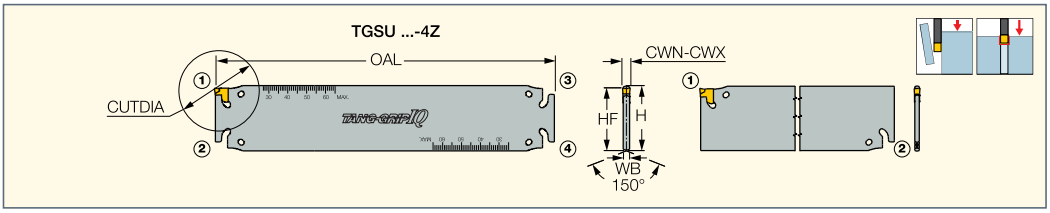
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: TGTBU-JHP

TANG-GRIP IQ 350 LINE

TGSU

Parting and Grooving Flat Top Blades with Tangential Pockets Carrying TANG-GRIP Single-Ended Inserts



Designation	H	CWN[2]	CWX[3]	CUTDIA	NOP[4]	WB	OAL	HF	CSP[5]	Insert	
TGSU 35-1.4-IQ	35.0	1.40	1.40	35.0	2	2.50 [6]	180.00	33.2	0	TAG 1.4	ETG 1.4/1.6*
TGSU 35-2-IQ	35.0	1.80	2.40	59.5	2	2.50 [7]	160.00	33.2	0	TAG 2	ETG 2*
TGSU 35-3-IQ-4Z	35.0	2.80	3.50	120.0	4	2.50	180.00	33.2	0	TAG 3	ETG 3-4-SH*
TGSU 35-4-IQ-4Z	35.0	3.70	4.50	120.0	4	3.40	180.00	33.2	0	TAG 4	ETG 3-4-SH*
TGSU 35-5-IQ	35.0	4.70	5.50	144.0	2	4.00	180.00	33.2	0	TAG 5	ETG 5-7*
TGSU 35-6-IQ	35.0	5.70	6.50	144.0	2	5.20	180.00	33.2	0	TAG 6	ETG 5-7*
TGSU 35-7-IQ	35.0	6.80	7.50	144.0	2	6.00	180.00	33.2	0	TAG 7	ETG 5-7*
TGSU 35C-8-IQ [1]	35.0	7.70	8.50	144.0	2	7.20	180.00	33.2	1	TAG 8	ETG 8-12*
TGSU 35C-9-IQ [1]	35.0	8.70	10.00	144.0	2	8.20	180.00	33.2	1	TAG 9	ETG 8-12*
TGSU 56C-7-IQ [1]	56.0	6.80	7.50	220.0	2	6.00	260.00	53.6	1	TAG 7	ETG 5-7*
TGSU 56C-8-IQ [1]	56.0	7.70	8.50	220.0	2	7.20	260.00	53.6	1	TAG 8	ETG 8-12*
TGSU 56C-9-IQ [1]	56.0	8.70	10.00	220.0	2	8.20	260.00	53.6	1	TAG 9	ETG 8-12*

- For user guide, see pages 540-547

[1] C- Internal coolant, use with TGTBU HD blocks only; cooling tube SGCU 341 should be ordered separately
[2] Minimum cutting width
[3] Maximum cutting width
[4] Number of pockets
[5] 0 - Without coolant supply, 1 - With coolant supply
[6] Thickness at the D.O.C. area is 1.05 mm
[7] Thickness at the D.O.C. area is 1.65 mm
* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS • TAGB/TAGBA

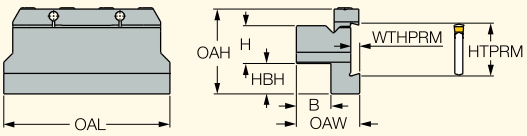
Holders: TGTBU

TGSU 35-3-IQ-4Z
TGSU 35-4-IQ-4Z

TANG-GRIP IQ 350 LINE

TGTBU

Tool Blocks for TGSU Parting and Grooving Blades



Choose blade by HTPRM dimension

Designation	H	B	HTPRM	WTHPRM	OAW	OAH	HBH	OAL			
TGTBU 20-35	20.0	19.0	35.0	6.00	38.00	56.0	23.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 25-35	25.0	23.0	35.0	6.00	42.00	56.0	18.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 32-35	32.0	29.0	35.0	6.00	48.00	56.0	11.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 32-35 HD [1]	32.0	30.0	35.0	8.00	55.00	64.0	18.0	130.00	BK 509	SR M8X20DIN912	HW 6.0
TGTBU 40-35	40.0	41.0	35.0	6.00	60.00	56.0	3.7	110.00	BKU 110	SR M6X16 DIN912	HW 5.0
TGTBU 40-35 HD [1]	40.0	41.0	35.0	8.00	66.00	64.0	10.0	130.00	BK 509	SR M8X20DIN912	HW 6.0
TGTBU 40-56 HD [1]	40.0	41.0	56.0	8.00	66.00	72.0	28.0	130.00	BK 509	SR M8X20DIN912	HW 6.0

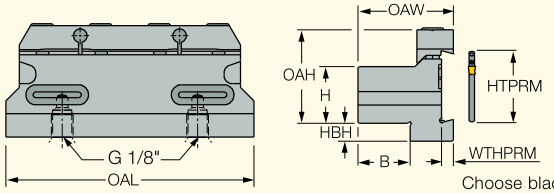
[1] HD - recommended blocks for TGSU...-8, TGSU...-9 blades

Tools: TGSU

JETCUT

TGTBU-JHP

Tool Blocks for Parting and Grooving Blades for High-Pressure Coolant



Choose blade by prism height dimension

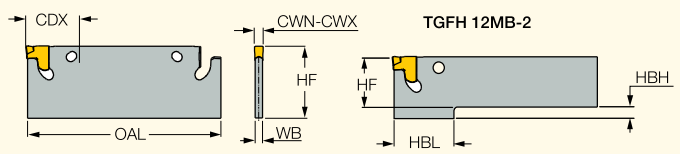
Designation	H	B	HTPRM	OAW	OAH	HBH	WTHPRM	OAL				
TGTBU 16-5G-JHP	16.0	16.9	26.0	35.60	29.9	13.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-5G-JHP	20.0	20.9	26.0	39.60	33.9	9.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-35-JHP	20.0	19.0	35.0	38.00	32.3	23.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-6G-JHP	20.0	19.0	32.0	39.20	36.4	15.0	5.30	100.00	BKU 100	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-5G-JHP	25.0	26.1	26.0	44.10	39.0	5.5	4.10	110.00	BKU 105	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-6G-JHP	25.0	23.0	32.0	43.20	41.4	8.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-35-JHP	25.0	23.0	35.0	42.00	37.3	18.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-6G-JHP	32.0	29.0	32.0	49.20	48.4	5.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-35-JHP	32.0	29.0	35.0	48.00	44.3	11.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N

Tools: DGFH-JHP • DGFHR/L-BC-JHP • TGFH-JHP • TGFHR/L-JHP

TANG-GRIP PARTING LINE

TGFH-MB

Parting and Grooving Blades for Other Manufacturers Blocks



Designation	CWN(1)	CWX(2)	WB	OAL	HF	HBH	HBL	CDX(3)	Insert	
TGFH 12MB-2 L58	1.80	2.40	1.65	58.00	12.2	2.8	15.5	11.50	TAG 2	ETG 2*
TGFH 17MB-2 L58	1.80	2.40	1.65	58.00	17.2	-	-	11.50	TAG 2	ETG 2*
TGFH 22MB-2 L58	1.80	2.40	1.65	58.00	22.2	-	-	11.50	TAG 2	ETG 2*
TGFH 17MB-3	2.80	3.50	2.50	64.00	17.2	-	-	12.00	TAG 3	ETG 3-4-SH*
TGFH 22MB-3	2.80	3.50	2.50	64.00	22.2	-	-	12.00	TAG 3	ETG 3-4-SH*
TGFH 22MB-3-L84	2.80	3.50	2.50	84.00	22.2	-	-	16.00	TAG 3	ETG 3-4-SH*
TGFH 28MB-3	2.80	3.50	2.50	100.00	28.0	-	-	19.00	TAG 3	ETG 3-4-SH*
TGFH 17MB-4	3.70	4.50	3.40	70.00	17.2	-	-	14.00	TAG 4	ETG 3-4-SH*
TGFH 22MB-4	3.70	4.50	3.40	70.00	22.2	-	-	14.00	TAG 4	ETG 3-4-SH*
TGFH 22MB-4-L90	3.70	4.50	3.40	90.00	22.2	-	-	17.00	TAG 4	ETG 3-4-SH*
TGFH 28MB-4	3.70	4.50	3.40	100.00	28.0	-	-	19.00	TAG 4	ETG 3-4-SH*

• For user guide, see pages 540-547

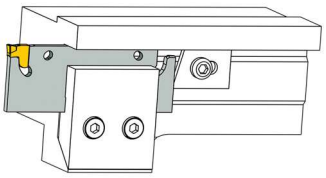
(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

* Optional, should be ordered separately

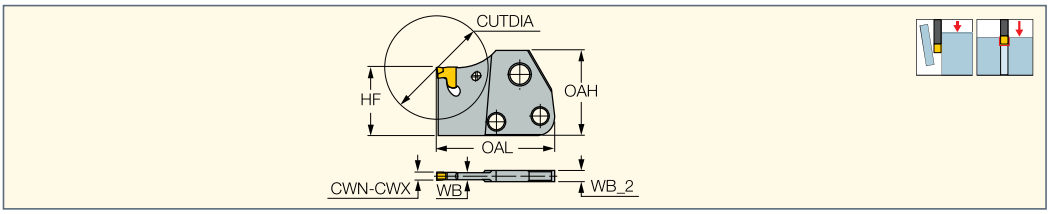
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS



TANG-GRIP PARTING LINE

TGAD

Parting and Grooving Adapters Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	CWN(1)	CWX(2)	WB_2	WB	OAL	CUTDIA	HF	OAH	Insert	
TGAD 1.4N	1.40	1.40	3.20	1.1	41.50	32.0	24.0	29.0	TAG 1.4	ETG 1.4/1.6*
TGAD 2N	1.80	2.40	3.20	1.7	41.50	32.0	24.0	30.0	TAG 2	ETG 2*
TGAD 3N	2.80	3.50	4.00	2.4	41.50	35.0	24.0	30.0	TAG 3	ETG 3-4-SH*
TGAD 4N	3.70	4.50	3.20	3.2	50.50	50.0	24.0	30.0	TAG 4	ETG 3-4-SH*
TGAD 5N	4.70	5.50	4.00	4.0	50.50	50.0	24.0	30.0	TAG 5	ETG 5-7*

- For user guide, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

* Optional, should be ordered separately

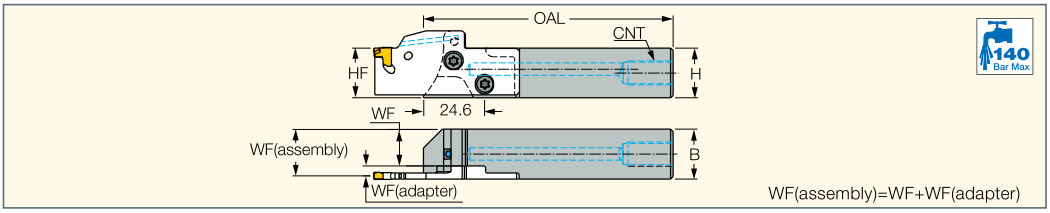
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: DGHAL-DECO • MAHPR/L-JHP • MAHR/L-JHP • MAHR/L • MAHPR/L • C#-MAHD • C#-MAHPD • C#-MAHDR-45 • HSK A63WH-MAHUR/L • HSK A63WH-MAHDR-45 • HSK A63WH-MAHDOR • IM-MAHD • C#-MAHD-JHP • C#-MAHPD-JHP • IM-MAHPD • MAHR/L-JHP-MC

MODUGRIP MODULAR GRIP CARTRIDGES JETCUT

NMAHR/L-JHP

Holders with High-Pressure Coolant Channels Carrying MODU-GRIP Adapters



Designation	H	B	OAL	WF	CNT	HF
NMAHR/L 20-MG-JHP	20.0	20.0	100.00	14.70	G1/8	20.0
NMAHR/L 25-MG-JHP	25.0	25.0	100.00	19.70	G1/8	25.0

Tools: D/HGAD RE/LE-JHP • PCAD RE/LE-JHP • TGAD RE/LE-JHP

Spare Parts

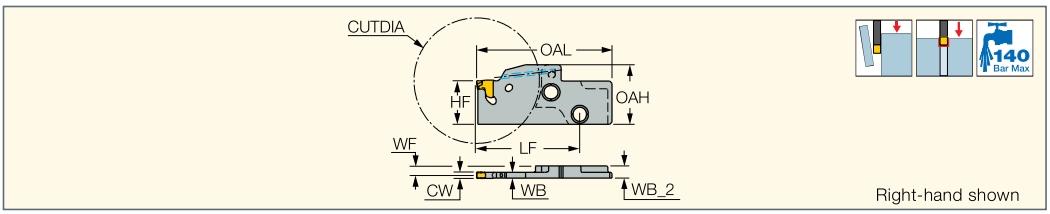
Designation				
NMAHR/L-JHP	SR M5-04451	SW6-T-SH	BLD T20/S7	OR 5X1N

TANG-GRIP PARTING LINE JETCUT

MODUGRIP MODULAR GRIP CARTRIDGES

TGAD RE/LE-JHP

Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	WF	WB	WB_2	LF	OAL	OAH	HF	CUTDIA	Insert
TGAD 2R/LE-D54-JHP	1.80	2.40	4.48	1.65	5.3	44.40	58.30	25.80	18.9	54.0	TAG 2
TGAD 3R/LE-D54-JHP	3.00	3.50	4.08	2.45	5.3	44.40	58.30	25.80	18.9	54.0	TAG 3

- For user guide and accessories, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: NMAHR/L-JHP

Spare Parts

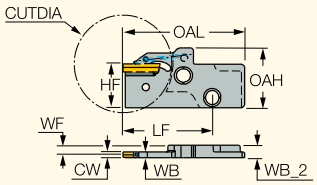
Designation	
TGAD 2R/LE-D54-JHP	ETG 2*
TGAD 3R/LE-D54-JHP	ETG 3-4-SH*

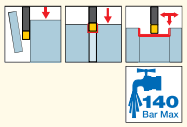
* Optional, should be ordered separately

DO-GRIP TWISTED 2-SIDED JETCUT
MODUGRIP MODULAR GRIP CARTRIDGES

D/HGAD RE/LE-JHP

Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying DO-GRIP Inserts





Designation	CWN(2)	CWX(3)	WF	WB	WB_2	LF	OAL	OAH	HF	CUTDIA	Insert	
DGAD 2R/LE-D38-JHP (1)	1.90	2.50	4.50	1.60	5.3	40.40	54.35	25.80	18.9	38.0	DGN 2	EDG 33A*
DGAD 3R/LE-D38-JHP (1)	3.00	3.18	4.08	2.45	5.3	40.40	54.35	25.80	18.9	38.0	DGN 3	EDG 33A*
HGAD 3R/LE-D42-JHP	3.00	3.00	4.08	2.45	5.3	38.40	52.35	25.80	18.9	42.0	HGN 3/GRIP 3	EDG 23B*

- For user guide and accessories, see pages 540-547

(1) For parting and external grooving only

(2) Minimum cutting width

(3) Maximum cutting width

* Optional, should be ordered separately

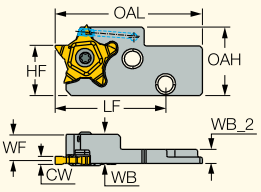
Inserts: DGN-P • DGN-UT/UA • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS • GRIP • GRIP (full radius) • HGN-C • HGN-J • HGN-UT • HGR/L-C • HGR/L-J/JS

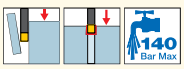
Holders: NMAHR/L-JHP

PENTACUT PARTING & GROOVING LINE JETCUT
MODUGRIP MODULAR GRIP CARTRIDGES

PCAD RE/LE-JHP

Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying PENTA 24 Inserts





Right-hand shown

Designation	CWN(1)	CWX(2)	WF	WB	WB_2	LF	OAL	OAH	HF	Insert
PCAD 24R/LE-JHP	0.50	3.18	5.20	11.00	5.3	41.40	55.30	25.80	18.9	PENTA 24

- For user guide and accessories, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

Inserts: PENTA 24-BSPT • PENTA 24-ISO • PENTA 24-MT • PENTA 24-NPT • PENTA 24-UN • PENTA 24-W • PENTA 24-WT • PENTA 24N-C • PENTA 24N-C (full radius) • PENTA 24N-J • PENTA 24N-J (full radius) • PENTA 24N-PF (full radius) • PENTA 24N-PF/P • PENTA 24N-Z • PENTA 24R-C • PENTA 24R-P • PENTA 24R/L-J • PENTA 24R/L-Z

Holders: NMAHR/L-JHP

Spare Parts

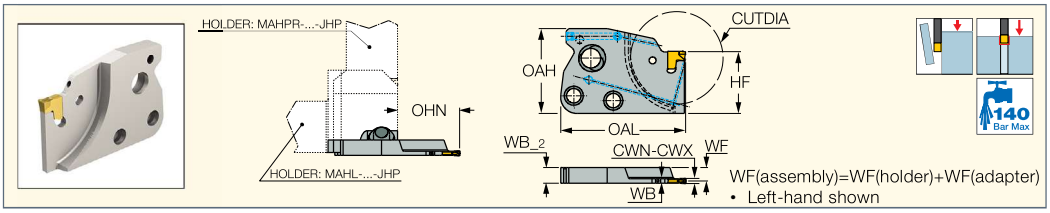
Designation	
PCAD 24LE-JHP	SR 16-212-01397L
PCAD 24RE-JHP	SR 16-212-01397

TANG-GRIP JETCUT PARTING LINE

MODULAR-GRIP

TAGPAD-JHP

Parting and Grooving Adapters with Coolant Channels for High-Pressure Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	CUTDIA	OHN(3)	WF	WB	WB_2	OAL	OAH	HF	Insert	
TAGPAD 2R/L-D42-JHP	1.80	2.40	42.0	24.0	5.18	1.65	6.0	48.40	33.0	24.0	TAG 2	ETG 2*
TAGPAD 2R/L-D52-JHP	1.80	2.40	52.0	29.0	5.18	1.65	6.0	53.40	33.0	24.0	TAG 2	ETG 2*
TAGPAD 3R/L-D42-JHP	2.80	3.50	42.0	24.0	4.80	2.40	6.0	48.40	33.0	24.0	TAG 3	ETG 3-4-SH*
TAGPAD 3R/L-D52-JHP	2.80	3.50	52.0	29.0	4.80	2.40	6.0	53.40	33.0	24.0	TAG 3	ETG 3-4-SH*

• For user guide and accessories see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

(3) Minimum overhang

* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: ABC MAHDR-#-XL-JHP • DT##/2 MAHD#-#-XL-JHP • MAHR/L-JHP-MC • MS##-##-MG-JHP • MS-ES#####-GWS-MG-JHP • TR45 MAHDR-#-XL-JHP • V## MAHD#-#-XL-##-JHP • V## MAHD-XL-JHP

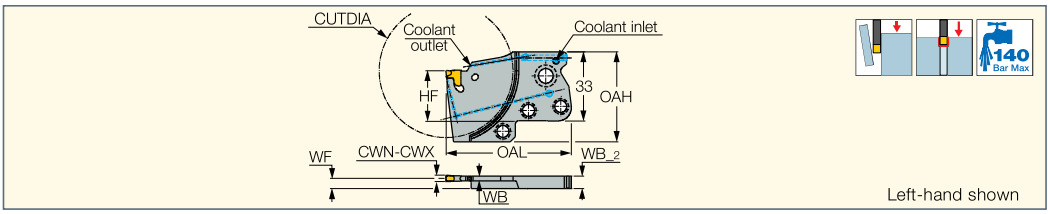
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TAGPAD 2R/L-D42-JHP	5	6	7
TAGPAD 2R/L-D52-JHP	5	6	7
TAGPAD 3R/L-D42-JHP	8.5	10	12
TAGPAD 3R/L-D52-JHP	8.5	10	12

TANG-GRIP JETCUT PARTING LINE

TAGPAD-XL-JHP

Extra Long Parting and Grooving Adapters with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	WF	WB	WB_2	OAL	OAH	HF	CUTDIA	Insert	
TAGPAD-XL 2R/L-D65-JHP	1.80	2.40	5.20	1.60	6.0	60.00	43.0	34.0	65.0	TAG 2	ETG 2*
TAGPAD-XL 3R/L-D52-JHP	2.80	3.50	4.80	2.40	6.0	53.40	43.0	34.0	52.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 3R/L-D65-JHP	2.80	3.50	4.80	2.40	6.0	59.90	43.0	34.0	65.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 3R/L-D82-JHP	2.80	3.50	4.80	2.40	6.0	70.40	43.0	34.0	82.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 3R/L-D102-JHP	2.80	3.50	4.80	2.40	6.0	82.50	43.0	34.0	102.0	TAG 3	ETG 3-4-SH*
TAGPAD-XL 4R/L-D52-JHP	3.70	4.50	4.30	3.40	6.0	53.40	43.0	34.0	52.0	TAG 4	ETG 3-4-SH*
TAGPAD-XL 4R/L-D65-JHP	3.70	4.50	4.30	3.40	6.0	60.00	43.0	34.0	65.0	TAG 4	ETG 3-4-SH*
TAGPAD-XL 4R/L-D82-JHP	3.70	4.50	4.30	3.40	6.0	70.00	43.0	34.0	82.0	TAG 4	ETG 3-4-SH*
TAGPAD-XL 4R/L-D102-JHP	3.70	4.50	4.30	3.40	6.0	83.00	43.0	34.0	102.0	TAG 4	ETG 3-4-SH*

• For user guide and accessories, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

* Optional, should be ordered separately

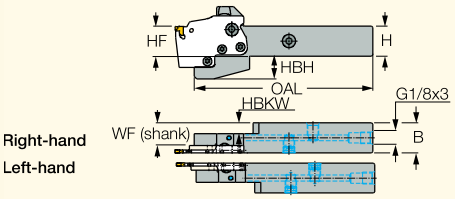
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: ABC MAHDR-#-XL-JHP • MAHPR/L-XL-JHP • MAHR/L-MG-XL-JHP • MAHR/L-MG-XL-JHP-MC • TR TNK36 MAHDL-R-XL-JHP • TR45 MAHDR-#-XL-JHP • TR45TNL MAHDN-R-XL-JHP • V## MAHD#-#-XL-##-JHP • V## MAHD-XL-JHP

JETCUT

MAHR/L-MG-XL-JHP

Holders with High-Pressure Coolant Channels for Interchangeable Adapters



140 Bar Max

WF(assembly)=WF(shank)+WF(adapter)

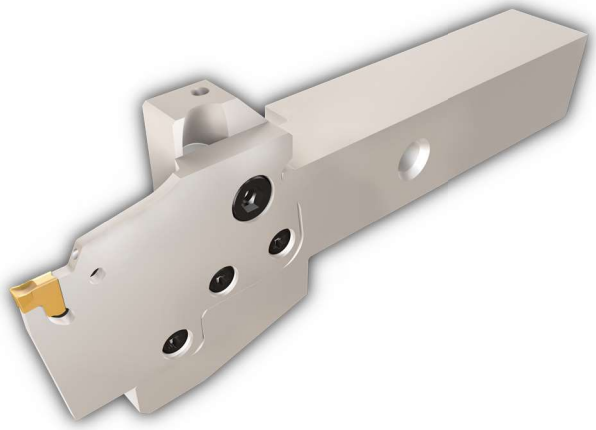
Designation	H	B	OAL	HBH	WF	HBKW
MAHR/L 20-MG-XL-JHP	20.0	20.0	149.10	24.0	14.0	4.00
MAHR/L 25-MG-XL-JHP	25.0	25.0	149.10	19.0	19.0	9.00

• For user guide and accessories, see pages 540-547

Tools: DGPAD-XL-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TNFPAD-XL-JHP

Spare Parts

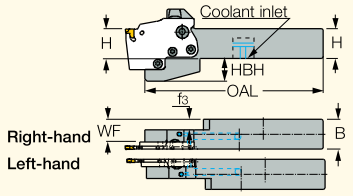
Designation							
MAHR/L 20-MG-XL-JHP	SR M6X12DIN6912-P	HW 5.0	SR M5-04451	T-20/5	SR M6X14-XT DIN 912	OR 5X1N	PLG G1/8 TL360
MAHR/L 25-MG-XL-JHP	SR M6X12DIN6912-P	HW 5.0	SR M5-04451	T-20/5	SR M6X14-XT DIN 912	OR 5X1N	PLG G1/8 TL360



JETCUT

MAHR/L-MG-XL-JHP-MC

Holders with Bottom Inlets for High-Pressure Coolant Channels Carrying Parting and Grooving Adapters



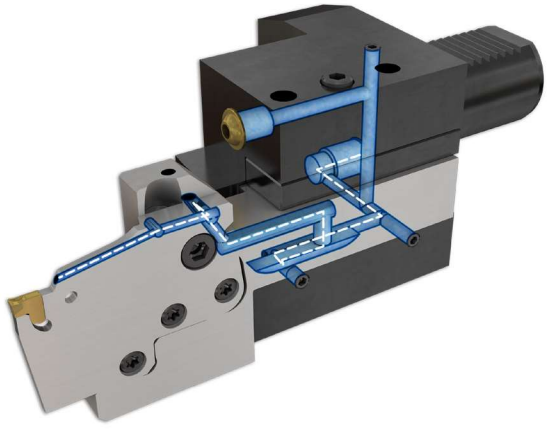
140 Bar Max

WF(assembly)=WF(shank)+WF(adapter)

Designation	H	B	OAL	HBH	WF	HBKW
MAHR/L 20-MG-XL-JHP-MC	20.0	20.0	116.10	10.0	14.0	4.00
MAHR/L 25-MG-XL-JHP-MC	25.0	25.0	114.00	10.0	19.0	9.00

• For Tmax, refer to the adapters data

Tools: DGPAD-XL-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TNFPAD-XL-JHP



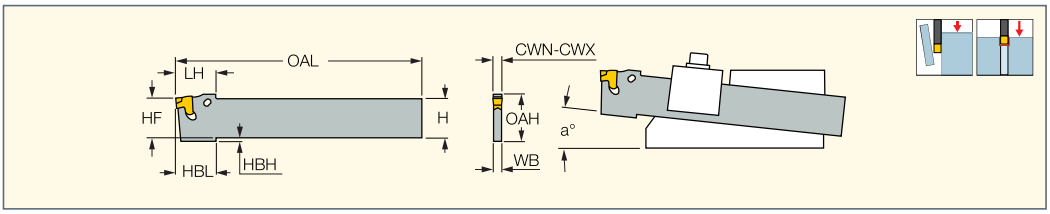
Spare Parts

Designation						
MAHR/L-MG-XL-JHP-MC	SR M6X14-XT DIN 912	HW 5.0	SR M5-04451	T-20/5	SR M6X12DIN6912-P	OR 5X1N

TANG-GRIP PARTING LINE

TGFS

Blades for Multi-Spindle Machines - Replacement for HSS and Brazed Tools



Designation	CWN(1)	CWX(2)	H	WB	OAL	OAH	HF	LH	HBL	HBH	CUTDIA	a°	Insert	
TGFS 0-17-2	1.80	2.40	17.2	1.65	110.00	17.2	17.2	-	18.00	1.8	35.0	0	TAG 2	ETG 2*
TGFS 0-17-3	2.80	3.50	17.2	2.50	110.00	19.0	17.2	-	18.00	1.8	60.0	0	TAG 3	ETG 3-4-SH*
TGFS 5-17-2	1.80	2.40	17.4	1.65	110.00	18.9	17.5	18.0	18.00	1.5	35.0	5	TAG 2	ETG 2*
TGFS 5-17-3	2.80	3.50	17.4	2.50	110.00	20.7	17.5	18.0	18.00	1.5	60.0	5	TAG 3	ETG 3-4-SH*
TGFS 5-17-4	3.70	4.50	17.4	3.40	110.00	20.7	17.5	18.0	18.00	1.5	60.0	5	TAG 4	ETG 3-4-SH*
TGFS 5-22-2	1.80	2.40	22.2	1.65	150.00	23.8	22.4	18.0	-	-	50.0	5	TAG 2	ETG 2*
TGFS 5-22-3	2.80	3.50	22.2	2.50	150.00	24.1	22.4	18.0	-	-	75.0	5	TAG 3	ETG 3-4-SH*
TGFS 5-22-4	3.70	4.50	22.2	3.40	150.00	24.1	22.4	18.0	-	-	80.0	5	TAG 4	ETG 3-4-SH*
TGFS 5-28-4	3.70	4.50	28.6	3.40	150.00	30.4	28.7	18.0	-	-	100.0	5	TAG 4	ETG 3-4-SH*

- For user guide, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

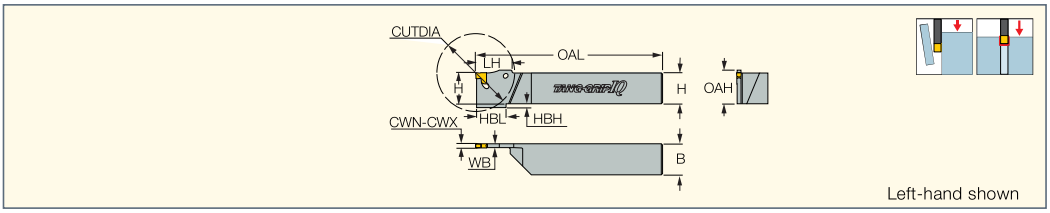
* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

TANG-GRIP IQ 350 LINE

TGTR/L-IQ

Integral Shank TANG-GRIP Toolholders for Parting and Grooving



Designation	CWN(2)	CWX(3)	H	B	WB	OAL	OAH	LH	HBL	HBH	CUTDIA	Insert	
TGTR/L 1010-1.4-IQ	1.40	1.45	10.0	10.0	1.05	140.00	15.0	-	15.50	5.0	20.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1212-1.4-IQ	1.40	1.45	12.0	12.0	1.05	140.00	12.0	-	16.00	3.0	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1616-1.4-IQ	1.40	1.45	16.0	16.0	1.05	140.00	16.0	-	16.00	-	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 2020-1.4-IQ	1.40	1.45	20.0	20.0	1.05	140.00	20.0	-	16.00	-	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1010-1.6-IQ	1.60	1.64	10.0	10.0	1.30	120.00	-	-	16.00	5.0	28.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1212-1.6-IQ	1.60	1.64	12.0	12.0	1.30	120.00	-	-	16.00	3.0	32.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1616-1.6-IQ	1.60	1.64	16.0	16.0	1.30	120.00	-	-	16.00	-	35.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1010-2-IQ	1.80	2.40	10.0	10.0	1.65	150.00	15.0	-	15.50	5.0	28.0	TAG 2	ETG 2*
TGTR/L 1212-2-IQ	1.80	2.40	12.0	12.0	1.65	150.00	15.0	-	17.00	3.0	32.0	TAG 2	ETG 2*
TGTR/L 1612-2-L120-IQ	1.80	2.50	16.0	12.0	1.65	120.00	16.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 1616-2-IQ	1.80	2.40	16.0	16.0	1.65	150.00	16.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 2012-2-IQ	1.80	2.40	20.0	12.0	1.65	125.00	20.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 1212-3-IQ	2.80	3.50	12.0	12.0	2.50	150.00	19.0	-	19.00	7.0	32.0	TAG 3	ETG 3-4-SH*
TGTR/L 1612-3-L120-IQ	2.80	3.50	16.0	12.0	2.50	120.00	19.0	-	19.00	3.0	35.0	TAG 3	ETG 3-4-SH*
TGTR/L 1616-3-IQ	2.80	3.50	16.0	16.0	2.50	150.00	19.0	-	19.00	3.0	35.0	TAG 3	ETG 3-4-SH*
TGTR/L 2012-3-IQ	2.80	3.50	20.0	12.0	2.50	125.00	20.0	-	19.00	-	43.0	TAG 3	ETG 3-4-SH*
TGTR/L 2020-3-IQ	2.80	3.50	20.0	20.0	2.50	120.50	21.7	23.4	19.00	-	54.0	TAG 3	ETG 3-4*
TGTR/L 2525-3-IQ	2.80	3.50	25.0	25.0	2.50	150.50	26.7	23.4	19.00	-	56.0	TAG 3	ETG 3-4*
TGTR 2525K-3 (1)	2.80	3.50	25.0	25.0	2.50	150.00	26.7	23.4	19.00	-	56.0	TAG 3	ETG 3-4*
TGTR/L 2020-4-IQ	3.70	4.50	20.0	20.0	3.40	120.50	21.7	23.4	19.00	-	57.0	TAG 4	ETG 3-4*
TGTR/L 2525-4-IQ	3.70	4.50	25.0	25.0	3.40	150.50	26.7	23.4	19.00	-	65.0	TAG 4	ETG 3-4*
TGTR/L 2020-5-IQ	4.70	5.50	20.0	20.0	4.00	120.00	21.7	-	19.00	-	57.0	TAG 5	ETG 5-7*
TGTR/L 2525-5-IQ	4.70	5.50	25.0	25.0	4.00	150.00	25.0	-	19.00	-	76.0	TAG 5	ETG 5-7*
TGTR/L 2525-6-IQ	5.70	6.50	25.0	25.0	5.20	150.00	25.0	-	19.00	-	76.0	TAG 6	ETG 5-7*

- For user guide, see pages 540-547

(1) With coolant

(2) Minimum cutting width

(3) Maximum cutting width

* Optional, should be ordered separately

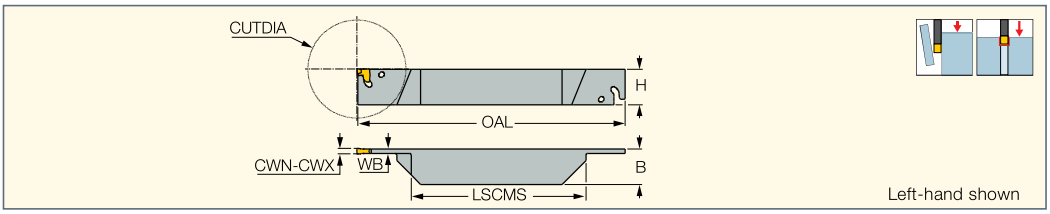
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

- TAGB/TAGBA

TANG-GRIP IQ 350 LINE

TGTR/L-IQ-2Z

Integral Shank TANG-GRIP Toolholders with 2 Pockets for Parting and Grooving



Designation	CWN(1)	CWX(2)	CUTDIA	H	B	WB	OAL	LSCMS	Insert	
TGTR/L 2020-3-IQ-2Z	2.80	3.50	54.0	20.0	20.0	2.50	150.00	98.90	TAG 3	ETG 3-4-SH*
TGTR/L 2525-3-IQ-2Z	2.80	3.50	56.0	25.0	25.0	2.50	150.00	98.00	TAG 3	ETG 3-4-SH*
TGTR/L 2020-4-IQ-2Z	3.70	4.50	57.0	20.0	20.0	3.40	150.00	95.00	TAG 4	ETG 3-4-SH*
TGTR/L 2525-4-IQ-2Z	3.70	4.50	65.0	25.0	25.0	3.40	150.00	88.00	TAG 4	ETG 3-4-SH*

- For user guide, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

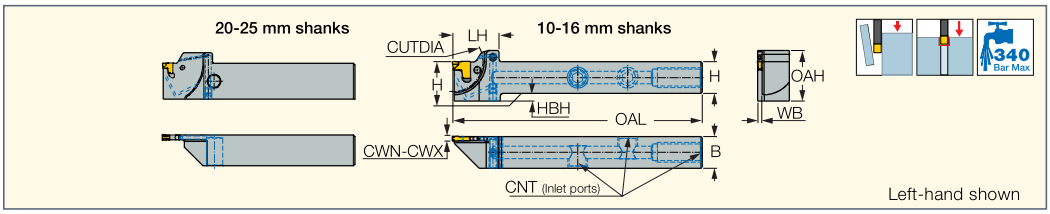
* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

TANG-GRIP PARTING LINE JETCUT

TGTR/L-JHP

Parting and Grooving Tools with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	H	B	WB	OAL	OAH	LH	HBH	CNT	CUTDIA	Insert
TGTR/L 1010-2JHP	1.80	2.50	10.0	10.0	1.72	100.00	19.5	18.5	5.0	UNF 5/16-24	24.0	TAG 2
TGTR/L 1212-2JHP	1.80	2.50	12.0	12.0	1.72	100.00	19.5	18.5	3.0	UNF 5/16-24	24.0	TAG 2
TGTR/L 1616-2JHP	1.80	2.50	16.0	16.0	1.72	120.00	21.5	25.5	-	UNF 5/16-24	35.0	TAG 2
TGTR/L 2012-2JHP	1.80	2.50	20.0	12.0	1.72	120.00	25.6	25.5	-	UNF 5/16-24	35.0	TAG 2
TGTR/L 1616-3JHP	2.80	3.50	16.0	16.0	2.50	120.00	24.5	25.5	3.0	UNF 5/16-24	35.0	TAG 3
TGTR/L 2020-3JHP	2.80	3.50	20.0	20.0	2.50	120.00	27.0	35.0	-	G 1/8-28	54.0	TAG 3
TGTR/L 2525-3JHP	2.80	3.50	25.0	25.0	2.50	150.00	32.5	35.0	-	G 1/8-28	56.0	TAG 3
TGTR/L 2020-4JHP	3.70	4.50	20.0	20.0	3.40	120.00	27.0	35.0	-	G 1/8-28	54.0	TAG 4
TGTR/L 2525-4JHP	3.70	4.50	25.0	25.0	3.40	150.00	32.5	35.0	-	G 1/8-28	56.0	TAG 4

- For user guide and accessories, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TGTR/L...-2JHP	2-4	4-6	6-8
TGTR/L...-3JHP	7-9	9-11	11-13
TGTR/L...-4JHP	7-9	9-11	11-13

Spare Parts

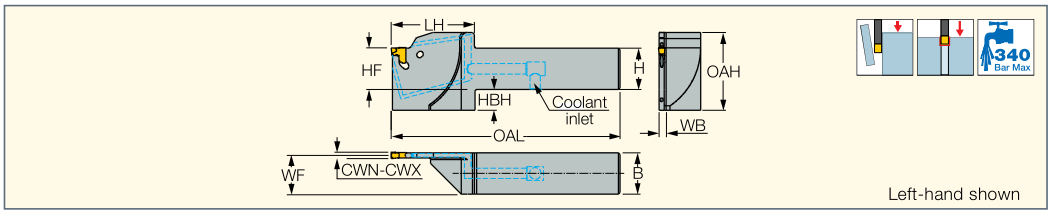
Designation					
TGTR/L 1010-2JHP	ETG 2-SH-T*		SR 5/16XUNF-TL-S		HW 5/32"
TGTR/L 1212-2JHP	ETG 2-SH-T*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1616-2JHP	ETG 2*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 2012-2JHP	ETG 2*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1616-3JHP	ETG 3-4-SH*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 2020-3JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	
TGTR/L 2525-3JHP	ETG 3-4-SH*	PLG G1/8 TL360	SR 5/16UNF TL360	HW 5.0	HW 5/32"
TGTR/L 2020-4JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	
TGTR/L 2525-4JHP	ETG 3-4-SH*	PLG G1/8 TL360	SR 5/16UNF TL360	HW 5.0	HW 5/32"

* Optional, should be ordered separately

TANG-GRIP JETCUT PARTING LINE

TGTR/L-JHP-MC

Parting and Grooving Toolholders with Bottom Inlets for High-Pressure Coolant Carrying TANG-GRIP Inserts



Designation	CWN(1)	CWX(2)	H	B	HF	WB	OAL	OAH	LH	HBH	CUTDIA(3)	Insert
TGTR/L 2020-D42-2-JHP-MC	1.80	2.50	20.0	20.0	20.0	1.72	99.00	25.70	29.0	-	42.0	TAG 2
TGTR/L 2020-D65-3-JHP-MC	2.80	3.50	20.0	20.0	20.1	2.50	110.50	37.60	40.5	10.0	65.0	TAG 3
TGTR/L 2020-D82-3-JHP-MC	2.80	3.50	20.0	20.0	20.1	2.50	119.00	38.80	49.0	10.0	82.0	TAG 3
TGTR/L 2525-D65-3-JHP-MC	2.80	3.50	25.0	25.0	25.1	2.50	126.00	37.60	41.0	5.0	65.0	TAG 3
TGTR/L 2525-D82-3-JHP-MC	2.80	3.50	25.0	25.0	25.1	2.50	134.50	38.80	49.5	5.0	82.0	TAG 3

- For user guide and accessories, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum cutting diameter

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Spare Parts

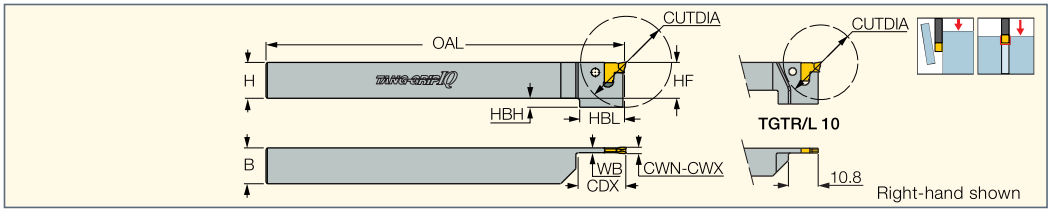
Designation	
TGTR/L 2020-D42-2-JHP-MC	ETG 2*
TGTR/L 2020-D65-3-JHP-MC	ETG 3-4-SH*
TGTR/L 2020-D82-3-JHP-MC	ETG 3-4-SH*
TGTR/L 2525-D65-3-JHP-MC	ETG 3-4-SH*
TGTR/L 2525-D82-3-JHP-MC	ETG 3-4-SH*

* Optional, should be ordered separately

TANG-GRIP IQ 350 LINE

TGTR/L-2T..SH-L120

Integral Shank Short-Head TANG-GRIP Toolholders for Parting and Grooving



Designation	CWN(1)	CWX(2)	H	HF	B	WB	OAL	HBL	HBH	CDX(3)	CUTDIA(4)
TGTR/L 1010-2T10SH-L120-IQ	1.80	2.50	10.0	10.1	10.0	1.65	120.00	15.0	5.0	10.00	26.0
TGTR/L 1212-2T15SH-L120-IQ	1.80	2.50	12.0	12.1	12.0	1.65	120.00	15.0	3.0	15.00	30.0
TGTR/L 1616-2T18SH-L120-IQ	1.80	2.50	16.0	16.1	16.0	1.65	120.00	-	-	18.00	36.0

- For user guide, see pages 540-547

(1) Minimum cutting width

(2) Maximum cutting width

(3) Cutting depth maximum

(4) For parting

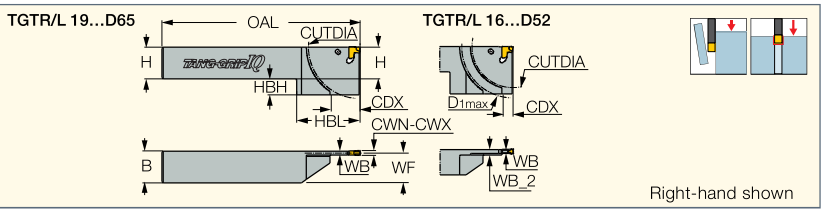
* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

TANG-GRIP IQ 350 LINE

TGTR/L-D

Integral Shank TANG-GRIP Toolholders with Reinforced Blades for Parting and Grooving Mainly Sub-Spindle Machines



Designation	CW	CWN(1)	CWX(2)	H	B	WB	WB_2	OAL	HBL	WF	HBH	CUTDIA	D1 max	CDX	Insert	
TGTR/L 1616-2-D52-IQ	2.00	1.80	2.40	16.0	16.0	1.65	3.50	125.00	40.0	15.20	14.0	52.0	65.0	6.00	TAG 2	ETG 2*
TGTR/L 2020-2-D65-IQ	2.00	1.80	2.40	20.0	20.0	1.65	-	125.00	40.0	19.20	10.0	65.0	-	18.00	TAG 2	ETG 2*
TGTR/L 1616-3-D52-IQ	3.00	2.80	3.50	16.0	16.0	2.50	3.50	125.00	40.0	14.80	14.0	52.0	65.0	6.00	TAG 3	ETG 3-4-SH*
TGTR/L 2020-3-D65-IQ	3.00	2.80	3.50	20.0	20.0	2.50	-	125.00	40.0	18.80	10.0	65.0	-	18.00	TAG 3	ETG 3-4-SH*

- For user guide, see pages 540-547

(1) Minimum cutting width

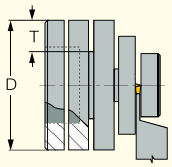
(2) Maximum cutting width

* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Depth Capacity DGTR/L-D

Table Determining Depth of Cut as Function of Workpiece Diameter

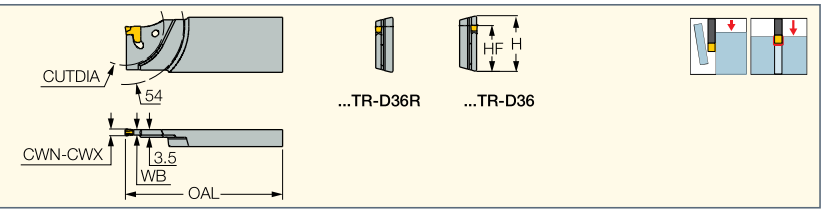


Designation	Tmax									
TGTR/L 1616-2-D52-IQ	20	25	19	16	15	13	11	10	9	8
TGTR/L 2020-2-D65-IQ	20	25	30	31	29	26	24	23	22	20
TGTR/L 1616-3-D52-IQ	20	25	20	17	15	13	11	10	9	8
TGTR/L 2020-3-D65-IQ	20	25	30	31	29	26	24	23	22	20
D →	40	50	60	70	80	100	120	150	200	300

TANG-GRIP PARTING LINE

TGFHL-TR

Reinforced Blades for TRAUB and Index Machines Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	H	CWN(1)	CWX(2)	WB	OAL	HF	CUTDIA	Insert	
TGFHL 26-2TR-D36	26.0	1.80	2.40	1.65	110.00	21.4	36.0	TAG 2	ETG 2*
TGFHL 26-2TR-D36R	26.0	1.80	2.40	1.65	110.00	21.4	36.0	TAG 2	ETG 2*
TGFHL 26-3TR-D36	26.0	2.80	3.50	2.50	110.00	21.4	36.0	TAG 3	ETG 3-4-SH*
TGFHL 26-3TR-D36R	26.0	2.80	3.50	2.50	110.00	21.4	36.0	TAG 3	ETG 3-4-SH*

- For user guide, see pages 540-547

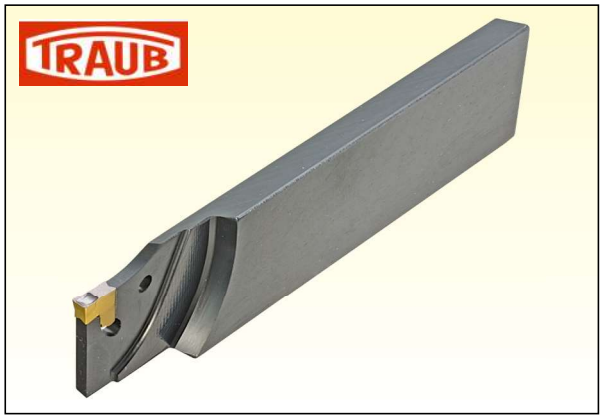
(1) Minimum cutting width

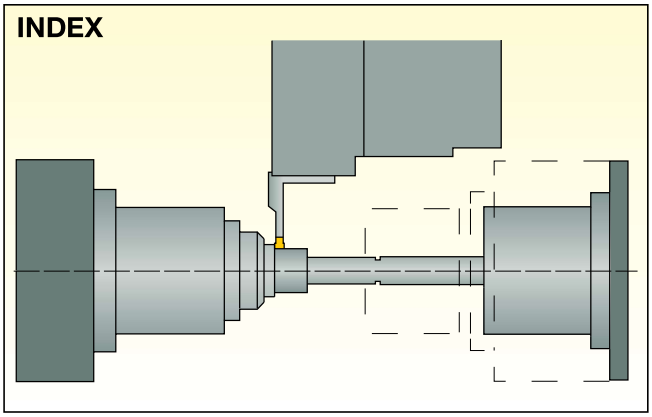
(2) Maximum cutting width

* Optional, should be ordered separately

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: SGTBR/L • SGTBU/SGTBN • UBHCR/L



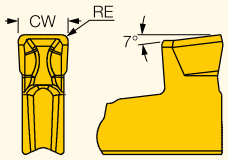


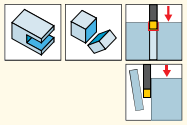
TANG F GRIP HIGH FEED PARTING

TANG GRIP PARTING LINE

TAG N-HF

Single-Ended Inserts for High Feed Parting and Grooving, Hard Materials and Tough Applications





Designation	Dimensions CW	CWTOL(1)	RE	Tough ↔ Hard IC830	IC1030	IC1010	IC808	Recommended Machining Data f groove (mm/rev)
TAG N3HF	3.00	0.040	0.40	●	●	●	●	0.25-0.35
TAG N4HF	4.00	0.040	0.50	●	●	●	●	0.30-0.40
TAG N5HF	5.00	0.040	0.50	●			●	0.30-0.40

• For cutting speed recommendations and user guide, see pages 540-547

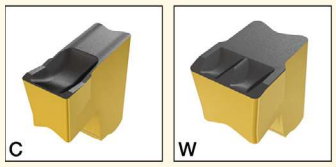
(1) Cutting width tolerance (+/-)

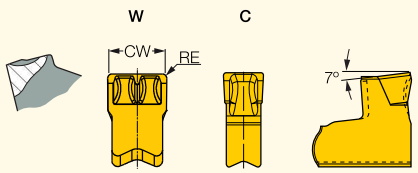
Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

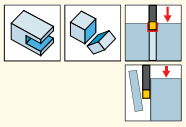
TANG GRIP PARTING LINE

TAG N-C/W/M

Single-Ended Inserts for Parting, Grooving and Slitting Bars, Hard Materials and Tough Applications







Designation	Dimensions CW	CWTOL(3)	RE	Tough ↔ Hard IC830	IC928	IC1030	IC5400	IC1010	IC808	IC908	IC30N	IC20	IC807	Recommended Machining Data f groove (mm/rev)
TAG N1.4C	1.40	0.04	0.16										●	0.04-0.10
TAG N1.6C	1.60	0.04	0.16	●					●					0.04-0.14
TAG N2C	2.00	0.04	0.20	●		●	●	●	●		●	●		0.05-0.16
TAG N2.4C	2.40	0.04	0.16	●					●					0.06-0.18
TAG N3CB (1)	3.00	0.04	0.35	●					●					0.12-0.30
TAG N3C	3.05	0.04	0.20	●	●	●	●	●	●	●	●	●	●	0.10-0.25
TAG N3M (2)	3.05	0.04	0.20	●						●				0.06-0.18
TAG N3W	3.05	0.04	0.20	●						●				0.10-0.25
TAG N4C	4.00	0.04	0.24	●	●	●	●	●	●	●		●	●	0.10-0.30
TAG N4CB (1)	4.00	0.04	0.40	●						●				0.10-0.33
TAG N4M (2)	4.00	0.04	0.24	●						●				0.06-0.20
TAG N4W	4.00	0.04	0.24	●						●				0.10-0.30
TAG N4.8C	4.80	0.04	0.30	●					●					0.10-0.35
TAG N5C	5.05	0.04	0.25	●					●			●		0.10-0.35
TAG N6.3C	6.30	0.04	0.35	●					●					0.15-0.40
TAG N7W	7.00	0.08	0.50	●					●					0.18-0.40
TAG N8C	8.00	0.10	0.50	●					●					0.20-0.70
TAG N9.5W	9.50	0.05	0.50	●					●					0.22-0.80
TAG N9.5C	9.50	0.10	0.50	●					●					0.25-0.80
TAG N12.7W	12.70	0.10	0.85	●					●					0.30-0.80

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 540-547

(1) Larger corner radii for interrupted cut and high feed applications

(2) Similar to C-type, but with a modified edge; improved chip control at medium feeds

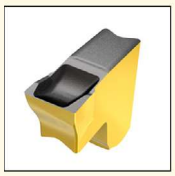
(3) Cutting width tolerance (+/-)

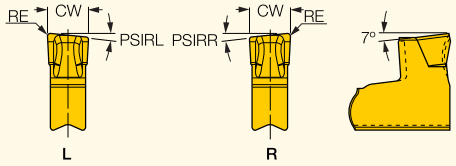
Tools: ADMP D45 • Anti-Vibration Blades • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGBHR/L • TGBHR/L-JHP • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

TANG-GRIP PARTING LINE

TAG R/L-C

Single-Ended Inserts for Parting Bars, Hard Materials and Tough Parting Applications





Designation	Dimensions					Tough ↔ Hard					Recommended Machining Data
	CW	CWTOL(1)	RE	PSIRR	PSIRL	IC830	IC928	IC808	IC908	IC30N	f groove (mm/rev)
TAG L2C-6D	2.05	0.10	0.20	-	6.0	●		●			0.04-0.12
TAG R2C-6D	2.05	0.10	0.20	6.0	-	●		●			0.04-0.12
TAG R2.4C-8D	2.40	0.10	0.16	8.0	-			●			0.05-0.13
TAG L3C-6D	3.00	0.10	0.20	-	6.0	●	●	●	●		0.08-0.18
TAG R3C-6D	3.00	0.10	0.20	6.0	-	●	●	●	●		0.08-0.18
TAG R3C-8D	3.00	0.10	0.20	8.0	-					●	0.06-0.16
TAG L3C-15D	3.00	0.10	0.20	-	15.0	●	●	●	●		0.08-0.16
TAG R3C-15D	3.00	0.10	0.20	15.0	-	●	●	●	●		0.08-0.16
TAG L4C-4D	4.05	0.10	0.24	-	4.0	●		●			0.08-0.20
TAG R4C-4D	4.05	0.10	0.24	4.0	-	●	●	●	●		0.08-0.20
TAG L5C-4D	5.05	0.10	0.25	-	4.0	●		●			0.10-0.25
TAG R5C-4D	5.05	0.10	0.25	4.0	-	●		●			0.10-0.25
TAG L6.3C-4D	6.35	0.10	0.35	-	4.0	●		●			0.12-0.30
TAG R6.3C-4D	6.35	0.10	0.35	4.0	-	●		●			0.12-0.30

- For cutting speed recommendations and user guide, see pages 540-547

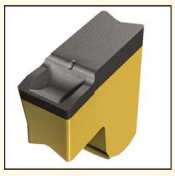
(1) Cutting width tolerance (+/-)

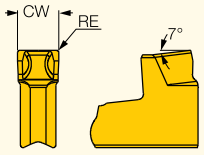
Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGBHR/L • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

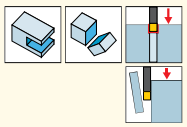
TANG-GRIP PARTING LINE

TAG N-MF

Single-Ended Inserts for Parting Grooving and Slitting Stainless and Alloy Steel at Medium Feed







Designation	Dimensions			Tough ↔ Hard					Recommended Machining Data
	CW	CWTOL(1)	RE	IC830	IC1030	IC5400	IC1010	IC808	f groove (mm/rev)
TAG N2MF	2.00	0.05	0.20	●	●	●	●	●	0.04-0.15
TAG N3MF	3.05	0.05	0.20	●	●	●	●	●	0.06-0.18
TAG N4MF	4.00	0.05	0.25	●	●	●	●	●	0.07-0.22
TAG N5MF	5.00	0.05	0.25	●				●	0.08-0.25

- For cutting speed recommendations and user guide, see pages 540-547

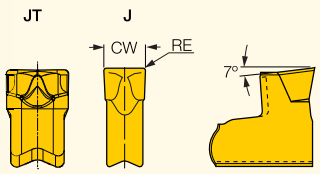
(1) Cutting width tolerance (+/-)

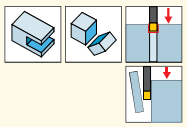
Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

TANG-GRIP PARTING LINE

TAG N-J/JS/JT

Single-Ended Inserts for Parting, Grooving and Slitting Soft Materials





Designation	Dimensions CW	RE	CWTOL[2]	RETOL[3]	Tough ↔ Hard IC830	IC928	IC1030	IC5400	IC1010	IC808	IC908	IC20	IC807	Recommended Machining Data f groove (mm/rev)
TAG N1.4J	1.40	0.16	0.04	0.030	●					●			●	0.03-0.10
TAG N1.6J	1.60	0.16	0.04	0.030	●					●				0.03-0.12
TAG N2JS [1]	2.00	0.02	0.04	0.020	●					●				0.03-0.08
TAG N2J	2.00	0.20	0.04	0.040	●		●	●	●	●		●		0.04-0.12
TAG N2JT	2.00	0.20	0.04	0.040	●	●		●		●	●			0.04-0.14
TAG N3JS [1]	3.05	0.02	0.04	0.020	●					●				0.04-0.10
TAG N3J	3.05	0.20	0.04	0.030	●	●	●	●	●	●	●	●	●	0.04-0.16
TAG N3JT	3.05	0.20	0.04	0.030	●			●		●	●			0.05-0.18
TAG N3.2JT	3.25	0.20	0.04	0.030	●					●				0.05-0.18
TAG N4J	4.00	0.24	0.04	0.030	●	●	●	●	●	●	●		●	0.04-0.18
TAG N4JT	4.05	0.24	0.04	0.030	●			●		●	●			0.06-0.20
TAG N5J	5.05	0.25	0.04	0.040	●				●	●				0.05-0.20
TAG N5JT	5.05	0.25	0.04	0.040	●					●	●			0.06-0.22
TAG N6.3J	6.35	0.34	0.04	0.040	●					●				0.06-0.22
TAG N6.3JT	6.35	0.34	0.04	0.040	●						●			0.08-0.25
TAG N7JT	7.05	0.50	0.04	0.040	●					●				0.10-0.28

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative frontal edge; most suitable for soft materials at low to medium feeds.
- For cutting speed recommendations and user guide, see pages 540-547

[1] Sharp corners cannot be used on TGSF slitting cutters

[2] Cutting width tolerance (+/-)

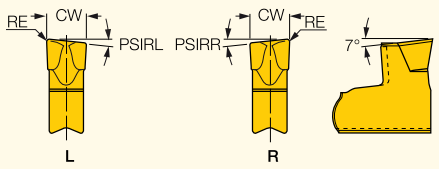
[3] Corner radius tolerance (+/-)

Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGBHR/L • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

TANG-GRIP PARTING LINE

TAG R/L-J/JS

TANG-GRIP Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts



Designation	Dimensions CW	RE	PSIRL	PSIRR	Tough ↔ Hard IC830	IC928	IC808	IC908	IC807	Recommended Machining Data f groove (mm/rev)
TAG L1.4J-8D	1.40	0.16	8.0	-	●		●		●	0.03-0.08
TAG R1.4J-8D	1.40	0.16	-	8.0	●		●		●	0.03-0.08
TAG L1.4JS-10D (1)	1.40	0.02	10.0	-	●		●		●	0.02-0.06
TAG R1.4JS-10D (1)	1.40	0.02	-	10.0	●		●		●	0.02-0.06
TAG L2J-6D	2.00	0.20	6.0	-	●		●			0.03-0.10
TAG R2J-6D	2.00	0.20	-	6.0	●		●			0.03-0.10
TAG L2JS-6D (1)	2.00	0.02	6.0	-	●		●			0.02-0.08
TAG R2JS-6D (1)	2.00	0.02	-	6.0	●		●			0.02-0.08
TAG L2J-15D	2.00	0.20	15.0	-	●		●			0.03-0.08
TAG R2J-15D	2.00	0.20	-	15.0	●		●			0.03-0.08
TAG L2JS-15D (1)	2.00	0.02	15.0	-	●		●			0.02-0.06
TAG R2JS-15D (1)	2.00	0.02	-	15.0	●		●			0.02-0.06
TAG L3J-6D	3.00	0.20	6.0	-	●	●	●	●		0.04-0.14
TAG R3J-6D	3.00	0.20	-	6.0	●	●	●	●		0.04-0.14
TAG L3JS-6D (1)	3.00	0.02	6.0	-	●		●			0.03-0.10
TAG R3JS-6D (1)	3.00	0.02	-	6.0	●		●			0.03-0.10
TAG L3J-15D	3.00	0.20	15.0	-	●	●	●	●		0.04-0.12
TAG R3J-15D	3.00	0.20	-	15.0	●	●	●	●		0.04-0.12
TAG L3JS-15D (1)	3.00	0.02	15.0	-	●		●			0.03-0.08
TAG R3JS-15D (1)	3.00	0.02	-	15.0	●		●			0.03-0.08
TAG L4J-4D	4.00	0.24	4.0	-	●		●			0.04-0.15
TAG R4J-4D	4.00	0.24	-	4.0	●	●	●	●		0.04-0.15
TAG L5J-4D	5.05	0.25	4.0	-	●		●			0.05-0.18
TAG R5J-4D	5.05	0.25	-	4.0	●		●			0.05-0.18
TAG L6.3J-4D	6.35	0.35	4.0	-	●		●			0.05-0.20
TAG R6.3J-4D	6.35	0.35	-	4.0	●		●			0.05-0.20

- For cutting speed recommendations and user guide, see pages 540-547

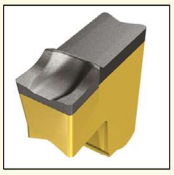
(1) Sharp corners cannot be used on TGSF slitting cutters

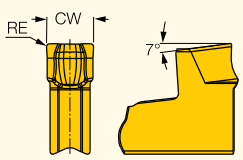
Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGBHR/L • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

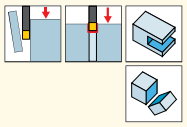
TANG-GRIP PARTING LINE

TAG N-LF

Single-Ended Inserts for Parting, Grooving and Slitting Stainless Steel







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC1030	IC5400	IC1010	IC808	Recommended Machining Data f groove (mm/rev)
TAG N2LF	2.00	0.20	0.04	0.030	●	●	●	●	●	0.03-0.08
TAG N3LF	3.05	0.20	0.04	0.030	●	●	●	●	●	0.04-0.10

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

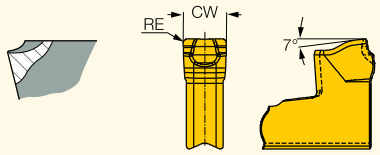
(2) Corner radius tolerance (+/-)

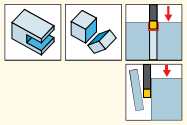
Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

TANG-GRIP PARTING LINE

TAG N-UT

Single-Sided Inserts for Parting, Grooving & Slitting at Low Feeds on Cr-Ni Alloys, Ductile Materials & Low Carbon Steel





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	IC908	Recommended Machining Data f groove (mm/rev)
TAG N2UT	2.00	0.20	0.04	0.040	●	●	●	0.03-0.10
TAG N3UT	3.00	0.30	0.04	0.040	●	●		0.04-0.12
TAG N4UT	4.00	0.30	0.04	0.040			●	0.05-0.15
TAG N5UT	5.00	0.30	0.04	0.040			●	0.05-0.18
TAG N6UT	6.00	0.85	0.04	0.040			●	0.06-0.22

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

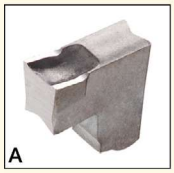
(2) Corner radius tolerance (+/-)

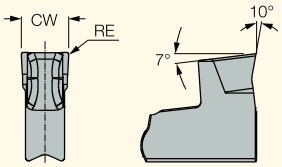
Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGBHR/L • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

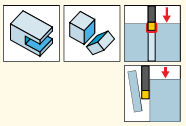
TANG-GRIP PARTING LINE

TAG N-A

Single-Ended Inserts for Parting, Grooving and Slitting Aluminum







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC20	Recommended Machining Data f groove (mm/rev)
TAG N2A	2.00	0.20	0.04	0.040	●	0.02-0.10
TAG N3A	3.07	0.20	0.04	0.040	●	0.03-0.14
TAG N4A	4.00	0.24	0.04	0.030	●	0.03-0.16

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

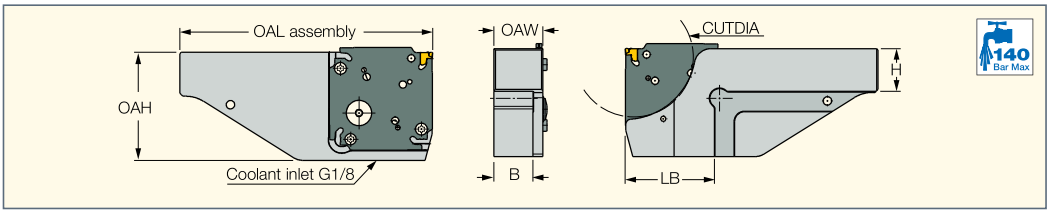
(2) Corner radius tolerance (+/-)

Tools: ADMP D45 • TAGPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TGAD • TGAD RE/LE-JHP • TGAQ • TGAQ-ECD (JET-CROWN) • TGAQ-JHP • TGFH-JHP • TGFH-MB • TGFH-S • TGFH/R/L • TGFHL-TR • TGFHR/L • TGFHR/L-JHP • TGFS • TGSU • TGTR/L-2T..SH-L120 • TGTR/L-D • TGTR/L-IQ • TGTR/L-IQ-2Z • TGTR/L-JHP • TGTR/L-JHP-MC

LOGIQ-F-GRIP

LOGIQ F GRIP
HIGH FEED GRIP HOLDER

TGTBQ-JHP
Tool Blocks for Square TANG-F-GRIP and DO-F-GRIP Parting and Grooving Adapters for High-Pressure Coolant

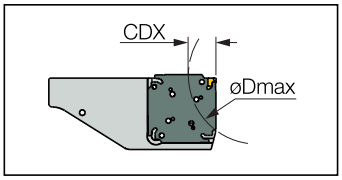


Designation	OAH	H	B	OAW	OAL	LB	CUTDIA
TGTBQ 20L-D52-JHP	50.00	20.0	20.5	26.50	122.00	34.00	52.0
TGTBQ 20R-D52-JHP	50.00	20.0	20.5	26.50	122.00	34.00	52.0
TGTBQ 25L-D52-JHP	50.00	25.0	25.5	31.50	132.00	34.00	52.0
TGTBQ 25R-D52-JHP	50.00	25.0	25.5	31.50	132.00	34.00	52.0
TGTBQ 20L-D82-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 20R-D82-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 25L-D82-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0
TGTBQ 25R-D82-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0
TGTBQ 32L-D82-JHP	64.00	32.0	32.5	38.50	150.50	53.50	82.0
TGTBQ 32R-D82-JHP	64.00	32.0	32.5	38.50	150.50	53.50	82.0
TGTBQ 25L-D120-JHP	95.00	25.0	25.5	31.50	165.00	67.00	120.0
TGTBQ 25R-D120-JHP	95.00	25.0	25.5	31.50	165.00	67.00	120.0
TGTBQ 32L-D120-JHP	95.00	32.0	32.5	38.50	165.00	67.00	120.0
TGTBQ 32R-D120-JHP	95.00	32.0	32.5	38.50	165.00	67.00	120.0
TGTBQ 25L-D160-JHP	107.00	25.0	25.5	31.50	190.50	92.50	160.0
TGTBQ 25R-D160-JHP	107.00	25.0	25.5	31.50	190.50	92.50	160.0
TGTBQ 32L-D160-JHP	107.00	32.0	32.5	38.50	190.50	92.50	160.0
TGTBQ 32R-D160-JHP	107.00	32.0	32.5	38.50	190.50	92.50	160.0
TGTBQ 40L-D160-JHP	107.00	40.0	40.5	46.50	190.50	92.50	160.0
TGTBQ 40R-D160-JHP	107.00	40.0	40.5	46.50	190.50	92.50	160.0

Tools: DGAQ • DGAQ-JHP • TGAQ • TGAQ-JHP

Table determining depth of cut for grooving as function of workpiece diameter

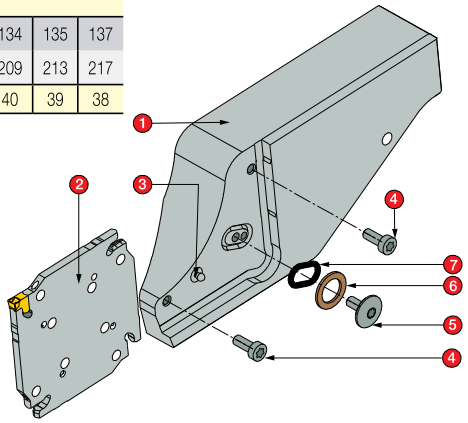
Designation	øDmax																	
TGTBQ...D52-JHP	53	54	55	56	57	59	61	64	67	71	75	81	88	96	107	122	141	169
TGTBQ...D82-JHP	107	110	114	119	124	130	137	145	154	165	178	194	213	237	267	308	363	443
TGTBQ...D120-JHP	202	210	219	229	240	253	267	283	302	324	349	380	417	462	518	592	689	827
TGTBQ...D160-JHP	345	361	377	396	418	441	468	499	534	576	624	682	753	840	951	1096	1294	1583
CDX	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4



Designation	øDmax															
TGTBQ...D82-JHP	83	83	84	84	85	86	87	88	89	91	92	94	96	98	101	103
TGTBQ...D120-JHP	139	141	143	145	148	150	153	156	160	164	168	172	177	183	188	195
TGTBQ...D160-JHP	220	225	229	234	239	245	251	257	264	271	279	288	298	308	320	332
CDX	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22

Designation	øDmax																
TGTBQ...D120-JHP	121	122	123	123	124	125	125	126	127	128	129	130	131	132	134	135	137
TGTBQ...D160-JHP	171	177	181	183	184	186	188	190	193	195	198	200	203	206	209	213	217
CDX	56-60	53-55	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38

1. **Block:** TGTBQ...D...
2. **Blade:** T/DGAQ...
3. **Locating Pin:** Side thrust Pin 3mm
4. **Screw:** SR M4x10 ISO 14580
5. **Screw:** SR M4x9-Seal-JHP
6. **Seal washer:** CSW 1/8″
7. **O-ring:** O-ring 10x2 NBR



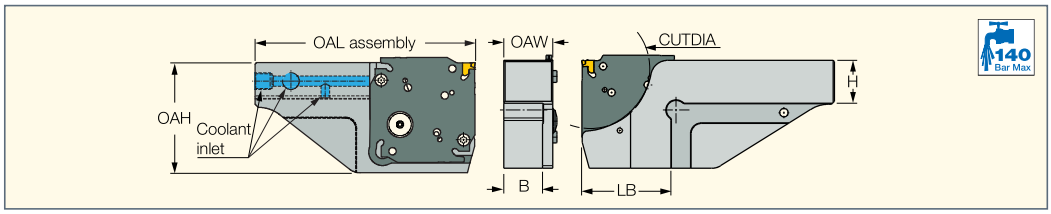
Spare Parts

Designation							
TGTBQ-JHP	SR M4X9-SEAL-JHP	SIDE THRUST PIN 3mm	JHP COPPER SEAL 1/8"	SR ISO 14580 M4X10	SW6-SD	BLD T20/S7	O-RING 10X2 NBR

LOGIQ F GRIP HIGH FEED GRIP HOLDER

TGTBQ-JHP-MC

Tool Blocks for Parting and Grooving Square Adapters for High-Pressure Coolant with Three Cooling Inlets



Designation	OAH	H	B	OAW	OAL	LB	CUTDIA
TGTBQ 20R/L-D52-JHP-MC	50.00	20.0	20.5	26.50	112.00	42.00	52.0
TGTBQ 25R/L-D52-JHP-MC	50.00	25.0	26.5	31.50	125.00	40.00	52.0
TGTBQ 20R/L-D82-JHP-MC	64.00	20.0	20.5	26.50	127.50	57.50	82.0
TGTBQ 25R/L-D82-JHP-MC	64.00	25.0	26.5	31.50	142.50	57.50	82.0
TGTBQ 25R/L-D120-JHP-MC	95.00	25.0	26.5	31.50	158.00	73.00	120.0

Tools: DGAQ • DGAQ-JHP • TGAQ • TGAQ-JHP

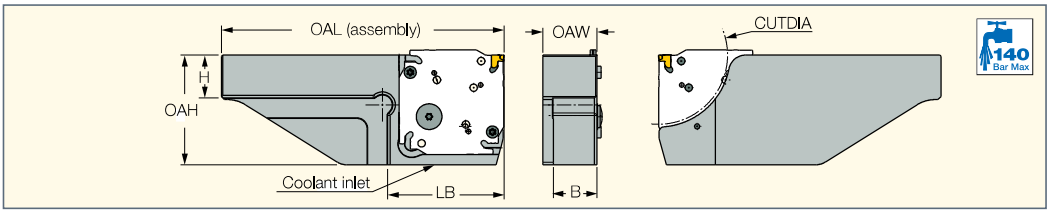
Spare Parts

Designation								
TGTBQ-JHP-MC	SR M4X9-SEAL-JHP	SIDE THRUST PIN 3mm	JHP COPPER SEAL 1/8"	SR ISO 14580 M4X10	BLD T20/S7	SW6-SD	O-RING 10X2 NBR	PLG G1/8 TL360

LOGIQ F GRIP HIGH FEED GRIP HOLDER

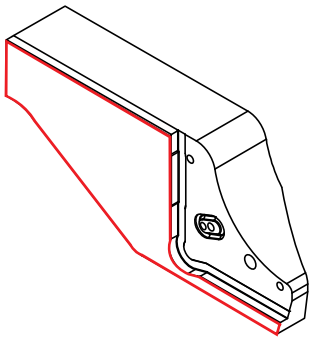
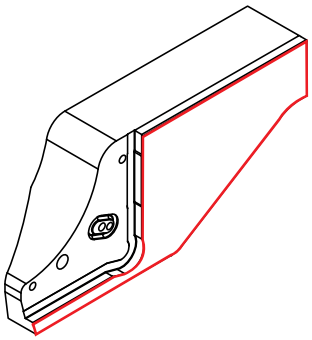
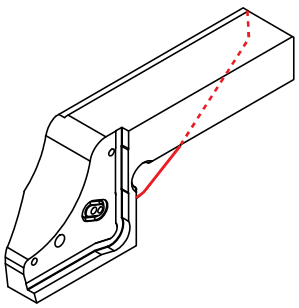
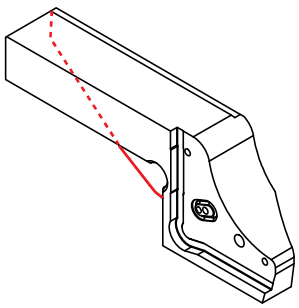
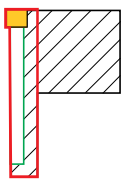
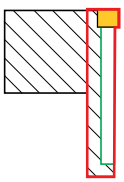
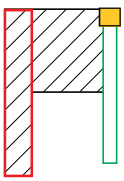
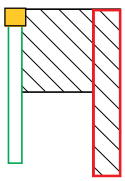
TGTBQ-JHP-RIB

Tool Blocks for Square F-GRIP Parting and Grooving Adapters with High-Pressure Coolant for Machining next to Spindle



Designation	OAH	H	B	OAW	OAL	LB	CUTDIA
TGTBQ 25L-R-D52-JHP	50.00	25.0	25.5	31.50	153.50	55.50	52.0
TGTBQ 25R-L-D52-JHP	50.00	25.0	25.5	31.50	153.50	55.50	52.0
TGTBQ 25L-R-D82-JHP	64.00	25.0	25.5	31.50	165.00	68.00	82.0
TGTBQ 25R-L-D82-JHP	64.00	25.0	25.5	31.50	165.00	68.00	82.0
TGTBQ 25L-R-D120-JHP	95.00	25.0	25.5	31.50	195.00	97.00	120.0
TGTBQ 25R-L-D120-JHP	95.00	25.0	25.5	31.50	195.00	97.00	120.0

Tools: DGAQ • DGAQ-JHP • TGAQ • TGAQ-JHP

Standard Holders		NEW Reinforced Rib on the Opposite Side	
TGTBQ 25 L -D82 -JHP	TGTBQ 25 R -D82 -JHP	TGTBQ 25 R -D82L -JHP	TGTBQ 25 L -D82R-JHP
			
			
L- Pocket orientation	R- Pocket orientation	R- Pocket orientation L-Reinforcement rib side	L- Pocket orientation R-Reinforcement rib side

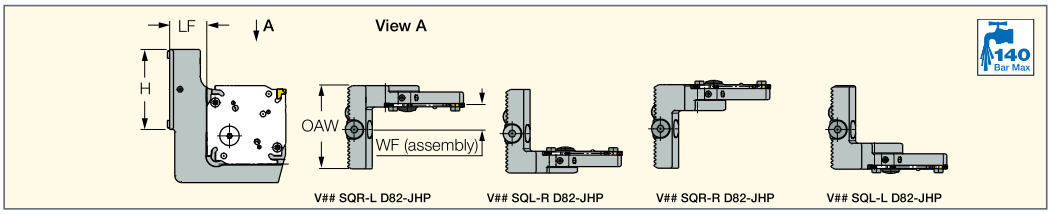
Spare Parts

Designation							
TGTBQ-JHP-RIB	SR ISO 14580 M4X10	SIDE THRUST PIN 3mm	SR M4X9-SEAL-JHP	BLD T20/S7	SW6-SD	O-RING 10X2 NBR	JHP COPPER SEAL 1/8"

LOGIQ F GRIP
HIGH FEED GRIP HOLDER

V## SQ#-#-D82-JHP

Intermediate Holders for TANG-F-GRIP and DO-F-GRIP Square Type D82 Adapters Designed for Modular Tooling Systems



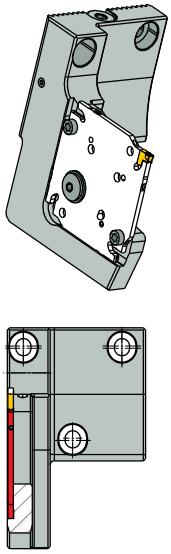
Designation	H	LF	OAW	WF[1]
V60 SQL-L-D82-JHP	62.0	34.70	64.50	28.95
V60 SQL-R-D82-JHP	62.0	34.70	64.50	15.35
V60 SQR-L-D82-JHP	62.0	34.70	64.50	18.85
V60 SQR-R-D82-JHP	62.0	34.70	64.50	32.45
V85 SQL-L-D82-JHP	83.0	34.70	85.00	40.95
V85 SQL-R-D82-JHP	83.0	34.70	85.00	27.35
V85 SQR-L-D82-JHP	83.0	34.70	85.00	27.35
V85 SQR-R-D82-JHP	83.0	34.70	85.00	40.95

(1) When 3mm width insert is used.

Tools: DGAQ • DGAQ-JHP • TGAQ • TGAQ-JHP

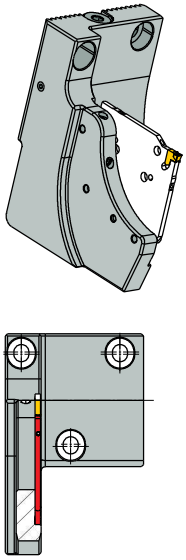
Identification Key

V60 SQL-L-D82-JHP



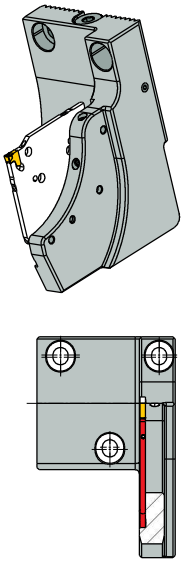
L- Holder (prism) orientation
L- Pocket side

V60 SQL-R-D82-JHP



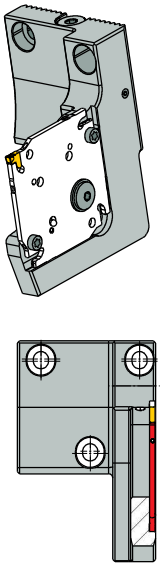
L- Holder (prism) orientation
R- Pocket side

V60 SQR-L-D82-JHP



R- Holder (prism) orientation
L- Pocket side

V60 SQR-R-D82-JHP



R- Holder (prism) orientation
R- Pocket side

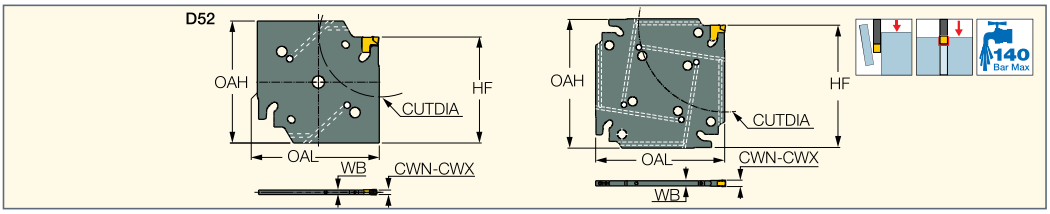
Spare Parts

Designation					
V## SQ#-#-D82-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	O-RING 10X2 NBR	SIDE THRUST PIN 3mm	SR ISO 14580 M4X10

TANG F GRIP HIGH FEED PARTING

TGAQ-JHP

Parting and Grooving Square Adapters with Internal Coolant Holes Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	OAL	OAH	CWN[1]	CWX[2]	WB	HF	CUTDIA[3]	MIID[4]	CSP[5]
TGAQ D52-2-2Z-JHP	50.00	50.00	1.80	2.50	1.65	43.5	52.0	TAG 2	1
TGAQ D52-3-2Z-JHP	50.00	50.00	2.80	3.50	2.50	43.5	52.0	TAG 3	1
TGAQ D52-4-2Z-JHP	50.00	50.00	3.70	4.50	3.40	43.5	52.0	TAG 4	1
TGAQ D82-2-4Z-JHP	61.00	61.00	1.80	2.50	1.65	58.0	82.0	TAG 2	1
TGAQ D82-3-4Z-JHP	61.00	61.00	2.80	3.50	2.50	58.0	82.0	TAG 3	1
TGAQ D82-4-4Z-JHP	61.00	61.00	3.70	4.50	3.40	58.0	82.0	TAG 4	1
TGAQ D120-3-4Z-JHP	90.50	90.50	2.80	3.50	2.50	84.0	120.0	TAG 3	1
TGAQ D120-4-4Z-JHP	90.50	90.50	3.70	4.50	3.40	84.0	120.0	TAG 4	1
TGAQ D120-5-4Z-JHP	90.50	90.50	4.70	5.50	4.00	84.0	120.0	TAG 5	1
TGAQ D160-3-4Z-JHP	100.00	100.00	2.80	3.50	2.50	97.0	160.0	TAG 3	1
TGAQ D160-4-4Z-JHP	100.00	100.00	3.70	4.50	3.40	97.0	160.0	TAG 4	1
TGAQ D160-5-4Z-JHP	100.00	100.00	4.70	5.50	4.00	97.0	160.0	TAG 5	1

- Suitable for all TANG-GRIP inserts

[1] Minimum cutting width
[2] Maximum cutting width
[3] Maximum diameter for parting
[4] Master insert identification
[5] 0 - Without coolant supply, 1 - With coolant supply

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS
Holders: TGTBQ-JHP • TGTBQ-JHP-MC • TGTBY-JHP • V## SQ#-#-D82-JHP

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TGAQ D.../-2.../-3...-JHP	4-7	5-8	6-9
TGAQ D.../-4.../-5...-JHP	6-7	7-8	8-9

Spare Parts

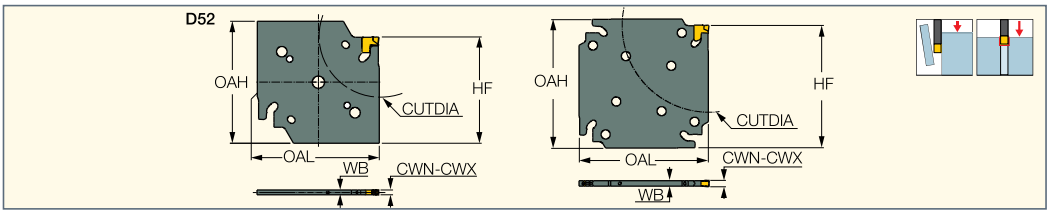
Designation			
TGAQ D52-2-2Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 2*
TGAQ D52-3-2Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D52-4-2Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D82-2-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 2*
TGAQ D82-3-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D82-4-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D120-3-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D120-4-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D120-5-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 5-7*
TGAQ D160-3-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D160-4-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 3-4-SH*
TGAQ D160-5-4Z-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	ETG 5-7*

* Optional, should be ordered separately

TANG-GRIP HIGH FEED PARTING

TGAQ

Parting and Grooving Square Adapters Carrying TANG-GRIP Tangentially Clamped Inserts



Designation	OAL	OAH	CWN[1]	CWX[2]	WB	HF	CUTDIA[3]	MIID[4]	CSP[5]
TGAQ D52-2-2Z	50.00	50.00	1.80	2.50	1.65	43.5	52.0	TAG 2	0
TGAQ D52-3-2Z	50.00	50.00	2.80	3.50	2.50	43.5	52.0	TAG 3	0
TGAQ D52-4-2Z	50.00	50.00	3.70	4.50	3.40	43.5	52.0	TAG 4	0
TGAQ D82-2-4Z	61.00	61.00	1.80	2.50	1.65	58.0	82.0	TAG 2	0
TGAQ D82-3-4Z	61.00	61.00	2.80	3.50	2.50	58.0	82.0	TAG 3	0
TGAQ D82-4-4Z	61.00	61.00	3.70	4.50	3.40	58.0	82.0	TAG 4	0
TGAQ D120-3-4Z	90.50	90.50	2.80	3.50	2.50	84.0	120.0	TAG 3	0
TGAQ D120-4-4Z	90.50	90.50	3.70	4.50	3.40	84.0	120.0	TAG 4	0
TGAQ D120-5-4Z	90.50	90.50	4.70	5.50	4.00	84.0	120.0	TAG 5	0
TGAQ D160-3-4Z	100.00	100.00	2.80	3.50	2.50	97.0	160.0	TAG 3	0
TGAQ D160-4-4Z	100.00	100.00	3.70	4.50	3.40	97.0	160.0	TAG 4	0
TGAQ D160-5-4Z	100.00	100.00	4.70	5.50	4.00	97.0	160.0	TAG 5	0

- Suitable for all TANG-GRIP inserts

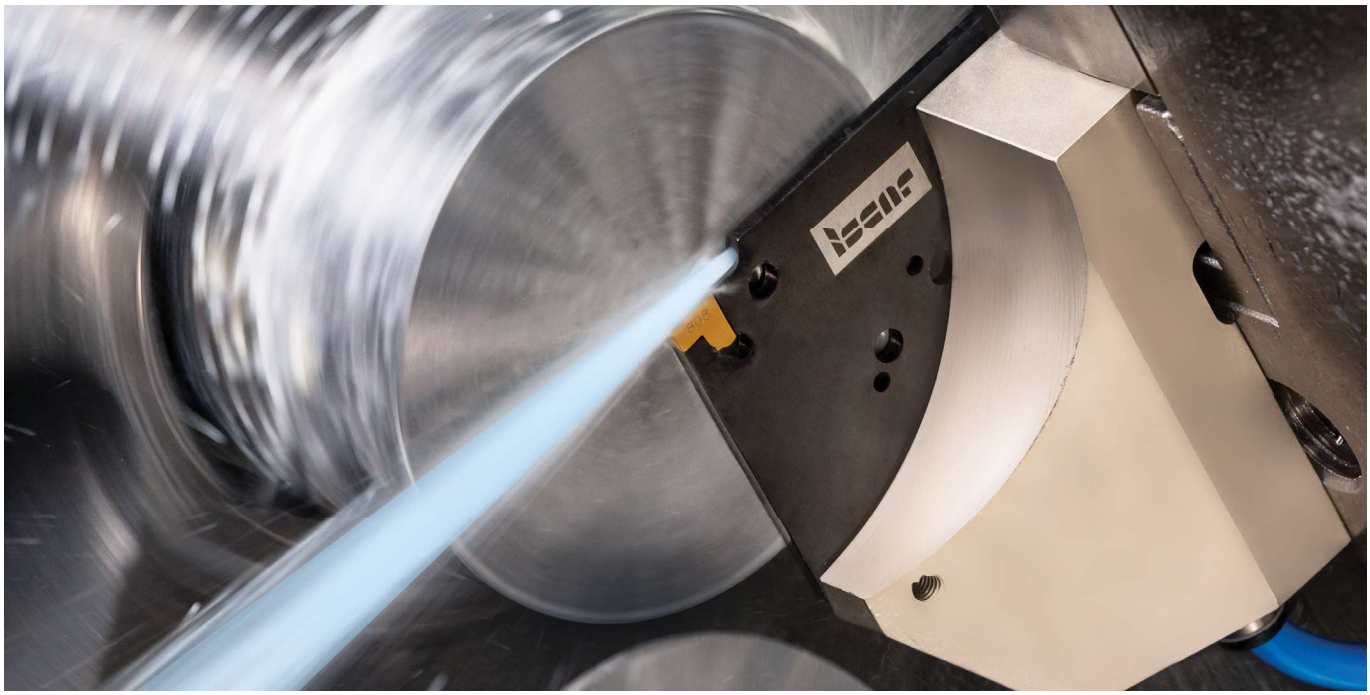
[1] Minimum cutting width
[2] Maximum cutting width
[3] Maximum diameter for parting
[4] Master insert identification
[5] 0 - Without coolant supply, 1 - With coolant supply

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS
Holders: TGTBQ-JHP • TGTBQ-JHP-MC • TGTBY-JHP • V## SQ#-#-D82-JHP

Spare Parts

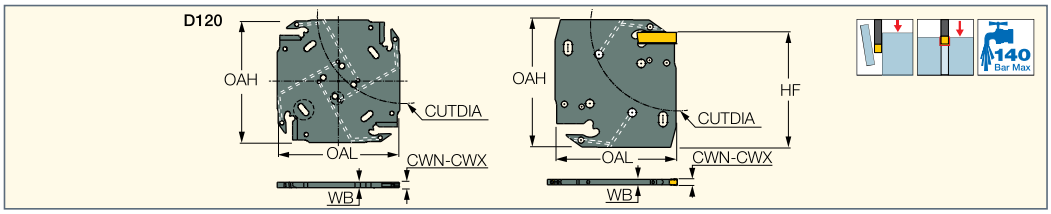
Designation		
TGAQ D52-2-2Z	SR ISO 14580 M4X10	ETG 2*
TGAQ D52-3-2Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D52-4-2Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D82-2-4Z	SR ISO 14580 M4X10	ETG 2*
TGAQ D82-3-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D82-4-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D120-3-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D120-4-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D120-5-4Z	SR ISO 14580 M4X10	ETG 5-7*
TGAQ D160-3-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D160-4-4Z	SR ISO 14580 M4X10	ETG 3-4-SH*
TGAQ D160-5-4Z	SR ISO 14580 M4X10	ETG 5-7*

* Optional, should be ordered separately



DO-F-GRIP

DGAQ-JHP
Parting and Grooving Square Adapters with Internal Coolant Holes Carrying DO-GRIP Inserts



Designation	OAL	OAH	CWN(1)	CWX(2)	WB	HF	CUTDIA(3)	MIID(4)	CSP(5)
DGAQ D52-2-2Z-JHP	50.00	50.00	1.90	2.50	1.72	43.5	52.0	DGN 2	1
DGAQ D52-3-2Z-JHP	50.00	50.00	3.00	3.18	2.50	43.5	52.0	DGN 3	1
DGAQ D52-4-2Z-JHP	50.00	50.00	4.00	4.00	3.20	43.5	52.0	DGN 4	1
DGAQ D82-3-2Z-JHP	64.40	64.40	3.00	3.18	2.50	58.0	82.0	DGN 3	1
DGAQ D82-4-2Z-JHP	64.40	64.40	4.00	4.00	3.20	58.0	82.0	DGN 4	1
DGAQ D82-5-2Z-JHP	64.40	64.40	5.00	5.00	4.00	58.0	82.0	DGN 5	1
DGAQ D120-4-4Z-JHP	90.50	90.50	4.00	4.00	3.20	84.0	120.0	DGN 4	1
DGAQ D120-5-4Z-JHP	90.50	90.50	5.00	5.00	4.00	84.0	120.0	DGN 5	1

- When using 2 and 3mm double-sided inserts, the depth of cut is limited up to 19mm. For larger depth, use a DGNM type single-ended insert.

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum diameter for parting
(4) Master insert identification
(5) 0 - Without coolant supply, 1 - With coolant supply

Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-W • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Holders: TGTBQ-JHP • TGTBQ-JHP-MC • TGTBY-JHP • V## SQ#-#-D82-JHP

Flow Rate vs. Pressure

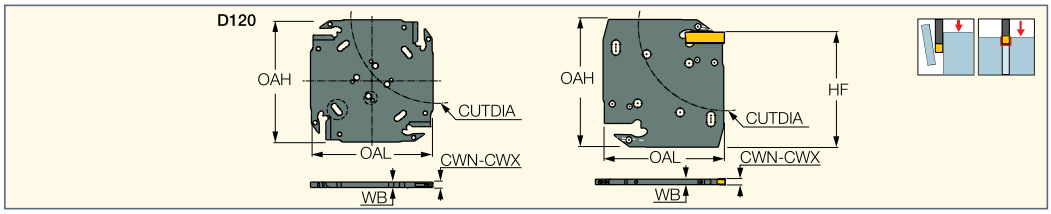
Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
DGAQ D.../-2/-3...-JHP	4-7	5-8	6-9
DGAQ D.../-4/-5...-JHP	6-7	7-8	8-9

Spare Parts

Designation			
DGAQ-JHP	SR M4X9-SEAL-JHP	JHP COPPER SEAL 1/8"	EDG 33A*

* Optional, should be ordered separately

DGAQ
Parting and Grooving Square Adapters Carrying DO-GRIP Inserts



Designation	OAL	OAH	CWN(1)	CWX(2)	WB	HF	CUTDIA(3)	MIID(4)	CSP(5)
DGAQ D52-2-2Z	50.00	50.00	1.90	2.50	1.72	43.5	52.0	DGN 2	0
DGAQ D52-3-2Z	50.00	50.00	3.00	3.18	2.50	43.5	52.0	DGN 3	0
DGAQ D52-4-2Z	50.00	50.00	4.00	4.00	3.20	43.5	52.0	DGN 4	0
DGAQ D82-3-2Z	64.40	64.40	3.00	3.18	2.50	58.0	82.0	DGN 3	0
DGAQ D82-4-2Z	64.40	64.40	4.00	4.00	3.20	58.0	82.0	DGN 4	0
DGAQ D82-5-2Z	64.40	64.40	5.00	5.00	4.00	58.0	82.0	DGN 5	0
DGAQ D120-4-4Z	90.50	90.50	4.00	4.00	3.20	84.0	120.0	DGN 4	0
DGAQ D120-5-4Z	90.50	90.50	5.00	5.00	4.00	84.0	120.0	DGN 5	0

- When using 2 and 3mm double-sided inserts, the depth of cut is limited up to 19mm. For larger depth, use a DGNM type single-ended insert.

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum diameter for parting
(4) Master insert identification
(5) 0 - Without coolant supply, 1 - With coolant supply

Inserts: DGN-LF/LFT • DGN-MF • DGN-P • DGN-UT/UA • DGN-W • DGN-WP • DGN-Z • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGR-P • DGR-WP • DGR-Z/ZS • DGR/L-C DGRC/LC-C • DGR/L-J/JS

Holders: TGTBQ-JHP • TGTBQ-JHP-MC • TGTBY-JHP • V## SQ#-#-D82-JHP

Spare Parts

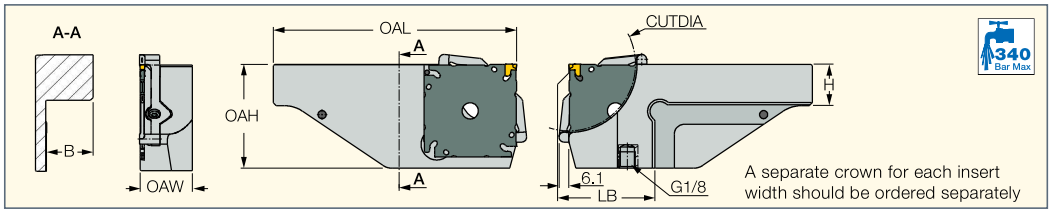
Designation		
DGAQ	SR ISO 14580 M4X10	EDG 33A*

* Optional, should be ordered separately

JET-CROWN

LOGIQ FGRIP HIGH FEED GRIP HOLDER
JETCROWN LOGIQ JET COOLANT

TGTBQ-ECD-JHP (JET-CROWN)
Tool Blocks for Square TANG-F-GRIP (TGAQ-ECD) Parting and Grooving Adapters for High-Pressure Coolant



Designation	OAH	H	B	OAW	OAL	LB	CUTDIA
TGTBQ 20L-D65-ECD-JHP	55.00	20.0	20.5	26.50	129.00	42.00	65.0
TGTBQ 20R-D65-ECD-JHP	55.00	20.0	20.5	26.50	129.00	42.00	65.0
TGTBQ 25L-D65-ECD-JHP	55.00	25.0	25.5	31.50	139.00	42.00	65.0
TGTBQ 25R-D65-ECD-JHP	55.00	25.0	25.5	31.50	139.00	42.00	65.0
TGTBQ 20L-D82-ECD-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 20R-D82-ECD-JHP	64.00	20.0	20.5	26.50	140.00	53.00	82.0
TGTBQ 25L-D82-ECD-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0
TGTBQ 25R-D82-ECD-JHP	64.00	25.0	25.5	31.50	150.00	53.00	82.0

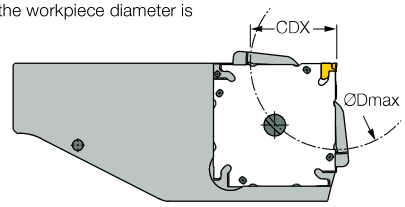
- A separate crown for each insert width should be ordered separately.

Tools: TGAQ-ECD (JET-CROWN)

Depth of cut as function of workpiece diameter

Designation	Dmax																				
TGTBQ ..R/L-D65-ECD	98	95	90	87	84	81	78	76	74	73	72	70	69	68	67	66	65				
CDX	8	9	10	11	12	13	14	15	16	17	18	19	20-21	22	23-24	25-33	32.5				
TGTBQ ..R/L-D82-ECD	118	116	112	108	105	102	99	97	95	93	91	90	89	88	87	86	85	84	83	82	
CDX	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	31	41	

The tool cannot be used for grooving applications when the workpiece diameter is larger than 118mm.

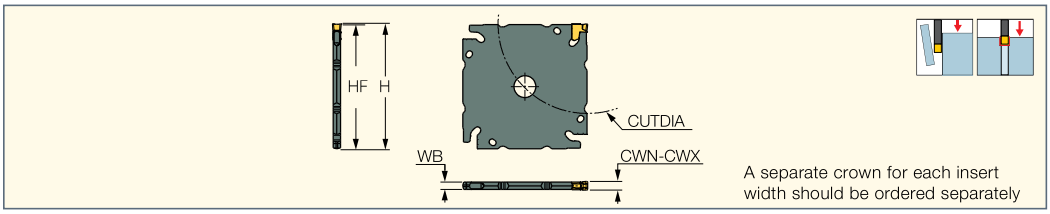


Spare Parts

Designation			
TGTBQ-ECD-JHP (JET-CROWN)	SR M7-R-L	BLD T20/S7	SW6-SD

TANG FGRIP HIGH FEED PARTING
JETCROWN LOGIQ JET COOLANT

TGAQ-ECD (JET-CROWN)
Parting and Grooving Square Adapters Compatible with TANG-GRIP Inserts (Single-Ended)



Designation	CWN(1)	CWX(2)	WB	H	HF(3)	CUTDIA	MIID(4)
TGAQ D65-2-4Z-ECD	1.80	2.50	1.65	49.0	48.7	65.0	TAG N2
TGAQ D65-3-4Z-ECD	2.80	3.50	2.50	49.0	48.7	65.0	TAG N3
TGAQ D82-2-4Z-ECD	1.80	2.50	1.65	58.0	57.7	82.0	TAG N2
TGAQ D82-3-4Z-ECD	2.80	3.50	2.50	58.0	57.7	82.0	TAG N3
TGAQ D82-4-4Z-ECD	3.70	3.40	3.40	58.0	57.7	82.0	TAG N4

- Suitable for all TANG-GRIP inserts

(1) Minimum cutting width
(2) Maximum cutting width
(3) Related to insert
(4) Master insert identification

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS
Holders: TGTBQ-ECD-JHP (JET-CROWN)

Spare Parts

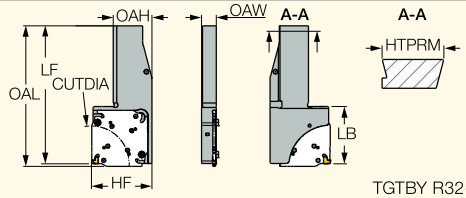
Designation		
TGAQ D65-2-4Z-ECD	ECD D65-2-TG*	ETG 2*
TGAQ D65-3-4Z-ECD	ECD D65-3-TG*	ETG 3-4-SH*
TGAQ D82-2-4Z-ECD	ECD D82-2-TG*	ETG 2*
TGAQ D82-3-4Z-ECD	ECD D82-3-TG*	ETG 3-4-SH*
TGAQ D82-4-4Z-ECD	ECD D82-4-TG*	ETG 3-4-SH*

* Optional, should be ordered separately

LOGIQ F GRIP HIGH FEED Y-AXIS

TGTBY-JHP

Y-Axis Intermediate Prismatic Holders for Square JHP Adapters on Multi-Task Machines for Parting and Grooving



TGTBY R32-D82R-JHP with TGAQ Shown

Designation	OAH	HF	OAW	LF	LB	CUTDIA	OAL[1]	OAL_2[2]	HTPRM
TGTBY L32-D82R-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00
TGTBY R32-D82L-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00
TGTBY R32-D82R-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00
TGTBY L32-D82L-JHP	42.00	65.8	16.00	150.00	62.00	82.0	153.00	156.40	32.00

• Can be used also for X-axis (multi-task machines) - location pin should be removed • For set up procedure see page 520

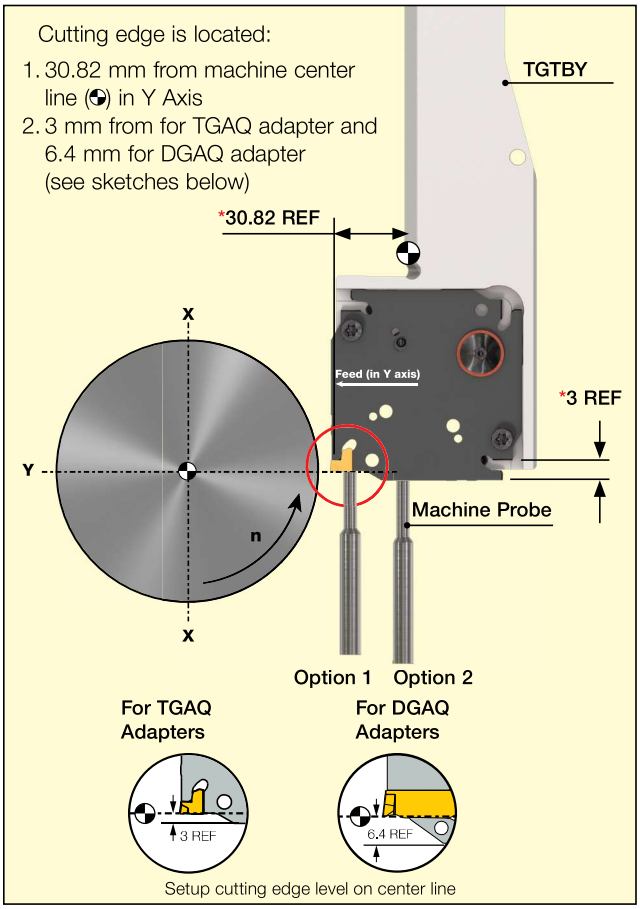
(1) Overall length with TGAQ adapter

(2) Overall length with DGAQ adapter

Tools: DGAQ • DGAQ-JHP • TGAQ • TGAQ-JHP

Y-Axis Tool Setup on Multi-Task Machines

Parting and Setup in Y-Axis Direction

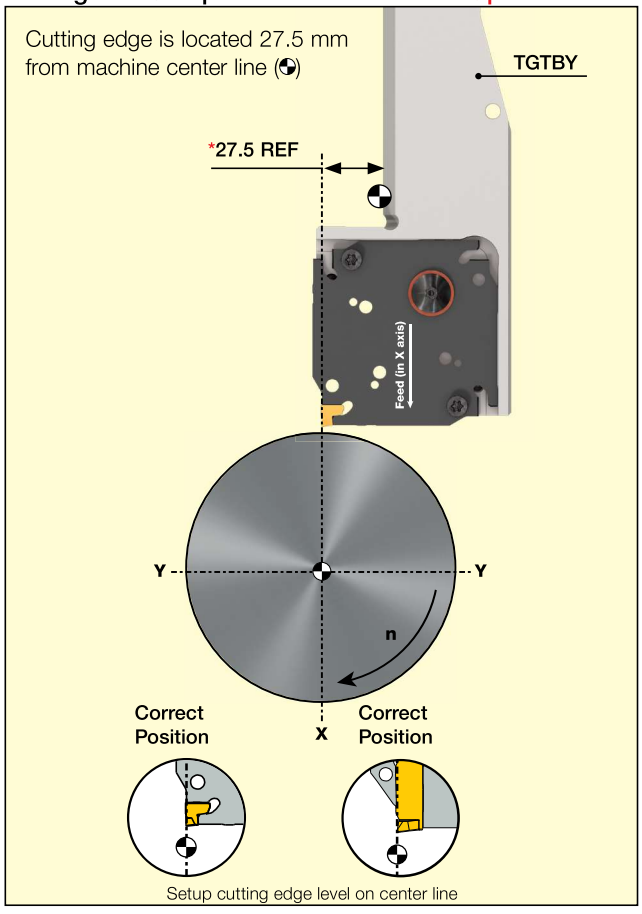


* For Y-Axis cut off, compensate 30.82 mm in Y-Axis direction and compensate 3 mm for TGAQ adapters or 6.4 mm for DGAQ adapters in X-Axis direction.

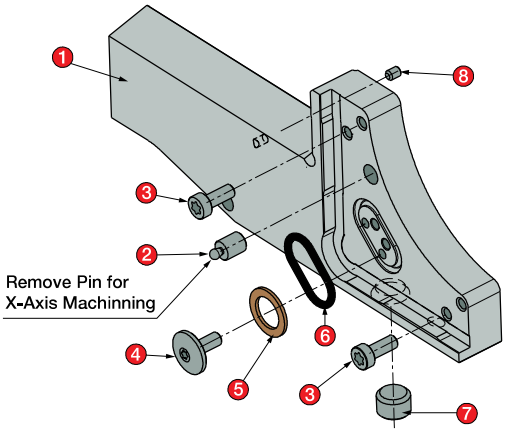
Set the cutting edge on the center line:
Option 1 - Gauge the cutting edge - this is preferable due to better accuracy
Option 2 - Gauge the blade and compensate 3mm / 6.4mm

1. **Block:** TGTBY
2. **Locating pin:** Side thrust Pin 3 mm
3. **Clamping screw :** SR M4x10 ISO 14580
4. **Clamping & sealing screw:** SR M4x9-Seal-JHP
5. **Seal washer:** CSW 1/8″
6. **O-ring:** O-ring 10x2 NBR
7. **Lower sealing plug:** Plug G1/8-6.5 TL360
8. **Upper sealing screw:** SR M3x4-**DIN913**

Parting and Setup in X-Axis Direction - Optional



* For X-Axis cut off, compensate 27.5 mm in Y-Axis direction. Location pin should be removed.



Spare Parts

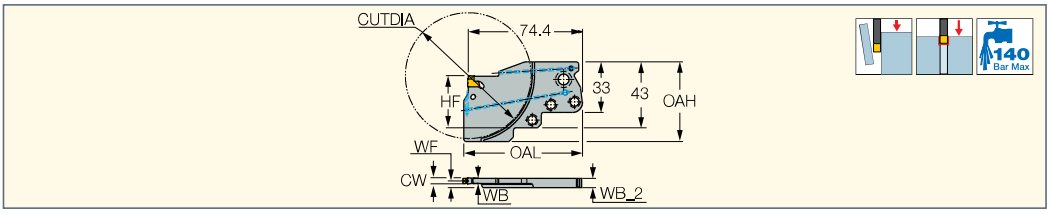
Designation									
TGTBY-JHP	SR ISO 14580 M4X10	SR M4X9-SEAL-JHP	OR 16X2 NBR	JHP COPPER SEAL 1/8"	BLD T20/S7	SW6-SD	PLG G1/8 TL360	HW 5.0	SIDE THRUST PIN 3mm

SELF-5-GRIP

TANG-GRIP Y AXIS PARTING LINE

TAGPAD-Y-JHP

Y-Axis Adapters for Parting & Grooving on Multi-Task Machines & Turning Centers with JHP Channels and TANG-GRIP Inserts



Designation	CW	WF	WB	WB_2	OAL	OAH	HF	CUTDIA	MIID[1]	
TAGPAD-Y-D82R/L-3C	3.00	4.80	2.40	6.0	77.40	52.00	34.0	82.0	TAG N3HF	ETG 3-4-SH*
TAGPAD-Y-D82R/L-4C	4.00	4.30	3.40	6.0	77.40	52.00	34.0	82.0	TAG N4HF	ETG 3-4-SH*

- Can be offered for parting up to 125mm diameter as semi standard: TAGPAD-Y-125R\L-3C, TAGPAD-Y-125R\L-4C
- For set up procedure and user guide, see page 550
- **The tool types shown are currently unavailable in the USA, Canada, China, Japan and Korea.**

(1) Master insert identification

* Optional, should be ordered separately

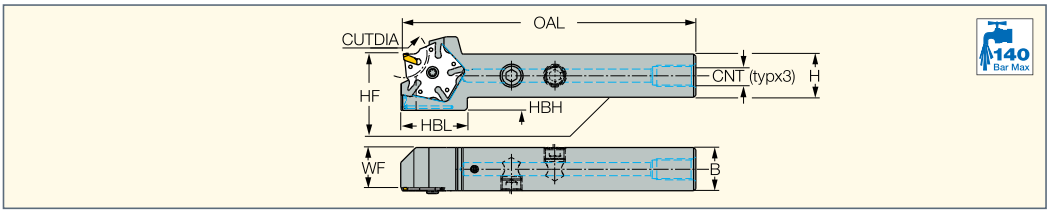
Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: ABC MAHDR-#-XL-JHP • MAHPR/L-XL-JHP • MAHR/L-MG-XL-JHP • MAHR/L-MG-XL-JHP-MC • TR45 MAHDR-#-XL-JHP • V## MAHD#-#-XL-##-JHP • V## MAHD-XL-JHP

SLIMGRIP NARROW INSERTS

THMPR/L D22-JHP

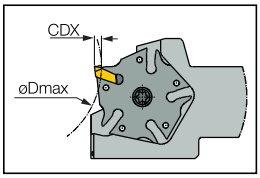
Holders with High-Pressure Coolant Channels for Pentagonal SLIM-GRIP Adapters



Designation	H	HF	HBH	B	WF	CUTDIA	OAL	HBL	CNT
THMPR/L 16-D22-JHP	16.0	16.1	10.0	16.0	14.60	22.0	135.00	29.6	UNF 5/16-24
THMPR/L 20-D22-JHP	20.0	20.1	6.0	20.0	18.60	22.0	135.00	29.6	G1/8

Tools: ADMP D22

THMPR/L...-D22-JHP CDX to øDmax								
CDX	≤2.0	≤3.0	≤4.0	≤5.0	≤6.0	≤7.0	≤8.0	≤11.0
øDmax	85	80	75	70	65	60	55	50



Spare Parts

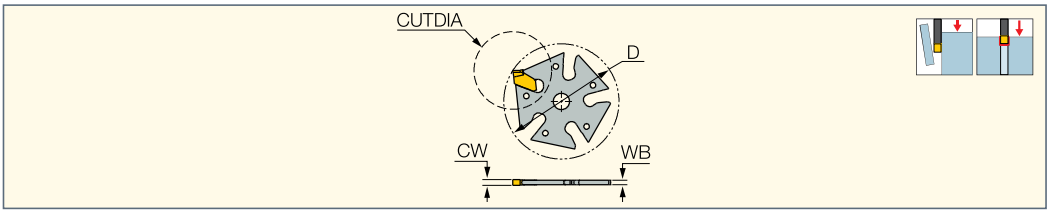
Designation				
THMPR/L 16-D22-JHP	SR 5/16UNF TL360	HW 5/32"	SR M4-39432	T-15/5
THMPR/L 20-D22-JHP	PLG G1/8 TL360	HW 5.0	SR M4-39432	T-15/5

SELF5GRIP PARTING AND GROOVING

SLIMGRIP NARROW INSERTS

ADMP D22

Parting and Grooving Adapters with 5 Pockets for SLIM-GRIP Inserts



Designation	CW	WB	D	CUTDIA	Insert
ADMP D22-1.2	1.20	1.06	32	22.0	GFT 1.2
ADMP D22-1.6	1.60	1.20	32	22.0	GFT 1.6

- For user guide, see pages 540-547

Inserts: GFT-C • GFT-J

Holders: THMPR/L D22-JHP

Spare Parts

Designation	
ADMP D22	ESG-SLM*

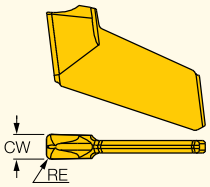
* Optional, should be ordered separately

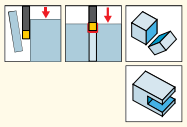
TANG-5-GRIP

SLIMGRIP NARROW INSERTS

GFT-J

Thin Parting, Grooving and Slitting Single-Ended Inserts for Soft Materials





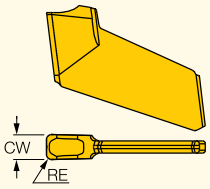
Designation	Dimensions CW	RE	Tough ↔ Hard IC1028	IC1008	Recommended Machining Data f groove (mm/rev)
GFT 0.6J-0.1	0.60	0.10	•	•	0.03-0.05
GFT 0.8J-0.1	0.80	0.10	•	•	0.03-0.07
GFT 1.0J-0.1	1.00	0.10	•	•	0.03-0.09
GFT 1.2J-0.14	1.20	0.14	•	•	0.03-0.10
GFT 1.6J-0.16	1.60	0.16	•	•	0.03-0.12

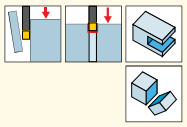
Tools: ADMP D22 • SGAQ

SLIMGRIP NARROW INSERTS

GFT-C

Thin Parting, Grooving & Slitting Single-Ended Inserts for Soft Materials





Designation	Dimensions CW	RE	Tough ↔ Hard IC1028	IC1008	Recommended Machining Data f groove (mm/rev)
GFT 1.6C-0.16	1.60	0.16	•	•	0.05-0.15

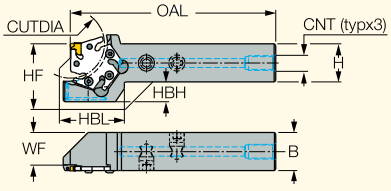
Tools: ADMP D22

TANG-GRIP PARTING LINE

TANG 5 GRIP PARTING AND GROOVING

THMPR/L D45-JHP

Holders with High-Pressure Coolant Channels for Pentagonal TANG-GRIP Adapters



Designation	H	HF	HBH	B	WF	CUTDIA	OAL	HBL	CNT
THMPR/L 20-D45-JHP	20.0	20.1	18.0	20.0	17.35	45.0	135.00	35.6	G1/8
THMPR/L 25-D45-JHP	25.0	25.1	13.0	25.0	22.35	45.0	135.00	35.6	G1/8

Tools: ADMP D45

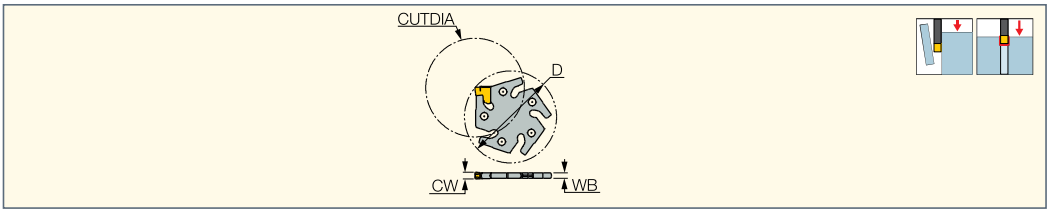
Spare Parts

Designation				
THMPR/L D45-JHP	SR M3X8 ISO 14580 BLACK	T-10/5	PLG G1/8 TL360	HW 5.0

TANG 5 GRIP PARTING AND GROOVING

ADMP D45

Parting and Grooving Adapters with 5 Pockets for TANG-GRIP Tangentially Clamped Inserts



Designation	CWN(1)	CWX(2)	WB	D	CUTDIA	Insert
ADMP D45-2.0	1.80	2.40	1.60	42	45.0	TAG 2
ADMP D45-3.0	2.80	3.50	2.50	42	45.0	TAG 3

• For user guide, see pages 540-547

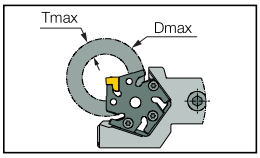
(1) Minimum cutting width

(2) Maximum cutting width

Inserts: TAG N-A • TAG N-C/W/M • TAG N-HF • TAG N-J/JS/JT • TAG N-LF • TAG N-MF • TAG N-UT • TAG R/L-C • TAG R/L-J/JS

Holders: THMPR/L D45-JHP

THMPR/L...-D45-JHP Tmax. to Dmax.									
Tmax	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0	T≤22.5
Dmax	85	80	75	70	65	60	55	50	45



Spare Parts

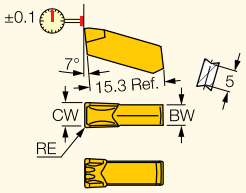
Designation	
ADMP D45-2.0	ETG 2*
ADMP D45-3.0	ETG 3-4-SH*

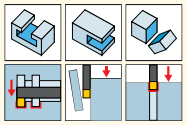
* Optional, should be ordered separately

CUT-GRIP

GIM-C

Parting and Grooving Single-Sided Inserts for Parting Bars, Hard Materials and Tough Applications





Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 3C	3.00	0.22	0.05	2.40	•	•	•	•	•	0.15-0.25
GIM 4C	4.00	0.25	0.05	3.40				•		0.15-0.25
GIM 5C	5.00	0.40	0.05	4.00	•	•	•	•	•	0.15-0.30
GIM 6C	6.00	0.40	0.05	4.80	•		•	•	•	0.15-0.30

• For cutting speed recommendations and user guide, see pages 540-547

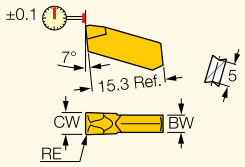
(1) Cutting width tolerance (+/-)

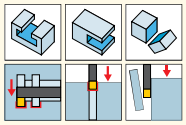
Tools: Anti-Vibration Blades • C#-GHDR/L • CGHN 26-M • CGHN 32-DGM • CGHN 32-M • CGHN-D • CGHN-DG • CGHN-S • CGPAD • CGPAD-JHP • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L • GHMPR/L • GHMR/L

CUTGRIP

GIM-J

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Tubes
and Small Diameters





Designation	Dimensions CW	RE	CWTOL[1]	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.2J	2.20	0.17	0.05	1.70	●	●	●	●	●	0.06-0.13
GIM 3J	3.00	0.25	0.05	2.40	●	●	●	●	●	0.08-0.15
GIM 4J	4.00	0.25	0.05	3.20	●	●	●	●	●	0.08-0.18

• For cutting speed recommendations and user guide, see pages 540-547

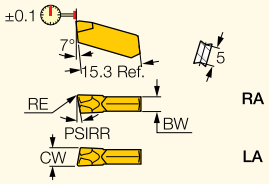
[1] Cutting width tolerance (+/-)

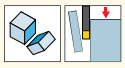
Tools: C#-GHDR/L • CGHN 26-M • CGHN 32-DGM • CGHN 32-M • CGHN-D • CGHN-DG • CGHN-S • CGPAD • CGPAD-JHP • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L • GHMPR/L • GHMR/L • GHSR/L • GHSR/L-JHP-SL • NQCH-GHSR/L-JHP

CUTGRIP

GIM-J-RA/LA

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Parting Tubes
and Small Diameters





Designation	Dimensions CW	RE	CWTOL[1]	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.2J-8LA	2.20	0.17	0.05	8.0	-	1.70		●		●	●	●	0.05-0.10
GIM 2.2J-8RA	2.20	0.17	0.05	-	8.0	1.70	●	●	●	●	●	●	0.05-0.10
GIM 2.2JS-15LA	2.20	0.02	0.05	15.0	-	1.70		●			●	●	0.05-0.10
GIM 2.2JS-15RA	2.20	0.02	0.05	-	15.0	1.70		●	●	●	●	●	0.05-0.10
GIM 3J-4LA	3.00	0.22	0.05	4.0	-	2.40				●		●	0.05-0.12
GIM 3J-4RA	3.00	0.25	0.05	-	4.0	2.40		●	●	●		●	0.05-0.12
GIM 3J-8LA	3.00	0.25	0.05	8.0	-	2.40		●		●	●	●	0.05-0.12
GIM 3J-8RA	3.00	0.25	0.05	-	8.0	2.40	●	●	●	●	●	●	0.05-0.12
GIM 3JS-15LA	3.00	0.02	0.05	15.0	-	2.40		●	●			●	0.05-0.12
GIM 3JS-15RA	3.00	0.02	0.05	-	15.0	2.40		●	●		●	●	0.05-0.12
GIM 4J-6LA	4.00	0.25	0.05	6.0	-	3.20						●	0.08-0.15
GIM 4J-6RA	4.00	0.25	0.05	-	6.0	3.20				●		●	0.08-0.15

• For cutting speed recommendations and user guide, see pages 540-547

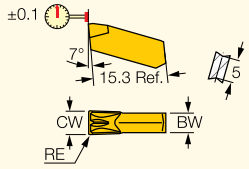
[1] Cutting width tolerance (+/-)

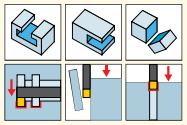
Tools: C#-GHDR/L • CGHN 26-M • CGHN 32-DGM • CGHN 32-M • CGHN-D • CGHN-DG • CGHN-S • CGPAD • CGPAD-JHP • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L • GHMPR/L • GHMR/L • GHSR/L • GHSR/L-JHP-SL • NQCH-GHSR/L-JHP

CUT-GRIP

GIM-W

Single-Sided Inserts with Central Ridged Chipformer and Reinforced Edge for Parting and Grooving Alloy Steel





Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.4	2.40	0.18	0.05	2.40			●	●	●	0.10-0.18
GIM 3	3.00	0.22	0.05	2.40	●	●	●	●	●	0.10-0.18
GIM 3.2	3.20	0.22	0.05	2.40	●	●	●	●	●	0.10-0.20
GIM 4	4.00	0.25	0.05	3.20	●	●	●	●	●	0.15-0.20

• For cutting speed recommendations and user guide, see pages 540-547

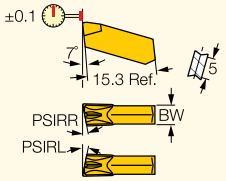
(1) Cutting width tolerance (+/-)

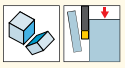
Tools: C#-GHDR/L • CGHN 26-M • CGHN 32-DGM • CGHN 32-M • CGHN-D • CGHN-DG • CGHN-S • CGPAD • CGPAD-JHP • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L • GHMPR/L • GHMR/L

CUT-GRIP

GIM-W-RA/LA

Single-Sided Screw-Clamped Inserts with Central Ridged Chipformer for Parting Alloy Steel





Designation	Dimensions CW	RE	CWTOL(1)	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 3-4LA	3.00	0.20	0.05	4.0	-	2.40		●		●		●	0.08-0.16
GIM 3-8LA	3.00	0.20	0.05	8.0	-	2.40		●		●	●	●	0.08-0.16
GIM 3S-15RA	3.00	0.22	0.05	-	15.0	2.40		●					0.08-0.16
GIM 3-4RA	3.00	0.25	0.05	-	4.0	2.40	●	●	●	●	●	●	0.08-0.16
GIM 3-8RA	3.00	0.25	0.05	-	8.0	2.40	●	●	●	●	●	●	0.08-0.16
GIM 3.2-4LA	3.20	0.22	0.05	4.0	-	2.50				●			0.08-0.16
GIM 3.2-4RA	3.20	0.22	0.05	-	4.0	2.50		●		●		●	0.08-0.16
GIM 3.2-8LA	3.20	0.22	0.05	8.0	-	2.50				●			0.08-0.16
GIM 3.2-8RA	3.20	0.22	0.05	-	8.0	2.50		●		●	●	●	0.08-0.16
GIM 4-4LA	4.00	0.25	0.05	4.0	-	3.20				●		●	0.10-0.16
GIM 4-4RA	4.00	0.25	0.05	-	4.0	3.20	●			●	●	●	0.10-0.16
GIM 4-8LA	4.00	0.25	0.05	8.0	-	3.20				●			0.10-0.16
GIM 4-8RA	4.00	0.25	0.05	-	8.0	3.20		●		●	●	●	0.10-0.16

• For cutting speed recommendations and user guide, see pages 540-547

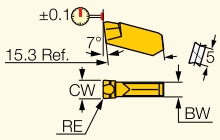
(1) Cutting width tolerance (+/-)

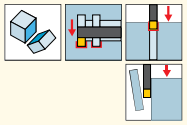
Tools: C#-GHDR/L • CGHN 26-M • CGHN 32-DGM • CGHN 32-M • CGHN-D • CGHN-DG • CGHN-S • CGPAD • CGPAD-JHP • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L • GHMPR/L • GHMR/L

CUTGRIP

GIM-UT

Single-Ended Screw-Clamped Inserts for Parting and Grooving at Low Feeds on CrNi Alloys and Low Carbon Steel





Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC656	IC328	Recommended Machining Data f groove (mm/rev)
GIM 4.6UT	4.60	0.60	0.03	3.80	●	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 540-547

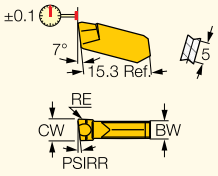
(1) Cutting width tolerance (+/-)

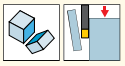
Tools: C#-GHDR/L • CGHN 26-M • CGHN 32-DGM • CGHN 32-M • CGHN-D • CGHN-DG • CGHN-S • CGPAD • CGPAD-JHP • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L • GHMPR/L • GHMR/L

CUTGRIP

GIM-UT-RA/LA

Single-Ended Screw-Clamped Inserts for Parting at Low Feeds on CrNi Alloys and Low Carbon Steel





Designation	Dimensions CW	RE	CWTOL(1)	PSIRR	BW	IC328	Recommended Machining Data f groove (mm/rev)
GIM 3UT-1.5RA	3.12	0.25	0.03	1.5	2.50	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 540-547

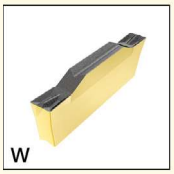
(1) Cutting width tolerance (+/-)

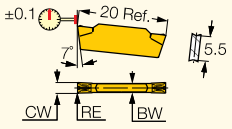
Tools: C#-GHDR/L • CGHN 26-M • CGHN 32-DGM • CGHN 32-M • CGHN-D • CGHN-DG • CGHN-S • CGPAD • CGPAD-JHP • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L • GHMPR/L • GHMR/L

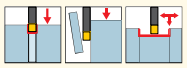
CUTGRIP

GDMW 2.4

Utility Double-Ended Inserts for External Turning, Grooving and Parting







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC808	IC908	IC20	IC20N	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMW 2.4	2.40	0.18	0.04	0.030	2.00	18.00	●	●	●	●	●	0.25-1.50	0.07-0.12	0.05-0.08

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

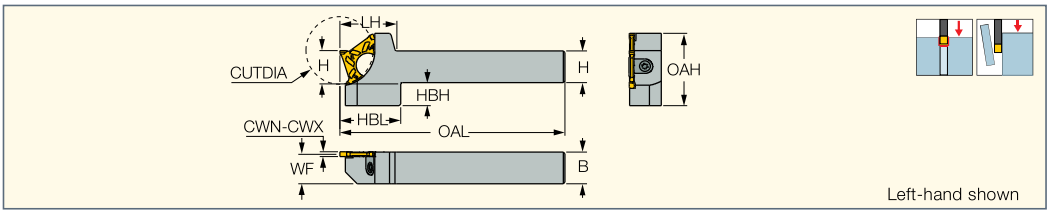
(3) Cutting depth maximum

Tools: PADR/L • PHGR/L • PHSR/L

PENTA-IQ-GRIP

PENTA IQ GRIP PARTING LINE

PCHR/L-D-IQ
Grooving and Parting
Tools Carrying Inserts
with 5 Cutting Edges



Designation	H	B	CWN(1)	CWX(2)	WF	CUTDIA	OAL	LH	HBL	HBH	OAH
PCHR/L 12-D22-2-IQ	12.0	12.0	2.00	2.40	11.40	22.0	100.00	26.9	25.70	8.0	25.5
PCHR/L 16-D22-2-IQ	16.0	16.0	2.00	2.40	15.40	22.0	120.00	26.9	23.20	4.0	25.5
PCHR/L 20-D22-2-IQ	20.0	20.0	2.00	2.40	19.40	22.0	120.00	26.9	-	-	25.5
PCHR/L 12-D22-3-IQ	12.0	12.0	3.00	3.20	10.70	22.0	120.00	19.7	20.00	11.0	25.5
PCHR/L 16-D22-3-IQ	16.0	16.0	3.00	3.20	14.70	22.0	120.00	19.7	20.00	7.0	25.5
PCHR/L 20-D22-3-IQ	20.0	20.0	3.00	3.20	18.70	22.0	120.00	19.7	-	-	25.5
PCHR/L 12-D32-2-IQ	12.0	12.0	2.00	2.40	11.50	32.0	100.00	28.4	29.50	14.0	33.6
PCHR/L 16-D32-2-IQ	16.0	16.0	2.00	2.40	15.50	32.0	120.00	28.4	29.50	10.0	33.6
PCHR/L 20-D32-2-IQ	20.0	20.0	2.00	2.40	19.50	32.0	120.00	28.4	29.50	6.0	33.6
PCHR/L 25-D32-2-IQ	25.0	25.0	2.00	2.40	24.50	32.0	120.00	28.4	-	-	33.6
PCHR/L 12-D32-3-IQ	12.0	12.0	3.00	3.20	10.70	32.0	100.00	26.0	32.00	16.0	32.6
PCHR/L 16-D32-3-IQ	16.0	16.0	3.00	3.20	14.70	32.0	120.00	26.0	32.00	12.0	32.6
PCHR/L 20-D32-3-IQ	20.0	20.0	3.00	3.20	18.70	32.0	120.00	26.0	32.00	8.0	32.6
PCHR/L 25-D32-3-IQ	25.0	25.0	3.00	3.20	23.70	32.0	120.00	26.0	-	-	32.6
PCHR/L 16-D40-3-IQ	16.0	16.0	3.00	3.20	14.70	40.0	135.00	33.3	36.80	17.0	43.5
PCHR/L 20-D40-3-IQ	20.0	20.0	3.00	3.20	18.70	40.0	135.00	33.3	35.60	13.0	43.5
PCHR/L 25-D40-3-IQ	25.0	25.0	3.00	3.20	23.70	40.0	135.00	33.3	33.60	8.0	43.5
PCHR/L 32-D40-3-IQ	32.0	32.0	3.00	3.20	30.70	40.0	135.00	33.3	-	-	43.5

(1) Minimum cutting width
(2) Maximum cutting width

Inserts: PENTA D-N-C • PENTA D-N-J • PENTA D-N-PB • PENTA D-R/L-C • PENTA D-R/L-J • PENTA D-R/L-PB

Tmax as a Function of Dmax for PENTA D22

Tmax	T≤1.2	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤7.0	T≤9.0	T≤11.0
Dmax	N.L(1)	600	130	60	40	30	25	22

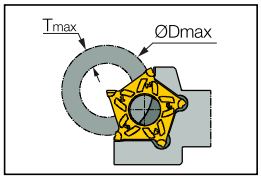
Tmax as a Function of Dmax for PENTA D32

Tmax	T≤1.2	T≤2	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤16.0
Dmax	N.L(1)	N.L(1)	250	130	80	60	50	45	40	32

Tmax as a Function of Dmax for PENTA D40

Tmax	T≤1.2	T≤2	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0	T≤11.0	T≤12.0	T≤13.0	T≤16.0	T≤20.0
Dmax	N.L(1)	N.L(1)	N.L(1)	350	200	140	105	85	75	65	60	55	50	45	40

(1) N.L = No Limit



Spare Parts

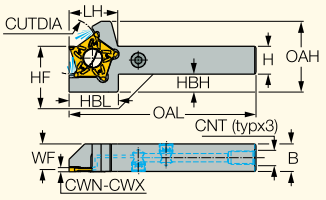
Designation				
PCHR/L 12-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 12-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHL 20-D22-3-IQ		LEVER PD22-3 INJ*		
PCHR/L 20-D22-3-IQ	SR M6-R-L		BLD T15/S7	SW6-SD
PCHR 20-D22-3-IQ		LEVER PD22-3 INJ		
PCHR/L 12-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 25-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHL 12-D32-3-IQ		LEVER PD32-3 INJ		
PCHR/L 12-D32-3-IQ	SR M6-R-L		BLD T15/S7	SW6-SD
PCHR 12-D32-3-IQ		LEVER PD32-3 INJ*		
PCHR/L 16-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 25-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 20-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 25-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 32-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD

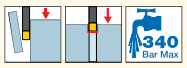
* Optional, should be ordered separately

PENTA IQ GRIP PARTING LINE
JETCUT

PCHR/L-D-JHP

Grooving and Parting Tools with Channels for High-Pressure Coolant Carrying Inserts with 5 Cutting Edges





Designation	H	HF	HBH	B	CWN(1)	CWX(2)	WF	CUTDIA	OAL	LH	HBL	OAH	CNT
PCHR/L 12-D22-2-JHP	12.0	0.0	8.0	12.0	2.00	2.40	11.00	22.0	101.50	29.0	29.50	32.0	UNF 5/16-24
PCHR/L 16-D22-2-JHP	16.0	0.0	4.0	16.0	2.00	2.40	15.00	22.0	121.50	29.0	29.50	32.0	UNF 5/16-24
PCHR/L 20-D22-2-JHP	20.0	0.0	-	20.0	2.00	2.40	19.00	22.0	121.50	29.0	29.50	32.0	G 1/8-28
PCHR/L 12-D32-2-JHP	12.0	12.1	14.5	12.0	2.00	2.40	11.15	32.0	100.00	30.5	31.00	41.0	UNF 5/16-24
PCHR/L 16-D32-2-JHP	16.0	16.1	10.0	16.0	2.00	2.40	15.21	32.0	120.00	25.9	27.00	41.0	UNF 5/16-24
PCHR/L 20-D32-2-JHP	20.0	20.1	6.5	20.0	2.00	2.40	18.40	32.0	120.00	30.5	31.00	41.0	G 1/8-28
PCHR/L 25-D32-2-JHP	25.0	25.1	1.5	25.0	2.00	2.40	23.40	32.0	120.00	29.0	29.50	41.0	G 1/8-28
PCHR/L 16-D40-3-JHP	16.0	16.0	17.0	16.0	3.00	3.20	14.60	40.0	135.00	36.3	36.80	51.0	UNF 5/16-24
PCHR/L 20-D40-3-JHP	20.0	20.0	13.0	20.0	3.00	3.20	18.60	40.0	135.00	35.1	35.60	51.0	G 1/8-28
PCHR/L 25-D40-3-JHP	25.0	25.0	8.0	25.0	3.00	3.20	23.60	40.0	135.00	33.1	33.60	51.0	G 1/8-28

(1) Minimum cutting width
(2) Maximum cutting width

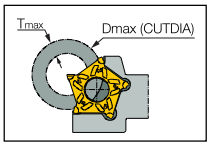
Inserts: PENTA D-N-C • PENTA D-N-J • PENTA D-N-PB • PENTA D-R/L-C • PENTA D-R/L-J • PENTA D-R/L-PB

PCHR/L D22-2...-JHP Dmax for Partting Off 22/T11

Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	89	64	48	40	34	31	28	27	24	21

PCHR/L D32-2...-JHP Dmax for Partting Off 32/T16

Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	150	125	100	78	65	57	51	46	43	40
Tmax	T≤11.0	T≤12.0	T≤13.0	T≤14.0	T≤15.0					
Dmax	39	37	35	34	33					



PCHR/L D40-3...-JHP Dmax for Partting Off 40/T20

Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	400	300	200	145	114	95	82	73	66	61
Tmax	T≤11.0	T≤12.0	T≤13.0	T≤14.0	T≤15.0	T≤16.0	T≤17.0	T≤18.0	T≤19.0	
Dmax	57	54	51	49	47	46	45	44	42	

Flow Rate vs. Pressure

Designation	70 bar Flow Rate (liters/min)	100 bar Flow Rate (liters/min)	140 bar Flow Rate (liters/min)
PCHR/L...-2JHP	2-4	4-6	6-8
PCHR/L...-3JHP	7-9	9-11	11-13

Spare Parts

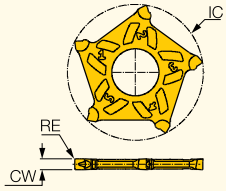
Designation							
PCHR/L 12-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHL 20-D22-2-JHP		LEVER PD22-2 INJ*					
PCHR/L 20-D22-2-JHP	SR M6-R-L		BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR 20-D22-2-JHP		LEVER PD22-2 INJ					
PCHR/L 12-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 20-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 25-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 16-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 20-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 25-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	

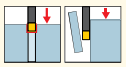
* Optional, should be ordered separately

PENTA IQ GRIP PARTING LINE

PENTA D-N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D22N200J020	2.00	0.20	0.02	0.030	22.00	●	0.04-0.12
PENTA D22N300J020	3.00	0.20	0.02	0.030	22.00	●	0.04-0.16

• For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

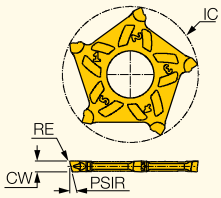
(2) Corner radius tolerance (+/-)

Tools: PCHR/L-D-IQ • PCHR/L-D-JHP

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-J

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts



Right-hand shown

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D22L200J-6D	2.00	0.20	22.00	6.0	-	●	0.04-0.10
PENTA D22R200J-6D	2.00	0.20	22.00	-	6.0	●	0.04-0.10
PENTA D22L200J-15D	2.00	0.20	22.00	15.0	-	●	0.04-0.08
PENTA D22R200J-15D	2.00	0.20	22.00	-	15.0	●	0.04-0.08
PENTA D22L300J-6D	3.00	0.20	22.00	6.0	-	●	0.04-0.12
PENTA D22R300J-6D	3.00	0.20	22.00	-	6.0	●	0.04-0.12
PENTA D22L300J-15D	3.00	0.20	22.00	15.0	-	●	0.04-0.10
PENTA D22R300J-15D	3.00	0.20	22.00	-	15.0	●	0.04-0.10

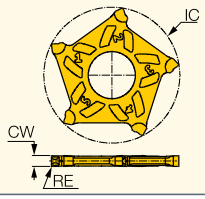
• For cutting speed recommendations and user guide, see pages 540-547

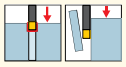
Tools: PCHR/L-D-IQ • PCHR/L-D-JHP

PENTA IQ GRIP PARTING LINE

PENTA D-N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications





Right-hand shown

Designation	Dimensions RE	CW	RETOL(1)	CWTOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D32N200C020	0.20	2.00	0.030	0.02	30.25	●	0.04-0.14
PENTA D32N300C020	0.20	3.00	0.030	0.02	30.25	●	0.06-0.22
PENTA D40N300C020	0.20	3.02	0.030	0.02	37.80	●	0.06-0.22

• For cutting speed recommendations and user guide, see pages 540-547

(1) Corner radius tolerance (+/-)

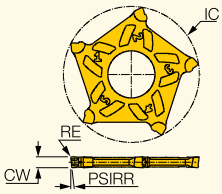
(2) Cutting width tolerance (+/-)

Tools: PCHR/L-D-IQ • PCHR/L-D-JHP

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications



Right-hand shown

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D32L200C-6D	2.00	0.10	30.25	6.0	-	●	0.04-0.12
PENTA D32R200C-6D	2.00	0.10	30.25	-	6.0	●	0.04-0.12
PENTA D32L200C-15D	2.00	0.20	30.25	15.0	-	●	0.04-0.10
PENTA D32R200C-15D	2.00	0.20	30.25	-	15.0	●	0.04-0.10
PENTA D32L300C-6D	3.00	0.20	30.25	6.0	-	●	0.04-0.14
PENTA D32R300C-6D	3.00	0.20	30.25	-	6.0	●	0.04-0.14
PENTA D32L300C-15D	3.00	0.20	30.25	15.0	-	●	0.04-0.10
PENTA D32R300C-15D	3.00	0.20	30.25	-	15.0	●	0.04-0.10
PENTA D40L300C-6D	3.00	0.20	37.80	6.0	-	●	0.04-0.14
PENTA D40R300C-6D	3.00	0.20	37.80	-	6.0	●	0.04-0.14
PENTA D40L300C-15D	3.00	0.20	37.80	15.0	-	●	0.04-0.10
PENTA D40R300C-15D	3.00	0.20	37.80	-	15.0	●	0.04-0.10

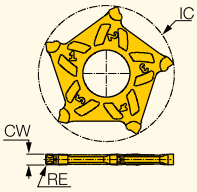
• For cutting speed recommendations and user guide, see pages 540-547

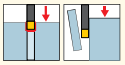
Tools: PCHR/L-D-IQ • PCHR/L-D-JHP

PENTA IQ GRIP PARTING LINE

PENTA D-N-PB

Pentagonal Inserts for Parting and Grooving Bearing Steel and Other Ductile Materials





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D40N300PB020	3.00	0.20	0.02	0.030	37.80	●	0.03-0.10

• For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

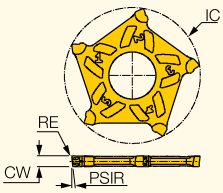
(2) Corner radius tolerance (+/-)

Tools: PCHR/L-D-IQ • PCHR/L-D-JHP

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials



Right-hand shown

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D40L300PB-6D	3.00	0.20	37.80	6.0	-	●	0.03-0.08
PENTA D40R300PB-6D	3.00	0.20	37.80	-	6.0	●	0.03-0.08
PENTA D40L300PB-15D	3.00	0.10	37.80	15.0	-	●	0.03-0.06
PENTA D40R300PB-15D	3.00	0.10	37.80	-	15.0	●	0.03-0.06

• For cutting speed recommendations and user guide, see pages 540-547

Tools: PCHR/L-D-IQ • PCHR/L-D-JHP

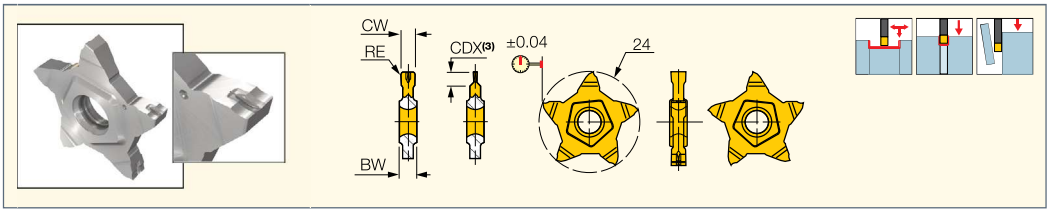
Identification System for Standard Inserts

PENTA	24	N	150	J	010
Family name	Circular circumference of the insert	Insert lead angle (K) N, R, L	Cutting edge width CW(mm) x100	Chipbreaker style J, Z	Corner radius RE (mm)x100 for neutral insert. (k=0) Or lead angle for right- or left-hand inserts.

PENTACUT
PARTING & GROOVING LINE

PENTA 24N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Tubes, Small and Thin-Walled Parts



Designation	Dimensions						Tough ↔ Hard				Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC1010	IC1008	IC908	IC807G	f groove (mm/rev)
PENTA 24N050J000	0.50	0.00	0.02	0.020	4.00	1.00			•		0.02-0.04
PENTA 24N050J004	0.50	0.04	0.02	0.020	4.00	2.50		•			0.02-0.05
PENTA 24N080J000	0.80	0.00	0.02	0.020	4.00	1.60			•		0.02-0.05
PENTA 24N100J004	1.00	0.04	0.02	0.020	4.00	3.50			•		0.03-0.07
PENTA 24N100J006	1.00	0.06	0.02	0.020	4.00	3.50		•		•	0.03-0.07
PENTA 24N104J000	1.04	0.00	0.02	0.020	4.00	2.00			•		0.02-0.07
PENTA 24N120J000	1.20	0.00	0.02	0.020	4.00	2.00			•	•	0.03-0.07
PENTA 24N125J010	1.25	0.10	0.02	0.020	4.00	2.00			•		0.03-0.07
PENTA 24N140J000	1.40	0.00	0.02	0.020	4.00	2.00			•		0.03-0.08
PENTA 24N147J000	1.47	0.00	0.02	0.020	4.00	2.50			•		0.03-0.08
PENTA 24N150J010	1.50	0.10	0.00	0.020	4.00	5.00	•	•	•	•	0.03-0.10
PENTA 24N157J015	1.57	0.15	0.02	0.030	4.00	3.00			•	•	0.00-0.12
PENTA 24N170J010	1.70	0.10	0.02	0.030	4.00	3.00			•	•	0.03-0.12
PENTA 24N178J018	1.78	0.18	0.02	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N185J015	1.85	0.15	0.02	0.030	4.00	3.00			•		0.04-0.12
PENTA 24N196J015	1.96	0.15	0.02	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N196J040	1.96	0.40	0.02	0.030	4.00	3.00			•		0.03-0.10
PENTA 24N200J020	2.00	0.20	0.02	0.030	4.00	6.00	•	•	•	•	0.04-0.12
PENTA 24N222J015	2.22	0.15	0.02	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N230J020	2.30	0.20	0.02	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N239J015	2.39	0.15	0.02	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N247J020	2.47	0.20	0.02	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N270J010	2.70	0.10	0.02	0.020	4.00	5.00			•		0.04-0.16
PENTA 24N287J020	2.87	0.20	0.02	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N300J000	3.00	0.00	0.02	0.020	4.00	6.50			•		0.04-0.10
PENTA 24N300J020	3.00	0.20	0.02	0.030	4.00	6.50	•		•	•	0.04-0.16
PENTA 24N300J040	3.00	0.40	0.02	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N315J015	3.15	0.15	0.02	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N318J020	3.18	0.20	0.02	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N330J010	3.30	0.10	0.02	0.030	5.00	6.40			•		0.04-0.16
PENTA 24N348J020	3.48	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N356J020	3.56	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N374J020	3.74	0.20	0.02	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N398J020	3.98	0.20	0.02	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N400J040	4.00	0.40	0.02	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N423J010	4.23	0.10	0.02	0.030	5.00	6.20			•		0.04-0.18

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving and parting depth relative to part diameter, see page 535

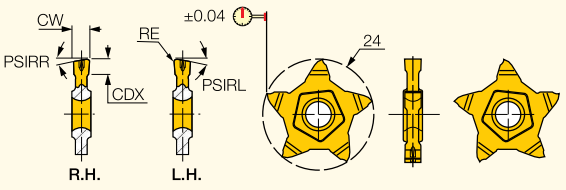
Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

PENTACUT R/L Parting Inserts

PENTACUT PARTING & GROOVING LINE

PENTA 24R/L-J

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	CDX(1)	RE	CWTOL(2)	PSIRL	PSIRR	CUTDIA(3)	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24L100J15D	1.00	3.50	0.06	0.02	15.0	-	7.0	●	0.02-0.06
PENTA 24R100J15D	1.00	3.50	0.06	0.02	-	15.0	7.0	●	0.02-0.06
PENTA 24L150J06D	1.50	5.00	0.10	0.02	6.0	-	10.0	●	0.03-0.09
PENTA 24L150J15D	1.50	5.00	0.06	0.02	15.0	-	10.0	●	0.03-0.08
PENTA 24R150J06D	1.50	5.00	0.06	0.02	-	6.0	10.0	●	0.03-0.09
PENTA 24R150J15D	1.50	5.00	0.06	0.02	-	15.0	10.0	●	0.03-0.08
PENTA 24L200J06D	2.00	6.00	0.10	0.02	6.0	-	12.0	●	0.04-0.10
PENTA 24L200J15D	2.00	6.00	0.10	0.02	15.0	-	12.0	●	0.04-0.09
PENTA 24R200J06D	2.00	6.00	0.10	0.02	-	6.0	12.0	●	0.04-0.10
PENTA 24R200J15D	2.00	6.00	0.10	0.02	-	15.0	12.0	●	0.04-0.09

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting depth maximum

(2) Cutting width tolerance (+/-)

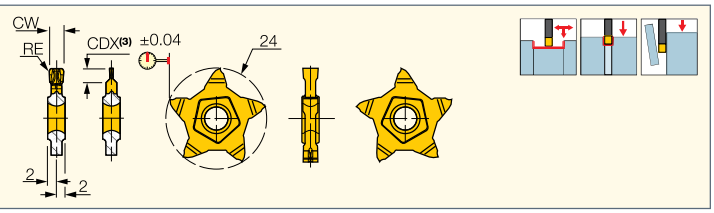
(3) For grooving and parting depths relative to part diameter, see page 535

Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

PENTACUT PARTING & GROOVING LINE

PENTA 24N-C

Inserts with 5 Cutting Edges for Parting and Grooving Bars, Hard Materials and Tough Applications



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150C010	1.50	0.10	0.02	0.050	5.00	●	0.05-0.11
PENTA 24N157C015	1.57	0.15	0.02	0.050	3.00	●	0.05-0.12
PENTA 24N170C010	1.70	0.10	0.02	0.050	3.00	●	0.05-0.13
PENTA 24N178C018	1.78	0.18	0.02	0.050	3.00	●	0.05-0.14
PENTA 24N196C015	1.96	0.15	0.02	0.050	3.00	●	0.05-0.15
PENTA 24N200C020	2.00	0.20	0.02	0.050	6.00	●	0.05-0.16
PENTA 24N222C015	2.22	0.15	0.02	0.050	3.50	●	0.05-0.16
PENTA 24N230C020	2.30	0.20	0.02	0.050	3.50	●	0.06-0.17
PENTA 24N239C015	2.39	0.15	0.02	0.050	5.00	●	0.07-0.18
PENTA 24N247C020	2.47	0.20	0.02	0.050	5.00	●	0.08-0.18
PENTA 24N270C010	2.70	0.10	0.02	0.050	6.20	●	0.09-0.18
PENTA 24N287C020	2.87	0.20	0.02	0.050	6.20	●	0.10-0.18
PENTA 24N300C020	3.00	0.20	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N300C040	3.00	0.40	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N318C020	3.18	0.20	0.02	0.050	6.20	●	0.10-0.20
PENTA 24N478C055	4.78	0.55	0.02	0.050	6.20	●	0.10-0.25
PENTA 24N486C040	4.86	0.40	0.02	0.050	6.20	●	0.10-0.25
PENTA 24N500C040	5.00	0.40	0.02	0.050	6.20	●	0.10-0.25

- Recessing is possible only with 2.39 mm and wider inserts
- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

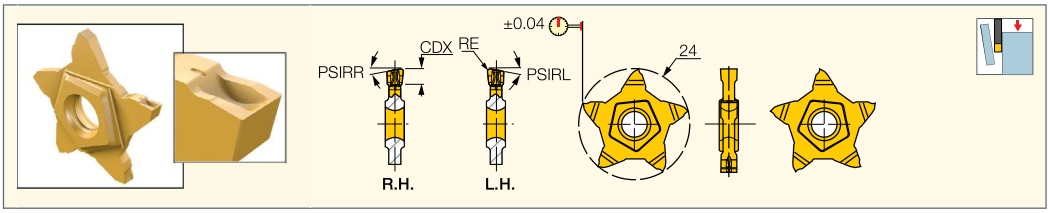
(3) For grooving and parting depths relative to part diameter, see page 535

Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

PENTACUT
PARTING & GROOVING LINE

PENTA 24R-C

Inserts with 5 Cutting Edges for Parting Bars, Hard Materials and Tough Applications



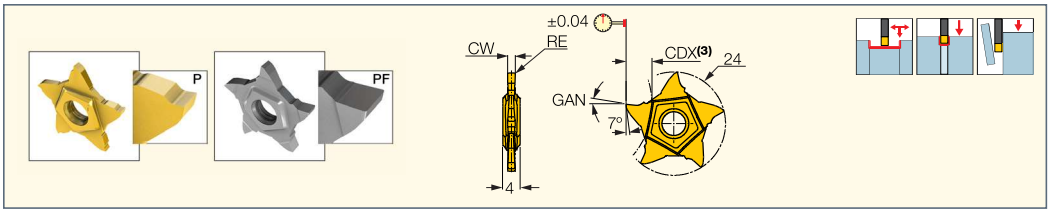
Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24R150C06D	1.50	0.06	0.02	5.00	6.0	●	0.03-0.10
PENTA 24R200C06D	2.00	0.10	0.02	6.00	6.0	●	0.04-0.12

• For cutting speed recommendations and user guide, see pages 540-547
(1) Cutting width tolerance (+/-)
(2) Cutting depth maximum
Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

PENTACUT
PARTING & GROOVING LINE

PENTA 24N-PF/P

Pentagonal Inserts with a High Positive Flat Rake for Parting and Precision Grooving



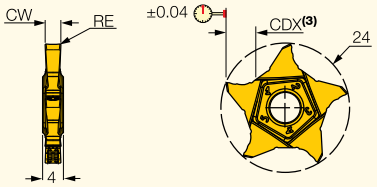
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	GAN	Tough ↔ Hard IC1008	IC908	IC30N	Recommended Machining Data f groove (mm/rev)
PENTA 24N050PF005	0.50	0.05	0.02	0.020	2.50	6.0			●	0.01-0.04
PENTA 24N075PF005	0.75	0.05	0.02	0.020	2.50	6.0			●	0.02-0.05
PENTA 24N095PF005	0.95	0.05	0.02	0.020	4.00	6.0			●	0.02-0.05
PENTA 24N100P005	1.00	0.05	0.02	0.020	3.50	12.0	●			0.02-0.05
PENTA 24N100PF010	1.00	0.10	0.02	0.020	4.00	6.0		●	●	0.03-0.06
PENTA 24N125PF020	1.25	0.20	0.02	0.020	5.00	6.0			●	0.03-0.06
PENTA 24N145PF020	1.45	0.20	0.02	0.020	6.20	6.0			●	0.03-0.06
PENTA 24N150P005	1.50	0.05	0.02	0.020	5.00	12.0	●			0.02-0.07
PENTA 24N150PF020	1.50	0.20	0.02	0.030	6.00	6.0		●	●	0.03-0.09
PENTA 24N175PF020	1.75	0.20	0.02	0.030	6.20	6.0			●	0.02-0.08
PENTA 24N185PF020	1.85	0.20	0.02	0.030	6.00	6.0			●	0.03-0.10
PENTA 24N200P005	2.00	0.05	0.02	0.020	6.00	12.0	●			0.02-0.08
PENTA 24N200PF020	2.00	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.10
PENTA 24N230PF020	2.30	0.20	0.02	0.030	6.20	6.0			●	0.04-0.14
PENTA 24N239PF015	2.39	0.15	0.02	0.030	6.50	6.0		●		0.04-0.14
PENTA 24N250PF020	2.50	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.14
PENTA 24N300PF020	3.00	0.20	0.02	0.030	6.50	6.0		●	●	0.04-0.14
PENTA 24N300PF030	3.00	0.30	0.02	0.030	6.20	6.0			●	0.04-0.15
PENTA 24N400PF020	4.00	0.20	0.02	0.030	6.50	6.0			●	0.04-0.16
PENTA 24N400PF040	4.00	0.40	0.02	0.030	6.20	6.0			●	0.04-0.16

• For cutting speed recommendations and user guide, see pages 540-547
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) For grooving and parting depths relative to part diameter, see page 535
Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

PENTACUT
PARTING & GROOVING LINE

PENTA 24N-Z

Inserts with 5 Cutting Edges for Grooving and Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150Z010	1.50	0.10	0.02	0.020	5.00	●	0.05-0.08
PENTA 24N200Z020	2.00	0.20	0.02	0.030	6.40	●	0.04-0.12
PENTA 24N300Z020	3.00	0.20	0.02	0.000	6.40	●	0.04-0.16

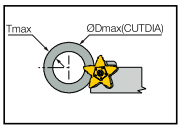
- Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters
- Suitable for machining soft materials and bearing steel at low to medium feeds
- For cutting speed recommendations and user guide, see pages 540-547

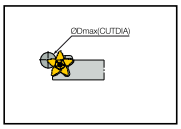
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) For grooving and parting depths relative to part diameter, see page 535

Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

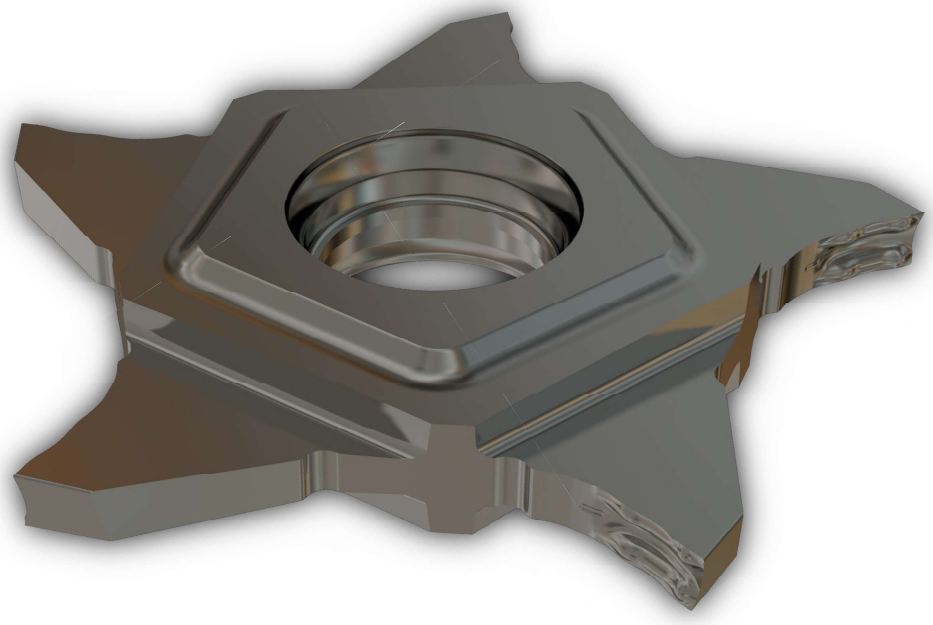
ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts

CW±0.02	CDX(3)	CDX / ØDmax	T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.5	T≤6.4
CW=0.50 (1)	1.0	1.0 / N.L.	-	-	-	-	-	-	-	-
CW=0.50 (2)	2.5			250						
CW=0.80	1.6	1.6 / N.L.	-	-	-	-	-	-	-	-
CW=1.00	3.5		N.L.	250	-	-	-	-	-	-
1.04≤CW≤1.40	2.0	2.0 / N.L.	-	-	-	-	-	-	-	-
CW=1.47	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-
CW=1.50	5.0		N.L.	470	210	70	30	-	-	-
1.57≤CW≤1.96	3.0		N.L.	-	-	-	-	-	-	-
CW=2.00	6.0(4)		N.L.	470	210	130	75	45	20	-
2.22≤CW≤2.30	3.5		N.L.	250	-	-	-	-	-	-
2.39≤CW≤2.50	5.0		N.L.	470	210	70	30	-	-	-
2.70≤CW≤3.18	6.4		N.L.	470	210	135	100	70	40	20





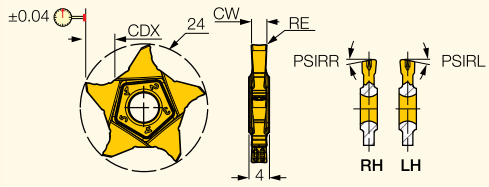
(1) Refers to PENTA 24N050J000 - a precision grooving insert (2) Refers to PENTA 24N050J004 - a parting insert (3) CUTDIA for parting = 2 x CDX
(4) For full radius insert, CDX = 3.0, ØDmax = No limit



PENTACUT
PARTING & GROOVING LINE

PENTA 24R/L-Z

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts



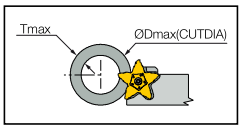
Designation	Dimensions						IC1008	Recommended Machining Data
	CW	PSIRL	PSIRR	RE	CUTDIA	CDX(1)		f groove (mm/rev)
PENTA 24L150Z06D	1.50	6.0	-	0.06	10.0	5.00	●	0.03-0.09
PENTA 24L150Z15D	1.50	15.0	-	0.06	10.0	5.00	●	0.03-0.08
PENTA 24R150Z06D	1.50	-	6.0	0.06	10.0	5.00	●	0.03-0.09
PENTA 24R150Z15D	1.50	-	15.0	0.06	10.0	5.00	●	0.03-0.08
PENTA 24L200Z06D	2.00	6.0	-	0.10	12.8	6.40	●	0.04-0.10
PENTA 24L200Z15D	2.00	15.0	-	0.10	12.8	6.40	●	0.04-0.09
PENTA 24R200Z06D	2.00	-	6.0	0.10	12.8	6.40	●	0.04-0.10
PENTA 24R200Z15D	2.00	-	15.0	0.10	12.8	6.40	●	0.04-0.09
PENTA 24L300Z06D	3.00	6.0	-	0.20	12.8	6.40	●	0.04-0.13
PENTA 24L300Z15D	3.00	15.0	-	0.20	12.8	6.40	●	0.04-0.12
PENTA 24R300Z06D	3.00	-	6.0	0.20	12.8	6.40	●	0.04-0.15
PENTA 24R300Z15D	3.00	-	15.0	0.20	12.8	6.40	●	0.04-0.14

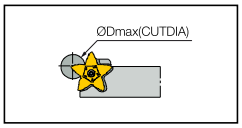
- Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters
- Suitable for machining soft materials and bearing steel at low to medium feeds
- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting depth maximum

Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

W±0.02	Tmax(1)	Tmax / Dmax	Dmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts								
			T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0	T≤6.2	T≤6.4
W=0.50	1.0	1.0 / N.L.	-	-	-	-	-	-	-	-	-
W=0.50	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-	-
W=0.80	1.6	1.6 / N.L.	-	-	-	-	-	-	-	-	-
W=1.00	3.5		N.L.	250	-	-	-	-	-	-	-
1.04≤W≤1.40	2.0	2.0 / N.L.	-	-	-	-	-	-	-	-	-
W=1.47	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-	-
W=1.50	5.0		N.L.	470	210	70	30	-	-	-	-
1.57≤W≤1.96	3.0		N.L.	-	-	-	-	-	-	-	-
W=2.00	6.0(2)		N.L.	470	210	130	75	45	20	-	-
2.22≤W≤2.30	3.5		N.L.	250	-	-	-	-	-	-	-
2.39≤W≤2.50	5.0		N.L.	470	210	70	30	-	-	-	-
2.70≤W≤3.18	6.2		N.L.	470	210	135	100	70	40	20	-
3.19≤W≤3.74	6.4		N.L.	350	180	115	80	52	32	26	20
3.75≤W≤4.00	6.2		N.L.	350	180	115	80	62	32	18	-
4.01≤W≤4.23	6.2		N.L.	350	180	115	80	62	42	25	-





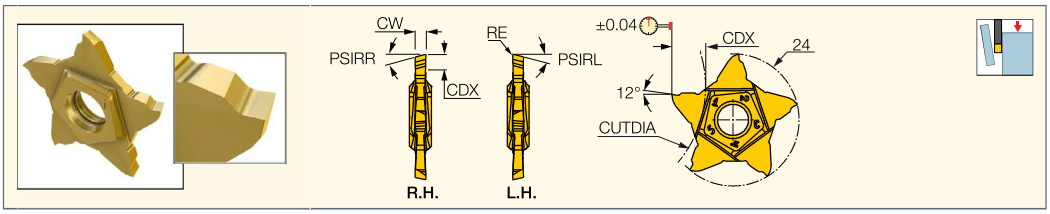
(1) Dmax for parting = 2 x Tmax

(2) For full radius insert , Tmax = 3.0, Dmax = No limit

PENTACUT PARTING & GROOVING LINE

PENTA 24R-P

Inserts with 5 Cutting Edges for Parting Soft Materials, Thin Walls and Miniature Parts



Designation	Dimensions CW	CDX(1)	RE	CWTOL(2)	CUTDIA(3)	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24R100P06D	1.00	3.50	0.05	0.02	7.2	6.0	●	0.02-0.04
PENTA 24R100P15D	1.00	3.50	0.05	0.02	7.2	15.0	●	0.02-0.03
PENTA 24R150P06D	1.50	5.00	0.05	0.02	11.0	6.0	●	0.02-0.05
PENTA 24R150P15D	1.50	5.00	0.05	0.02	11.0	15.0	●	0.02-0.04
PENTA 24R200P06D	2.00	6.00	0.05	0.02	12.6	6.0	●	0.02-0.07
PENTA 24R200P15D	2.00	6.00	0.05	0.02	12.6	15.0	●	0.02-0.05

• For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting depth maximum

(2) Cutting width tolerance (+/-)

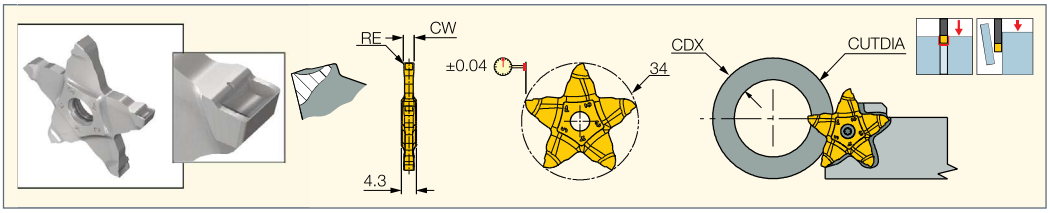
(3) For grooving and parting depths relative to part diameter, see page 535

Tools: PCAD RE/LE-JHP • PCADR/L • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-24 • PCHR/L-24-JHP • PCHR/L-24-JHP-MC

PENTACUT PARTING & GROOVING LINE

PENTA 34N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150C015	1.50	0.15	0.02	0.030	8.00	●	0.03-0.07
PENTA 34N200C020	2.00	0.20	0.02	0.030	8.00	●	0.04-0.14
PENTA 34N200C100	2.00	1.00	0.02	0.050	8.00	●	0.05-0.16
PENTA 34N222C015	2.22	0.15	0.02	0.030	8.00	●	0.05-0.14
PENTA 34N230C020	2.30	0.20	0.02	0.030	8.00	●	0.05-0.14
PENTA 34N239C015	2.39	0.15	0.02	0.030	8.00	●	0.05-0.15
PENTA 34N239C120	2.39	1.20	0.02	0.050	8.00	●	0.05-0.18
PENTA 34N247C020	2.47	0.20	0.02	0.030	8.00	●	0.05-0.18
PENTA 34N250C020	2.50	0.20	0.02	0.030	8.00	●	0.05-0.18
PENTA 34N270C010	2.70	0.10	0.02	0.030	10.00	●	0.05-0.18
PENTA 34N287C020	2.87	0.20	0.02	0.030	10.00	●	0.05-0.18
PENTA 34N300C000	3.00	0.00	0.02	0.000	10.00	●	0.04-0.10
PENTA 34N300C020	3.00	0.20	0.02	0.030	10.00	●	0.06-0.22
PENTA 34N300C040	3.00	0.40	0.02	0.030	10.00	●	0.06-0.25
PENTA 34N300C150	3.00	1.50	0.02	0.050	10.00	●	0.06-0.20
PENTA 34N315C015	3.15	0.15	0.02	0.030	10.00	●	0.06-0.20
PENTA 34N318C020	3.18	0.20	0.02	0.030	10.00	●	0.06-0.22
PENTA 34N330C010	3.30	0.10	0.02	0.020	10.00	●	0.06-0.20
PENTA 34N348C020	3.48	0.20	0.02	0.030	10.00	●	0.06-0.25
PENTA 34N350C025	3.50	0.25	0.02	0.030	10.00	●	0.06-0.30
PENTA 34N398C020	3.98	0.20	0.02	0.030	10.00	●	0.06-0.30
PENTA 34N400C030	4.00	0.30	0.02	0.030	10.00	●	0.06-0.30

• For cutting speed recommendations and user guide, see pages 540-547

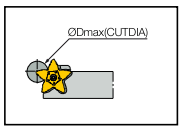
(1) Cutting width tolerance (+/-)

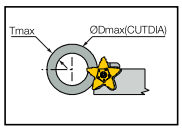
(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see page 536

Tools: PCADR/L • PCADR/L 34N-RE • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-34 • PCHR/L-34-JHP

	ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts						
CW±0.02	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤8.5	T≤9.0	T≤10.0
1.50 ≤ CW ≤ 2.69	N.L.	350	165	100	55	-	-
2.70 ≤ CW ≤ 4.00						55	20





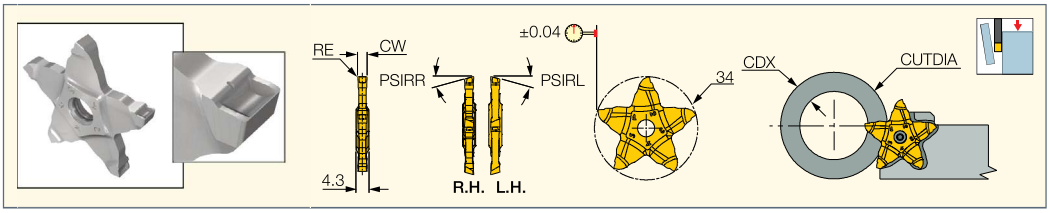
CUTDIA for parting = 2 x CDX

N.L. = No Limit

PENTACUT PARTING & GROOVING LINE

PENTA 34R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications



Designation	Dimensions CW	RE	CUTDIA(1)	CDX(2)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34L150C08D	1.50	0.07	18.0	8.00	8.0	-	●	0.03-0.08
PENTA 34R150C08D	1.50	0.07	18.0	8.00	-	8.0	●	0.03-0.08
PENTA 34L200C06D	2.00	0.10	18.0	8.00	6.0	-	●	0.04-0.12
PENTA 34R200C06D	2.00	0.10	18.0	8.00	-	6.0	●	0.04-0.12
PENTA 34L200C15D	2.00	0.10	18.0	8.00	15.0	-	●	0.04-0.10
PENTA 34R200C15D	2.00	0.10	18.0	8.00	-	15.0	●	0.04-0.10
PENTA 34L300C06D	3.00	0.20	20.0	10.00	6.0	-	●	0.04-0.14
PENTA 34R300C06D	3.00	0.20	20.0	10.00	-	6.0	●	0.06-0.14
PENTA 34L300C15D	3.00	0.20	20.0	10.00	15.0	-	●	0.04-0.10
PENTA 34R300C15D	3.00	0.20	20.0	10.00	-	15.0	●	0.06-0.12

• For cutting speed recommendations and user guide, see pages 540-547

(1) For grooving and parting depths relative to part diameter, see page 536

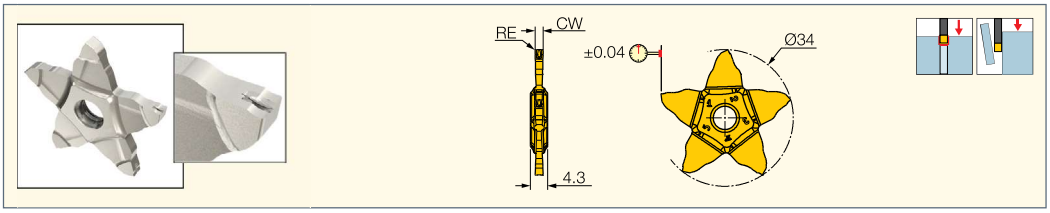
(2) Cutting depth maximum

Tools: PCADR/L • PCADR/L 34N-RE • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-34 • PCHR/L-34-JHP

PENTACUT PARTING & GROOVING LINE

PENTA 34N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150J015	1.50	0.15	0.02	0.002	8.50	●	0.03-0.10
PENTA 34N200J020	2.00	0.20	0.02	0.002	8.50	●	0.04-0.12
PENTA 34N200J100	2.00	1.00	0.02	0.002	8.50	●	0.05-0.12
PENTA 34N239J015	2.39	0.15	0.02	0.002	8.50	●	0.04-0.16
PENTA 34N239J120	2.39	1.20	0.02	0.002	8.50	●	0.06-0.16
PENTA 34N250J020	2.50	0.20	0.02	0.002	8.50	●	0.04-0.16
PENTA 34N270J010	2.70	0.10	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J000	3.00	0.00	0.02	0.000	10.00	●	0.04-0.10
PENTA 34N300J020	3.00	0.20	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J040	3.00	0.40	0.02	0.002	10.00	●	0.04-0.16
PENTA 34N300J150	3.00	1.50	0.02	0.002	10.00	●	0.06-0.20
PENTA 34N318J020	3.18	0.20	0.02	0.002	10.00	●	0.20-0.16

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

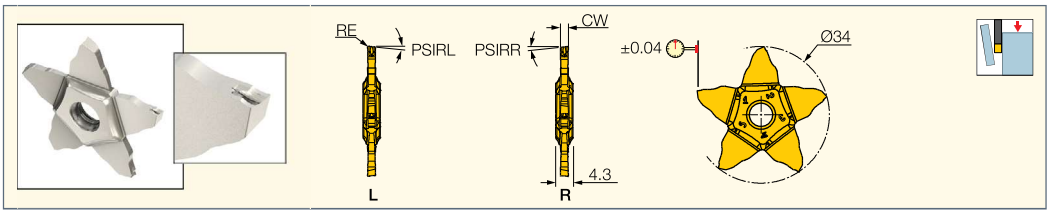
(3) For grooving and parting depths relative to part diameter, see page 536

Tools: PCADR/L • PCADR/L 34N-RE • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-34 • PCHR/L-34-JHP

PENTACUT PARTING & GROOVING LINE

PENTA 34R/L-J

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts



Designation	Dimensions CW	RE	CWTOL(1)	CUTDIA(2)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34L150J06D	1.50	0.07	0.02	18.0	6.0	-	●	0.03-0.09
PENTA 34L150J15D	1.50	0.07	0.02	18.0	15.0	-	●	0.03-0.08
PENTA 34R150J06D	1.50	0.07	0.02	18.0	-	6.0	●	0.03-0.09
PENTA 34R150J15D	1.50	0.07	0.02	18.0	-	15.0	●	0.03-0.08
PENTA 34L200J06D	2.00	0.10	0.02	18.0	6.0	-	●	0.04-0.10
PENTA 34L200J15D	2.00	0.10	0.02	18.0	15.0	-	●	0.04-0.09
PENTA 34R200J06D	2.00	0.10	0.02	18.0	-	6.0	●	0.04-0.10
PENTA 34R200J15D	2.00	0.10	0.02	18.0	-	15.0	●	0.04-0.09

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

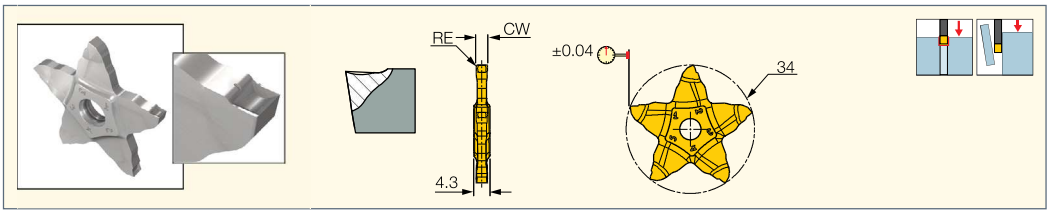
(2) For grooving and parting depths relative to part diameter, see page 536

Tools: PCADR/L • PCADR/L 34N-RE • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-34 • PCHR/L-34-JHP

PENTACUT PARTING & GROOVING LINE

PENTA 34N-PB

Parting and Grooving Pentagonal Inserts for Parting Bearing Steel and Other Ductile Materials



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150PB015	1.50	0.15	0.02	0.030	8.50	●	0.03-0.06
PENTA 34N200PB020	2.00	0.20	0.02	0.030	8.50	●	0.03-0.08
PENTA 34N300PB020	3.00	0.20	0.02	0.030	9.50	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 540-547

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

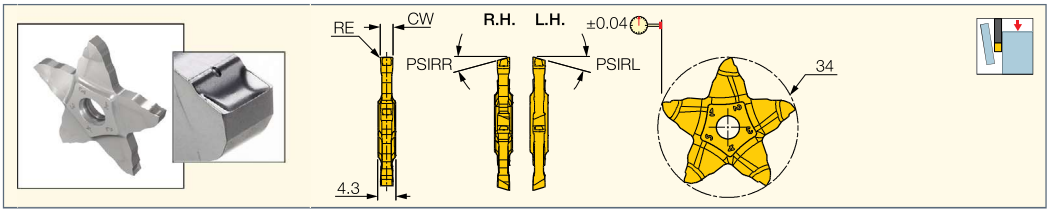
(3) For grooving and parting depths relative to part diameter, see page 536

Tools: PCADR/L • PCADR/L 34N-RE • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-34 • PCHR/L-34-JHP

PENTACUT
PARTING & GROOVING LINE

PENTA 34R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials

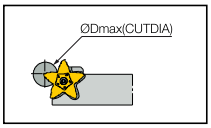


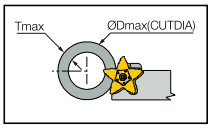
Designation	Dimensions CW	RE	CUTDIA	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34R150PB-6D	1.50	0.07	18.0	-	6.0	●	0.03-0.05
PENTA 34L150PB-6D	1.50	0.07	18.0	6.0	-	●	0.03-0.05
PENTA 34R200PB-6D	2.00	0.10	18.0	-	6.0	●	0.03-0.06
PENTA 34L200PB-6D	2.00	0.10	18.0	6.0	-	●	0.03-0.06
PENTA 34R300PB-6D	3.00	0.20	20.0	-	6.0	●	0.03-0.08
PENTA 34L300PB-6D	3.00	0.20	20.0	6.0	-	●	0.03-0.08

- For cutting speed recommendations and user guide, see pages 540-547

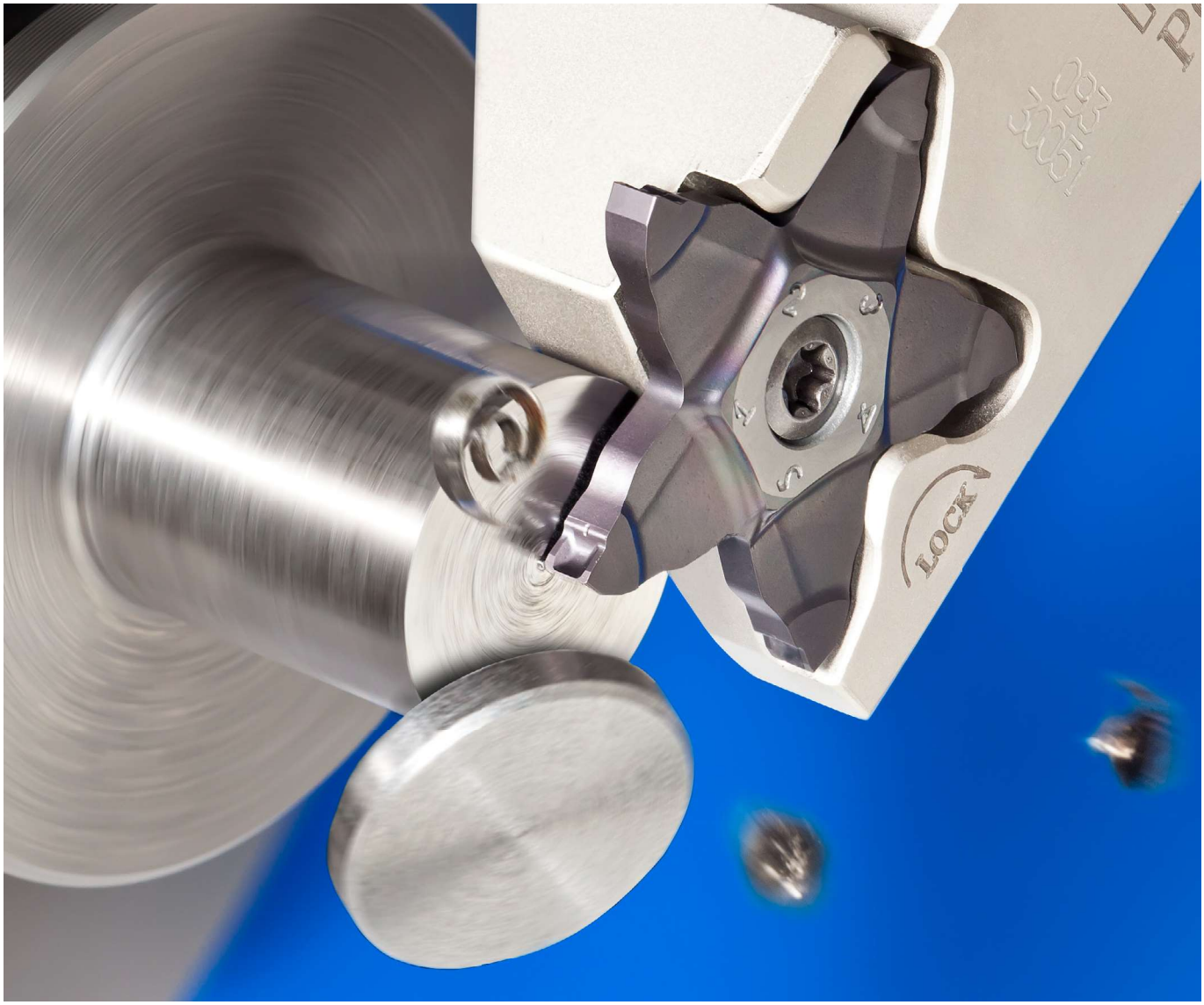
Tools: PCADR/L • PCADR/L 34N-RE • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-34 • PCHR/L-34-JHP

W±0.02	Dmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤8.5	T≤9.0	T≤10.0
1.50 ≤ W ≤ 2.69	N.L.	350	165	100	55	-	-
2.70 ≤ W ≤ 4.00						55	20





Dmax for parting = 2 x Tmax
N.L. = No Limit



Parting and Grooving

Selection of Inserts

For a proper match of insert and cutting material to application, the following variables must be taken into consideration:

- Width of cut (width of insert)
- Chipformer style
- Lead angle
- Corner radius
- Carbide grade

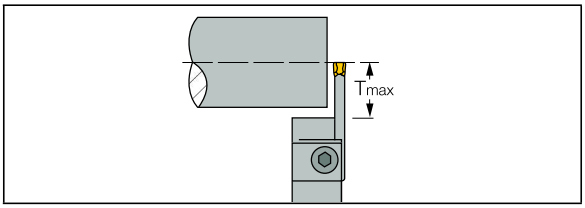
Width of Cut (W.O.C.) and Depth of Cut (D.O.C.)

In selecting **W.O.C.**, the main factor to consider is the required **D.O.C.** The ratio **D.O.C.**≈ 8x**W.O.C.** is of practical use on alloy steel of average machinability. For example, applying a 3 mm **W.O.C.** insert **TAG N3C** to cut-off a 48 mm solid bar.
Additional factors which affect **D.O.C.** capacity, relative to the ratio, are:

Holder or Blade Size

To minimize risk of vibration and deflection always choose:

- Blade or toolholder with smallest possible overhang.
- Toolholder with maximum shank dimension.
- Blade height (B) dimension which is larger than Tmax.
- Blade or holder with maximum blade width (largest possible insert seat size).
  Example:
- A **W.O.C.** 9.5 mm on blade TGFH 53K-9 (B=52.6 mm) extends the ratio of **D.O.C.** to **W.O.C.** by some 50% to 120 mm.



Insert Support

A self-clamped tool is recommended for deep radial machining. A screw-clamp holder is recommended for axial and small **D.O.C.** machining.

90˚ Mounting

It is very important that the insert is mounted at 90º to the center line of the workpiece in order to obtain perpendicular surfaces and reduce the risk of vibration.

Workpiece Machinability

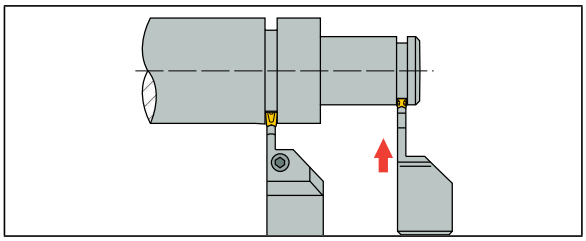
The workpiece material affects all of the above factors.

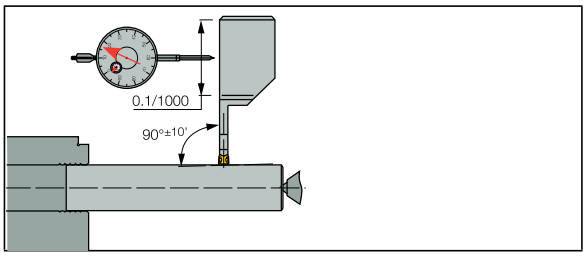
Machine Power and Setup Rigidity

Excessive **W.O.C.** on a light-duty machine will yield vibration and may even stop spindle rotation.

Expensive Workpiece Material

On costly metals the narrowest applicable **W.O.C.** should be used.



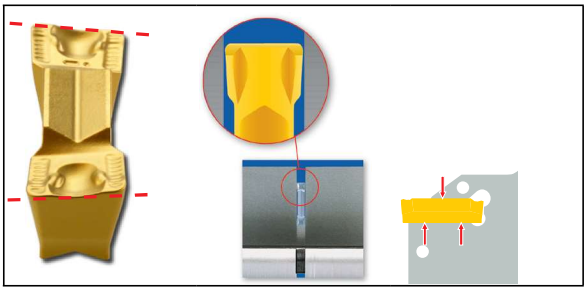


Insert Positioning

The Twisted Insert for Cut-Off and Grooving Applications

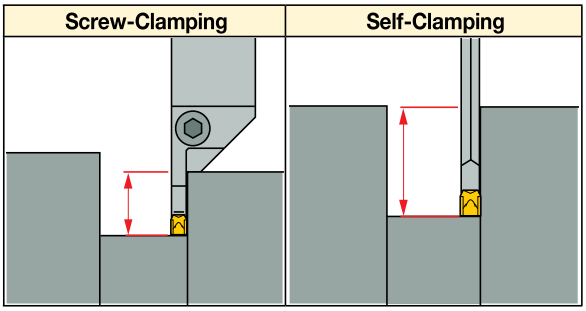
Machining depths longer than insert length is made possible with the double-ended, twisted insert body.

The rear edge is slanted in relation to the frontal edge so it does not come into contact with the machined groove surface when the tool penetrates deeply into the workpiece.



Clamping

Extended, prismatic surfaces guarantee reliable, foolproof clamping even in unstable machining conditions.



Small diameters **(D.O.C.)** with screw-clamped Inserts

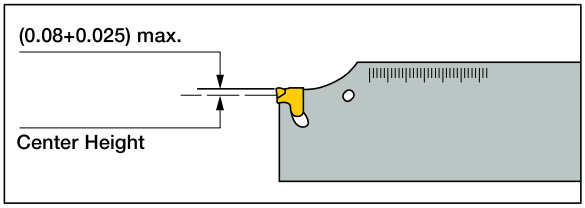
Large diameters **(D.O.C.)** with self-clamped Inserts

Setup

- The optimal cutting edge height above the center of **TANG-GRIP** tools is up to 0.08 mm + 0.025 mm **W.O.C.**, an advantage when cutting solid bar to center
- Cut-off as close to chuck as possible
- On new applications, first machine in the low or middle range of recommended speeds and feeds

Machining

- Consistency of speed and feed improves performance
- Apply coolant abundantly
- Secure inserts into clean pockets
- Cutting forces on soft workpiece materials may be insufficient to push insert well into pocket. Tap insert into place using a plastic hammer
- On a conventional lathe, lock the carriage to prevent axial motion during cut-off

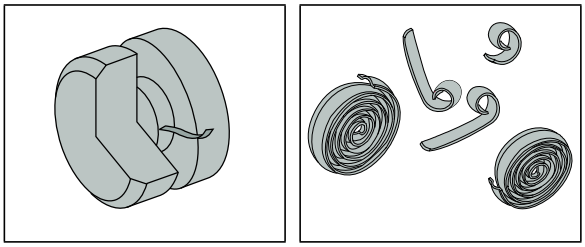


Usage

- Replace worn inserts promptly, the price of a new one is much less than the risk of damage from continuing with one that is worn out
- Replace blades that have worn or damaged pockets
- Never try to repair damaged pockets
- Chip curling is dependent on the chipformer type and the machining conditions

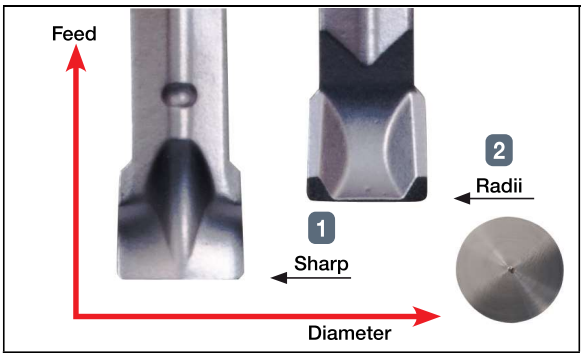
Chipformer Features

- Narrows the chip
- Eliminates friction with groove walls, prevents chip jam overload
- Permits higher feeds
- Produces unscratched surfaces, eliminating additional facing
- Curls the chips into compact spirals for easy disposal



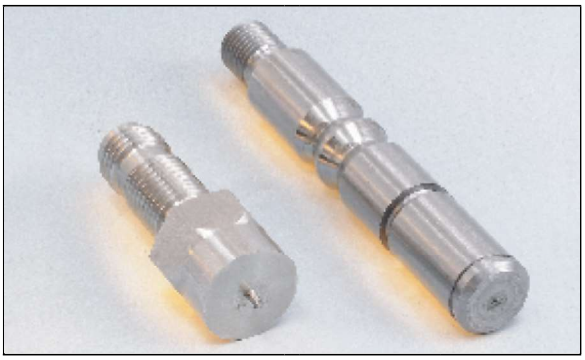
Selection of Corner Radius

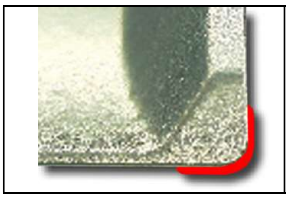
1 A smaller corner radius (r) will reduce the load on the workpiece and produce a smaller size burr
2 At the same time, a large corner radius allows for higher feeds and increased tool life

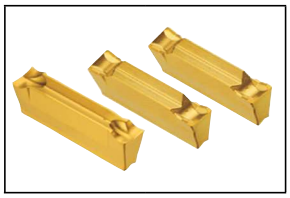


Standard Corner Radius

- Standard medium corner size
- For general applications and materials



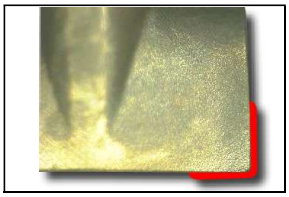


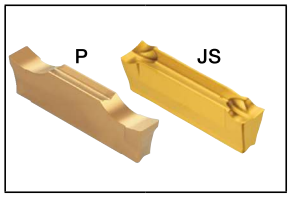


Medium (standard) corner radius

"S" Sharp Corners

- Cutting edge with positive rake and sharp corners
- When a minimum burr (pip) size is essential
- For small feeds
- For small diameters or thin walls
- For CNCs, multi-spindle and screw machines

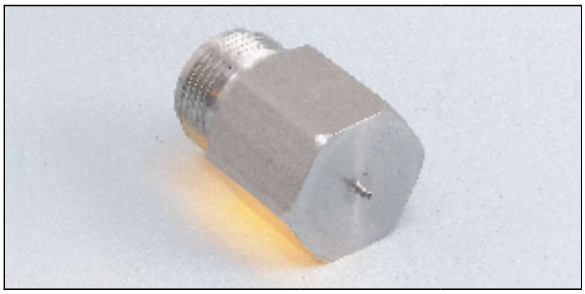


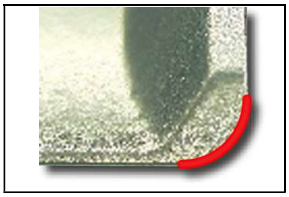


Sharp corner

"B" Large Corner Radius

- Reinforced corners with stronger cutting edge
- For tough applications and interrupted cuts

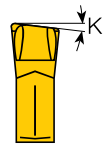
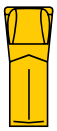
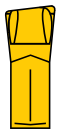


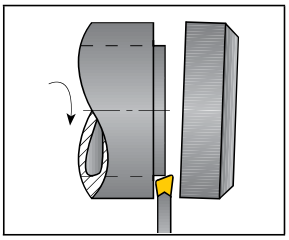


Large corner radius

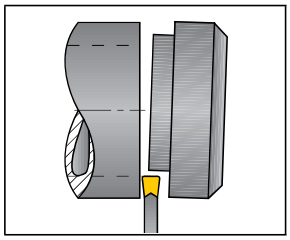
Lead Angle

Lead angle **(K)** on cut-off inserts reduces size of burr remaining on workpiece. Increasing the lead angle reduces the burr, but also reduces possible feed rates and tool life. Therefore, neutral inserts are recommended for parts on which a burr is tolerated.
Insert designations such as **TAG R... DGR (R.H.)** and **TAG L... DGL (L.H.)** comply with standard terms for turning direction. When looking toward the chuck from the workpiece, **R.H.**=counterclockwise **(C.C.)** rotation of workpiece and **L.H.**=clockwise **(C)** rotation of workpiece. **C.C.** requires right-hand inserts; C requires left-hand inserts. A neutral insert with 0° lead angle increases **D.O.C.** capacity.

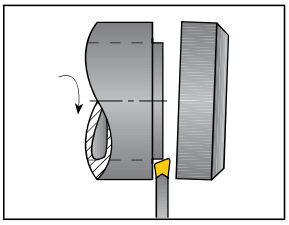
Left	Neutral	Right
TAG L/DGL	TAG N/DGN	TAG R/DGR
		



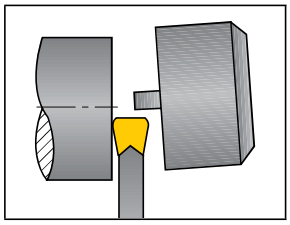
TAGR/GFR/DGR



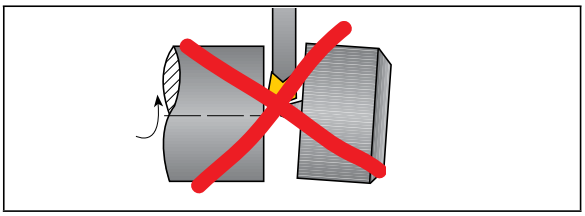
TAGR/GFN/DGN



TAG R/DGR

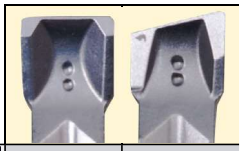


TAG N/DGN



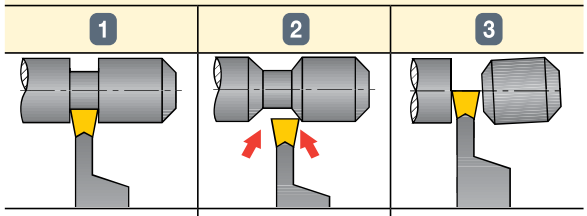
TAG R/DGR-WRONG

Neutral Insert vs. Lead Angle Type

			
Lifetime		✔	
Chip Control		✔	
Burr Size			✔
Surface Finish		✔	
Part Straightness		✔	

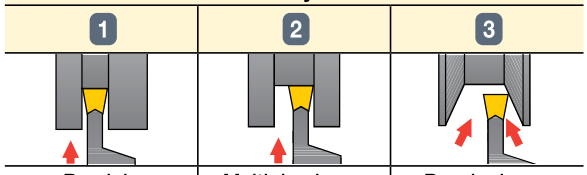
General Rules for Specific Applications

Chamfer and Cut-Off



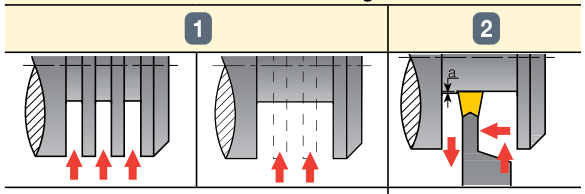
1	2	3
Break in and/ or groove	Chamfer	Cut-off

V-Belt Pulley Grooves



1	2	3
Break in	Multiple plunge to depth at minor width of groove	Bevel, plunge and turn to minor diameter

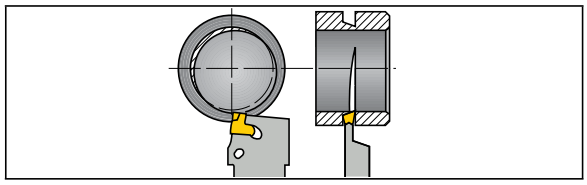
Neck Recessing



1	2
Multiple plunge grooves	Necking On neck turning, DOC (a)=up to size of insert corner radius

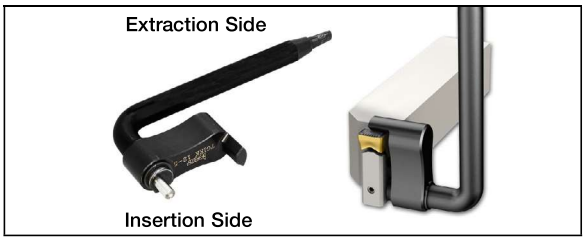
Cut-Off on Eccentric Tubes

Inserts with 4° lead angle are usually recommended for tubes. However, the combination of eccentric bore and machine resiliency may increase feed-snap on breakthrough and damage the cutting edge. Changing to 6° lead angle inserts will moderate breakthrough. Alternatively, inserts with an extra negative rake-land that strengthens the cutting edge are available on request.



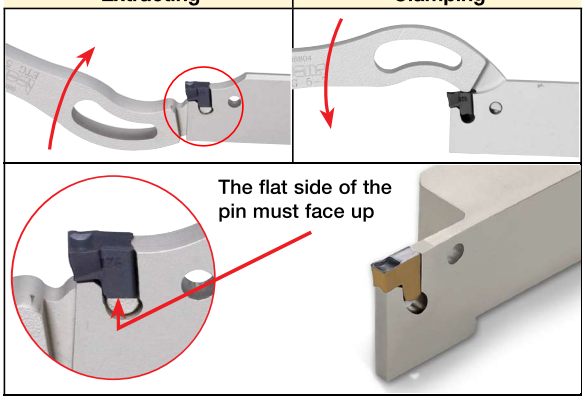
Clamping / Extraction Instructions

TANG-GRIP The tools are equipped with a user-friendly clamping and extraction device.



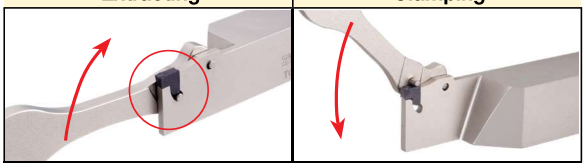
ETG 8-12 Extractor for 8 to 12.7 mm inserts

Extracting	Clamping



ETG 5-7 (for 5-7 mm tools)
ETG 2 (for 2 mm tools)
ETG 1.4 (for 1.4 mm tools)

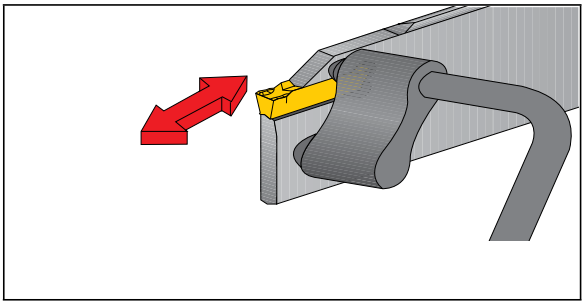
Extracting	Clamping



ETG 3-4 (for 3 and 4 mm tools)

Clamping / Extraction Instructions

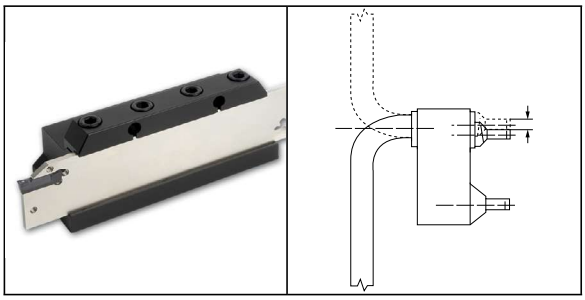
Extractor for DGN/R/L Double-Ended Inserts Do-Grip Insert Clamping/Extracting



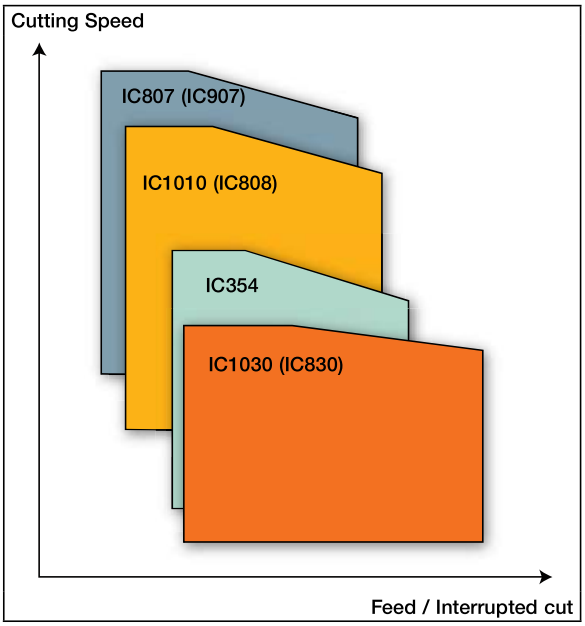
Extracting the insert

Eccentric Extractor for Insert Indexing

Simple to operate; controlled rotation requires low force; guarantees limited upper jaw movement and secures maximum load on blade.



Grade Application Range



Selection Guide for Parting Grades

Material groups		ISO P 1-11 Steel	ISO P 12-13 Stainless Steel Ferritic & Martensitic	ISO M 14 Stainless Steel Austenitic & Duplex (Ferritic - Austenitic)	ISO K 15-20 Cast Iron	ISO N 21-28 Non-ferrous	ISO S 31-37 High Temperature Alloys	ISO H 38-41 Hard Steel & Cast Iron
PARTING	Harder	IC807 (IC907)	IC807 (IC907)	IC807 (IC907)		**IC20**	**IC807 (IC907)**	**IC807 (IC907)**
			IC808	IC808	**IC807 (IC907)**		IC20	
		IC808	IC1010	IC1010	IC20		IC808	IC808
		IC1010	**IC5400**	**IC5400**	IC808		IC1010	IC1010
		IC830	IC830	IC830	IC1010		IC830	
	Tougher	IC1030	IC1030	IC1030			IC1030	

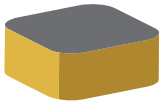
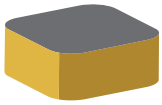
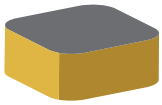
■ First choice

Machining Data and Parting Speed Recommendations

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quenched and tempered	850	250	3
		>= 0.55 %C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
	Stainless steel and cast steel		Ferritic/martensitic	680	200	12
			Martensitic	820	240	13
M	Stainless steel and cast steel		Austenitic, duplex	600	180	14
K	Grey cast iron (GG)		Ferritic/pearlitic		180	15
			Pearlitic/martensitic		260	16
	Cast iron nodular (GGG)		Ferritic		160	17
			Pearlitic		250	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum-wrought alloys		Not hardenable		60	21
			Hardenable		100	22
	Aluminum-cast alloys	<=12% Si	Not hardenable		75	23
			Hardenable		90	24
		>12% Si	High temperature		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics			29
			Hard rubber			30
S	High temp. alloys	Fe based	Annealed		200	31
			Hardened		280	32
		Ni or Co based	Annealed		250	33
			Hardened		350	34
			Cast		320	35
	Titanium alloys		Pure	RM 400		36
			Alpha+beta alloys hardened	RM 1050		37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron		Hardened		55 HRC	41

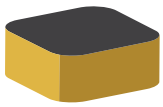
Material Group No.	IC907/807	IC30N	IC354	IC1010/ IC908/808/1008	IC5400	IC1030/ IC830/928/1028	IC328
1	160 - 240	130 - 190	115 - 170	135 - 200	110 - 160	100 - 150	95 - 140
2	150 - 205	120 - 160	105 - 145	125 - 170	100 - 135	95 - 125	85 - 120
3	115 - 170	90 - 135	80 - 120	95 - 140	75 - 110	70 - 105	65 - 100
4	125 - 190	100 - 150	90 - 135	105 - 160	85 - 130	80 - 120	75 - 110
5	100 - 160	80 - 130	70 - 115	85 - 135	70 - 110	65 - 100	60 - 95
6	125 - 190	100 - 150	90 - 135	105 - 160	85 - 130	80 - 120	75 - 110
7	100 - 170	80 - 135	70 - 120	85 - 140	70 - 110	65 - 105	60 - 100
8	100 - 160	80 - 130	70 - 115	85 - 135	70 - 110	65 - 100	60 - 95
9	90 - 150	70 - 120	65 - 105	75 - 125	60 - 100	55 - 95	50 - 85
10	150 - 205	120 - 160	105 - 145	125 - 170	100 - 135	95 - 125	85 - 120
11	90 - 150	70 - 120	65 - 105	75 - 125	60 - 100	55 - 95	50 - 85
	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
12	170 - 300	115 - 210	110 - 200	105 - 190	85 - 150	80 - 140	75 - 135
13	150 - 290	105 - 200	100 - 190	95 - 180	75 - 145	70 - 135	65 - 125
	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
14	140 - 260	95 - 175	90 - 170	85 - 160	70 - 130	65 - 120	60 - 110
	IC907/807	IC808	IC908	IC20			
15	170 - 305	145 - 270	140 - 255	70 - 125			
16	150 - 215	130 - 190	125 - 180	60 - 90			
17	160 - 265	140 - 230	135 - 220	65 - 110			
18	125 - 205	110 - 180	105 - 170	50 - 85			
19	190 - 320	170 - 280	160 - 265	80 - 130			
20	160 - 265	140 - 230	135 - 220	65 - 110			
	IC907/807	IC908/808	IC20				
21	360 - 1080	330 - 990	300 - 900				
22	270 - 900	250 - 825	225 - 750				
23	270 - 900	250 - 825	225 - 750				
24	180 - 540	165 - 495	150 - 450				
25	180 - 360	165 - 330	150 - 300				
26	180 - 360	165 - 330	150 - 300				
27	130 - 270	120 - 250	110 - 225				
28	90 - 180	80 - 165	75 - 150				
29	40 - 180	40 - 165	35 - 150				
	IC807	IC907	IC908	IC808	IC830/328/928/1028	IC20	
31	50 - 70	45 - 70	40 - 60	40 - 65	30 - 45	30 - 40	
32	35 - 55	35 - 50	30 - 45	30 - 45	20 - 35	20 - 30	
33	35 - 55	35 - 50	30 - 45	30 - 45	20 - 35	20 - 30	
34	30 - 50	30 - 45	25 - 40	25 - 40	20 - 30	15 - 30	
35	25 - 35	25 - 35	20 - 30	20 - 30	15 - 20	15 - 20	
36	115 - 190	110 - 185	95 - 160	100 - 170	70 - 120	65 - 110	
37	40 - 50	40 - 50	35 - 45	35 - 45	30 - 40	40 - 50	
	IC807	IC907	IC808	IC908			
38	35-45	30-40	30-40	25-35			
39	30-40	25-35	25-35	20-30			
40	45-65	40-60	40-60	30-50			
41	40-50	35-45	35-45	30-40			

ISCAR Parting Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC308	P15-P30 S15-S30 	A tough submicron grain size substrate with PVD coating. Suitable for steel, alloy steels and stainless steel at low to medium cutting speeds under stable conditions.	TiCN Base	
	IC328	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for a wide range of applications on steels and stainless steel at low to medium speeds and medium to high feeds. The grade is recommended for interrupted cuts and machining under unstable conditions.	TiCN Base	
	IC354	P20-P40 M20-M30 	A tough substrate with PVD coating, suitable for general use on a wide range of carbon steels, alloy steels and stainless steel at moderate speeds and feeds.	TiCN Base	
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC830	P30-P45 M25-M40 	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	IC907	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating, suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiAlN Base	
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	
	IC928	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade is recommended for interrupted cut and machining at unstable conditions.	AlTiCrN Base	

* For coated grades

ISCAR Parting Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC1008	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds.	TiN TiAlN Base	
	IC1010	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and low to medium feeds. The grade features improved toughness and wear resistance which extends tool life.	TiN AlTiN Base	
	IC1028	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade is recommended for interrupted cuts and machining under unstable conditions.	TiN AlTiCrN Base	
	IC1030	P30-P45 M25-M40 	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. Recommended for interrupted cuts and machining under unstable conditions. The grade features improved toughness and wear resistance which extends tool life.	TiN AlTiN Base	
CVD COATED	IC5400	P30-P45 M25-M45 	A tough substrate with MTCVD coating and a special SUMOTEC post coating treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds under stable and unstable machining conditions.	TiN Al_2O_3 TiCN Base	

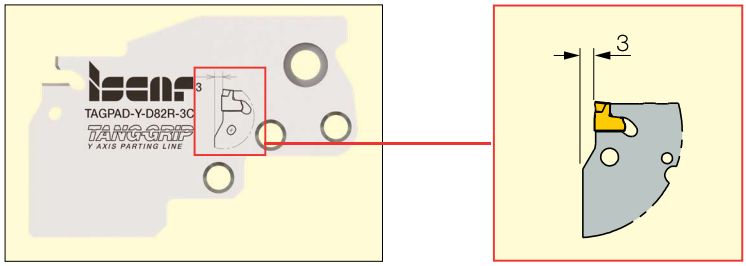
* For coated grades

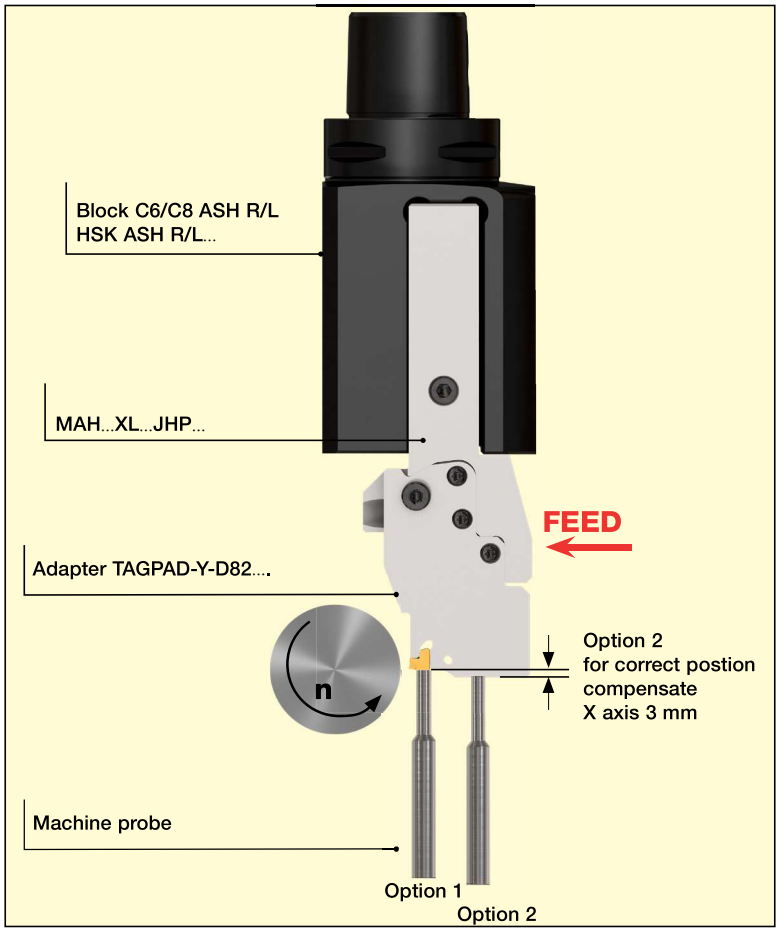
	Grade	ISO	Grade Description	Uncoated Layers	Uncoated
CERMET	IC30N	P10-P30 M10-M20 	A tough cermet grade, suitable for machining, steels and stainless steel at medium to high cutting speeds and low feeds. Features excellent surface finish, very good wear resistance and prevents built-up edge.	Base	
UNCOATED	IC20	 K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	

TANG-GRIP
Y AXIS PARTING LINE

Y Axis TAGPAD setup on Multi-Task and Turning Center Machines

For setup in X direction, use the dimensions marked on the adapter. Setup in Y Axis is not needed.





* Option 1 is preferable due to better accuracy

Setting in X Axis

Set the cutting edge on the center line:
Option 1 - Gauge the cutting edge
Option 2 - Gauge the blade and compensate 3mm

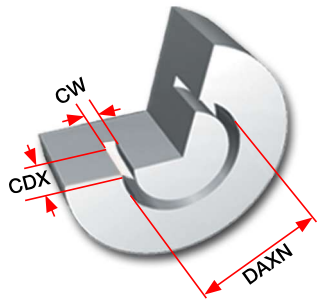
FACE GROOVING AND TURNING

CONTENTS

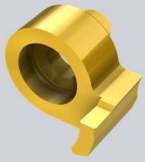
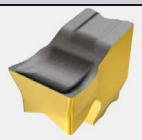
Selection Guide

HELIFACE

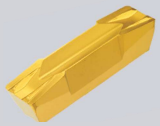
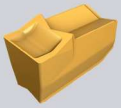
A Variety of Inserts for Face Machining Applications



Face Grooving DAXN 6–40 mm

		DAXN	DAXX	CWN	CWX	CDX	Page
Picco		6	-	1	3	30	592-597
MIFR/MEFL		8	-	1.5	3.5	15	602
GFQR		12	19	1	2.5	3	600
HGPL		12	∞	3	6	∞	580
GRIP		12	∞	3	6.35	∞	579
DGN		21	∞	4	6	∞	486
HFPR/L		12	∞	3	6	∞	578
TNF		30	700	3	6	∞	587
HFPN		27	130	2	2	14	577

Face Grooving DAXN 24–80 mm

		DAXN	DAXX	CWN	CWX	CDX	Page
PENTA 34F		22	∞	2.39	4	5	591-592
GDMY/N		50	∞	8	8	27	290, 584
GIF		80	∞	8	10	27	583
GIFG 8		50	∞	8	8	25	583
GIMM 8CC		80	∞	8	8	∞	585
GDMM CC		50	∞	7	8	∞	585
GIA-K		80	∞	8	8	25	583
GFF		25	55	2.1	6	35	591

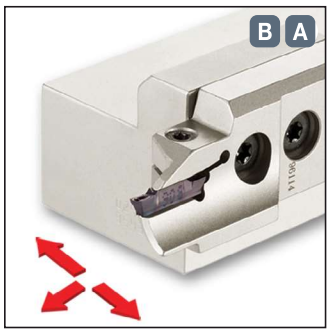
HELIFACE

Small Diameter
Face Machining Systems

Tool: HGHR/L see page 560
Insert: GRIP... / HGPL...

CW = 3-6.35 mm
CDX = 6 mm
DAXN = 12 mm

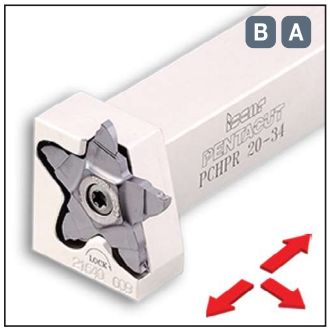
Integral shank toolholder with double-ended inserts.
Used for face grooving and face turning of small parts for 12 mm minimum groove diameter.



Tool: HGAER/L... (adapter) see page 567
Tool: HFAER/L... (adapter) see pages 567-568
Insert: HFPR/L...

CW = 3-6 mm
CDX = 32 mm
DAXN = 12 mm

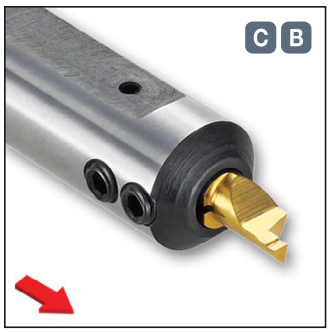
Exchangeable external adapters.
Used with **HELIFACE** and GRIP inserts for deep face machining.



Tool: PCHPR/L see page 592
Insert: PENTA 34F...

CW = 2.39-4 mm
CDX = 5 mm
DAXN = 22 mm

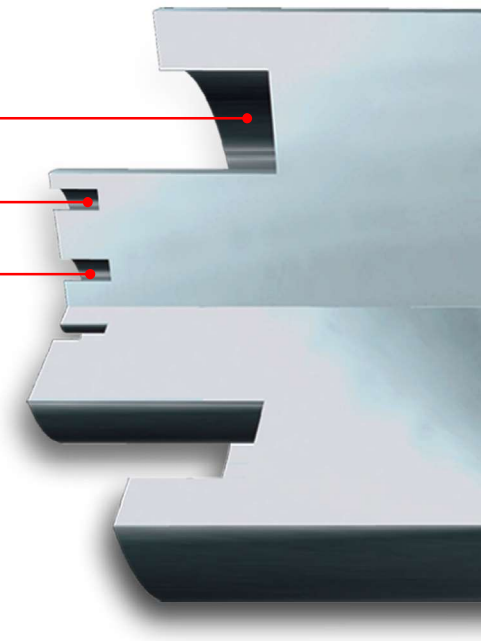
Pentagonal insert for face grooving and recessing up to 5 mm depth of cut at a minimum of 22 mm diameter.

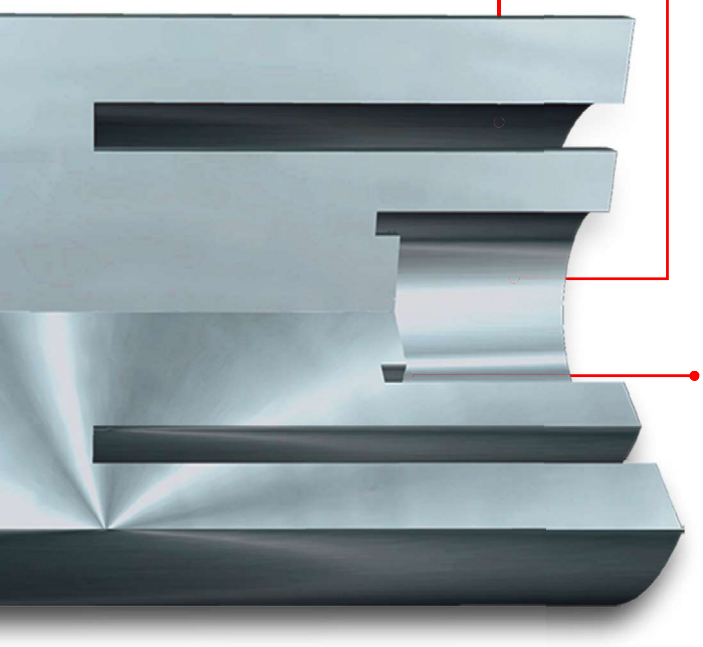


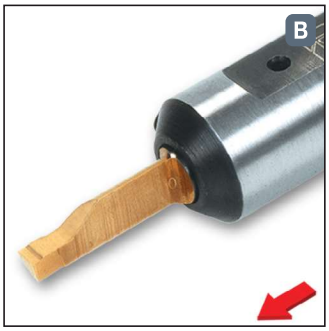
Tool: PICCO R010 see pages 594-595

CW = 1-5 mm
CDX = 6 mm
DAXN = 6 mm

Small solid carbide bars for machining shallow grooves from 6 mm minimum diameter.







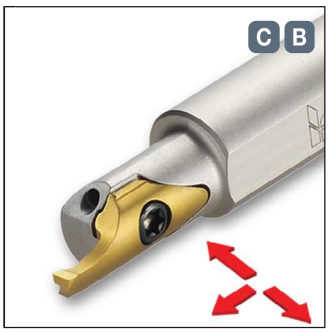
Tool: PICCO R015 see page 599

CW = 2.5-3 mm

CDX = 30 mm

DAXN = 8 mm

Small solid carbide bars for machining deep face grooves of up to 30 and 8 mm minimum diameter.



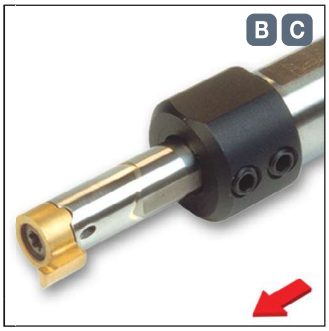
Tool: MIFHR ... see page 600
Insert: MIFR ...

CW = 1.5-3.5 mm

CDX = 5.5 mm

DAXN = 8 mm

MINCUT-A family of internal face grooving and face turning tools for machining small diameters ranging from 8-60 mm.
Strong and stable tangential pocket with internal coolant.



Tool: MGCH 09C see page 600
Insert: GFQR...

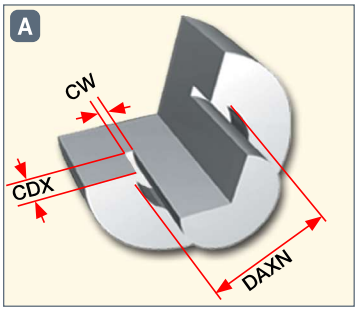
CW = 1-2.5 mm

CDX = 3 mm

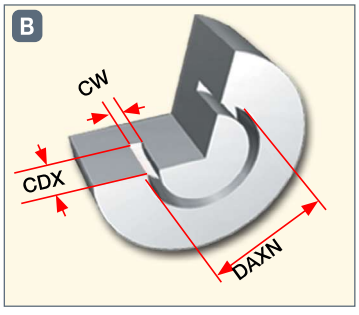
DAXN = 12 mm

A screw-clamped insert on an internal coolant solid carbide bar. Used for machining shallow grooves from 12 mm minimum diameter.

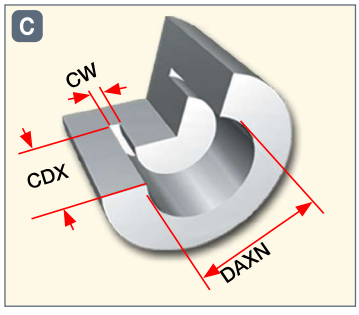
Main Applications



Grooving Next to a Shaft



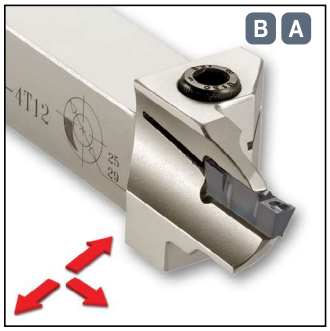
External Grooving



Internal Grooving

HELIFACE

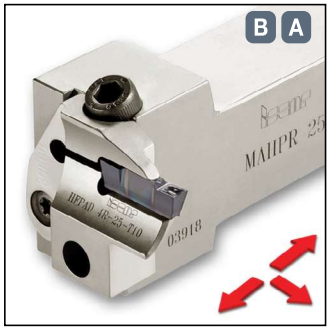
Medium Diameter
Face Machining Systems



Tool: HFHR/L... see pages 560-563
Insert: HFPR/L...

CW = 3-6 mm
CDX = 32 mm
DAXN = 25 mm

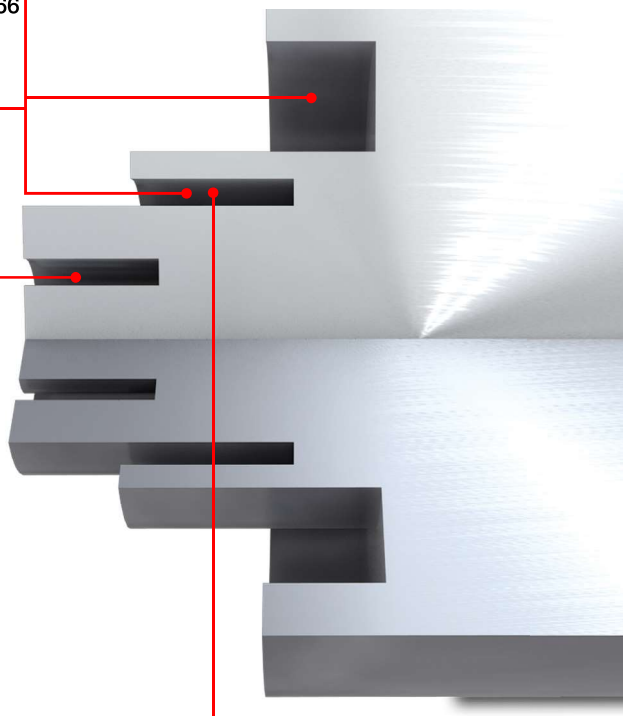
Integral shank toolholders carrying **HELIFACE** and GRIP inserts. For deep face grooving and side face turning.

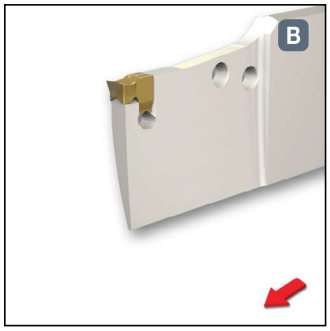


Tool: HFPAD... (adapter) see pages 564-566
Insert: HFPR/L...

CW = 3-6 mm
CDX = 20 mm
DAXN = 25 mm

Slanted, screw-clamped adapter carrying **HELIFACE** and GRIP inserts. A part of the **MODULAR-GRIP** system. Very rigid, for tough face operations.

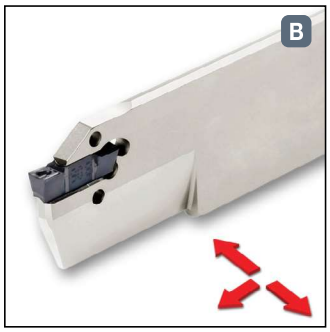




Tool: TNFFH see page 585
Insert: TNF 3-6C...

CW = 3-6 mm
CDX = 35 mm
DAXN = 30 mm

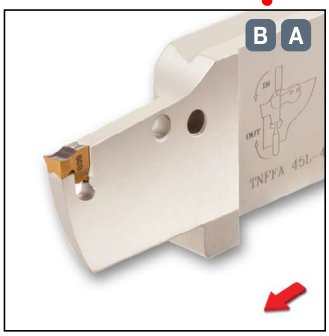
Adapter and blade toolholders carrying TNF 3-6C inserts. For deep face grooving.



Tool: HFFR/L... see page 566
Insert: HFPR/L...

CW = 4-6 mm
CDX = 38 mm
DAXN = 48 mm

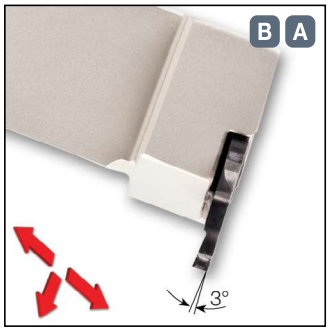
Economical, double-ended blades carrying **HELIFACE** and GRIP inserts. Recommended for deep face grooving and face turning to a maximum depth of 38 mm.



Tool: TNFFA see page 586
Insert: TNF 3-6C...

CW = 3-6 mm
CDX = 35 mm
DAXN = 30 mm

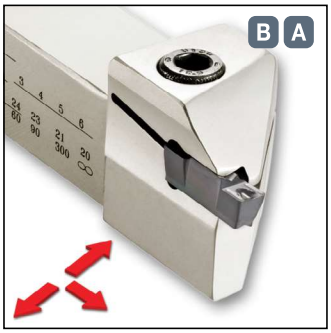
Reinforced blades carrying TNF 3-6C inserts. Recommended for face grooving only. Can machine along a shaft. Excellent chip evacuation.



Tool: PCHPRS/LS see page 592
Insert: PENTA 34F-RS/LS...

CW = 2.39-4 mm
CDX = 5 mm
DAXN = 22 mm

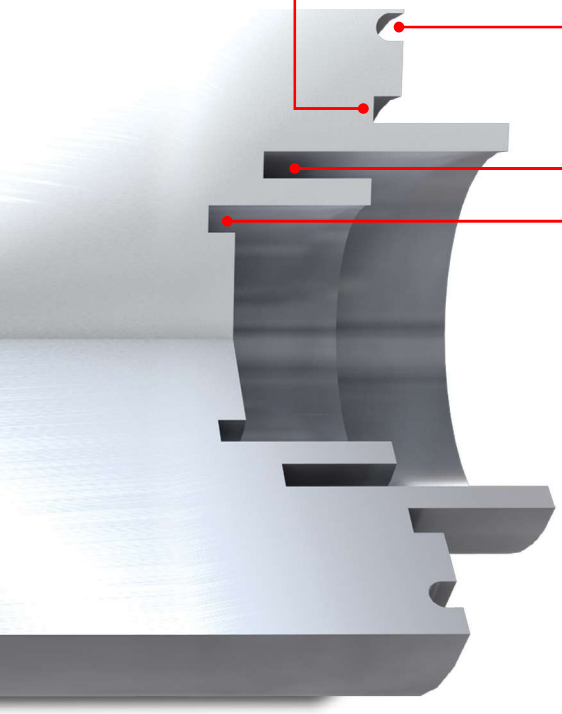
Pentagonal insert for face grooving and recessing next to shoulders up to 5 mm depth of cut at a minimum of 22 mm diameter.

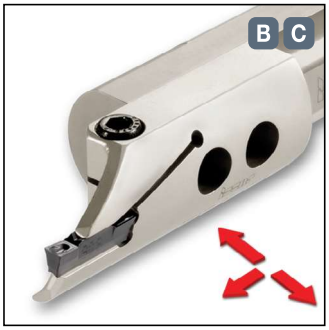


Tool: HFHR/L..-M see page 568
Insert: HFPR/L...

CW = 3-6 mm
CDX = 5.3 mm
DAXN = 20 mm

Integral toolholders carrying **HELIFACE** and GRIP inserts. For machining up to 5.3 mm depth of cut. 3-6 mm wide inserts can be mounted in the same pocket.

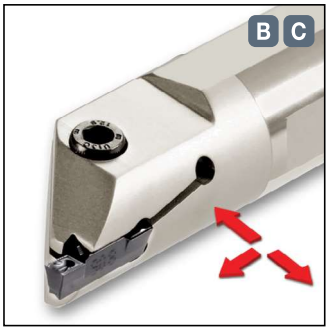




Tool: HFAIR/L...& HGAIR/L (adapter) see pages 574, 570
Insert: HFPR/L...

CW = 3-6 mm
CDX = 12 mm
DAXN = 32 mm

Exchangeable, internal coolant adapters carrying **HELIFACE** and GRIP inserts. Recommended for deep internal face machining.

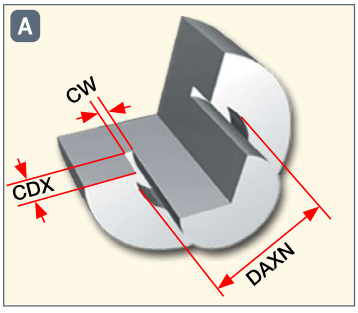


Tool: HFIR/L..-MC see page 576
Insert: HFPR/L...

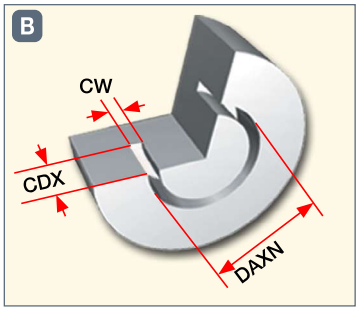
CW = 3-6 mm
CDX = 5 mm
DAXN = 20 mm

Boring bars for shallow face machining of up to 5 mm depth carrying **HELIFACE** and GRIP inserts. Internal coolant. 3-6 mm width inserts can be mounted in the same pocket.

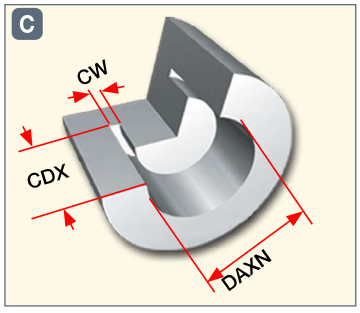
Main Applications



Grooving Next to a Shaft

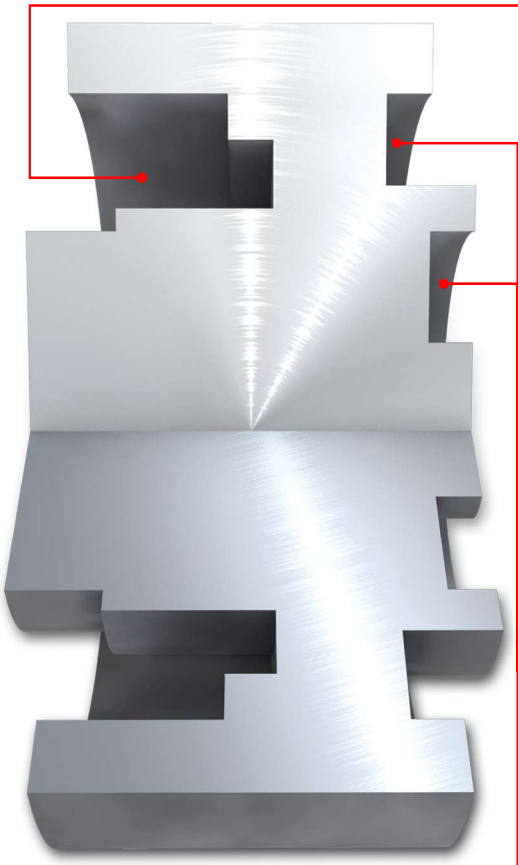


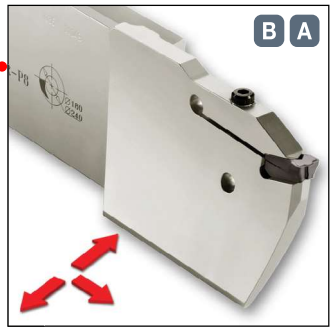
External Grooving



Internal Grooving

Large Diameter
Face Machining Systems

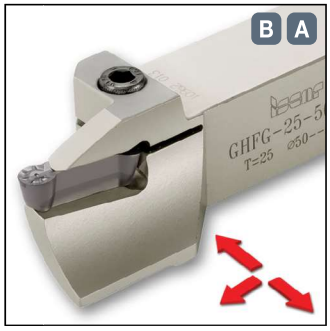




Tool: CGFG 51-..R/L-P8
see page 582
Insert: GIMY 8...

CW = 8 mm
CDX = 120 mm
DAXN = 180 mm

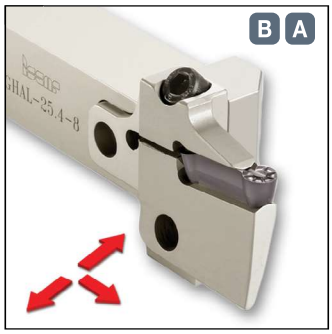
Blades carrying 8 mm single-ended **CUT-GRIP** inserts. Can machine up to 120 mm depth next to a shaft. Used for large diameters.



Tool: GHFG ..R/L-8 **see page 581**
Insert: GDMY 8..

CW = 8 mm
CDX = 25 mm
DAXN = 50 mm

Integral toolholders carrying 8 mm **CUT-GRIP** inserts. For heavy machining of medium and large parts. Can machine next to a shaft of up to 25 mm depth.

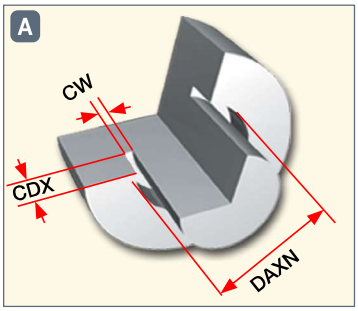


Tool: GAFG ..R/L-8 (adapter) **see page 582**
Insert: GDMM 8CC

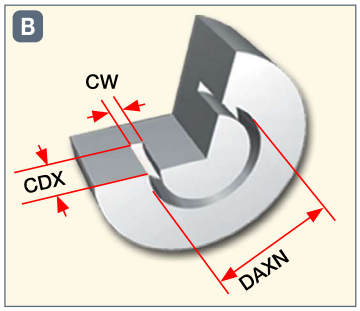
CW = 8 mm
CDX = 25 mm
DAXN = 80 mm

Exchangeable adapters carrying 8 mm **CUT-GRIP** inserts. Can machine up to 25 mm depth next to a shaft. For heavy machining of medium and large parts.

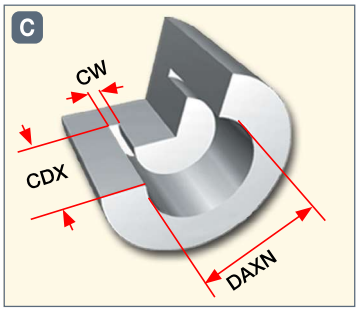
Main Applications



Grooving Next to a Shaft



External Grooving

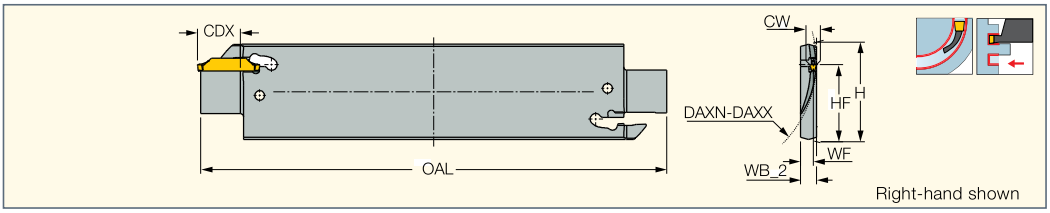


Internal Grooving

HELI-FACE and HELI-GRIP

HELIFACE

HFFH
Face Grooving Blades



Designation	DAXN(1)	DAXX(2)	CW	CDX	WF	WB_2	HF	H	OAL	
HFFH 38R/L-2	38.0	45.0	2.00	14.00	4.50	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 45R/L-2	45.0	60.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 60R/L-2	60.0	80.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 80R/L-2	80.0	100.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*
HFFH 100R/L-2	100.0	130.0	2.00	14.00	4.40	5.2	24.8	32.0	150.00	EDG 33B*

- H dimension links blades and blocks

(1) Minimum penetration diameter

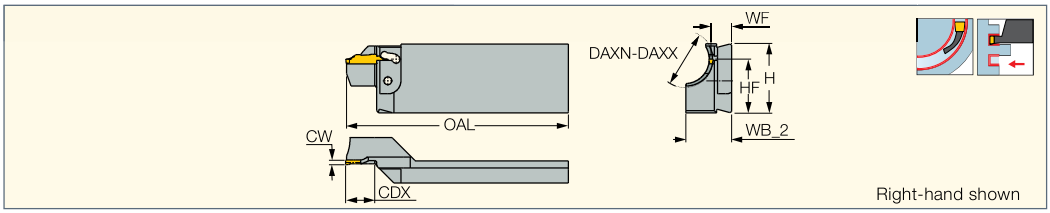
(2) Maximum penetration diameter * Optional, should be ordered separately

Inserts: HFPN

Holders: C#-TBK-R/L • HSK A-WH-TBK-R/L • SGTBF • SGTBK • SGTBU/SGTBN • UBHCR/L

HELIFACE

HFFA
Reinforced Face Grooving Blades



Designation	CW	DAXN(1)	DAXX(2)	CDX	H	WF	HF	OAL	WB_2	
HFFA 27R/L-2	2.00	27.0	29.0	14.00	32.0	9.50	24.8	102.00	21.0	EDG 33B*
HFFA 29R/L-2	2.00	29.0	33.0	14.00	32.0	9.50	24.8	102.00	18.5	EDG 33B*
HFFA 33R/L-2	2.00	33.0	38.0	14.00	32.0	9.50	24.8	102.00	17.5	EDG 33B*
HFFA 38R/L-2	2.00	38.0	46.0	14.00	32.0	9.50	24.8	102.00	13.5	EDG 33B*
HFFA 46R/L-2	2.00	46.0	60.0	14.00	32.0	9.50	24.8	102.00	13.5	EDG 33B*
HFFA 60R/L-2	2.00	60.0	80.0	14.00	32.0	9.50	24.8	102.00	14.0	EDG 33B*
HFFA 80R/L-2	2.00	80.0	105.0	14.00	32.0	9.50	24.8	102.00	16.1	EDG 33B*

- For user guide, see pages 604-615

(1) Minimum penetration diameter

(2) Maximum penetration diameter

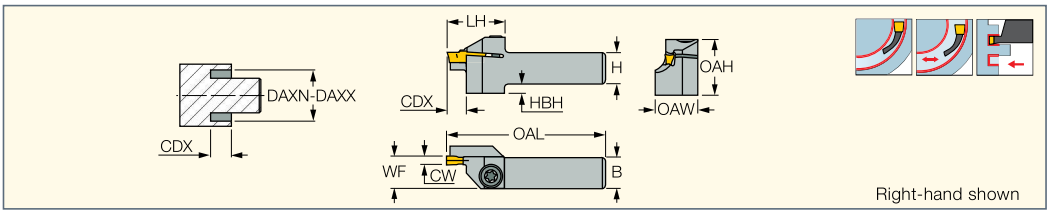
* Optional, should be ordered separately

Inserts: HFPN

Holders: SGTBU/SGTBN • UBHCR/L

HELIFACE

HGHR/L-3
Integral Holders for Face Grooving and Turning



Designation	H	B	CW	CDX	HBH	WF	DAXN(1)	DAXX(2)	OAL	LH	OAH	OAW		
HGHR 1010-12-3T6	10.0	10.0	3.00	6.00	2.0	9.50	12.0	16.0	120.00	19.0	19.0	13.70	SR 76-1400	T-20/3
HGHR 1010-16-3T6	10.0	10.0	3.00	6.00	2.0	9.50	16.0	25.0	120.00	19.0	19.0	12.80	SR 76-1400	T-20/3
HGHR/L 1212-12-3T6	12.0	12.0	3.00	6.00	-	11.00	12.0	16.0	120.00	19.0	19.0	15.70	SR 76-1400	T-20/3
HGHR 1212-16-3T6	12.0	12.0	3.00	6.00	-	11.00	16.0	25.0	120.00	19.0	19.0	14.80	SR 76-1400	T-20/3
HGHR/L 1616-12-3T6	16.0	16.0	3.00	6.00	-	15.00	12.0	16.0	120.00	19.0	21.0	19.70	SR 76-1400	T-20/3
HGHR/L 1616-16-3T6	16.0	16.0	3.00	6.00	-	15.00	16.0	25.0	120.00	19.0	21.0	18.80	SR 76-1400	T-20/3
HGHR/L 2020-12-3T6	20.0	20.0	3.00	6.00	-	20.00	12.0	16.0	120.00	19.0	25.0	24.00	SR 76-1400	T-20/3
HGHR/L 2020-16-3T6	20.0	20.0	3.00	6.00	-	20.00	16.0	25.0	120.00	19.0	25.0	24.00	SR 76-1400	T-20/3
HGHR/L 2525-12-3T6	25.0	25.0	3.00	6.00	-	25.00	12.0	16.0	120.00	19.0	30.0	29.00	SR 76-1400	T-20/3
HGHR/L 2525-16-3T6	25.0	25.0	3.00	6.00	-	25.00	16.0	25.0	120.00	19.0	30.0	29.00	SR 76-1400	T-20/3

• HGN & GRIP inserts can be used only with right-hand toolholders, HGPL inserts only with left-hand toolholders • For user guide, see pages 604-615

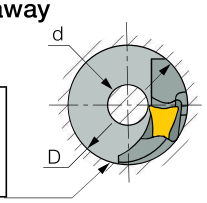
(1) Minimum penetration diameter

(2) Maximum penetration diameter

Inserts: GRIP • GRIP (full radius) • HGN-C • HGN-J • HGN-UT • HGPL

No limitation for widening groove toward or away from center, except for the following tools:

Limitation of widening toward center depends on the major diameter (D) as per chart.

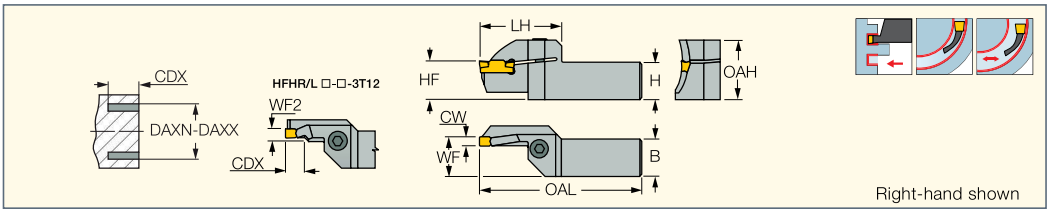


HGHR/L...-12-3T6

D	d
12.0	4.0
13.0	1.0
13.5	0

HELIFACE

HFHR/L-3T
Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF	WF2	DAXN(2)	DAXX(3)	LH	OAH		
HFHR/L 20-25-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	25.0	30.0	38.0	28.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-30-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	30.0	38.0	38.0	29.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-38-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	38.0	48.0	38.0	30.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-48-3T12	3.00	12.00	20.0	20.0	20.0	140.00	20.50	5.3	48.0	60.0	38.0	30.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-25-3T12	3.00	12.00	25.0	25.0	25.0	150.00	25.50	5.3	25.0	30.0	38.0	33.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-30-3T12	3.00	12.00	25.0	25.0	25.0	150.00	25.50	5.3	30.0	38.0	38.0	34.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-38-3T12	3.00	12.00	25.0	25.0	25.0	150.00	25.50	5.3	38.0	48.0	38.0	35.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-60-3T22 (1)	3.00	22.00	20.0	20.0	20.0	140.00	20.50	-	60.0	75.0	40.0	31.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-48-3T22 (1)	3.00	22.00	25.0	25.0	25.0	150.00	25.50	-	48.0	60.0	40.0	36.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-60-3T22 (1)	3.00	22.00	25.0	25.0	25.0	150.00	25.50	-	60.0	75.0	40.0	36.0	SR M6X16 DIN912	HW 5.0
HFHR/L 20-75-3T25 (1)	3.00	25.00	20.0	20.0	20.0	140.00	20.50	-	75.0	100.0	43.0	31.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-75-3T25 (1)	3.00	25.00	25.0	25.0	25.0	150.00	25.50	-	75.0	100.0	43.0	36.0	SR M6X16 DIN912	HW 5.0

• For user guide, see pages 604-615

(1) For deep face grooving only.

(2) Minimum penetration diameter

(3) Maximum penetration diameter

Inserts: HFPR/L • HFPR/L (full radius)

No limitation for widening groove toward or away from center, except for the following tools:

HFHR/L-:-25-3T12

D	d
25	5
26	2
≥27	0

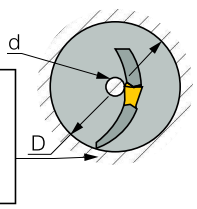
HFHR/L-:-25-4T12

D	d
25	1
≥26	0

HFHR/L-:-29-4T12

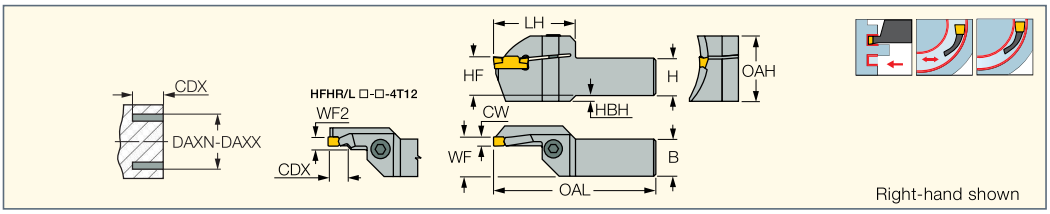
D	d
29	1
≥46	0

Limitation of widening toward center (d) depends on the major diameter (D) as per chart.



HELIFACE

HFHR/L-4T
Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF	WF2	DAXN(1)	DAXX(2)	LH	OAH	HBH		
HFHR/L 20-25-4T12	4.00	12.00	20.0	20.0	20.0	140.00	20.60	6.2	25.0	29.0	39.0	29.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-29-4T12	4.00	12.00	20.0	20.0	20.0	140.00	20.60	6.2	29.0	34.0	39.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-25-4T12	4.00	12.00	25.0	25.0	25.0	150.00	25.60	6.2	25.0	29.0	39.0	34.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-29-4T12	4.00	12.00	25.0	25.0	25.0	150.00	25.60	6.2	29.0	34.0	39.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-34-4T20	4.00	20.00	20.0	20.0	20.0	140.00	20.60	-	34.0	40.0	39.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-34-4T20	4.00	20.00	25.0	25.0	25.0	150.00	25.60	-	34.0	40.0	39.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-40-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	40.0	48.0	44.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-48-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	48.0	60.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-60-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	60.0	75.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-75-4T25	4.00	25.00	20.0	20.0	20.0	140.00	20.60	-	75.0	100.0	44.0	34.0	2.0	SR M6X16 DIN912	HW 5.0
HFHL 25-100-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	100.0	140.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-140-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.74	-	140.0	240.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-240-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	240.0	800.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-40-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	40.0	48.0	44.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-48-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	48.0	60.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-60-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	60.0	75.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-75-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	75.0	100.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR 25-100-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.74	-	100.0	140.0	44.0	37.0	-		
HFHR 25-140-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.60	-	140.0	240.0	44.0	37.0	-		
HFHR 25-75-4T25	4.00	25.00	25.0	25.0	25.0	150.00	25.80	-	75.0	100.0	44.0	37.0	-		

• DGN & GRIP 4 mm inserts can be used only with right-hand tools, HGPL 4 mm with left-hand tools • For user guide, see pages 604-615

(1) Minimum penetration diameter

(2) Maximum penetration diameter

Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • HGPL

Penetration Range

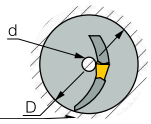
HFHR/L-:-25-4T12

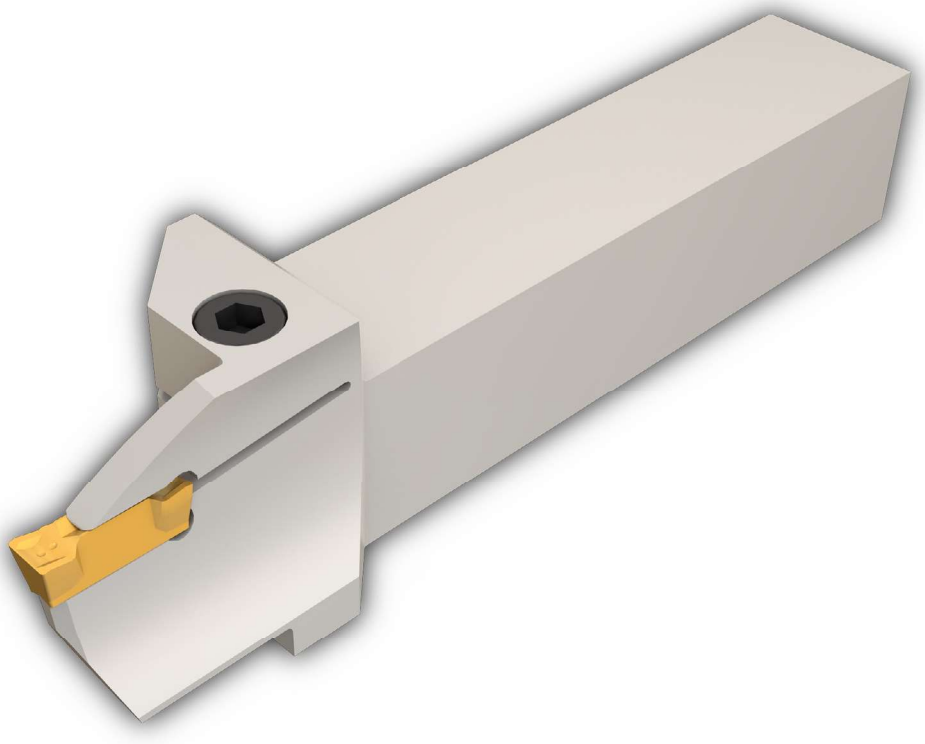
D	d
25	1
≥26	0

HFHR/L-:-29-4T12

D	d
29	1
≥46	0

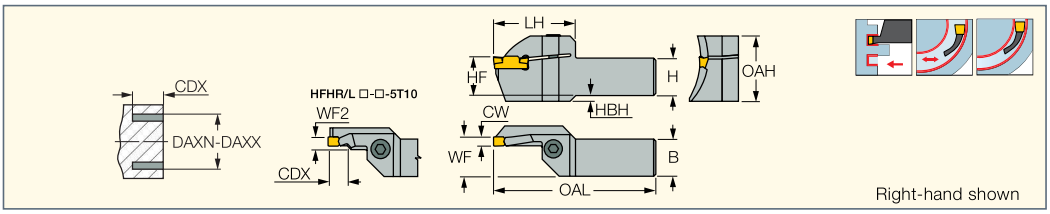
Limitation of widening toward center (d) depends on the major diameter (D) as per chart





HELIFACE

HFHR/L-5T
Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF2	WF	DAXN(1)	DAXX(2)	LH	OAH	HBH		
HFHR/L 20-25-5T10	5.00	10.00	20.0	20.0	20.0	140.00	7.1	21.00	25.0	30.0	38.0	28.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-25-5T10	5.00	10.00	25.0	25.0	25.0	150.00	7.1	26.00	25.0	30.0	38.0	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-110-5T14	5.00	14.00	25.0	25.0	25.0	150.00	-	23.50	110.0	200.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-52-5T14	5.00	14.00	25.0	25.0	25.0	150.00	-	23.50	52.0	75.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-75-5T14	5.00	14.00	25.0	25.0	25.0	150.00	-	23.50	75.0	110.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-28-5T15	5.00	17.00	20.0	20.0	20.0	140.00	-	21.00	28.0	31.0	34.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-31-5T15	5.00	17.00	20.0	20.0	20.0	140.00	-	21.00	31.0	35.0	34.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-28-5T15	5.00	17.00	25.0	25.0	25.0	150.00	-	26.00	28.0	31.0	34.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-31-5T15	5.00	17.00	25.0	25.0	25.0	150.00	-	26.00	31.0	35.0	34.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-35-5T20	5.00	20.00	20.0	20.0	20.0	140.00	-	21.00	35.0	40.0	39.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-40-5T20	5.00	20.00	20.0	20.0	20.0	140.00	-	21.00	40.0	45.0	39.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-200-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	23.50	200.0	800.0	32.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-35-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	26.00	35.0	40.0	39.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHL 25-40-5T20	5.00	20.00	25.0	25.0	25.0	140.00	-	26.00	40.0	45.0	39.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHR 25-200-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	26.00	200.0	800.0	32.5	33.0	-		
HFHR 25-40-5T20	5.00	20.00	25.0	25.0	25.0	150.00	-	26.00	40.0	45.0	39.0	36.0	-		
HFHR/L 20-45-5T25	5.00	25.00	20.0	20.0	20.0	140.00	-	21.00	45.0	55.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-55-5T25	5.00	25.00	20.0	20.0	20.0	140.00	-	21.00	55.0	70.0	44.0	35.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-45-5T25	5.00	25.00	25.0	25.0	25.0	150.00	-	26.00	45.0	55.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-55-5T25	5.00	25.00	25.0	25.0	25.0	150.00	-	26.00	55.0	70.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-70-5T28	5.00	28.00	20.0	20.0	20.0	140.00	-	21.00	70.0	95.0	47.0	35.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-130-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	130.0	180.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-180-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	180.0	800.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-70-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	70.0	95.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-95-5T32	5.00	32.00	25.0	25.0	25.0	150.00	-	26.00	95.0	130.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0

- DGN & GRIP 5.. inserts can be used only with right-hand tools, HGPL 5.. inserts with left-hand tools
- For user guide, see pages 604-615

(1) Minimum penetration diameter

(2) Maximum penetration diameter

Inserts: HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W • HGPL

No limitation for widening groove toward or away from center, except for the following tools:

HFHR/L- □ -31-5T15

D	d
31	15
32	10
33	7
34	4
35	2
≥36	0

HFHR/L- □ -30-6T10

D	d
30	7
31	4
32	1
≥33	0

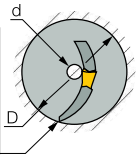
HFHR/L-□-25-5T10

D	d
25	4
26	1
≥27	0

HFHR/L- □ -28-5T15

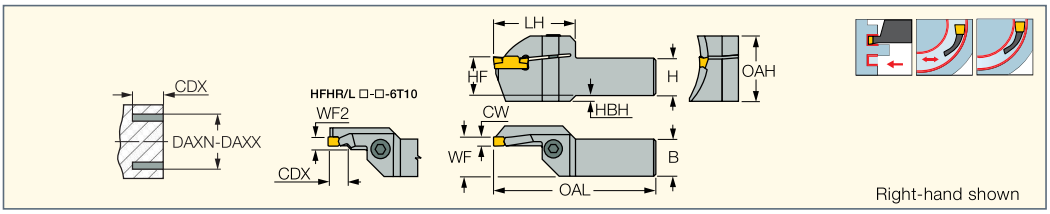
D	d
28	13
29	8
30	5
31	3
32	1
≥33	0

Limitation of widening toward center (d) depends on the major diameter (D) as per chart



HELIFACE

HFHR/L-6T
Integral Holders for Facing



Designation	CW	CDX	H	HF	B	OAL	WF2	WF	DAXN(1)	DAXX(2)	LH	OAH	HBH		
HFHL 20-26-6T10	6.00	10.00	20.0	20.0	20.0	140.00	7.9	21.40	26.0	30.0	39.0	29.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-30-6T15	6.00	17.00	20.0	20.0	20.0	140.00	-	21.40	30.0	38.0	36.0	30.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-30-6T15	6.00	17.00	25.0	25.0	25.0	150.00	-	26.40	30.0	38.0	36.0	35.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-38-6T20	6.00	20.00	20.0	20.0	20.0	140.00	-	21.40	38.0	50.0	39.0	31.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-100-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	26.00	100.0	200.0	40.0	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-200-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	23.00	200.0	3000.0	37.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-38-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	26.40	38.0	50.0	39.0	36.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-50-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	23.00	50.0	65.0	37.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-65-6T20	6.00	20.00	25.0	25.0	25.0	150.00	-	23.00	65.0	100.0	37.5	33.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 20-50-6T25	6.00	25.00	20.0	20.0	20.0	140.00	-	21.40	50.0	70.0	44.0	32.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-50-6T25	6.00	25.00	25.0	25.0	25.0	150.00	-	26.40	50.0	70.0	44.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-100-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	100.0	180.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0
HFHR/L 25-180-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	180.0	400.0	51.0	40.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-400-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	400.0	3000.0	51.0	40.0	3.0	SR M6X16 DIN912	HW 5.0
HFHR/L 25-70-6T32	6.00	32.00	25.0	25.0	25.0	150.00	-	26.40	70.0	100.0	51.0	37.0	-	SR M6X16 DIN912	HW 5.0

• DGN & GRIP 6.. inserts can be used only with right-hand tools, HGPL 6.. inserts with left-hand tools • For user guide, see pages 604-615

(1) Minimum penetration diameter

(2) Maximum penetration diameter

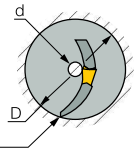
Inserts: HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • HGPL

No limitation for widening groove toward or away from center, except for the following tools:

HFHR/L- □ -30-6T10

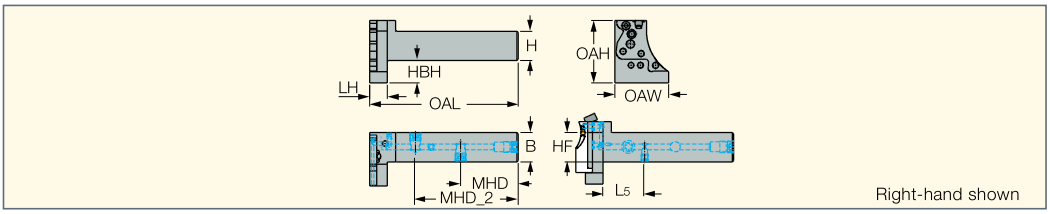
D	d
30	7
31	4
32	1
≥33	0

Limitation of widening toward center (d) depends on the major diameter (D) as per chart



MODULAR-GRIP
JETCUT

MAHPR/L-XL-JHP
Holders with High Pressure Coolant Channels for MODULAR-GRIP Perpendicularly Mounted Adapters



Designation	H	B	LH	OAL	HBH	OAH	OAW	HF	L5	MHD	MHD_2
MAHPR/L-XL-20-JHP-MCG	20.0	20.0	23.0	120.00	24.0	53.00	45.00	20.0	29.00	50.00	85.00
MAHPR/L-XL-25-JHP-MCG	25.0	25.0	15.0	120.00	19.0	53.00	45.50	25.0	35.00	50.00	90.00

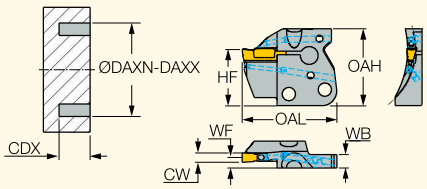
Tools: DGPAD-XL-JHP • HFPAD-JHP • TAGPAD-XL-JHP • TAGPAD-Y-JHP • TNFPAD-XL-JHP

Spare Parts

Designation									
MAHPR/L-XL-20-JHP-MCG	SR M5-04451	T-20/5	SR M6X16 DIN912	HW 5.0	OR 5X1N	SR M4X4 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SUPPORT MG-XL-5113377
MAHPR/L-XL-25-JHP-MCG	SR M5-04451	T-20/5	SR M6X16 DIN912	HW 5.0	OR 5X1N	SR M4X4 DIN913 TL360	SR M6X6 DIN913 TL360	PLG G1/8 TL360	SUPPORT MG-XL-5113377

MODULAR-GRIP

HFPAD-JHP
Adapters for Face Machining



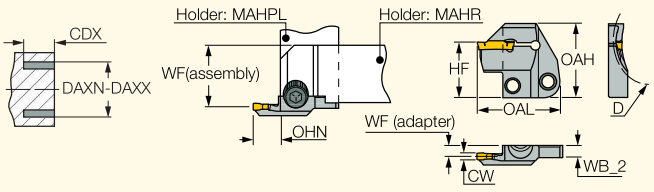
Right-hand shown

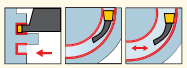
Designation	CW	CDX	WF	WB	OAL	HF	OAH	DAXN(1)	DAXX(2)
HFPAD 3R/L-40-T10-JHP	3.00	10.00	4.80	5.80	39.50	24.0	33.00	40.0	65.0
HFPAD 3R/L-115-T18-JHP	3.00	18.00	4.80	5.80	43.50	24.0	33.00	115.0	400.0
HFPAD 3R/L-65-T18-JHP	3.00	18.00	4.80	5.80	43.50	24.0	33.00	65.0	115.0
HFPAD 4R/L-44-T14-JHP	4.00	14.00	4.80	5.80	40.50	24.0	33.00	44.0	58.0
HFPAD 4R/L-58-T14-JHP	4.00	14.00	4.80	5.80	40.50	24.0	33.00	58.0	88.0
HFPAD 4R/L-88-T14-JHP	4.00	14.00	4.50	5.80	40.50	24.0	33.00	88.0	175.0
HFPAD 4R/L-175-T20-JHP	4.00	20.00	4.80	6.50	45.50	24.0	33.00	175.0	800.0
HFPAD 5R/L-110-T14-JHP	5.00	14.00	4.50	6.30	45.50	24.0	33.00	110.0	200.0
HFPAD 5R/L-40-T14-JHP	5.00	14.00	4.50	6.30	40.50	24.0	33.00	40.0	50.0
HFPAD 5L-50-T14-JHP	5.00	14.00	4.50	6.30	40.50	24.0	33.00	50.0	75.0
HFPAD 5R/L-75-T14-JHP	5.00	14.00	4.50	6.30	40.50	24.0	33.00	75.0	110.0
HFPAD 5R/L-200-T20-JHP	5.00	20.00	4.50	6.60	45.50	24.0	33.00	200.0	800.0
HFPAD 6R/L-60-T14-JHP	6.00	14.00	4.50	6.80	40.50	24.0	33.00	60.0	100.0
HFPAD 6R/L-100-T20-JHP	6.00	20.00	4.50	6.80	45.50	24.0	33.00	100.0	200.0
HFPAD 6R/L-200-T20-JHP	6.00	20.00	4.50	7.10	45.50	24.0	33.00	200.0	3000.0

• WF(assembly)=WF(shank) + WF(adapter) • HGN,GRIP,DGN inserts can be used only with right-hand adapters, HGPL inserts with left-hand adapters
• For user guide, see pages 604-615
(1) Minimum axial grooving diameter
(2) Maximum axial grooving diameter
Inserts: DGN-MF • DGN-W • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • GRIP • GRIP (full radius) • HFPR/L • HFPR/L (full radius) • HGN-C • HGN-J • HGN-UT • HGPL
Holders: C#-MAHD-JHP • C#-MAHPD-JHP • MAHPR/L-JHP • MAHPR/L-XL-JHP • MAHR/L-JHP • MAHR/L-JHP-MC

MODULAR-GRIP

HFPAD-3
Adapters for Face Machining





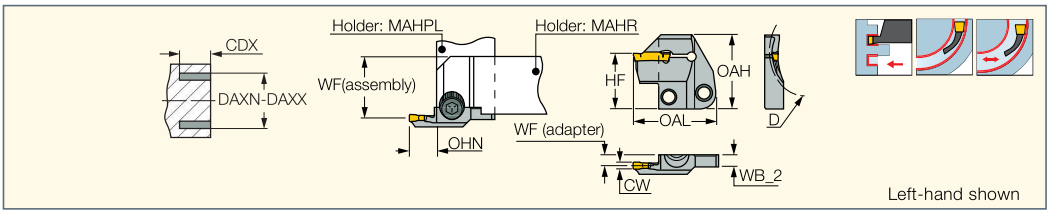
Left-hand shown

Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 3R/L-25-T10	25.0	30.0	3.00	10.00	15.0	4.80	5.8	39.50	24.0	32.0
HFPAD 3R/L-30-T10	30.0	40.0	3.00	10.00	15.0	4.80	5.8	39.50	24.0	32.0
HFPAD 3R/L-40-T10	40.0	65.0	3.00	10.00	15.0	4.80	5.8	39.50	24.0	32.0
HFPAD 3R/L-65-T18	65.0	115.0	3.00	18.00	19.0	4.80	5.8	43.50	24.0	32.0
HFPAD 3R/L-115-T18	115.0	400.0	3.00	18.00	19.0	4.80	5.8	43.50	24.0	32.0

• WF(assembly)=WF(shank) + WF(adapter) • HGN & GRIP 3.. inserts can be used only with right-hand adapters, HGPL 3.. inserts with left-hand adapters
• For user guide, see pages 604-615
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)
Inserts: GRIP • GRIP (full radius) • HGN-C • HGN-J • HGN-UT • HGPL
Holders: C#-MAHD-JHP • C#-MAHPD-JHP • IH-HFPAD • MAHR/L-JHP-MC • MAHPR/L-JHP • MAHR/L-JHP • MAHR/L • MAHPR/L • C#-MAHD • C#-MAHPD • C#-MAHDR-45 • C#-MAHDOR • HSK A63WH-MAHUR/L • HSK A63WH-MAHDR-45 • HSK A63WH-MAHDOR • IM-MAHD • IM-MAHPD

MODULAR GRIP

HFPAD-4
Adapters for Face Machining



Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 4R/L-25-T10	25.0	31.0	4.00	10.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-31-T10	31.0	44.0	4.00	10.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-44-T14	44.0	58.0	4.00	14.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-58-T14	58.0	88.0	4.00	14.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-88-T14	88.0	175.0	4.00	14.00	16.0	4.50	5.8	40.50	24.0	32.0
HFPAD 4R/L-175-T20	175.0	800.0	4.00	20.00	21.0	4.50	6.5	45.50	24.0	32.0

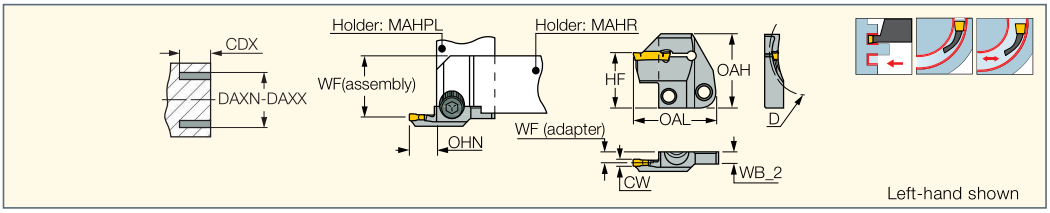
- WF(assembly)=WF(shank) + WF(adapter)
- DGN & GRIP 4.. inserts can be used only with right-hand adapters, HGPL 4.. inserts with left-hand adapters
- For user guide, see pages 604-615

(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)

Inserts: DGN-MF • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • GRIP • GRIP (full radius) • HFPR/L • HFPR/L (full radius) • HGPL
Holders: C#-MAHD-JHP • C#-MAHPD-JHP • IH-HFPAD • MAHR/L-JHP-MC • MAHPR/L-JHP • MAHR/L-JHP • MAHR/L • MAHPR/L • C#-MAHD • C#-MAHPD • C#-MAHDR-45 • C#-MAHDOR • HSK A63WH-MAHUR/L • HSK A63WH-MAHDR-45 • HSK A63WH-MAHDOR • IM-MAHD • IM-MAHPD

MODULAR GRIP

HFPAD-5
Adapters for Face Machining

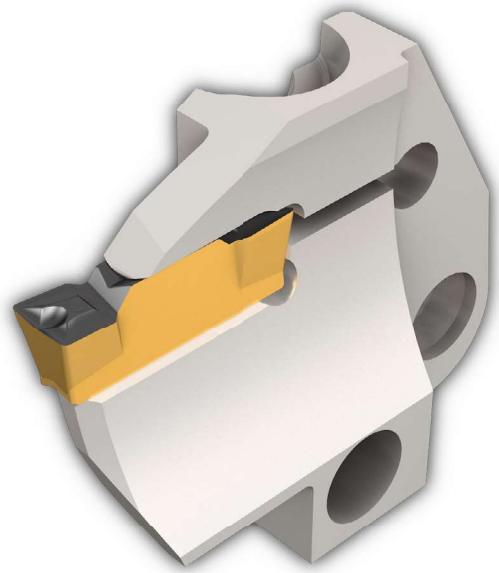


Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 5R/L-40-T14	40.0	50.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-50-T14	50.0	75.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-75-T14	75.0	110.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-110-T14	110.0	200.0	5.00	14.00	16.0	4.50	6.3	40.50	24.0	32.0
HFPAD 5R/L-200-T20	200.0	800.0	5.00	20.00	21.0	4.50	6.6	45.50	24.0	32.0

- WF(assembly)=WF(shank) + WF(adapter)
- DGN & GRIP 5.. inserts can be used only with right-hand adapters, HGPL 5.. inserts with left-hand adapters
- For user guide, see pages 604-615

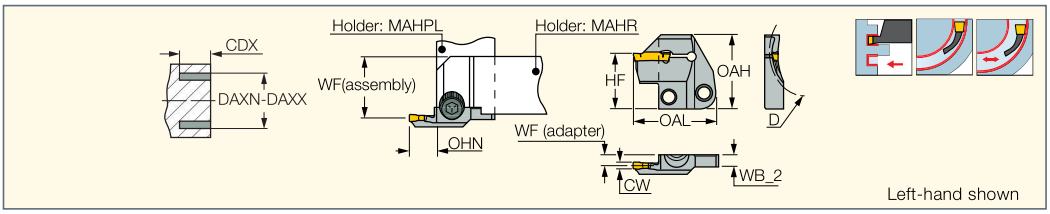
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)

Inserts: HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W • HGPL
Holders: C#-MAHD-JHP • C#-MAHPD-JHP • IH-HFPAD • MAHR/L-JHP-MC • MAHPR/L-JHP • MAHR/L-JHP • MAHR/L • MAHPR/L • C#-MAHD • C#-MAHDOR • C#-MAHPD • C#-MAHDR-45 • HSK A63WH-MAHUR/L • HSK A63WH-MAHDR-45 • HSK A63WH-MAHDOR • IM-MAHD • IM-MAHPD



MODULAR GRIP

HFPAD-6
Adapters for Face Machining



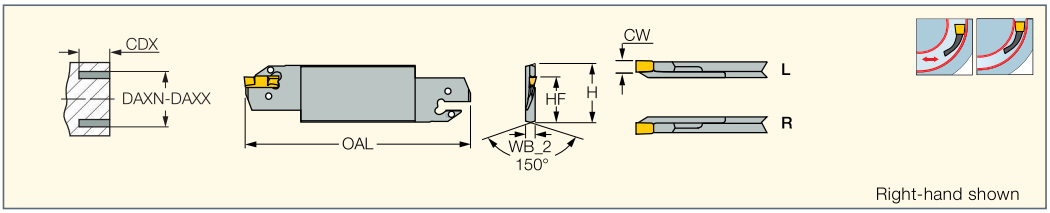
Designation	DAXN(1)	DAXX(2)	CW	CDX	OHN(3)	WF(4)	WB_2	OAL	HF	OAH
HFPAD 6R/L-60-T14	60.0	100.0	6.00	14.00	16.0	4.50	6.8	40.50	24.0	32.0
HFPAD 6R/L-100-T20	100.0	200.0	6.00	20.00	21.0	4.50	6.8	45.50	24.0	32.0
HFPAD 6R/L-200-T20	200.0	3000.0	6.00	20.00	21.0	4.50	7.1	45.50	24.0	32.0

• WF(assembly)=WF(shank) + WF(adapter) • DGN & GRIP 6.. inserts can be used only with right-hand adapters, HGPL 6.. inserts with left-hand adapters
• For user guide, see pages 604-615
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Minimum overhang
(4) WF(adapter)

Inserts: HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • HGPL
Holders: C#-MAHD-JHP • C#-MAHPD-JHP • IH-HFPAD • MAHR/L-JHP-MC • MAHPR/L-JHP • MAHR/L-JHP • MAHR/L • MAHPR/L • C#-MAHD
• C#-MAHPD • C#-MAHDR-45 • C#-MAHDOR • HSK A63WH-MAHUR/L • HSK A63WH-MAHDR-45 • HSK A63WH-MAHDOR • IM-MAHD • IM-MAHPD

HELIFACE

HFFR/L-T
Blades for Face Machining



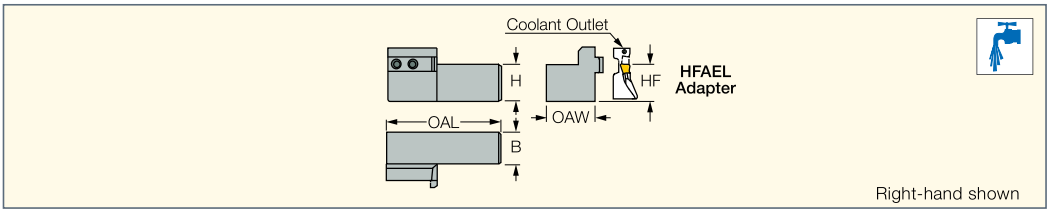
Designation	CW	DAXN(2)	DAXX(3)	CDX	OAL	HF	H	WB_2	
HFFR/L 48-4T25 (1)	4.00	48.0	60.0	25.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 60-4T25	4.00	60.0	75.0	25.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 75-4T30	4.00	75.0	140.0	30.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 140-4T30	4.00	140.0	1500.0	30.00	150.00	24.8	32.0	3.2	EDG 33B*
HFFR/L 70-5T32	5.00	70.0	95.0	32.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 95-5T35	5.00	95.0	130.0	35.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 130-5T38	5.00	130.0	180.0	38.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 180-5T38	5.00	180.0	1500.0	38.00	150.00	24.8	32.0	4.0	EDG 33B*
HFFR/L 90-6T32	6.00	90.0	180.0	32.00	150.00	24.8	32.0	5.2	EDG 33B*
HFFR/L 180-6T38	6.00	180.0	400.0	38.00	150.00	24.8	32.0	5.2	EDG 33B*

• After initial groove, no limitation to widening groove outward or toward center. • DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades
• For user guide, see pages 604-615
(1) HGPL 4...Y with LH blade
(2) Minimum penetration diameter
(3) Maximum penetration diameter
* Optional, should be ordered separately

Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W
• HGPL
Holders: SGTBF • SGTBU/SGTBN • UBHCR/L

HELIFACE

HAR/L
Face Machining Adapter Holders

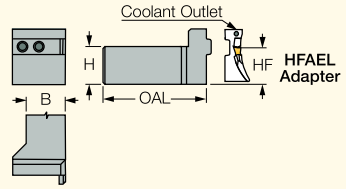


Designation	OAL	B	H	HF	OAW		
HAR/L 25C	110.00	25.0	25.0	25.0	39.00	SR 14-519	T-20/3
HAR/L 32C	130.00	32.0	32.0	32.0	46.00	SR 14-519	T-20/3

• Holders for adapters HFAER/L & HGAER/L, HFAIR/L & HGAIR/L
Tools: HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HGAER/L-3 • HGAIR/L-3

HELIFACE

HAPR/L
Face Machining Perpendicular Holders for Adapters



Left-hand shown

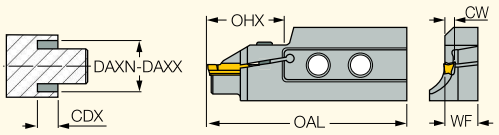
Designation	OAL	H	HF	B		
HAPR/L 25C	124.00	25.0	25.0	25.0	SR 14-519	T-20/3
HAPR/L 32C	139.00	32.0	32.0	32.0	SR 14-519	T-20/3

- Holders for adapters HFAER/L & HGAER/L, HFAIR/L & HGAIR/L.

Tools: HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HGAER/L-3 • HGAIR/L-3

HELIFACE

HGAER/L-3
Adapters for External Facing Along Shafts



Right-hand shown

Designation	CDX	CW	DAXN(1)	DAXX(2)	OHX(3)	WF	OAL
HGAER/L 12-3M	2.00	3.00	12.0	500.0	21.0	10.2	55.00
HGAER/L 12-3T6	6.00	3.00	12.0	15.0	21.0	10.2	55.00
HGAER/L 14-3T7	7.00	3.00	14.0	17.0	21.0	10.2	55.00
HGAER/L 17-3T8	8.00	3.00	17.0	21.0	21.0	10.2	55.00
HGAER/L 21-3T9	9.00	3.00	21.0	25.0	21.0	10.2	55.00

- GRIP 3... inserts can be used with right-hand adapters only, HGPL 3 with left-hand adapters • For user guide, see pages 604-615

(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Maximum overhang

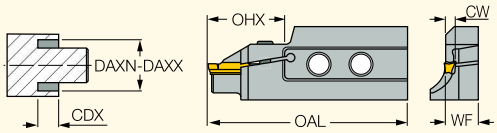
Inserts: GRIP • GRIP (full radius) • HGPL
Holders: C#-HAD • C#-HAPR/L • HAPR/L • HAR/L • IM-HAD • IM-HAPR/L

Spare Parts

Designation		
HGAER/L-3	SR 16-236 P	T-15/3

HELIFACE

HFAER/L-4
Adapters for External Facing Along Shafts



Right-hand shown

Designation	CDX	CW	DAXN(1)	DAXX(2)	OAL	OHX(3)	WF		
HFAER/L 40-4T20	20.00	4.00	40.0	48.0	68.50	21.0	11.6	SR M5X16 DIN912	HW 4.0
HFAER/L 48-4T20	20.00	4.00	48.0	60.0	68.50	21.0	11.6	SR M5X16 DIN912	HW 4.0
HFAER/L 60-4T25	25.00	4.00	60.0	75.0	68.50	26.0	11.6	SR M5X16 DIN912	HW 4.0
HFAER/L 75-4T25	25.00	4.00	75.0	100.0	68.50	26.0	11.6	SR M5X16 DIN912	HW 4.0

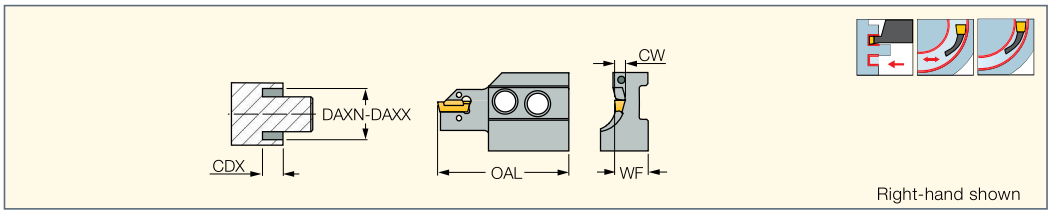
- DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades • For user guide, see pages 604-615

(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) Maximum overhang

Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • HGPL
Holders: C#-HAD • C#-HAPR/L • HAPR/L • HAR/L • IM-HAD • IM-HAPR/L

HELIFACE

HFAER/L-5T, 6T
Adapters for External Facing Along Shafts

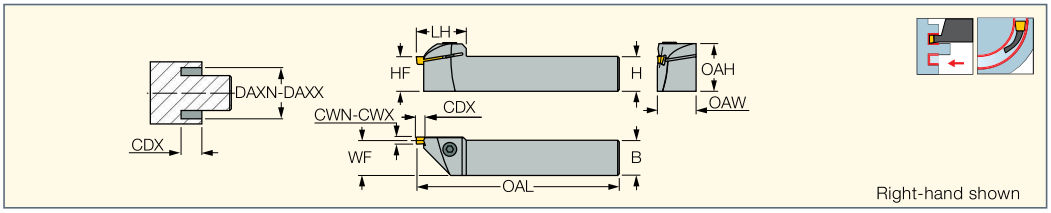


Designation	CW	CDX	DAXN(1)	DAXX(2)	OAL	WF	
HFAER/L 70C-5T25	5.00	25.00	70.0	95.0	66.00	12.2	EDG 33B*
HFAER/L 95C-5T25	5.00	25.00	95.0	130.0	66.00	12.2	EDG 33B*
HFAER/L 70C-6T28	6.00	28.00	70.0	100.0	69.00	12.3	EDG 33B*
HFAER/L 100C-6T32	6.00	32.00	100.0	180.0	73.00	12.3	EDG 33B*
HFAER/L 180C-6T32	6.00	32.00	180.0	400.0	73.00	12.3	EDG 33B*

• After initial groove, no limitation to widening groove outward from or toward center • Adapters can be mounted on standard HAR/L, HAPR/L, HAI holders for external machining
• DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades • For user guide, see pages 604-615
(1) Minimum penetration diameter
(2) Maximum penetration diameter * Optional, should be ordered separately
Inserts: HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W • HGPL
Holders: C#-HAD • C#-HAPR/L • HAPR/L • HAR/L • IM-HAD • IM-HAPR/L

HELIFACE

HFHR/L-M
Toolholders for Shallow Face Grooving

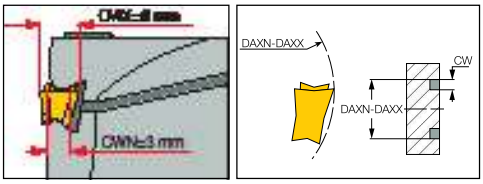


Designation	CWN(1)	CWX(2)	CDX	WF	H	HF	B	OAL	DAXN(3)	DAXX(4)	OAH	OAW		
HFHR/L 20M	3.00	6.00	5.30	20.00	20.0	20.0	20.0	130.00	20.0	2000.0	29.0	22.50	SR M6X16 DIN912	HW 5.0
HFHR/L 25M	3.00	6.00	5.30	25.00	25.0	25.0	25.0	150.00	20.0	2000.0	34.0	27.50	SR M6X16 DIN912	HW 5.0

• DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools • After initial groove, no limitation to widening groove outward or toward center
• For user guide, see pages 604-615
(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum penetration diameter
(4) Maximum penetration diameter
Inserts: HFPR/L • HFPR/L (full radius)

HFHR/L- ☐ M & HFHPR/L- ☐ M
Integral Toolholders

For shallow machining up to max. 5 mm depth of groove. One toolholder can be mounted with inserts in 3-6 mm widths. The initial major diameter groove is limited by the insert's geometry of each size.
After the initial groove, face recessing outward or toward the center is not limited by the insert's geometry.

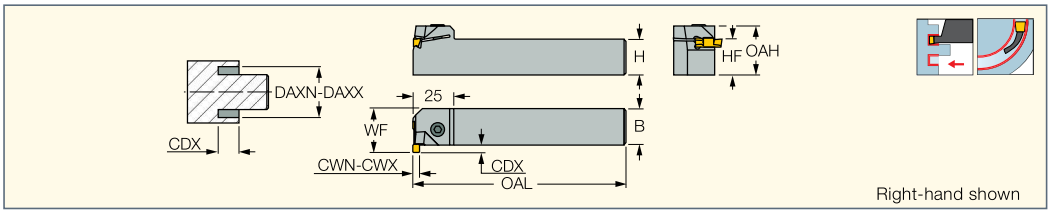


Insert initial face grooving range

DAXN-DAXX		
CW	DAXN	DAXX
3	25.6	51.5
4	24.1	73.7
5	22.1	170
6	20.8	∞

HELIFACE

HFHPR/L-M
Perpendicular Toolholders for Shallow Face Grooving



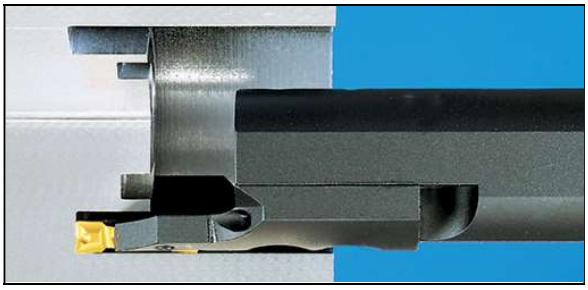
Designation	CWN(1)	CWX(2)	CDX	WF	H	B	OAL	DAXN(3)	DAXX(4)	OAH	HF		
HFHPR/L 20M	3.00	6.00	5.00	25.30	20.0	20.0	130.00	20.0	2000.0	29.0	20.0	SR M6X16 DIN912	HW 5.0
HFHPR/L 25M	3.00	6.00	5.00	30.30	25.0	25.0	150.00	20.0	2000.0	34.0	25.0	SR M6X16 DIN912	HW 5.0

• DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools • After initial groove, no limitation to widening groove outward or toward center
• For user guide, see pages 604-615
(1) Minimum cutting width
(2) Maximum cutting width
(3) Minimum penetration diameter
(4) Maximum penetration diameter
Inserts: HFPR/L • HFPR/L (full radius)

Boring Bars for Adapters

HGAIR/L & HFAIR/L Adapters and HAI Holders

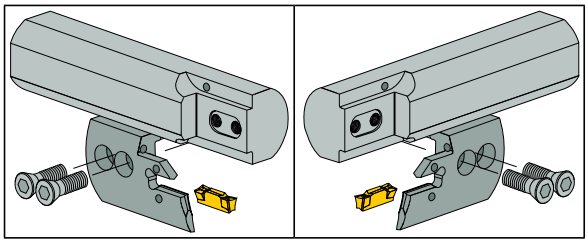
Adapter clamped on HAI round shank holders can machine deep internal boring and grooving applications. The tool can bore down to the bottom, and is supplied with internal coolant for better performance.



HFAIR/L & HGAIR/L	HAI Holders
	
Exchangeable adapters, see pages 574, 570	For adapters, see page 574

HFAIR/L HGAIR/L	- □	C	- □	T - □
HELIFACE Internal adapters right or left	Min. initial groove diameter	Internal coolant	Insert width	Max. depth of groove

HAI Holder System Assembly

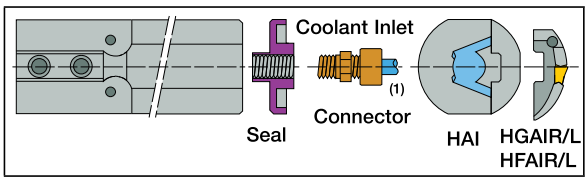


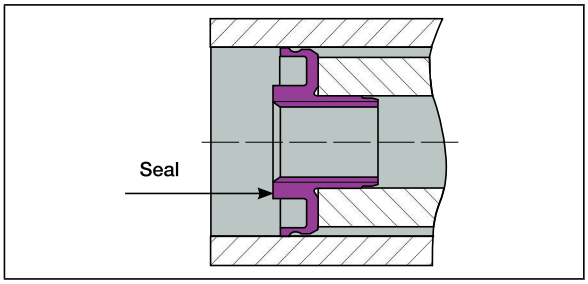
HFAIL & HGAIL
Left-hand Adapters

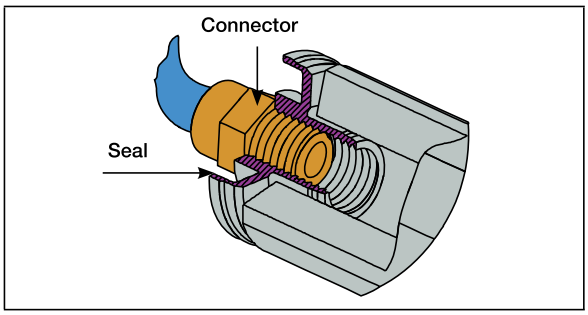
HFAIR & HGAIR
Right-hand Adapters

The same HAI boring bar can be used with right- and left-hand adapters in a wide range of face machining applications. The two screws and the central guiding slot on the adapter correspond to the key and holes on the holder ensuring strong, safe, and accurate clamping.

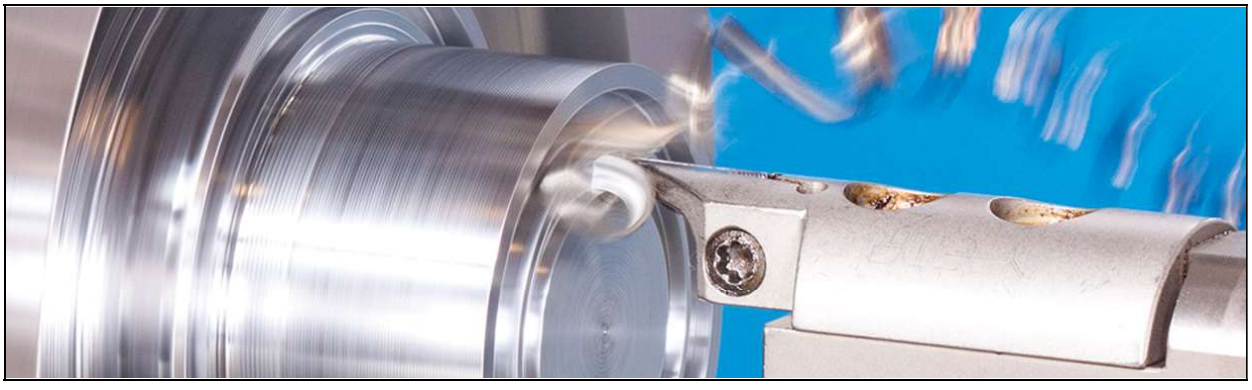
Coolant System







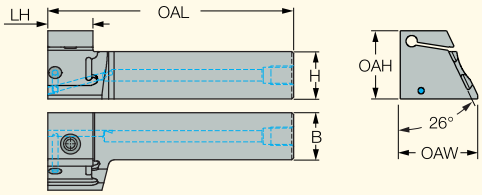
(1) Connector for coolant inlet BSP 1/8 thread. For PL-20, use M6 thread. Connector not supplied with tools.



NEOFACE FACE GROOVING

BHSR/L-JHP

Holders for Double-Sided Face Grooving Blades with Inclined Clamping Position and JHP Cooling Hole



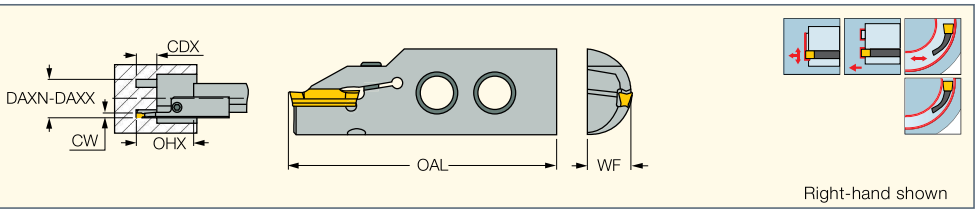
Left-hand shown

Designation	H	B	OAL	LH	OAH	OAW				
BHSL 25-26-B1-JHP	25.0	25.0	130.00	24.0	36.00	41.00	SR M6X18 DIN912	HW 5.0	OR 5X1N	SR M4X3 DIN913

HELIFACE

HGAIR/L-3

Adapters for Internal Face Grooving and Turning



Right-hand shown

Designation	CDX	DAXN(1)	DAXX(2)	CW	OAL	WF	OHX(3)		
HGAIR/L 12-3M	2.00	12.0	500.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 12-3T6	6.00	12.0	15.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 14-3T7	7.00	14.0	17.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 17-3T8	8.00	17.0	21.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 21-3T9	9.00	21.0	25.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 25-3T9	9.00	25.0	34.0	3.00	55.00	10.2	21.0	SR 16-236 P	T-15/3
HGAIR/L 35-3T10	10.00	35.0	45.0	3.00	56.00	10.3	22.0	SR 16-236 P	T-15/3
HGAIR/L 45-3T10	10.00	45.0	65.0	3.00	56.00	10.3	22.0	SR 16-236 P	T-15/3
HGAIR/L 65-3T18	18.00	65.0	115.0	3.00	64.00	11.3	30.0	SR 16-236 P	T-15/3
HGAIR/L 115-3T18	18.00	115.0	400.0	3.00	64.00	11.3	30.0	SR 16-236 P	T-15/3

• HGN & GRIP 3.. inserts can be used only with right-hand adapters, HGPL 3.. inserts with left-hand adapters • For user guide, see pages 604-615

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Maximum overhang

Inserts: GRIP • GRIP (full radius) • HGN-C • HGN-J • HGN-UT • HGPL

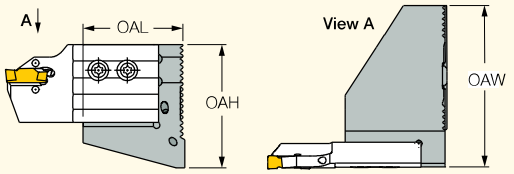
Holders: C#-HAD • C#-HAPR/L • HAI-C • HAPR/L • HAR/L • IH-HFAIR • IM-HAD • IM-HAPR/L

HELIFACE

TANG-GRIP FACE MACHINING LINE

IH-HFAIR

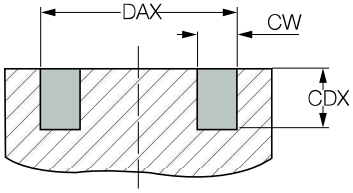
Intermediate Serrated Cartridge for Standard HELI-FACE HFAIR Adapters.

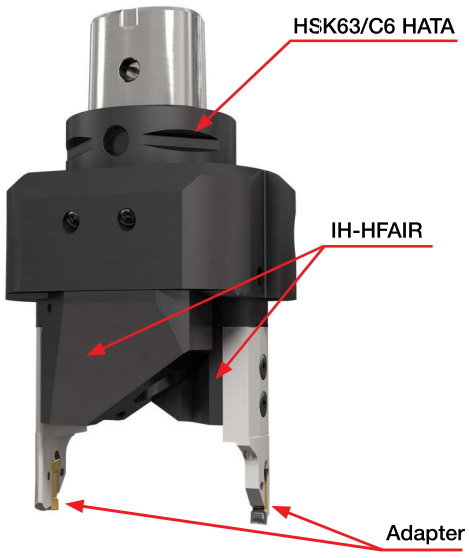


Designation	OAH	OAW	OAL
IH-HFAIR	55.40	72.50	44.90

Tools: HFAIR/L-DG • HGAIR/L-3

HSK63 HATA+IH-HFAIR
C6 HATA+IH-HFAIR





Spare Parts

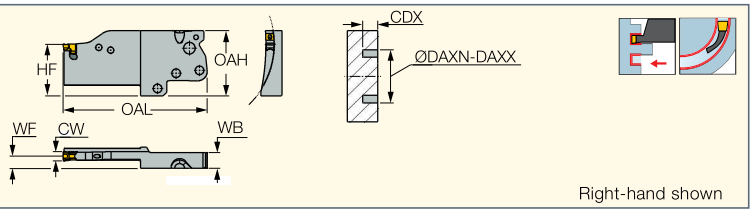
Designation				
IH-HFAIR	SR 14-519	T-20/3	O-RING 19X2 NBR	SR M6X20-XT

TANG-GRIP FACE MACHINING LINE

MODULAR-GRIP

TNFPAD-XL-JHP

Adapters for Face Machining



Designation	CW	CDX	WF	WB	OAL	HF	OAH	DAXN(1)	DAXX(2)
TNFPAD-XL 4L-35T20-JHP	4.00	20.00	8.00	9.50	65.00	34.0	43.00	35.0	53.0
TNFPAD-XL 4L-45T20-JHP	4.00	20.00	8.00	9.50	65.00	34.0	43.00	45.0	68.0
TNFPAD-XL 4R/L-35T35-JHP	4.00	35.00	8.00	9.50	80.00	34.0	43.00	35.0	53.0
TNFPAD-XL 4R/L-45T35-JHP	4.00	35.00	8.00	9.50	80.00	34.0	43.00	45.0	68.0
TNFPAD-XL 5L-60T20-JHP	5.00	20.00	8.00	10.00	65.00	34.0	43.00	60.0	90.0
TNFPAD-XL 5R/L-60T40-JHP	5.00	40.00	8.00	10.00	85.00	34.0	43.00	60.0	90.0
TNFPAD-XL 6L-110T20-JHP	6.00	20.00	8.00	10.50	65.00	34.0	43.00	110.0	312.0
TNFPAD-XL 6L-80T20-JHP	6.00	20.00	8.00	10.50	65.00	34.0	43.00	80.0	122.0
TNFPAD-XL 6L-80T45-JHP	6.00	45.00	8.00	10.50	90.00	34.0	43.00	80.0	122.0
TNFPAD-XL 6R/L-110T50-JHP	6.00	50.00	8.00	10.50	95.00	34.0	43.00	110.0	312.0

• WF(assembly)=WF(shank) + WF(adapter) • TNF 4..5..6 inserts can be used with left and right hand adapters. • For user guide, see pages 604-615

(1) Minimum axial grooving diameter

(2) Maximum axial grooving diameter

Inserts: TNF GN-IQ • TNF-M-IQ • TNF-P-IQ

Holders: ABC MAHDR-#-XL-JHP • IH-TNFPAD • MAHPR/L-XL-JHP • MAHR/L-MG-XL-JHP • MAHR/L-MG-XL-JHP-MC • V## MAHD#-#-XL-##-JHP • V## MAHD-XL-JHP

Spare Parts

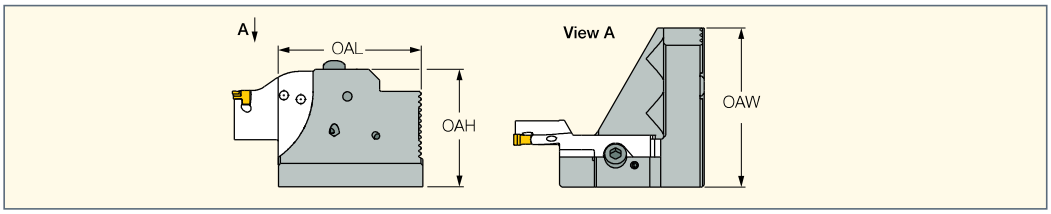
Designation	
TNFPAD-XL-JHP	ETF 3-6

HELIFACE

TANG-GRIP FACE MACHINING LINE

IH-TNFPAD

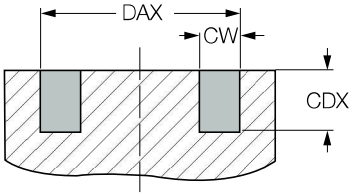
Intermediate Serrated Cartridge for standard TANG-FACE TNFPAD-XL R Adapters

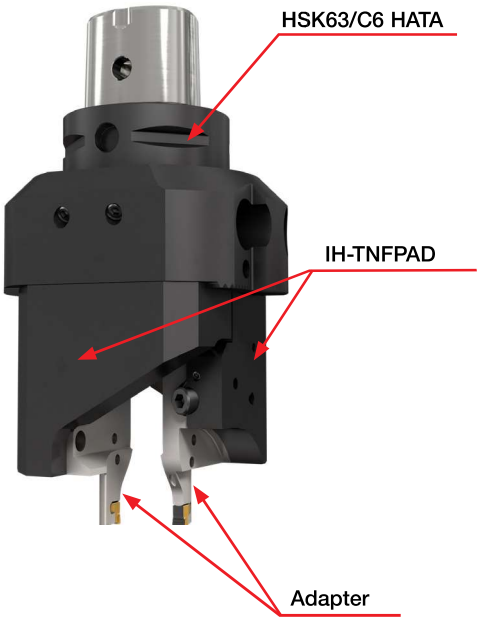


Designation	OAH	OAW	OAL
IH-TNFPAD	54.00	73.00	65.70

Tools: TNFPAD-XL-JHP

HSK63 HATA + IH-TNFPAD
C6 HATA + IH-TNFPAD





Designation	CW (min)	CW (max)	CDX	DAX (min)	DAX (max)
TNFPAD-XL 4L-35T20-JHP	4.00	6.90	20.00	35.0	53.0
TNFPAD-XL 4L-45T20-JHP	4.00	6.90	20.00	45.0	68.0
TNFPAD-XL 4R/L-35T35-JHP	4.00	6.90	35.00	35.0	53.0
TNFPAD-XL 4R/L-45T35-JHP	4.00	6.90	35.00	45.0	68.0
TNFPAD-XL 5L-60T20-JHP	5.00	8.90	20.00	60.0	90.0
TNFPAD-XL 5R/L-60T40-JHP	5.00	8.90	40.00	60.0	90.0
TNFPAD-XL 6L-110T20-JHP	6.00	10.90	20.00	110.0	312.0
TNFPAD-XL 6L-80T20-JHP	6.00	10.90	20.00	80.0	122.0
TNFPAD-XL 6L-80T45-JHP	6.00	10.90	45.00	80.0	122.0
TNFPAD-XL 6R/L-110T50-JHP	6.00	10.90	50.00	110.0	312.0

Spare Parts

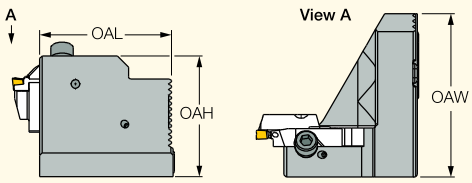
Designation							
IH-TNFPAD	SR M6X14-XT DIN 912	BLD T20/M7	SW6-SD	SR M5-04451	SR M6X20-XT	O-RING 19X2 NBR	OR 5X1N

HELIFACE

TANG-GRIP FACE MACHINING LINE

IH-HFPAD

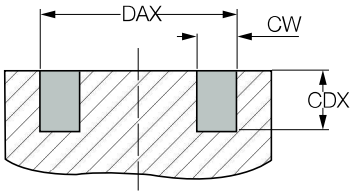
Intermediate Serrated Cartridge
For standard HFPAD R Adapters

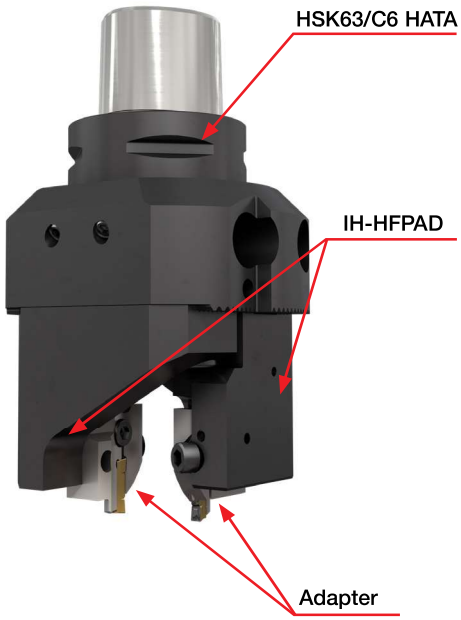


Designation	OAH	OAW	OAL
IH-HFPAD	54.00	73.00	58.90

Tools: HFPAD-3 • HFPAD-4 • HFPAD-5 • HFPAD-6

HSK63 HATA+IH-HFPAD
C6 HATA+IH-HFPAD





Adapters	CW (min)	CW (max)	CDX	DAX (min)	DAX (max)
HFPAD 3R-25-T10	3	5.1	10	25	30
HFPAD 3R-30-T10	3	5.1	10	30	40
HFPAD 3R-40-T10	3	5.1	10	40	65
HFPAD 3R-65-T18	3	5.1	18	65	99.2
HFPAD 4R-25-T10	4	6.9	10	25	31
HFPAD 4R-31-T10	4	6.9	10	31	44
HFPAD 4R-44-T14	4	6.9	14	44	58
HFPAD 4R-58-T14	4	6.9	14	58	88
HFPAD 4R-88-T14	4	6.9	14	88	100.8
HFPAD 5R-40-T14	5	8.1	14	40	50
HFPAD 5R-50-T14	5	8.1	14	50	75
HFPAD 5R-75-T14	5	8.1	14	75	101.8
HFPAD 6R-60-T14	6	10.1	14	60	100
HFPAD 6R-100-T20	6	10.1	20	100	102.8
HFPAD 3R-30-T10-JHP	3	5.1	10	30	40
HFPAD 3R-40-T10-JHP	3	5.1	10	40	65
HFPAD 3R-65-T18-JHP	3	5.1	18	65	99.2
HFPAD 4R-44-T14-JHP	4	6.9	14	44	58
HFPAD 4R-58-T14-JHP	4	6.9	14	58	88
HFPAD 4R-88-T14-JHP	4	6.9	14	88	100.8
HFPAD 5R-40-T14-JHP	5	8.1	14	40	50
HFPAD 5R-75-T14-JHP	5	8.1	14	75	101.8
HFPAD 6R-60-T14-JHP	6	10.1	14	60	100
HFPAD 6R-100-T20-JHP	6	10.1	20	100	102.8

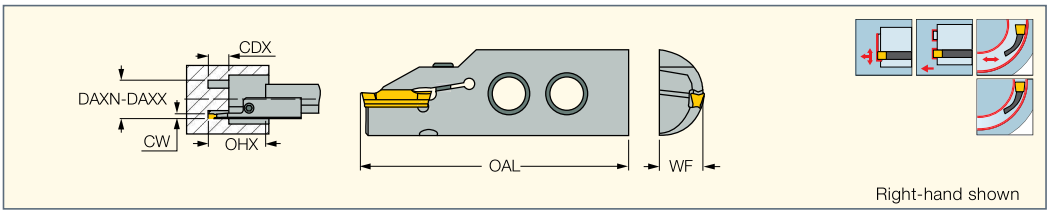
Spare Parts

Designation									
IH-HFPAD	SR M6X20-XT	SR M5-04451	SR M6X12DIN6912	HW 5.0	T-20/5	O-RING 19X2 NBR	OR 5X1N	BLD T20/M7	SW6-SD

HELIFACE

HFAIR/L-4

Adapters for Internal Face Grooving and Turning



Designation	CDX	CW	DAXN(1)	DAXX(2)	OAL	WF	OHX(3)		
HFAIR/L 34-4T18	18.00	4.00	34.0	40.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0
HFAIR/L 40-4T20	20.00	4.00	40.0	48.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0
HFAIR/L 48-4T20	20.00	4.00	48.0	60.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0
HFAIR/L 60-4T25	25.00	4.00	60.0	75.0	67.00	15.3	33.0	SR M5X16 DIN912	HW 4.0

• DGN & GRIP inserts can be used only with right-hand adapters, HGPL inserts with left-hand blades • For user guide, see pages 604-615

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Maximum overhang

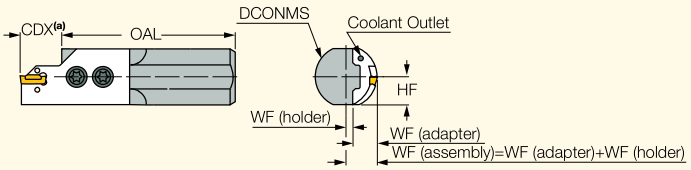
Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • HGPL

Holders: C#-HAD • C#-HAPR/L • HAI-C • HAPR/L • HAR/L • IM-HAD • IM-HAPR/L

HELIFACE

HAI-C

Boring Bars with Coolant Holes for Internal Grooving and Turning Adapters



Designation	DCONMS	OAL	HF	WF(1)	CSP(2)			
HAI 20	20.00	130.00	9.0	0.50	0	SR 14-519	T-20/3	
HAI 25C	25.00	150.00	11.5	3.00	1	SR 14-519	T-20/3	PL 25
HAI 32C	32.00	200.00	14.5	6.50	1	SR 14-519	T-20/3	PL 32
HAI 40C	40.00	250.00	18.0	10.50	1	SR 14-519	T-20/3	PL 40

• The HAI boring bars can be used with right and left-hand adapters • (a) CDX - see corresponding adapters

(1) Holder

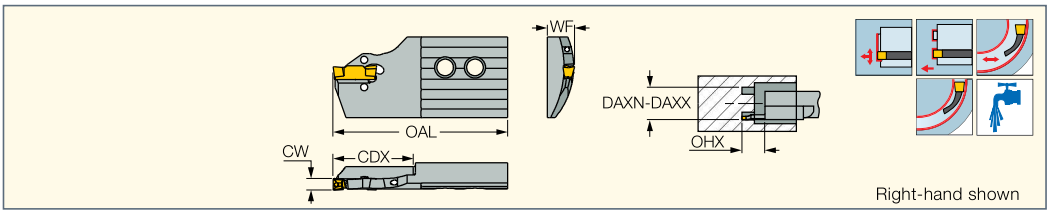
(2) 0 - Without coolant supply, 1 - With coolant supply

Tools: HFAIR/L-4 • HFAIR/L-DG • HGAIR/L-3

HELIFACE

HFAIR/L-DG

Adapters for Internal Face Grooving and Turning



Designation	CW	DAXN(1)	DAXX(2)	CDX	WF	OHX(3)	OAL	
HFAIR/L 75C-4T30DG	4.00	75.0	140.0	30.00	10.9	34.5	68.50	EDG 33B*
HFAIR/L 140C-4T30DG	4.00	140.0	-	30.00	10.9	34.5	68.50	EDG 33B*
HFAIR/L 55C-5T25DG	5.00	55.0	70.0	25.00	11.9	32.0	66.00	EDG 33B*
HFAIR/L 70C-5T25DG	5.00	70.0	95.0	25.00	11.9	32.0	66.00	EDG 33B*
HFAIR/L 95C-5T35DG	5.00	95.0	130.0	35.00	11.9	39.5	73.50	EDG 33B*
HFAIR/L 130C-5T38DG	5.00	130.0	180.0	38.00	11.9	42.5	76.50	EDG 33B*
HFAIR/L 180C-5T38DG	5.00	180.0	-	38.00	11.9	42.5	76.50	EDG 33B*
HFAIR/L 70C-6T28DG	6.00	70.0	100.0	28.00	12.0	35.0	69.00	EDG 33B*
HFAIR/L 100C-6T32DG	6.00	100.0	180.0	32.00	12.0	39.0	73.00	EDG 33B*
HFAIR/L 180C-6T38DG	6.00	180.0	-	38.00	12.4	42.5	76.50	EDG 33B*

• After initial groove, no limitation to widening groove outward or toward center • DGN inserts can be used on right- and left-hand tools, GRIP inserts only on right-hand tools, HFPR/L right-hand inserts on right-hand tools (same for left-hand), and HGPL inserts only on left-hand tools.

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Maximum overhang

* Optional, should be ordered separately

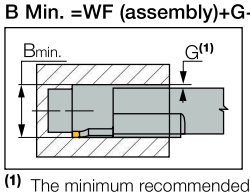
Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W • HGPL

Holders: C#-HAD • C#-HAPR/L • HAI-C • HAPR/L • HAR/L • IH-HFAIR • IM-HAD • IM-HAPR/L

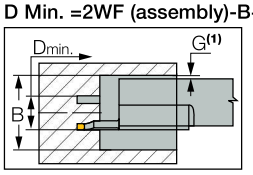
Adapters can be used for internal machining along bore. Adapters can be mounted on standard HAI boring bars for internal machining, and on HAR/L, HAPR/L holders for external machining.

Boring, Face Grooving and Face Recessing Capacity

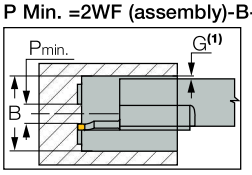
Boring
B Min. =WF (assembly)+G+DCONMS/2



Face Grooving
D Min. =2WF (assembly)-B+2G+DCONMS



Face Recessing
P Min. =2WF (assembly)-B-2CW+2G+DCONMS



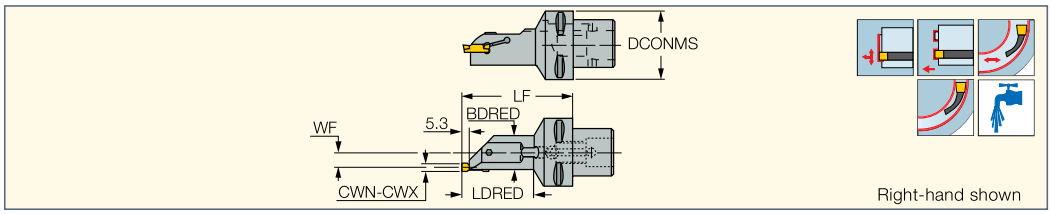
(1) The minimum recommended value for clearance (G) is 0.5 mm

* WF (assembly)=WF(adapter)+WF(holder)

CAMFIX

C#-HFIR/L-MC

Boring Bars for Internal Grooving and Turning with CAMFIX Exchangeable Shanks



Designation	CWN(1)	CWX(2)	DCONMS	WF	LDRED	LF	BDRED	CDI(3)			
C4 HFIR/L-MC	3.00	6.00	40.00	11.30	52.0	80.0	25.00	1	SR M5X16 DIN912	HW 4.0	EZ 83
C5 HFIR-MC	3.00	6.00	50.00	11.30	52.0	80.0	25.00	1	SR M5X16 DIN912	HW 4.0	EZ 83

• DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools • After initial groove, no limitation to widening groove outward or toward center

• For user guide, see pages 604-615

(1) Minimum cutting width

(2) Maximum cutting width

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

Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W • HGPL

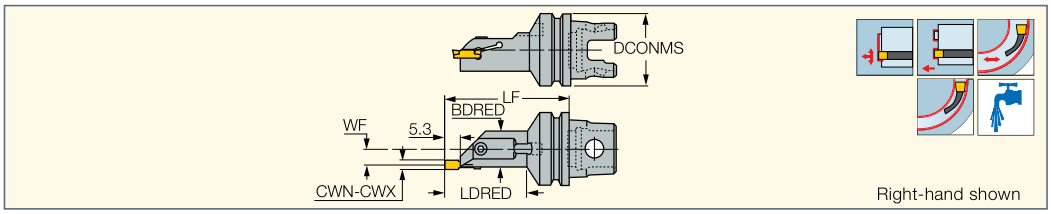
Holders: HSK-C#

ISO 26622-1 XMZ

HELIFACE

IM-HFIR-MC

Tools for Internal Grooving and Turning with ISO 26622-1(*) Tapered Shank



Designation	DCONMS	LF	BDRED	WF	LDRED	CWN(1)	CWX(2)			
IM40 HFIR-MC	40.00	80.0	25.00	11.30	52.0	3.00	6.00	SR M5X16 DIN912	HW 4.0	EZ 83
IM50 HFIR-MC	50.00	80.0	25.00	11.30	52.0	3.00	6.00	SR M5X16 DIN912	HW 4.0	EZ 83

• (*) Tools with orientation holes in the flange groove can be supplied on request • DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools

• After initial groove, no limitation to widening groove outward or toward center • For user guide, see pages 604-615

(1) Minimum cutting width

(2) Maximum cutting width

Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W

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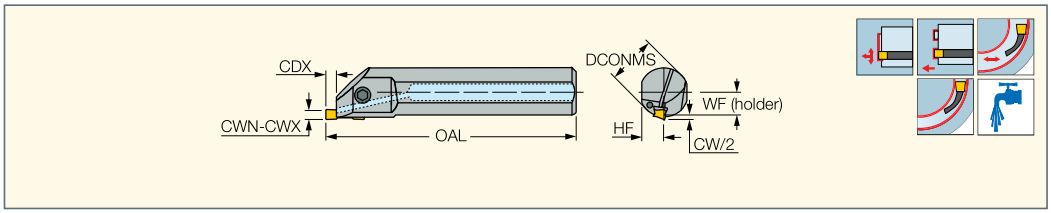
HFIR/L-MC

Boring Bars for Internal Grooving and Turning



Designation	DCONMS	CWN(1)	CWX(2)	CDX	OAL	WF	HF			
HFIR/L 16MC	16.00	3.00	6.00	5.00	150.00	11.14	7.5	SR M5X16 DIN912	HW 4.0	PL 16
HFIR/L 20MC	20.00	3.00	6.00	5.00	170.00	11.14	9.0	SR M5X16 DIN912	HW 4.0	PL 20
HFIR/L 25MC	25.00	3.00	6.00	5.00	200.00	11.14	11.5	SR M5X16 DIN912	HW 4.0	PL 25
HFIR/L 32MC	32.00	3.00	6.00	5.00	250.00	14.68	14.5	SR M6X20 DIN912	HW 5.0	PL 32
HFIR/L 40MC	40.00	3.00	6.00	5.00	300.00	18.70	18.0	SR M6X20 DIN912	HW 5.0	PL 40

• DGN & GRIP 4.. - 6.. inserts can be used only with right-hand tools, HGPL 4.. - 6.. inserts with left-hand tools • After initial groove, no limitation to widening groove outward or toward center

• For user guide, see pages 604-615

(1) Minimum cutting width

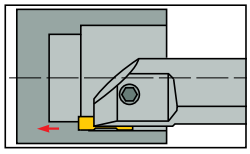
(2) Maximum cutting width

Inserts: DGN-MF • DGN-W • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • GRIP • GRIP (full radius) • HFPR/L • HFPR/L (full radius)

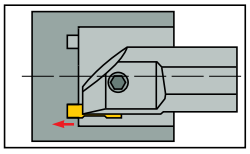
• HGPL

Holders: DT30/2 ##L70WN • DT30/2 ADR-##-20-55

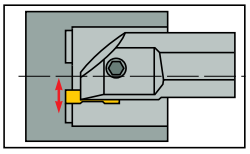
Boring



Internal Face Grooving

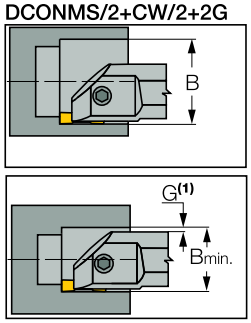


Internal Face Recessing

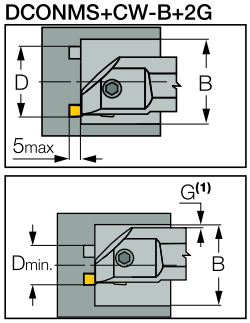


Boring, Face Grooving & Face Recessing Capacity

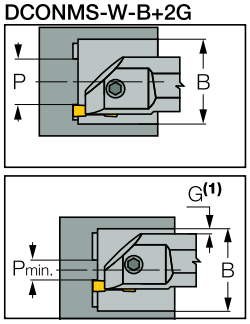
Boring
B Min. =WF(holder)+ DCONMS/2+CW/2+2G



Face Grooving
D Min. =2WF (holder)+ DCONMS+CW-B+2G



Face Recessing
P Min. =2WF (holder)+ DCONMS-W-B+2G



(1) The minimum recommended value for clearance (G) is 0.5 mm

HFIR/L- □ MC Integral Boring Bars

For shallow, internal face machining to max. 5 mm depth of groove. One boring bar can be mounted with inserts in 4-6 mm widths.

The initial major diameter groove is limited by the insert's geometry of each size. After the initial groove, face recessing outward or toward center is not limited by the insert's geometry.

Insert Initial Face Grooving Range

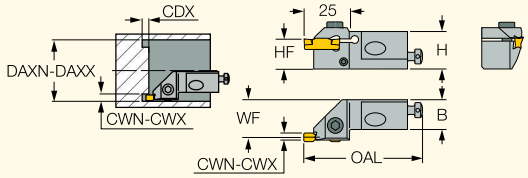
	D	
CW	Min.	Max.
4	23	90
5	21	300
6	20	∞

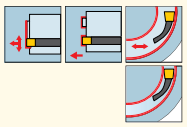
HELIFACE

CR HFIR-M

Cartridges for Face Grooving and Turning

CW	DAXN-DAXX	
	Min	Max
3	60	130
4,5,6	60	∞





Right-hand shown

Designation	CWN(1)	CWX(2)	HF	B	H	OAL	WF	CDX
CR HFIR-16M	3.00	6.00	16.0	16.0	20.0	67.00	20.00	5.00
CR HFIR-20M	3.00	6.00	20.0	20.0	24.0	72.00	24.00	5.00

- Used for shallow internal face machining to max. 5 mm depth of groove
- Inserts in 3-6 mm widths can be mounted on the cartridges
- Only DGN & GRIP 4.. - 6.. inserts can be used with the right-hand tools

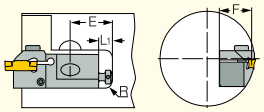
(1) Minimum cutting width

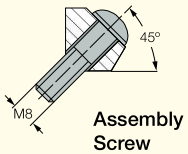
(2) Maximum cutting width

Inserts: DGN-MF • HFPR/L • HFPR/L (full radius) • GRIP • GRIP (full radius) • DGN/DGNC/DGNM-C • DGN/DGNM-J/JS/JT • DGN-W

CR-HFIR/L-M

Assembly Dimensions





Designation	E	L1(1)	F(2)	Rmax.	Assembly Screw(3)
CR HFIR/L-16M	25	8	20	6	M8X30
CR HFIR/L-20M	30	10	24	6	M8X30

(1) L adjustment$^{\pm 1}$

(2) F adjustment $^{+0.3}_{-0}$

(3) Assembly screws ISO 7380 are recommended

Spare Parts

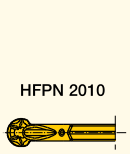
Designation					
CR HFIR-16M	SR M5X20DIN912	HW 4.0	SR 76-1401	SR M4X10 DIN916	HW 2.0
CR HFIR-20M	SR M5X20DIN912	HW 4.0	SR 76-1401	SR M4X10 DIN913	HW 2.0

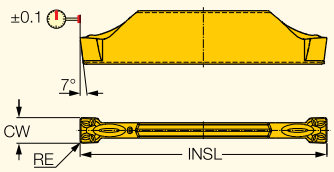
HELIFACE

HFPN

Utility Double-Ended Face Machining Inserts

HFPN 2010





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	IC808	Recommended Machining Data f groove (mm/rev)
HFPN 2002	2.00	0.20	0.04	0.030	19.40	●	0.03-0.10
HFPN 2010	2.00	1.00	0.04	0.030	19.40	●	0.03-0.10

- For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

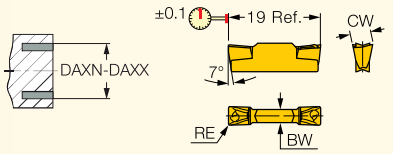
(2) Corner radius tolerance (+/-)

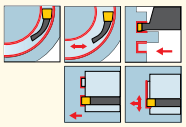
Tools: HFFA • HFFH

HELIFACE

HFPR/L

Utility Double-Ended Face Machining Inserts





No depth penetration limit

Designation	Dimensions							Tough ↔ Hard								Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	DAXX(4)	IC830	IC354	IC8250	IC808	IC9015	IC20	IC5010	IC806	a_p (mm)	f face-groove (mm/rev)	f face-turn (mm/rev)
HFPR/L 3003	3.00	0.30	0.05	0.050	2.10	25.6	51.5	●	●	●	●		●	●	●	0.30-1.50	0.08-0.20	0.10-0.20
HFPR/L 4004	4.00	0.40	0.05	0.050	2.80	24.1	73.7	●	●	●	●		●	●	●	0.40-2.00	0.10-0.24	0.15-0.25
HFPR/L 5004	5.00	0.40	0.05	0.050	3.40	22.1	170.0	●	●	●	●	●	●	●	●	0.50-2.50	0.12-0.24	0.15-0.35
HFPR/L 6004	6.00	0.40	0.05	0.050	4.00	20.8	-	●	●	●	●		●	●	●	0.40-3.00	0.12-0.28	0.15-0.40

- For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

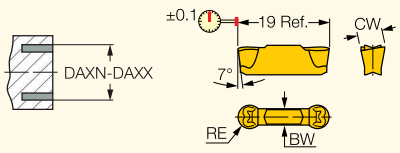
(4) Maximum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

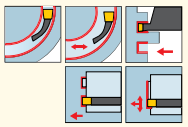
Tools: C#-HFIR/L-MC • CR HFIR-M • HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHPR/L-M • HFHR/L-3T • HFHR/L-4T • HFHR/L-5T • HFHR/L-6T • HFHR/L-M • HFIR/L-MC • HFPAD-4 • HFPAD-5 • HFPAD-6 • HFPAD-JHP • IM-HFIR-MC

HELIFACE

HFPR/L (full radius)

Utility Double-Ended Full Radius Face Machining Inserts





No depth penetration limit.

Designation	Dimensions							Tough ↔ Hard								Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	DAXX(4)	IC830	IC354	IC8250	IC808	IC9015	IC20	IC5010	IC806	a_p (mm)	f face-groove (mm/rev)	f face-turn (mm/rev)
HFPR/L 3015	3.00	1.50	0.05	0.050	2.10	25.6	51.5	●	●	●	●		●	●	●	0.00-1.50	0.08-0.20	0.12-0.20
HFPR/L 4020	4.00	2.00	0.05	0.050	2.80	24.1	73.7	●	●	●	●		●	●	●	0.00-2.00	0.10-0.24	0.15-0.25
HFPL 5025	5.00	2.50	0.05	0.050	3.40	22.1	170.0	●	●	●	●		●	●	●	0.00-2.50	0.12-0.24	0.15-0.35
HFPR 5025	5.00	2.50	0.05	0.050	3.40	22.1	170.0	●	●		●	●	●	●	●	0.00-2.50	0.12-0.24	0.15-0.35
HFPR/L 6030	6.00	3.00	0.05	0.050	4.00	20.8	-	●	●	●	●		●	●	●	0.00-3.00	0.12-0.28	0.20-0.40

- For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

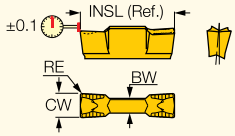
(4) Maximum axial grooving diameter-applies to type M tools only. For other tools, apply the diameter limitations that are recorded on each tool.

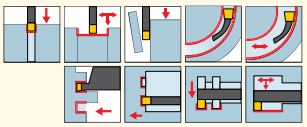
Tools: C#-HFIR/L-MC • CR HFIR-M • HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHPR/L-M • HFHR/L-3T • HFHR/L-4T • HFHR/L-5T • HFHR/L-6T • HFHR/L-M • HFIR/L-MC • HFPAD-4 • HFPAD-5 • HFPAD-6 • HFPAD-JHP • IM-HFIR-MC

HELI-GRIP

GRIP

Utility Double-Ended Inserts for External, Internal and Face Machining





No depth penetration limit

Designation	Dimensions						Tough ↔ Hard										Recommended Machining Data				
	CW	RE	CWTOL(1)	RETOL(2)	INSL	BW	IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIP 3002Y	3.00	0.20	0.05	0.050	15.80	2.30	●	●	●	●	●			●	●	●	0.25-1.80	0.14-0.18	0.07-0.11	0.08-0.20	0.10-0.20
GRIP 3003Y	3.00	0.30	0.05	0.050	15.80	2.30	●	●	●	●	●	●	●	●			0.40-1.80	0.15-0.19	0.07-0.11	0.08-0.20	0.10-0.20
GRIP 318-040Y	3.18	0.40	0.05	0.050	15.80	2.30	●			●	●	●		●			0.50-1.90	0.17-0.22	0.07-0.12	0.08-0.20	0.10-0.20
GRIP 4002Y	4.00	0.20	0.05	0.050	19.00	2.80	●	●	●	●	●			●	●		0.25-2.40	0.16-0.21	0.09-0.14	0.10-0.24	0.15-0.30
GRIP 4004Y	4.00	0.40	0.05	0.050	19.00	2.80	●	●	●	●	●	●	●	●	●	●	0.50-2.40	0.18-0.24	0.09-0.15	0.10-0.24	0.15-0.30
GRIP 476-080Y	4.76	0.80	0.05	0.050	19.00	3.10	●	●		●	●	●		●			1.00-2.80	0.21-0.33	0.10-0.20	0.10-0.24	0.15-0.30
GRIP 5005Y	5.00	0.50	0.05	0.050	19.00	3.30	●	●	●	●	●	●	●	●	●	●	0.60-3.00	0.20-0.30	0.11-0.20	0.12-0.24	0.15-0.35
GRIP 5008Y	5.00	0.80	0.05	0.050	19.00	3.40	●	●		●	●	●	●	●	●		1.00-3.00	0.23-0.35	0.11-0.21	0.12-0.24	0.15-0.35
GRIP 6005Y	6.00	0.50	0.05	0.050	19.00	4.20	●	●		●	●	●	●	●	●		0.60-3.60	0.22-0.36	0.13-0.23	0.12-0.28	0.15-0.40
GRIP 6008Y	6.00	0.80	0.05	0.050	19.00	4.20	●	●		●	●	●	●	●	●		1.00-3.60	0.24-0.42	0.13-0.25	0.12-0.28	0.15-0.40
GRIP 635-080Y	6.35	0.80	0.05	0.050	19.00	4.20		●		●	●	●		●			1.00-3.80	0.25-0.44	0.14-0.27	0.12-0.28	0.15-0.40

• For cutting speed recommendations and user guide, see pages 604-615

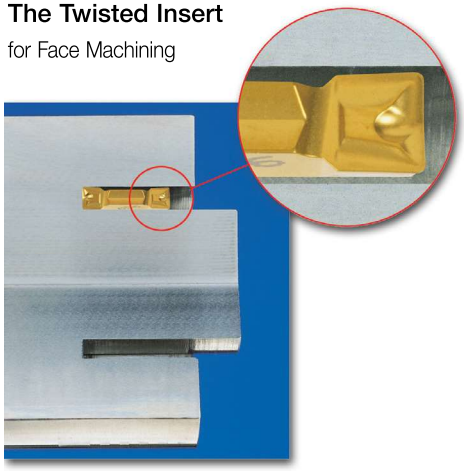
(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

Tools: C#-HELIR/L • C#-HFIR/L-MC • CR HFIR-M • D/HGAD RE/LE-JHP • DGAD/HGAD • DGFH • DGFH-JHP • DGFS • DGTR/L • HELIIR/L • HELIR/L • HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHR/L-4T • HFHR/L-5T • HFIR/L-MC • HFPAD-3 • HFPAD-4 • HFPAD-5 • HFPAD-6 • HFPAD-JHP • HGAER/L-3 • HGAIR/L-3 • HGFH • HGHR/L-3 • HGPAD • HGPAD-JHP • IM-HFIR-MC

The Twisted Insert

for Face Machining

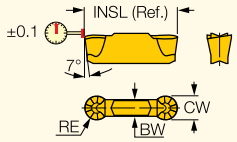


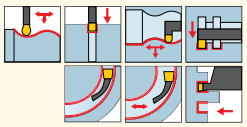
The double-ended, twisted insert body makes it possible to machine deeper than the insert's length.
A unique chipformer for controlled chip flow in axial and radial directions.
The rear angle is slanted in relation to the frontal edge so it does not come into contact with the machined groove surface as the tool penetrates deeply into the workpiece.

HELIGRIP

GRIP (full radius)

Utility Double-Ended Full Radius Inserts for External, Internal and Face Machining





No depth penetration limit

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIP 3015Y	3.00	1.50	0.05	0.050	15.80	2.10	●	●	●	●	●	●	●	●	●	●	0.00-1.50	0.18-0.26	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 318-159Y	3.18	1.59	0.05	0.050	15.80	2.30				●	●			●			0.00-1.50	0.19-0.28	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 4020Y	4.00	2.00	0.05	0.050	19.00	2.80	●	●	●	●	●	●	●	●	●	●	0.00-2.00	0.20-0.34	0.09-0.17	0.10-0.24	0.15-0.30
GRIP 476-238Y	4.76	2.38	0.05	0.050	19.00	3.20				●	●	●		●			0.00-2.30	0.21-0.40	0.10-0.20	0.10-0.24	0.15-0.30
GRIP 5025Y	5.00	2.50	0.05	0.050	19.00	3.40	●	●		●	●	●		●	●	●	0.00-2.50	0.23-0.42	0.11-0.21	0.12-0.24	0.15-0.35
GRIP 6030Y	6.00	3.00	0.05	0.050	19.00	4.20	●	●	●	●	●	●	●	●	●		0.00-3.00	0.24-0.50	0.13-0.25	0.12-0.28	0.15-0.40
GRIP 635-318Y	6.35	3.18	0.05	0.050	19.00	4.00				●	●			●			0.00-3.10	0.25-0.53	0.14-0.27	0.12-0.28	0.15-0.40

- For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

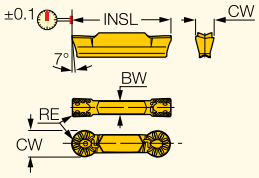
(2) Corner radius tolerance (+/-)

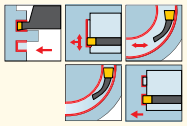
Tools: C#-HELIR/L • C#-HFIR/L-MC • CR HFIR-M • D/HGAD RE/LE-JHP • DGAD/HGAD • DGFH • DGFH-JHP • DGFS • DGTR/L • HELIIR/L • HELIR/L • HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHR/L-4T • HFHR/L-5T • HFHR/L-6T • HFIR/L-MC • HFPAD-3 • HFPAD-4 • HFPAD-5 • HFPAD-6 • HFPAD-JHP • HGAER/L-3 • HGAIR/L-3 • HGFH • HGHR/L-3 • HGPAD • HGPAD-JHP • IM-HFIR-MC

HELIGRIP

HGPL

Utility Double-Ended Inserts for Face Machining





Designation	Dimensions CW	BW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC354	IC08	IC808	IC908	IC806	Recommended Machining Data a_p (mm)	f face-groove (mm/rev)	f face-turn (mm/rev)
HGPL 3015Y	3.00	2.10	1.50	0.03	0.050	16.00				●	●		0.00-1.50	0.08-0.20	0.12-0.23
HGPL 3002Y	3.00	2.30	0.20	0.03	0.050	16.00		●	●	●	●		0.24-1.80	0.08-0.20	0.12-0.23
HGPL 3003Y	3.00	2.30	0.30	0.03	0.050	16.00	●	●	●	●	●		0.36-1.80	0.08-0.20	0.12-0.23
HGPL 4002Y	4.00	2.80	0.20	0.03	0.050	19.00		●	●	●	●		0.24-2.40	0.10-0.24	0.16-0.30
HGPL 4004Y	4.00	2.80	0.40	0.03	0.050	19.00		●	●	●	●		0.48-2.40	0.10-0.24	0.16-0.30
HGPL 4020Y	4.00	2.80	2.00	0.03	0.050	19.00			●	●	●		0.00-2.00	0.10-0.24	0.16-0.30
HGPL 5005Y	5.00	3.30	0.50	0.03	0.050	19.00		●		●	●		0.60-3.00	0.12-0.24	0.20-0.38
HGPL 5025Y	5.00	3.30	2.50	0.03	0.050	19.00			●	●	●		0.00-2.50	0.12-0.24	0.20-0.38
HGPL 6005Y	6.00	4.20	0.50	0.03	0.050	19.00		●		●	●	●	0.60-3.60	0.12-0.28	0.24-0.45
HGPL 6030Y	6.00	4.20	3.00	0.03	0.050	19.00			●	●	●		0.00-3.00	0.12-0.28	0.24-0.45

- No depth penetration limit • For cutting speed recommendations and user guide, see pages 604-615

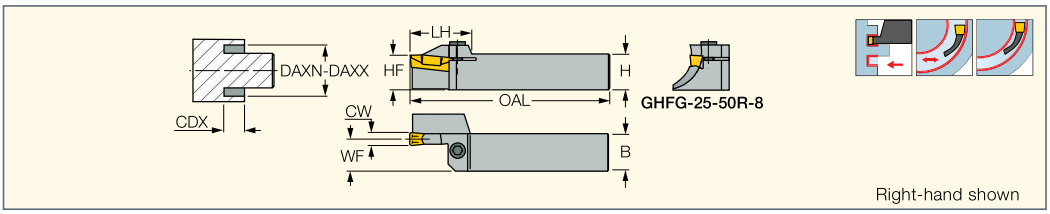
(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

Tools: C#-HFIR/L-MC • HFAER/L-4 • HFAER/L-5T, 6T • HFAIR/L-4 • HFAIR/L-DG • HFFR/L-T • HFHR/L-4T • HFHR/L-5T • HFHR/L-6T • HFIR/L-MC • HFPAD-3 • HFPAD-4 • HFPAD-5 • HFPAD-6 • HFPAD-JHP • HGAER/L-3 • HGAIR/L-3 • HGHR/L-3

CUT-GRIP

GHFG-R/L-8
Holders for Face Grooving and Turning Along Shafts



Designation	CDX	DAXN(1)	DAXX(2)	H	HF	B	OAL	LH	WF		
GHFG 25-50R/L-8	25.00	50.0	64.0	25.0	25.0	25.0	150.00	41.0	22.00	SR M6X20 DIN912	HW 5.0
GHFG 25-63R/L-8	25.00	63.0	82.0	25.0	25.0	25.0	150.00	41.0	22.00	SR M6X20 DIN912	HW 5.0
GHFG 32-63R-8	25.00	63.0	82.0	32.0	32.0	32.0	170.00	41.0	30.00	SR M6X20 DIN912	HW 5.0

- For user guide, see pages 604-615

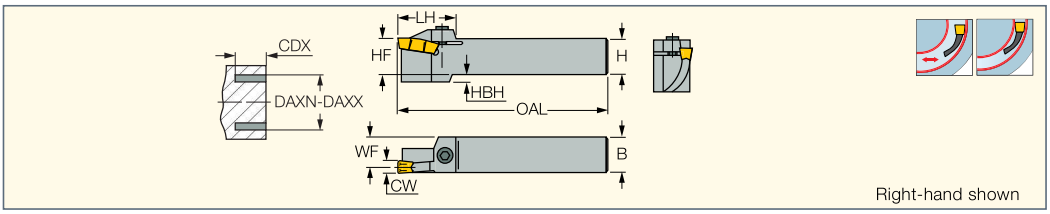
(1) Minimum penetration diameter

(2) Maximum penetration diameter

Inserts: GDMF • GDMM-CC • GDMN • GDMU • GDMY • GDMY (full radius) • GDMY-F • GIA-K (long pocket) • GIF (long pocket) • GIF-E (W=8,10 full radius) • GIF-E (W=8,10) • GIFG-E (W=8)

CUT-GRIP

GHFGR/L-8
Holders for Face Grooving and Turning



Designation	CDX	DAXN(1)	DAXX(2)	H	HF	B	OAL	LH	WF	HBH		
GHFGR/L 25-80-8	23.00	80.0	115.0	25.0	25.0	25.0	150.00	43.5	21.30	6.0	SR M6X20 DIN912	HW 5.0
GHFGR/L 32-80-8	23.00	80.0	115.0	32.0	32.0	32.0	170.00	43.5	28.30	-	SR M6X20 DIN912	HW 5.0
GHFGR/L 25-105-8	25.00	105.0	160.0	25.0	25.0	25.0	150.00	43.5	21.30	6.0	SR M6X20 DIN912	HW 5.0
GHFGR/L 32-105-8	25.00	105.0	160.0	32.0	32.0	32.0	170.00	43.5	28.30	-	SR M6X20 DIN912	HW 5.0
GHFGR/L 25-155-8	25.00	155.0	510.0	25.0	25.0	25.0	150.00	43.5	21.30	6.0	SR M6X20 DIN912	HW 5.0
GHFGR/L 32-155-8	25.00	155.0	510.0	32.0	32.0	32.0	170.00	43.5	28.30	-	SR M6X20 DIN912	HW 5.0

- No limitation to widening the groove either way after initial grooving • CDX depends on the penetration diameter and the insert
- For user guide, see pages 604-615

(1) Minimum penetration diameter

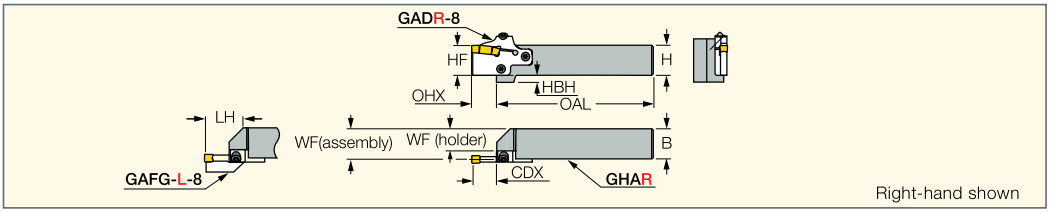
(2) Maximum penetration diameter

Inserts: GDMF • GDMM-CC • GDMN • GDMU • GDMY • GDMY (full radius) • GDMY-F • GIA-K (long pocket) • GIF (long pocket) • GIF-E (W=8,10 full radius) • GIF-E (W=8,10) • GIFG-E (W=8) • GIPA/GIDA 8 (full radius)

CDX for GHFGR/L (25/32)-80-8							
D	GIF 8...	GIFG 8...	GDMY 8...	GIPA 8...	GIDA 8...	GIA 8...	GDMM 8CC...
80	16	23	23	20	24	16	24
82	17	23	23	20	24	17	24
84	18	23	23	21	24	18	24
86	19	23	23	21	24	19	24
88	20	23	23	22	24	20	24
90	20	23	23	22	24	20	24
96	20	23	23	22	24	20	24
104	20	23	23	22	24	20	24
115	22	23	23	22	24	22	24
CDX for GHFGR/L (25/32)-105-8							
D	GIF 8...	GIFG 8...	GDMY 8...	GIPA 8...	GIDA 8...	GIA 8...	GDMM 8CC...
105	21	23	23	23	24	21	24
114	22	23	23	23	24	22	24
126	23	23	24	23	24	23	24
140-160	24	24	24	23	24	24	24
CDX for GHFGR/L (25/32)-155-8							
D	GIF 8...	GIFG 8...	GDMY 8...	GIPA 8...	GIDA 8...	GIA 8...	GDMM 8CC...
155	24	24	24	23	24	24	24
180	24	24	24	23	24	24	24
210-510	24	24	24	23	24	24	24

CUTGRIP

GHAR/L-8
External Holders for Grooving and Turning Adapters



Designation	H	HF	B	WF(1)	OAL	LH	OHX(2)	HBH	TGA(3)	CDX(4)	FG(5)				
GHAR/L 25-8	25.0	25.0	25.0	16.0	124.50	45.0	25.50	14.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0
GHAR/L 32-8	32.0	32.0	32.0	23.0	144.50	45.0	25.50	7.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0

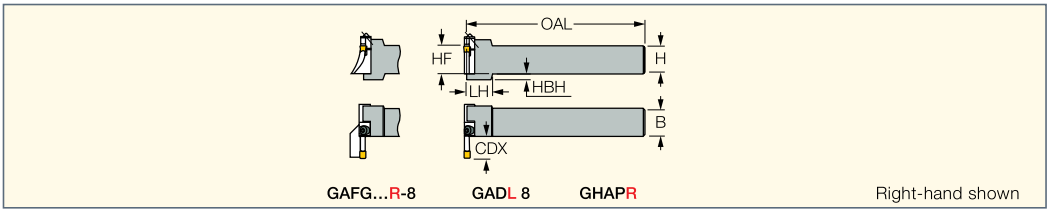
- Adapters GADR/L-8 for turning and grooving, GAFG-R/L-8 for face-grooving (to be ordered separately)

(1) WF(holder)
(2) Maximum overhang
(3) Adapter for Turning & Grooving
(4) See specific adapter dimensions
(5) Adapter for Face Grooving

Tools: GADR/L-8 • GAFG-R/L-8 • PCADR/L 34N-RE

CUTGRIP

GHAPR/L-8
External Holders for Grooving and Turning Perpendicularly Oriented Adapters



Designation	H	HF	B	OAL	LH	HBH	TGA(1)	CDX(2)	FG(3)				
GHAPR/L 32-8	32.0	32.0	32.0	155.00	30.0	7.0	GADR/L 8	25.50	GAFG...R/L-8	SR 14-519	T-20/5	SR M6X25 DIN912	HW 5.0

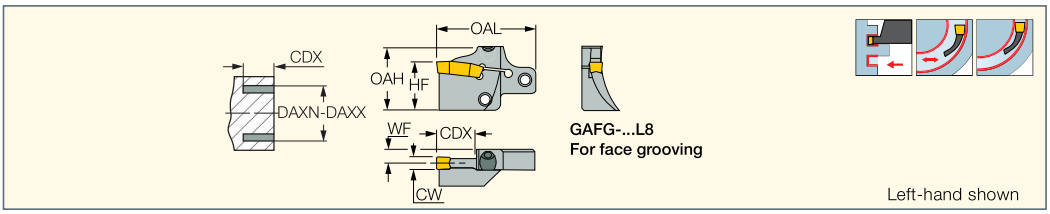
- Adapters GADR/L-8 for turning and grooving, GAFG-R/L-8 for face-grooving (to be ordered separately)

(1) Adapter for Turning & Grooving
(2) See specific adapter dimensions
(3) Adapter for Face Grooving

Tools: GADR/L-8 • GAFG-R/L-8 • PCADR/L 34N-RE

CUTGRIP

GAFG-R/L-8
Adapters for Face Machining



Designation	CW	DAXN(1)	DAXX(2)	CDX(3)	WF	HF	OAH	OAL
GAFG 80R/L-8	8.00	80.0	115.0	23.00	9.00	32.0	42.0	63.50
GAFG 105R/L-8	8.00	105.0	160.0	25.00	9.00	32.0	42.0	63.50
GAFG 155R/L-8	8.00	155.0	510.0	25.00	9.00	32.0	42.0	63.50

- No limitation for widening the groove either way after initial grooving • For user guide, see pages 604-615

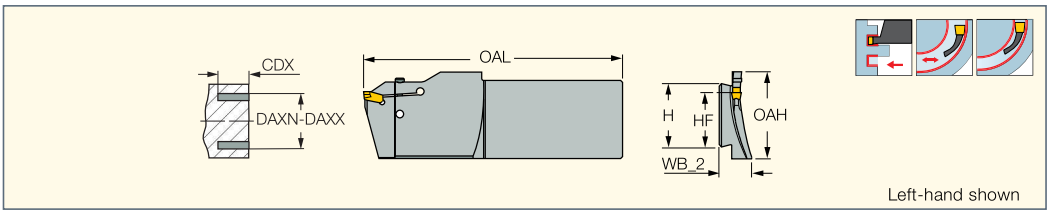
(1) Minimum penetration diameter
(2) Maximum penetration diameter
(3) For GIFG-8 & GDMY-8 CDX=25 mm for DAX range

Inserts: GDMA • GDMF • GDMM-CC • GDMN • GDMU • GDMY • GDMY (full radius) • GDMY-F • GIA-K (long pocket) • GIF (long pocket) • GIF-E (W=8,10 full radius) • GIF-E (W=8,10) • GIFG-E (W=8) • GIPA/GIDA 8 (full radius)

Holders: C#-GHAD-8 • C#-GHAPR/L-8 • GHAPR/L-8 • GHAR/L-8 • IM-GHAD-8

CUTGRIP

CGFG 51-P8
Blades for Face Machining Carrying 8 mm Inserts



Designation	CW	DAXN(1)	DAXX(2)	CDX	H	HF	OAL	OAH	WB_2		
CGFG 51-180R/L-P8	8.00	180.0	240.0	70.00	52.6	45.0	200.00	60.0	27.5	SR M4-2052	HW 3.0
CGFG 51-240R/L-P8	8.00	240.0	320.0	80.00	52.6	45.0	210.00	70.0	26.0	SR M4-2052	HW 3.0
CGFG 51-320R/L-P8	8.00	320.0	440.0	90.00	52.6	45.0	220.00	80.0	24.5	SR M4-2052	HW 3.0
CGFG 51-440R/L-P8	8.00	440.0	700.0	100.00	52.6	45.0	230.00	90.0	22.5	SR M4-2052	HW 3.0
CGFG 51-700R/L-P8	8.00	700.0	1500.0	120.00	52.6	45.0	250.00	100.0	20.0	SR M4-2052	HW 3.0

- For user guide, see pages 604-615

(1) Minimum penetration diameter
(2) Maximum penetration diameter

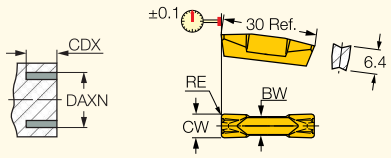
Inserts: GIMF • GIMM 8CC • GIMY • GIMY (full radius) • GIMY-F • GIPY

Holders: SGTBK • SGTBU/SGTBN

CUTGRIP

GIFG-E (W=8)

Inserts for Deep Face Grooving and Turning



Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DAXN(3)	CDX(4)	BW	Tough ↔ Hard IC635	IC20	Recommended Machining Data f face-groove (mm/rev)
GIFG 8.00E-0.80	8.00	0.80	0.02	0.050	50.0	25.00	6.00	●	●	0.15-0.25
GIFG 8.00E-1.20	8.00	1.20	0.02	0.050	50.0	25.00	6.00	●		0.15-0.25

• For cutting speed recommendations, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

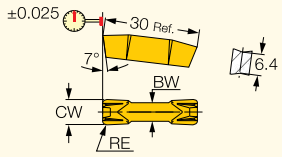
(4) Cutting depth maximum

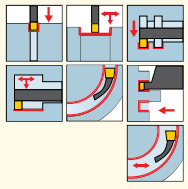
Tools: GAFG-R/L-8 • GHFG-R/L-8 • GHFGR/L-8

CUTGRIP

GIF-E (W=8,10)

Precision Double-Ended Inserts for Grooving and Turning





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC806	IC807	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIF 8.00E-0.40	8.00	0.40	0.02	0.030	6.00	27.00		●	●	●						0.50-4.80	0.29-0.48	0.18-0.31
GIF 8.00E-0.80	8.00	0.80	0.02	0.050	6.00	27.00	●	●	●	●	●	●	●	●	●	1.00-4.80	0.32-0.56	0.18-0.34
GIF 8.00E-1.20	8.00	1.20	0.02	0.050	6.00	27.00	●	●	●	●	●	●	●			1.45-4.80	0.32-0.62	0.18-0.34
GIF 10.00E-0.80	10.00	0.80	0.02	0.050	8.00	27.00	●	●	●	●	●	●	●		●	1.00-6.00	0.35-0.65	0.22-0.40
GIF 10.00E-1.20	10.00	1.20	0.02	0.050	8.00	27.00	●	●	●	●	●			●		1.45-6.00	0.35-0.72	0.22-0.40

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

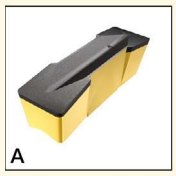
(3) Cutting depth maximum

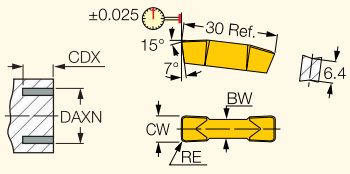
Tools: C#-GHDR/L • CGHN-8-10D • GADR/L-8 • GADR/L-JHP • GAFG-R/L-8 • GHDR/L (long pocket) • GHDR/L-JHP (long pocket) • GHFG-R/L-8 • GHFGR/L-8 • GHIR/L (W=7.0-8.3)

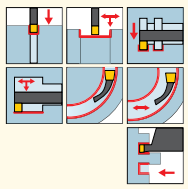
CUTGRIP

GIA-K (long pocket)

Flat Top Precision Double-Ended Inserts with T-Land for Machining Cast Iron







Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	DAXN(4)	Tough ↔ Hard IC5010	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIA 8.00K-0.80	8.00	0.80	0.02	0.050	6.00	25.00	160.0	●	●	1.00-4.80	0.36-0.64	0.18-0.38
GIA 8.00K-1.20	8.00	1.20	0.02	0.050	6.00	25.00	160.0	●	●	1.45-4.80	0.36-0.70	0.18-0.38

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

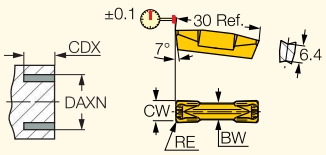
(4) Minimum axial grooving diameter

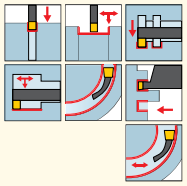
Tools: C#-GHDR/L • CGHN-8-10D • GADR/L-8 • GADR/L-JHP • GAFG-R/L-8 • GHDR/L (long pocket) • GHDR/L-JHP (long pocket) • GHFG-R/L-8 • GHFGR/L-8 • GHIR/L (W=7.0-8.3)

CUTGRIP

GDMY

Utility Double-Ended Inserts
for Grooving and Turning





Designation	Dimensions							Tough ↔ Hard							Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	CDX(4)	IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 808	8.00	0.80	0.05	0.050	6.00	50.0	27.00	•	•	•	•	•	•	•	1.00-4.80	0.32-0.56	0.18-0.34

• DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

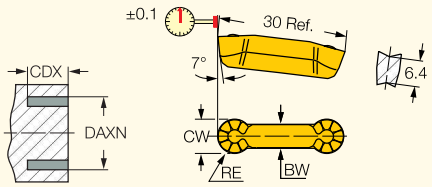
(4) Cutting depth maximum

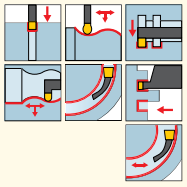
Tools: C#-GHDR/L • CGHN-8-10D • GADR/L-8 • GADR/L-JHP • GAFG-R/L-8 • GHDR/L (long pocket) • GHDR/L-JHP (long pocket) • GHFG-R/L-8 • GHFGR/L-8 • GHIR/L (W=7.0-8.3)

CUTGRIP

GDMY (full radius)

Utility Double-Ended Full Radius
Inserts for Grooving and Profiling





Designation	Dimensions							Tough ↔ Hard							Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	CDX	IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC806	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 840	8.00	4.00	0.05	0.050	5.60	50.0	25.00	•	•	•	•	•	•	•	•	0.00-4.00	0.32-0.67	0.18-0.34

• Can cut arcs to 250° • DMIN for internal machining = 65 mm • For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

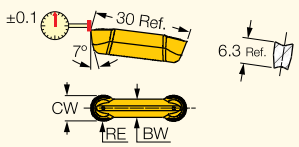
(3) Minimum axial grooving diameter

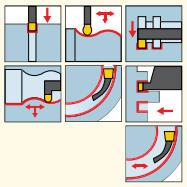
Tools: C#-GHDR/L • CGHN-8-10D • GADR/L-8 • GADR/L-JHP • GAFG-R/L-8 • GHDKR/L • GHDR/L (long pocket) • GHDR/L-JHP (long pocket) • GHFG-R/L-8 • GHFGR/L-8 • GHIR/L (W=7.0-8.3)

CUTGRIP

GDMY-F

Utility Double-Ended Inserts
for Grooving and Profiling
Ductile Materials





Designation	Dimensions						Tough ↔ Hard		Recommended Machining Data		
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC808	IC908	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMY 840F	8.00	4.00	0.05	0.050	5.60	25.00	•	•	0.00-4.00	0.32-0.67	0.18-0.34

• DMIN for internal applications = 65 mm • For cutting speed recommendations and user guide, see pages 604-615

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting depth maximum

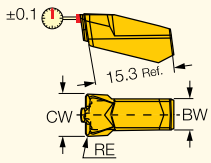
Tools: C#-GHDR/L • CGHN-8-10D • GADR/L-8 • GADR/L-JHP • GAFG-R/L-8 • GHDR/L (long pocket) • GHDR/L-JHP (long pocket) • GHFG-R/L-8 • GHFGR/L-8 • GHIR/L (W=7.0-8.3)

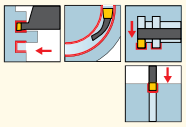
TANG-GRIP

CUT-GRIP

GIMM 8CC

Single-Ended Utility Insert with a Frontal Chip Splitter for External Rough Grooving and Side Turning





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC808	IC908	Recommended Machining Data f face-groove (mm/rev)
GIMM 8CC	8.00	0.80	0.05	0.050	5.80	•	•	0.30-0.45

- For cutting speed recommendations, see pages 604-615

(1) Cutting width tolerance (+/-)

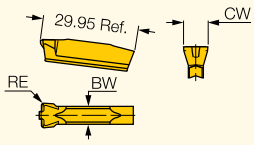
(2) Corner radius tolerance (+/-)

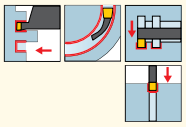
Tools: Anti-Vibration Blades • CGFG 51-P8 • CGHN-P8 • CGHR/L-P8DG • CGPAD • GHDR/L (short pocket) • GHDR/L-JHP (short pocket) • GHDR/L-JHP-MC (short pocket) • GHGR/L

CUT-GRIP

GDMM-CC

Single-Ended Utility Insert for External Rough Grooving and Side Turning with a Frontal Chip Splitter





Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC354	IC808	IC907	Recommended Machining Data f face-groove (mm/rev)
GDMM 7CC	7.00	0.80	0.05	0.050	6.00		•			0.30-0.45
GDMM 8CC	8.00	0.80	0.05	0.050	5.60	•		•	•	0.30-0.45

- For cutting speed recommendations, see pages 604-615

(1) Cutting width tolerance (+/-)

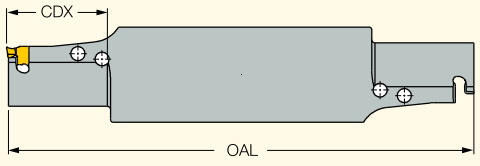
(2) Corner radius tolerance (+/-)

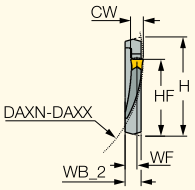
Tools: C#-GHDR/L • GADR/L-8 • GADR/L-JHP • GAFG-R/L-8 • GHDR/L (long pocket) • GHDR/L-JHP (long pocket) • GHFG-R/L-8 • GHFGR/L-8 • GHIR/L (W=7.0-8.3)

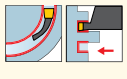
TANG-GRIP FACE MACHINING LINE

TNFFH-IQ

Face Grooving Blades







Right-hand shown

Designation	CW	DAXN(1)	DAXX(2)	CDX	HF	H	WF	WB_2	OAL	Insert	
TNFFH 65R/L-3IQ	3.00	65.0	90.0	18.00	24.8	32.0	4.10	5.2	150.00	TNF 3...	ETF 3-6*
TNFFH 90R/L-3IQ	3.00	90.0	120.0	18.00	24.8	32.0	4.10	5.2	150.00	TNF 3...	ETF 3-6*
TNFFH 120R/L-3IQ	3.00	120.0	160.0	24.00	24.8	32.0	4.10	5.2	150.00	TNF 3...	ETF 3-6*
TNFFH 80R/L-4IQ	4.00	80.0	150.0	32.00	24.8	32.0	3.80	5.2	150.00	TNF 4...	ETF 3-6*
TNFFH 150R/L-4IQ	4.00	150.0	500.0	32.00	24.8	32.0	3.80	5.2	150.00	TNF 4...	ETF 3-6*
TNFFH 80R/L-5IQ	5.00	80.0	150.0	30.00	24.8	32.0	3.50	5.2	150.00	TNF 5...	ETF 3-6*
TNFFH 150R/L-5IQ	5.00	150.0	500.0	35.00	24.8	32.0	3.50	5.2	150.00	TNF 5...	ETF 3-6*
TNFFH 80R/L-6IQ	6.00	80.0	150.0	30.00	24.8	32.0	3.30	5.2	150.00	TNF 6...	ETF 3-6*
TNFFH 150R/L-6IQ	6.00	150.0	700.0	35.00	24.8	32.0	3.30	5.2	150.00	TNF 6...	ETF 3-6*

- H dimension links blades and blocks

(1) Minimum penetration diameter

(2) Maximum penetration diameter

* Optional, should be ordered separately

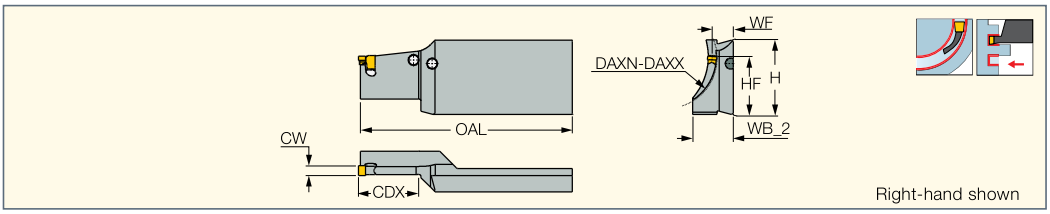
Inserts: TNF GN-IQ • TNF-M-IQ • TNF-P-IQ

ETF 3-6 extractor (to be ordered separately)

TANG-GRIP FACE MACHINING LINE

TNFFA-IQ

Reinforced Face Grooving Blades



Designation	CW	DAXN(1)	DAXX(2)	CDX	H	WF	HF	OAL	WB_2	Insert
TNFFA 30R/L-3IQ	3.00	30.0	35.0	19.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 35R/L-3IQ	3.00	35.0	40.0	19.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 40R/L-3IQ	3.00	40.0	46.0	23.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 46R/L-3IQ	3.00	46.0	54.0	25.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 54R/L-3IQ	3.00	54.0	65.0	26.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 65R/L-3IQ	3.00	65.0	80.0	27.00	32.0	9.50	24.8	90.00	18.5	TNF 3...
TNFFA 80R/L-3IQ	3.00	80.0	100.0	27.00	32.0	9.50	24.8	90.00	16.7	TNF 3...
TNFFA 35R/L-4IQ	4.00	35.0	45.0	25.00	32.0	9.00	24.8	90.00	18.1	TNF 4...
TNFFA 45R/L-4IQ	4.00	45.0	60.0	25.00	32.0	9.00	24.8	90.00	17.3	TNF 4...
TNFFA 60R/L-4IQ	4.00	60.0	80.0	27.00	32.0	9.00	24.8	90.00	18.0	TNF 4...
TNFFA 80R/L-4IQ	4.00	80.0	130.0	27.00	32.0	9.00	24.8	90.00	14.8	TNF 4...
TNFFA 40R/L-5IQ	5.00	40.0	50.0	25.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 50R/L-5IQ	5.00	50.0	70.0	28.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 70R/L-5IQ	5.00	70.0	100.0	30.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 100R/L-5IQ	5.00	100.0	180.0	35.00	32.0	9.70	24.8	90.00	18.0	TNF 5...
TNFFA 45R/L-6IQ	6.00	45.0	60.0	25.00	32.0	10.20	24.8	90.00	18.0	TNF 6...
TNFFA 60R/L-6IQ	6.00	60.0	80.0	28.00	32.0	10.20	24.8	90.00	18.0	TNF 6...
TNFFA 80R/L-6IQ	6.00	80.0	110.0	30.00	32.0	10.20	24.8	90.00	18.0	TNF 6...
TNFFA 110R/L-6IQ	6.00	110.0	300.0	35.00	32.0	10.20	24.8	90.00	14.8	TNF 6...

• For user guide, see pages 604-615

(1) Minimum penetration diameter

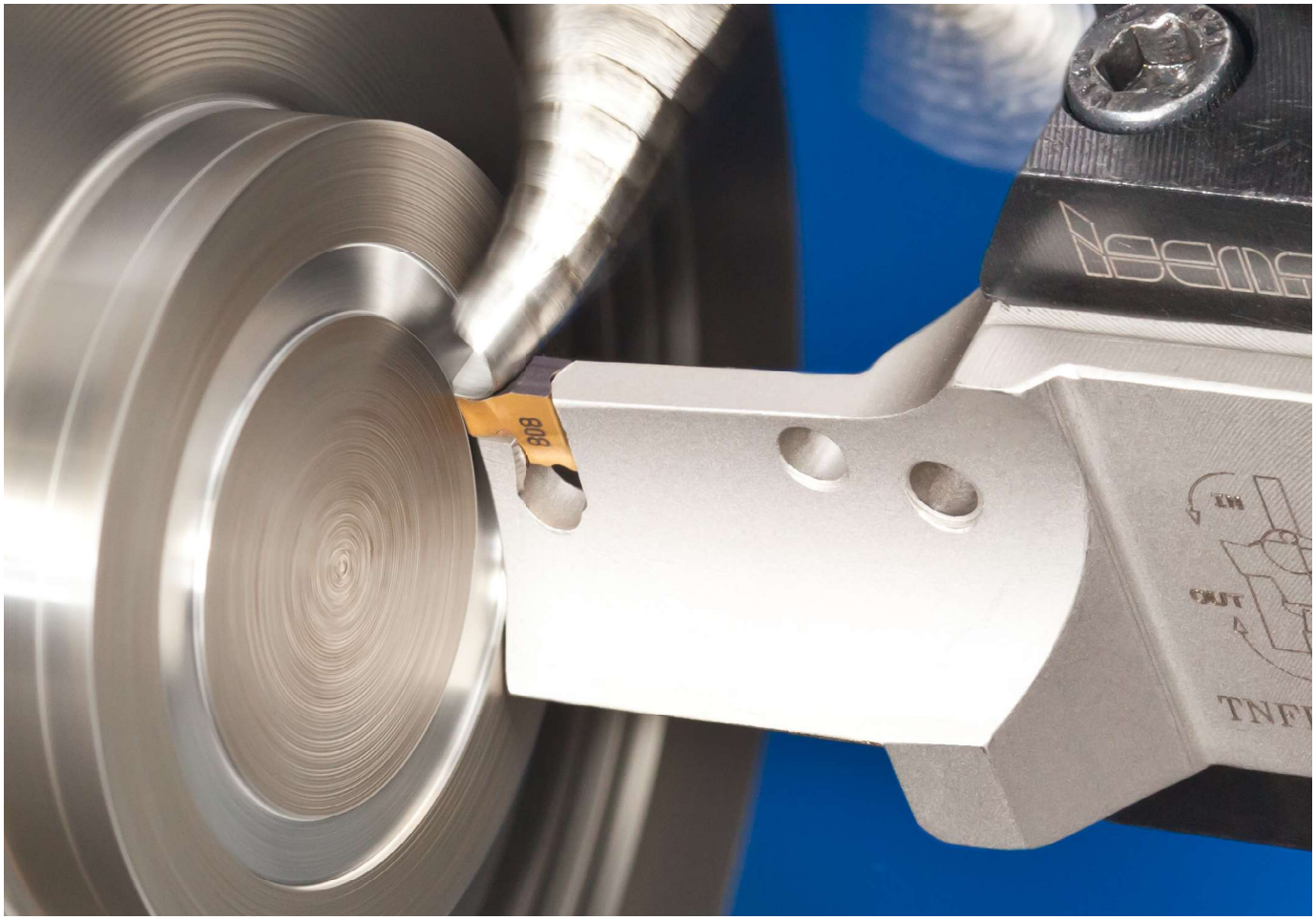
(2) Maximum penetration diameter

Inserts: TNF GN-IQ • TNF-M-IQ • TNF-P-IQ

Spare Parts

Designation	
TNFFA-IQ	ETF 3-6*

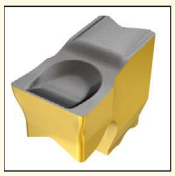
* Optional, should be ordered separately

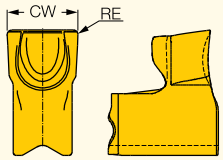


TANG-GRIP FACE MACHINING LINE

TNF-P-IQ

Face Grooving Single-Ended Inserts for Machining Steel





Designation	Dimensions CW	RE	CWTOL(1)	IC808	Recommended Machining Data f face-groove (mm/rev)
TNF 3P-IQ	3.00	0.30	0.05	●	0.10-0.15
TNF 4P-IQ	4.00	0.25	0.05	●	0.10-0.15
TNF 5P-IQ	5.00	0.35	0.05	●	0.12-0.20
TNF 6P-IQ	6.00	0.35	0.05	●	0.12-0.20

• For user guide, see pages 604-615

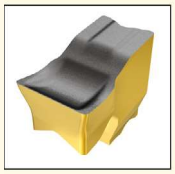
(1) Cutting width tolerance (+/-)

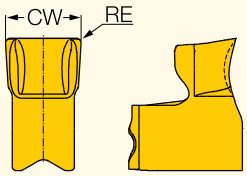
Tools: TNFFA-IQ • TNFFH-IQ • TNFPAD-XL-JHP

TANG-GRIP FACE MACHINING LINE

TNF-M-IQ

Face Grooving Single-Ended Inserts for Machining Stainless Steel and High Temperature Alloys





Designation	Dimensions CW	RE	CWTOL(1)	IC808	Recommended Machining Data f face-groove (mm/rev)
TNF 3M-IQ	3.00	0.30	0.05	●	0.08-0.10
TNF 4M-IQ	4.00	0.25	0.05	●	0.08-0.12
TNF 5M-IQ	5.00	0.35	0.05	●	0.12-0.20
TNF 6M-IQ	6.00	0.35	0.05	●	0.12-0.20

• For user guide, see pages 604-615

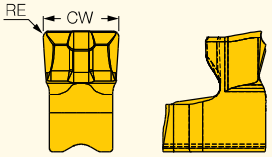
(1) Cutting width tolerance (+/-)

Tools: TNFFA-IQ • TNFFH-IQ • TNFPAD-XL-JHP

TANG-GRIP FACE MACHINING LINE

TNF GN-IQ

Face Grooving Single-Ended Inserts for Machining Steel



Designation	Dimensions CW	RE	CWTOL(1)	IC808	Recommended Machining Data f face-groove (mm/rev)
TNF 3GN-IQ	3.00	0.30	0.05	●	0.06-0.10
TNF 4GN-IQ	4.00	0.25	0.05	●	0.06-0.12
TNF 5GN-IQ	5.00	0.35	0.05	●	0.08-0.16
TNF 6GN-IQ	6.00	0.35	0.05	●	0.08-0.20

• For user guide, see pages 604-615

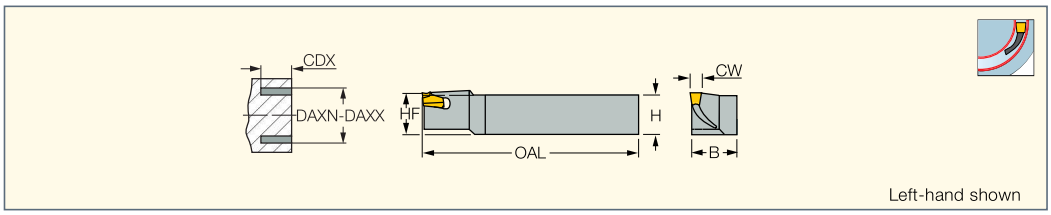
(1) Cutting width tolerance (+/-)

Tools: TNFFA-IQ • TNFFH-IQ • TNFPAD-XL-JHP

SELF-GRIP

SELF-GRIP

SGFFR/L
Face Grooving Integral Shank Tools



Designation	CW	H	B	CDX	DAXN(1)	DAXX(2)	HF	OAL	Insert	
SGFFR/L 20-25-2	2.10	20.0	20.0	13.00	25.0	30.0	20.0	120.00	GFF 2R/L	ESG 0.5
SGFFR/L 20-30-2	2.10	20.0	20.0	14.00	29.0	36.0	20.0	120.00	GFF 2R/L	ESG 0.5
SGFFR/L 20-35-2	2.10	20.0	20.0	16.00	35.0	46.0	20.8	120.00	GFF 2N	ESG 0.5
SGFFR/L 20-45-2	2.10	20.0	20.0	20.00	45.0	61.0	20.8	120.00	GFF 2N	ESG 0.5
SGFFR/L 20-60-2	2.10	20.0	20.0	20.00	60.0	80.0	20.8	120.00	GFF 2N	ESG 0.5
SGFFR/L 25-35-2	2.10	25.0	25.0	16.00	35.0	46.0	25.8	130.00	GFF 2N	ESG 0.5
SGFFR/L 25-45-2	2.10	25.0	25.0	20.00	45.0	61.0	25.8	130.00	GFF 2N	ESG 0.5
SGFFR/L 25-60-2	2.10	25.0	25.0	20.00	60.0	80.0	25.8	130.00	GFF 2N	ESG 0.5
SGFFR 25-25-2	2.10	25.0	25.0	13.00	25.0	30.0	25.0	130.00	GFF 2N	ESG 0.5
SGFFR 25-30-2	2.10	25.0	25.0	14.00	29.0	36.0	25.0	130.00	GFF 2N	ESG 0.5
SGFFR/L 20-30-3	3.00	20.0	20.0	16.00	30.0	35.0	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-35-3	3.00	20.0	20.0	18.00	34.4	40.6	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-40-3	3.00	20.0	20.0	20.00	40.0	47.0	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-46-3	3.00	20.0	20.0	22.00	46.0	55.0	20.0	120.00	GFF 3R/L	SET ESG 1
SGFFR 20-55-3	3.00	20.0	20.0	22.00	54.0	65.0	21.2	120.00	GFF 3N	SET ESG 1
SGFFR 20-65-3	3.00	20.0	20.0	23.00	64.0	80.0	21.0	120.00	GFF 3N	SET ESG 1
SGFFR 20-80-3	3.00	20.0	20.0	24.00	79.0	100.0	20.7	120.00	GFF 3N	SET ESG 1
SGFFR/L 25-40-3	3.00	25.0	25.0	20.00	40.0	47.0	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR/L 25-55-3	3.00	25.0	25.0	24.00	54.0	65.0	26.2	130.00	GFF 3N	SET ESG 1
SGFFR 25-30-3	3.00	25.0	25.0	16.00	30.0	35.0	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR 25-35-3	3.00	25.0	25.0	18.00	34.4	40.6	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR 25-46-3	3.00	25.0	25.0	22.00	46.0	55.0	25.0	130.00	GFF 3R/L	SET ESG 1
SGFFR 25-65-3	3.00	25.0	25.0	25.00	64.0	80.0	26.0	130.00	GFF 3N	SET ESG 1
SGFFR 25-80-3	3.00	25.0	25.0	26.00	79.0	100.0	25.7	130.00	GFF 3N	SET ESG 1
SGFFR/L 20-35-4	4.00	20.0	20.0	20.00	35.0	45.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR 20-45-4	4.00	20.0	20.0	25.00	44.0	58.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR 20-60-4	4.00	20.0	20.0	25.00	57.0	80.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR 20-80-4	4.00	20.0	20.0	25.00	79.0	130.0	20.0	120.00	GFF 4N	SET ESG 1
SGFFR/L 25-45-4	4.00	25.0	25.0	25.00	44.0	58.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR/L 25-60-4	4.00	25.0	25.0	26.00	57.0	80.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR/L 25-80-4	4.00	25.0	25.0	26.00	79.0	130.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR 25-35-4	4.00	25.0	25.0	20.00	35.0	45.0	25.0	150.00	GFF 4N	SET ESG 1
SGFFR/L 20-50-5	5.00	20.0	20.0	25.00	50.0	75.0	20.0	120.00	GFF 5N	SET ESG 1
SGFFR 20-75-5	5.00	20.0	20.0	26.00	74.0	130.0	20.0	120.00	GFF 5N	SET ESG 1
SGFFR/L 25-100-5	5.00	25.0	25.0	30.00	100.0	180.0	25.0	150.00	GFF 5N	SET ESG 1
SGFFR 25-50-5	5.00	25.0	25.0	26.00	50.0	71.0	25.0	150.00	GFF 5N	SET ESG 1
SGFFR 25-70-5	5.00	25.0	25.0	28.00	69.0	102.0	25.0	150.00	GFF 5N	SET ESG 1
SGFFR 20-60-6	6.00	20.0	20.0	25.00	57.0	60.0	20.0	120.00	GFF 6N	SET ESG 1
SGFFR/L 25-100-6	6.00	25.0	25.0	30.00	100.0	180.0	25.0	150.00	GFF 6N	SET ESG 1
SGFFR/L 25-60-6	6.00	25.0	25.0	30.00	57.0	77.0	25.0	150.00	GFF 6N	SET ESG 1
SGFFR/L 25-75-6	6.00	25.0	25.0	30.00	75.0	102.0	25.0	150.00	GFF 6N	SET ESG 1

- Important: Apply R.H. insert on R.H. tool and L.H. insert on L.H. tool. Neutral insert only as indicated

(1) Minimum penetration diameter

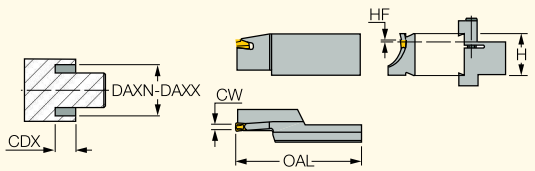
(2) Maximum penetration diameter

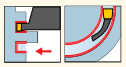
Inserts: GFF-N • GFF-R/L

SELF-GRIP

SGFFA

Reinforced Face Grooving Blades
for Standard Tool Blocks





Right-hand shown

Designation	CW	CDX	DAXN(1)	DAXX(2)	H	HF	OAL	
SGFFA 25-R/L-2	2.10	13.00	25.0	30.0	32.0	0.0	80.00	ESG 0.5
SGFFA 30-L-2	2.10	14.00	29.0	36.0	32.0	0.0	80.00	ESG 0.5
SGFFA 35-L-2	2.10	16.00	35.0	46.0	32.0	0.8	80.00	ESG 0.5
SGFFA 45-L-2	2.10	20.00	45.0	61.0	32.0	0.8	80.00	ESG 0.5
SGFFA 60-L-2	2.10	20.00	60.0	80.0	32.0	0.8	80.00	ESG 0.5
SGFFA 80-L-2	2.10	20.00	79.0	102.0	32.0	0.8	80.00	ESG 0.5
SGFFA 35-L-3	3.00	20.00	34.4	40.6	32.0	0.0	90.00	SET ESG 1
SGFFA 40-L-3	3.00	22.00	40.0	47.0	32.0	0.0	90.00	SET ESG 1
SGFFA 46-L-3	3.00	24.00	46.0	55.0	32.0	0.0	90.00	SET ESG 1
SGFFA 55-L-3	3.00	25.00	54.0	65.0	32.0	1.2	90.00	SET ESG 1
SGFFA 65-L-3	3.00	26.00	64.0	80.0	32.0	1.0	90.00	SET ESG 1
SGFFA 80-L-3	3.00	28.00	79.0	100.0	32.0	0.7	95.00	SET ESG 1
SGFFA 35-L-4	4.00	25.00	35.0	45.0	32.0	0.0	90.00	SET ESG 1
SGFFA 45-R/L-4	4.00	25.00	44.0	58.0	32.0	0.0	90.00	SET ESG 1
SGFFA 40-R/L-5	5.00	25.00	40.0	52.0	32.0	0.0	90.00	SET ESG 1
SGFFA 50-R/L-5	5.00	28.00	50.0	71.0	32.0	0.0	95.00	SET ESG 1
SGFFA 70-L-5	5.00	30.00	69.0	102.0	32.0	0.0	95.00	SET ESG 1
SGFFA 100-L-5	5.00	35.00	100.0	180.0	32.0	0.0	100.00	SET ESG 1
SGFFA 45-R/L-6	6.00	25.00	44.0	58.0	32.0	0.0	90.00	SET ESG 1
SGFFA 60-L-6	6.00	30.00	57.0	77.0	32.0	0.0	95.00	SET ESG 1
SGFFA 75-R/L-6	6.00	35.00	75.0	102.0	32.0	0.0	100.00	SET ESG 1

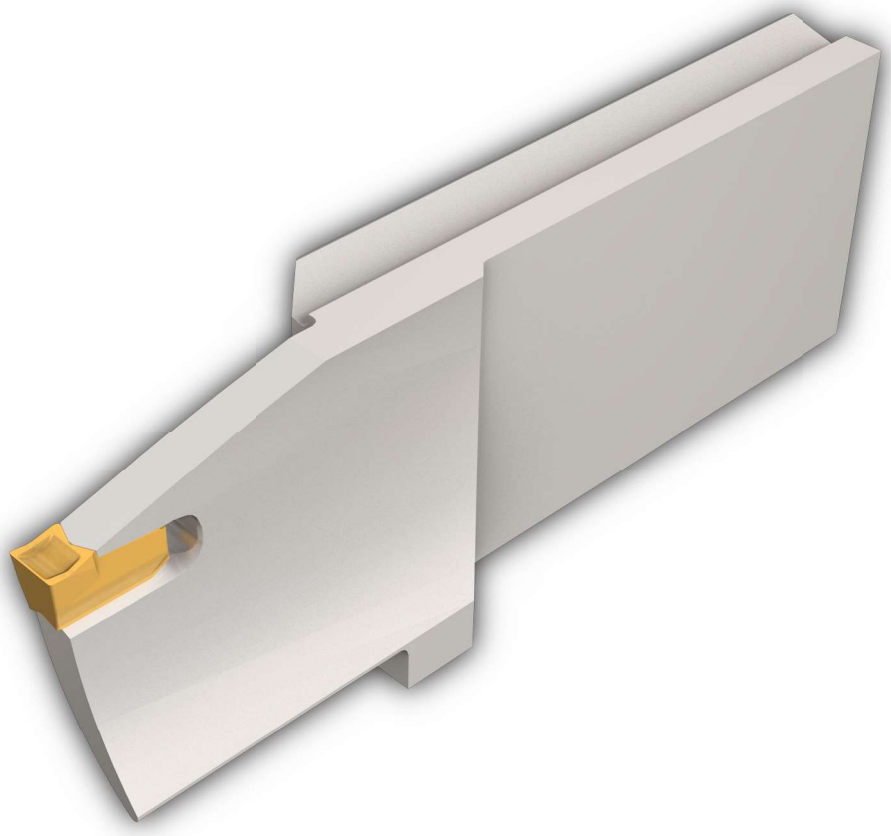
• Important: Apply R.H. insert on R.H. tool and L.H. insert on L.H. tool. Neutral insert only as indicated • H dimension links blades and blocks

(1) Minimum penetration diameter

(2) Maximum penetration diameter

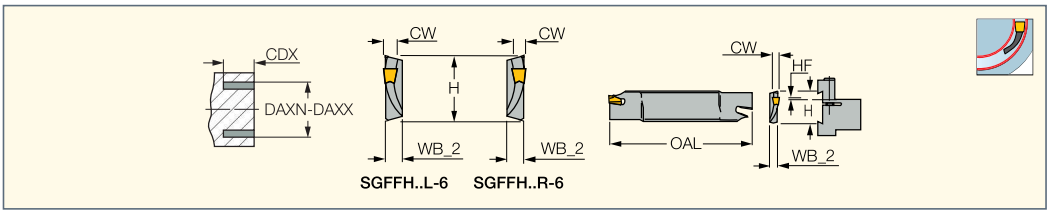
Inserts: GFF-N • GFF-R/L

Holders: SGTBF • SGTBU/SGTBN • UBHCR/L



SELF-GRIP

SGFFH
Face Grooving Blades



Designation	CW	CDX	DAXN(1)	DAXX(2)	HF	H	WB_2	OAL
SGFFH 35-R/L-2	2.10	20.00	35.0	46.0	0.8	32.0	5.2	150.00
SGFFH 45-R/L-2	2.10	20.00	45.0	61.0	0.8	32.0	5.2	150.00
SGFFH 60-R-2	2.10	20.00	60.0	80.0	0.8	32.0	5.2	150.00
SGFFH 80-R/L-2	2.10	20.00	79.0	102.0	0.8	32.0	4.0	150.00
SGFFH 100-R/L-2	2.10	20.00	101.0	132.0	0.0	32.0	4.0	150.00
SGFFH 75-R/L-3	3.00	20.00	65.0	92.0	1.0	32.0	5.2	150.00
SGFFH 90-R/L-3	3.00	20.00	90.0	122.0	0.2	32.0	5.2	150.00
SGFFH 120-R/L-3	3.00	25.00	120.0	160.0	0.0	32.0	5.2	150.00
SGFFH 80-R/L-4	4.00	30.00	80.0	155.0	2.5	32.0	5.2	150.00
SGFFH 150-R/L-4	4.00	30.00	150.0	500.0	2.5	32.0	5.2	150.00
SGFFH 80-R/L-5	5.00	32.00	80.0	162.0	0.0	32.0	5.2	150.00
SGFFH 150-R/L-5	5.00	35.00	150.0	600.0	0.0	32.0	5.2	150.00
SGFFH 90-R/L-6	6.00	32.00	90.0	150.0	0.0	32.0	8.0	150.00
SGFFH 150-R/L-6	6.00	35.00	148.0	700.0	0.0	32.0	5.2	150.00

• Important: Apply R.H. insert on R.H. tool and L.H. insert on L.H. tool. Neutral insert only as indicated • H dimension links blades and blocks

(1) Minimum penetration diameter

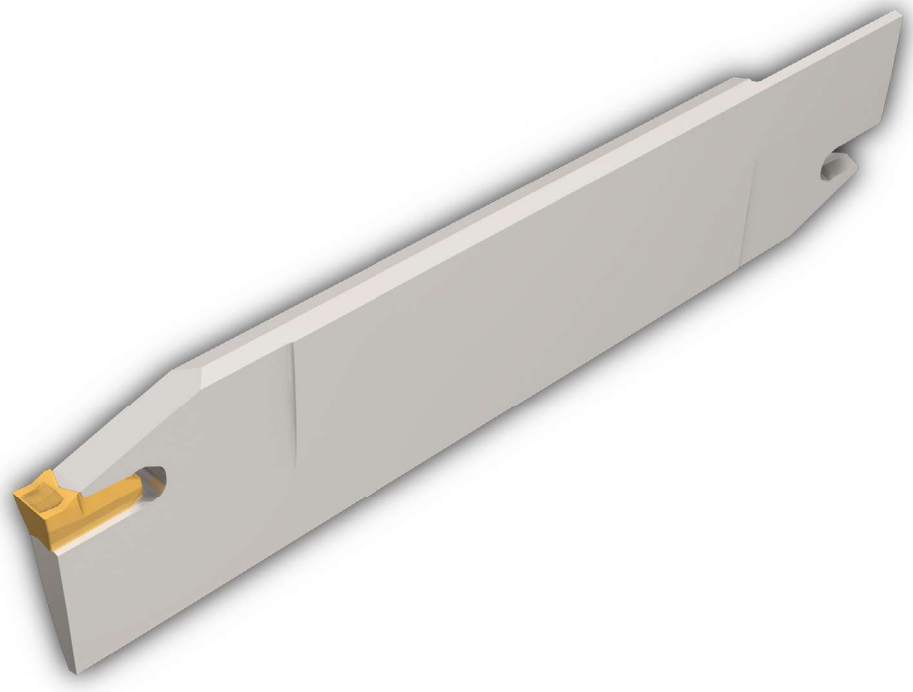
(2) Maximum penetration diameter

Inserts: GFF-N

Holders: SGTBF • SGTBK • SGTBU/SGTBN • UBHCR/L

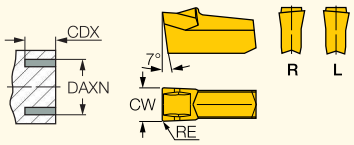
Spare Parts

Designation	
SGFFH 35-L-2	SET ESG 0.5
SGFFH 35-R-2	ESG 0.5
SGFFH 45-L-2	SET ESG 0.5
SGFFH 45-R-2	ESG 0.5
SGFFH 60-R-2	ESG 0.5
SGFFH 80-R/L-2	ESG 0.5
SGFFH 100-R/L-2	ESG 0.5
SGFFH 75-R/L-3	SET ESG 1
SGFFH 90-R/L-3	SET ESG 1
SGFFH 120-R/L-3	SET ESG 1
SGFFH 80-R/L-4	SET ESG 1
SGFFH 150-R/L-4	SET ESG 1
SGFFH 80-R/L-5	SET ESG 1
SGFFH 150-R/L-5	SET ESG 1
SGFFH 90-R/L-6	SET ESG 1
SGFFH 150-R/L-6	SET ESG 1



SELF-GRIP

GFF-R/L
Face Grooving Inserts

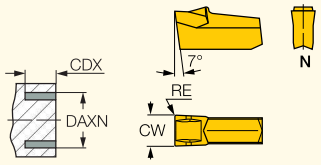


Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DAXN(3)	DAXX(4)	Tough ↔ Hard IC354	IC20	Recommended Machining Data f face-groove (mm/rev)
GFF 2R	2.10	0.20	0.10	0.050	25.0	36.0	●	●	0.03-0.13
GFF 3L	3.00	0.30	0.10	0.050	30.0	55.0		●	0.03-0.15
GFF 3R	3.00	0.30	0.10	0.050	30.0	55.0	●	●	0.03-0.15

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter
Tools: SGFFA • SGFFR/L

SELF-GRIP

GFF-N
Face Grooving Inserts

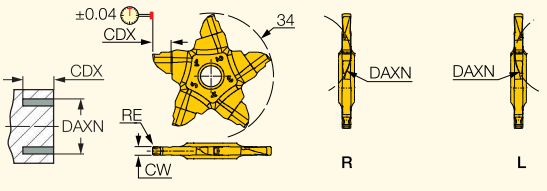


Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DAXN(3)	Tough ↔ Hard IC354	IC20	Recommended Machining Data f face-groove (mm/rev)
GFF 2N	2.10	0.20	0.10	0.050	35.0	●	●	0.03-0.13
GFF 3N	3.00	0.30	0.10	0.050	54.0	●	●	0.03-0.15
GFF 4N	4.00	0.25	0.10	0.050	35.0	●	●	0.04-0.18
GFF 5N	5.00	0.25	0.10	0.050	40.0	●	●	0.05-0.18
GFF 6N	6.00	0.25	0.10	0.050	44.0	●	●	0.05-0.20

• Grooving depth is limited only by the tool being used
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
Tools: SGFFA • SGFFH • SGFFR/L

PENTACUT
PARTING & GROOVING LINE

PENTA 34F-R/L
Pentagonal Inserts for Face Grooving and Recessing



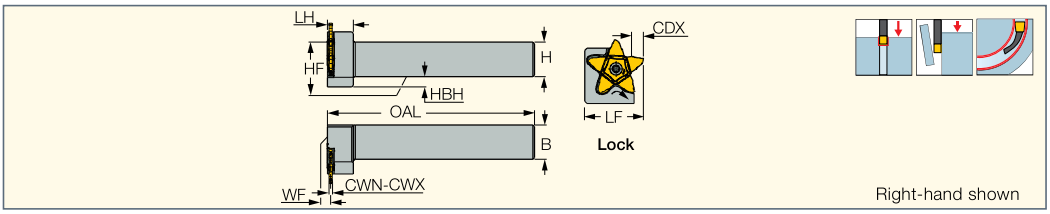
Designation	Dimensions CW	RE	RETOL(1)	CDX	DAXN(2)	IC908	Recommended Machining Data f face-groove (mm/rev)
PENTA 34F239-0.15-22R/L	2.39	0.15	0.020	5.00	22.0	●	0.08-0.12
PENTA 34F247-0.20-22R/L	2.47	0.20	0.020	5.00	22.0	●	0.08-0.12
PENTA 34F300-0.40-22R/L	3.00	0.40	0.020	5.00	22.0	●	0.08-0.15
PENTA 34F400-0.40-22R/L	4.00	0.40	0.020	5.00	22.0	●	0.08-0.15

• For cutting speed recommendations, see pages 604-615
(1) Corner radius tolerance (+/-)
(2) Minimum axial grooving diameter
Tools: PCADR/L • PCADR/L 34N-RE • PCADR/L-JHP • PCHBR/L • PCHPR/L • PCHR/L-34 • PCHR/L-34-JHP

PENTACUT PARTING & GROOVING LINE

PCHPR/L

Perpendicular Holders Carrying Inserts with 5 Cutting Edges for Facing, Grooving, Parting and Recessing



Designation	H	B	CWN(1)	CWX(2)	CDX(3)	HF	WF	LF	OAL	LH	HBH
PCHPR/L 16-24	16.0	16.0	0.50	3.20 (4)	6.50	16.0	1.50 (5)	23.5	120.00	11.5	-
PCHPR/L 20-24	20.0	20.0	0.50	3.20 (4)	6.50	20.0	1.50 (5)	28.0	120.00	11.5	-
PCHPR/L 25-24	25.0	25.0	0.50	3.20 (4)	6.50	25.0	1.50 (5)	33.0	135.00	11.5	-
PCHPR/L 20-34	20.0	20.0	1.40	4.00	10.00	20.0	1.90	34.0	120.00	15.0	6.0
PCHPR/L 25-34	25.0	25.0	1.40	4.00	10.00	25.0	1.90	34.0	135.00	15.0	-

(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data
(4) Up to 6.2 mm width may be ordered on request
(5) Valid for inserts with CW<3.2 mm

Inserts: PENTA 24-BSPT • PENTA 24-ISO • PENTA 24-MT • PENTA 24-NPT • PENTA 24-UN • PENTA 24-W • PENTA 24-WT • PENTA 24N-C • PENTA 24N-C (full radius) • PENTA 24N-J • PENTA 24N-J (full radius) • PENTA 24N-PF (full radius) • PENTA 24N-PF/P • PENTA 24N-Z • PENTA 24R-C • PENTA 24R-P • PENTA 24R/L-J • PENTA 24R/L-Z • PENTA 34F-R/L • PENTA 34N-C • PENTA 34N-J • PENTA 34N-PB • PENTA 34R/L-C • PENTA 34R/L-J • PENTA 34R/L-PB

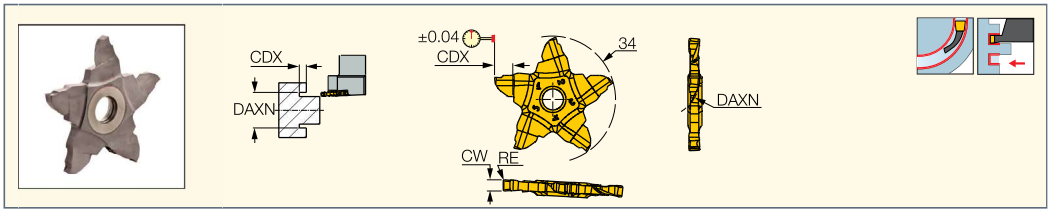
Spare Parts

Designation		
PCHPL 16-24	SR 16-212-01397	T-20/5
PCHPR 16-24	SR 16-212-01397L	T-20/5
PCHPL 20-24	SR 16-212-01397	T-20/5
PCHPR 20-24	SR 16-212-01397L	T-20/5
PCHPL 25-24	SR 16-212-01397	T-20/5
PCHPR 25-24	SR 16-212-01397L	T-20/5
PCHPR/L 20-34	SR 16-212-01397	T-20/5
PCHPR/L 25-34	SR 16-212-01397	T-20/5

PENTACUT PARTING & GROOVING LINE

PENTA 34F-RS/LS

Pentagonal Inserts for Face Grooving and Recessing Along Shafts up to 5 mm Depth of Cut at a Minimum of 22 mm Diameter



Designation	Dimensions CW	RE	CDX	DAXN(1)	IC908	Recommended Machining Data f face-groove (mm/rev)
PENTA 34F239-0.15-22R/LS	2.39	0.15	5.00	22.0	●	0.08-0.12
PENTA 34F247-0.20-22R/LS	2.47	0.20	5.00	22.0	●	0.08-0.12
PENTA 34F300-0.40-22R/LS	3.00	0.40	5.00	22.0	●	0.08-0.15
PENTA 34F400-0.40-22R/LS	4.00	0.40	5.00	22.0	●	0.08-0.15

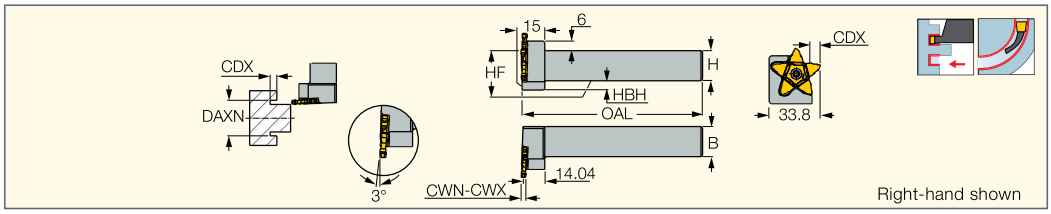
• For cutting speed recommendations, see pages 604-615
(1) Minimum axial grooving diameter

Tools: PCHPRS/LS

PENTACUT PARTING & GROOVING LINE

PCHPRS/LS

Perpendicular Shank Tools Carrying Pentagonal Inserts for Machining Next to Long Central Shafts



Designation	H	B	CWN(1)	CWX(2)	OAL	HBH	CDX(3)	HF		
PCHPR/LS 20-34	20.0	20.0	2.39	4.00	120.00	6.0	5.00	20.0	SR 16-212-01397RS	T-20/5
PCHPR/LS 25-34	25.0	25.0	2.39	4.00	135.00	-	5.00	25.0	SR 16-212-01397RS	T-20/5

(1) Minimum cutting width
(2) Maximum cutting width
(3) Insert limit

Inserts: PENTA 34F-RS/LS

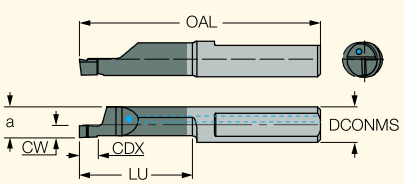
FACE TOOLS FOR MINIATURE PARTS

Tools for Miniature Parts

PICCO-CUT

JETCUT PICCOCUT

PICCO-010/610-N
(Face Grooving)
Inserts with Internal Coolant Channel for Face Grooving



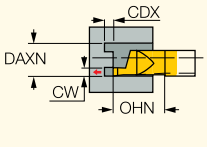
Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	a	LU	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1006-10N	6.0	1.00	1.50	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R 010.1506-10N	6.0	1.50	2.00	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R 010.1008-10N	8.0	1.00	1.50	7.05	5.90	9.0	32.00	●	0.01-0.04
PICCO R 010.1008-20N	8.0	1.00	1.50	7.05	5.90	19.0	41.00	●	0.01-0.04
PICCO R 010.1008-30N	8.0	1.00	1.50	7.05	5.90	29.0	51.00	●	0.01-0.04
PICCO R 610.1008-10N	8.0	1.00	1.50	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R/L 010.1508-20N	8.0	1.50	2.50	7.05	5.90	19.0	41.00	●	0.01-0.04
PICCO R 010.1508-10N	8.0	1.50	2.50	7.05	5.90	9.0	32.00	●	0.01-0.04
PICCO R 010.1508-30N	8.0	1.50	2.50	7.05	5.90	29.0	51.00	●	0.01-0.04
PICCO R 610.1508-10N	8.0	1.50	2.50	6.05	5.20	9.0	32.00	●	0.01-0.04
PICCO R 610.1508-20N	8.0	1.50	2.50	6.05	5.20	19.0	41.00	●	0.01-0.04
PICCO R/L 010.2008-30N	8.0	2.00	3.00	7.05	5.90	29.0	51.00	●	0.02-0.05
PICCO R 010.2008-10N	8.0	2.00	3.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.2008-20N	8.0	2.00	3.00	7.05	5.90	19.0	41.00	●	0.02-0.05
PICCO R 610.2008-10N	8.0	2.00	3.00	6.05	5.20	9.0	32.00	●	0.02-0.05
PICCO R 610.2008-20N	8.0	2.00	3.00	6.05	5.20	19.0	41.00	●	0.02-0.05
PICCO R 010.2508-10N	8.0	2.50	3.50	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.2508-20N	8.0	2.50	3.50	7.05	5.90	19.0	41.00	●	0.02-0.05
PICCO R 610.2508-10N	8.0	2.50	3.50	6.05	5.20	9.0	32.00	●	0.02-0.05
PICCO R 010.3008-10N	8.0	3.00	3.50	7.05	5.90	9.0	32.00	●	0.02-0.06
PICCO R 010.3008-20N	8.0	3.00	3.50	7.05	5.90	19.0	41.00	●	0.02-0.06
PICCO R 010.3008-30N	8.0	3.00	3.50	7.05	5.90	29.0	51.00	●	0.02-0.06
PICCO R 610.3008-10N	8.0	3.00	3.50	6.05	5.20	9.0	32.00	●	0.02-0.06
PICCO R 610.3008-20N	8.0	3.00	3.50	6.05	5.20	19.0	41.00	●	0.02-0.06

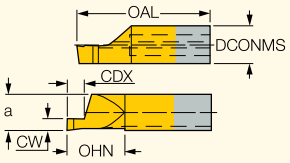
- Only right-hand inserts are available as standard
- All inserts are with sharp corners
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

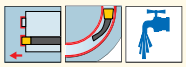
(1) Minimum axial grooving diameter

PICCOCUT

PICCO-010/610
(Face Grooving)
Inserts for Face Grooving







Right-hand shown

Designation	Dimensions							IC228	Recommended Machining Data
	DAXN(1)	CW	CDX	DCONMS	a	OHN(2)	OAL		f face-groove (mm/rev)
PICCO R 010.1006-10	6.0	1.00	1.50	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 010.1506-10	6.0	1.50	2.00	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 010.1008-10	8.0	1.00	1.50	7.00	5.90	11.0	26.00	●	0.01-0.04
PICCO R 010.1008-20	8.0	1.00	1.50	7.00	5.90	21.0	35.00	●	0.01-0.04
PICCO R 010.1008-30	8.0	1.00	1.50	7.00	5.90	30.0	45.00	●	0.01-0.04
PICCO R 610.1008-10	8.0	1.00	1.50	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 610.1008-20	8.0	1.00	1.50	6.00	5.20	20.0	35.00	●	0.01-0.04
PICCO R/L 010.1508-20	8.0	1.50	2.50	7.00	5.90	21.0	35.00	●	0.01-0.04
PICCO R/L 010.1508-30	8.0	1.50	2.50	7.00	5.90	30.0	45.00	●	0.01-0.04
PICCO R 010.1508-10	8.0	1.50	2.50	7.00	5.90	11.0	26.00	●	0.01-0.04
PICCO R 610.1508-10	8.0	1.50	2.50	6.00	5.20	11.0	26.00	●	0.01-0.04
PICCO R 610.1508-20	8.0	1.50	2.50	6.00	5.20	20.0	35.00	●	0.01-0.04
PICCO R/L 010.2008-30	8.0	2.00	3.00	7.00	5.90	30.0	45.00	●	0.02-0.05
PICCO R 010.2008-10	8.0	2.00	3.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2008-20	8.0	2.00	3.00	7.00	5.90	21.0	35.00	●	0.02-0.05
PICCO R 610.2008-10	8.0	2.00	3.00	6.00	5.20	11.0	26.00	●	0.02-0.05
PICCO R 610.2008-20	8.0	2.00	3.00	6.00	5.20	20.0	35.00	●	0.02-0.05
PICCO R 010.2508-10	8.0	2.50	3.50	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2508-20	8.0	2.50	3.50	7.00	5.90	21.0	35.00	●	0.02-0.05
PICCO R 010.2508-30	8.0	2.50	3.50	7.00	5.90	30.0	45.00	●	0.02-0.05
PICCO R 610.2508-10	8.0	2.50	3.50	6.00	5.20	11.0	26.00	●	0.02-0.05
PICCO R 610.2508-20	8.0	2.50	3.50	6.00	5.20	20.0	35.00	●	0.02-0.05
PICCO R 010.3008-10	8.0	3.00	3.50	7.00	5.90	11.0	26.00	●	0.02-0.06
PICCO R 010.3008-20	8.0	3.00	3.50	7.00	5.90	21.0	35.00	●	0.02-0.06
PICCO R 010.3008-30	8.0	3.00	3.50	7.00	5.90	30.0	45.00	●	0.02-0.06
PICCO R 610.3008-10	8.0	3.00	3.50	6.00	5.20	11.0	26.00	●	0.02-0.06
PICCO R 610.3008-20	8.0	3.00	3.50	6.00	5.20	20.0	35.00	●	0.02-0.06

• Only right-hand inserts are available as standard • All inserts are with sharp corners • For detailed cutting data, see page 604

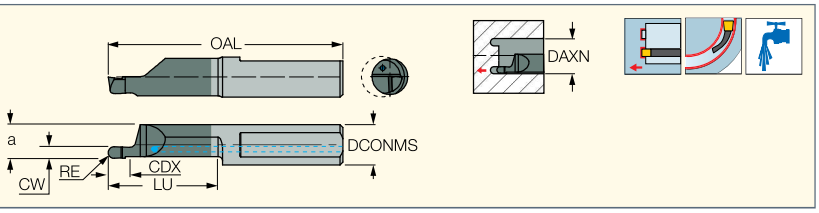
(1) Minimum axial grooving diameter

(2) Minimum overhang

JETCUT PICCOCUT

PICCO-010-N (Full Radius for Face Grooving)

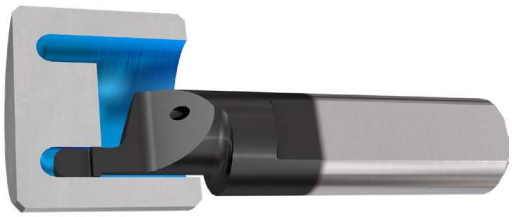
Inserts with Internal Coolant Channel for Round Profile Face Grooving



Designation	Dimensions DAXN(1)	CW	RE	CDX	DCONMS	a	LU	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1005-10N	8.0	1.00	0.50	2.00	7.05	5.90	9.0	32.00	●	0.01-0.04
PICCO R 010.1005-20N	8.0	1.00	0.50	2.00	7.05	5.90	19.0	41.00	●	0.01-0.04
PICCO R 010.1608-10N	8.0	1.60	0.80	3.00	7.05	5.90	9.0	32.00	●	0.01-0.05
PICCO R 010.1608-20N	8.0	1.60	0.80	3.00	7.05	5.90	19.0	41.00	●	0.01-0.05
PICCO R 010.2010-10N	8.0	2.00	1.00	4.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.2010-20N	8.0	2.00	1.00	4.00	7.05	5.90	19.0	41.00	●	0.02-0.05
PICCO R 010.2512-10N	8.0	2.50	1.25	5.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.3015-10N	8.0	3.00	1.50	6.00	7.05	5.90	9.0	32.00	●	0.02-0.05
PICCO R 010.3015-20N	8.0	3.00	1.50	6.00	7.05	5.90	19.0	41.00	●	0.02-0.05

- Only right-hand inserts are available as standard, left-hand inserts on request
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

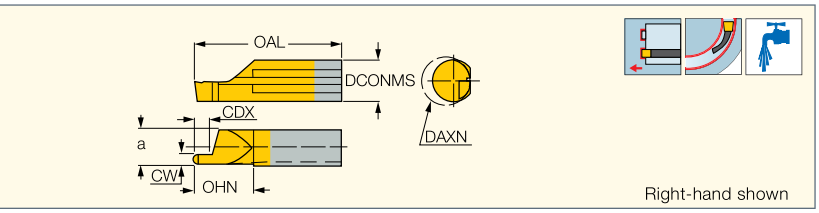
(1) Minimum axial grooving diameter



PICCOCUT

PICCO-010 (Round Face Groove)

Inserts for Round Profile Face Grooving



Designation	Dimensions DAXN(1)	CW	RE	CDX	DCONMS	a	OHN(2)	OAL	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1005-10	8.0	1.00	0.50	2.00	7.00	5.90	11.0	26.00	●	0.01-0.04
PICCO R 010.1005-20	8.0	1.00	0.50	2.00	7.00	5.90	20.0	35.00	●	0.01-0.04
PICCO R 010.1608-10	8.0	1.60	0.80	3.00	7.00	5.90	11.0	26.00	●	0.01-0.05
PICCO R 010.1608-20	8.0	1.60	0.80	3.00	7.00	5.90	20.0	35.00	●	0.01-0.05
PICCO R 010.2010-10	8.0	2.00	1.00	4.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2010-20	8.0	2.00	1.00	4.00	7.00	5.90	20.0	35.00	●	0.02-0.05
PICCO R 010.2512-10	8.0	2.50	1.25	5.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.2512-20	8.0	2.50	1.25	5.00	7.00	5.90	20.0	35.00	●	0.02-0.05
PICCO R 010.3015-10	8.0	3.00	1.50	6.00	7.00	5.90	11.0	26.00	●	0.02-0.05
PICCO R 010.3015-20	8.0	3.00	1.50	6.00	7.00	5.90	20.0	35.00	●	0.02-0.05

- Only right-hand inserts are available as standard, left-hand inserts on request
- For detailed cutting data, see page 604

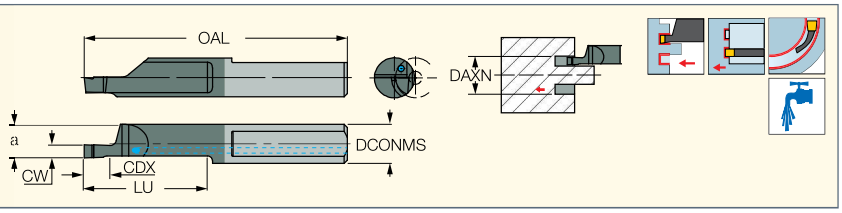
(1) Minimum axial grooving diameter

(2) Minimum overhang

JETCUT PICCOCUT

PICCO-620-N (Face Grooving along Shaft)

Inserts with Internal Coolant Channel for Grooving along Shaft Dmin 6 mm



Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	a	LU	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 620.1006-20N	6.0	1.00	2.00	6.05	5.20	19.0	41.00	●	0.01-0.04
PICCO R 620.1506-20N	6.0	1.50	3.00	6.05	5.20	19.0	41.00	●	0.01-0.05
PICCO R 620.2006-20N	6.0	2.00	4.00	6.05	5.20	19.0	41.00	●	0.02-0.06
PICCO R 620.2506-20N	6.0	2.50	5.00	6.05	5.20	19.0	41.00	●	0.02-0.06
PICCO R 620.3006-20N	6.0	3.00	6.00	6.05	5.20	19.0	41.00	●	0.02-0.06

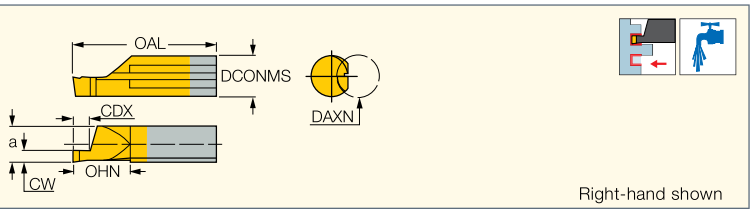
- Only right-hand inserts are available as standard, left-hand inserts on request
- All carbide inserts are with sharp corners
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

PICCOCUT

PICCO-620 (Groove Along Shaft)

Inserts for Grooving Along a Shaft Dmin 6 mm



Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	a	OHN(2)	OAL	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 620.1006-20	6.0	1.00	2.00	6.00	5.20	20.0	35.00	●	0.01-0.04
PICCO R 620.1506-20	6.0	1.50	3.00	6.00	5.20	20.0	35.00	●	0.01-0.05
PICCO R 620.2006-20	6.0	2.00	4.00	6.00	5.20	20.0	35.00	●	0.02-0.06
PICCO R 620.2506-20	6.0	2.50	5.00	6.00	5.20	20.0	35.00	●	0.02-0.06
PICCO R 620.3006-20	6.0	3.00	6.00	6.00	5.20	20.0	35.00	●	0.02-0.06

- Only right-hand inserts are available as standard, left-hand inserts on request
- All carbide inserts are with sharp corners
- For detailed cutting data, see page 604

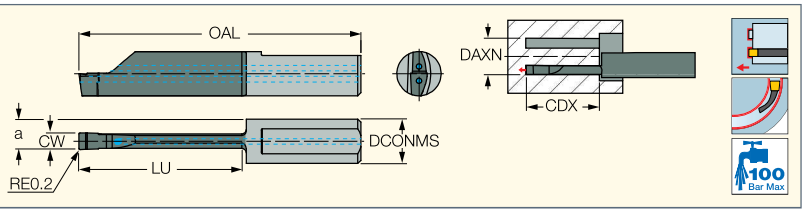
(1) Minimum axial grooving diameter

(2) Minimum overhang

PICCOCUT JETCUT

PICCO-016/020-N (Face Grooving)

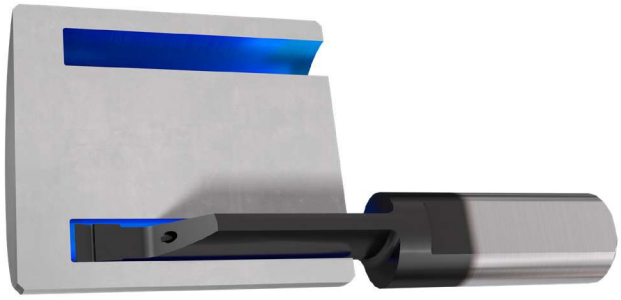
Inserts with Internal Coolant Channel for Deep Face Grooving



Designation	Dimensions DAXN(1)	CW	LU	CDX	DCONMS	a	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R016.0300-10N	16.0	3.00	9.00	9.00	8.00	5.50	32.00	●	0.01-0.05
PICCO R016.0300-20N	16.0	3.00	19.00	19.00	8.00	5.50	41.00	●	0.01-0.05
PICCO R016.0400-20N	16.0	4.00	19.00	19.00	8.00	6.00	41.00	●	0.01-0.05
PICCO R020.0300-25N	20.0	3.00	24.00	24.00	8.00	5.50	46.00	●	0.01-0.05
PICCO R020.0300-30N	20.0	3.00	29.00	29.00	8.00	5.50	51.00	●	0.01-0.04
PICCO R020.0300-40N	20.0	3.00	39.00	39.00	8.00	5.50	61.00	●	0.01-0.04
PICCO R020.0400-25N	20.0	4.00	24.00	24.00	8.00	6.00	46.00	●	0.01-0.06
PICCO R020.0400-30N	20.0	4.00	29.00	29.00	8.00	6.00	51.00	●	0.01-0.06
PICCO R020.0400-40N	20.0	4.00	39.00	39.00	8.00	6.00	61.00	●	0.01-0.05
PICCO R020.0500-25N	20.0	5.00	24.00	24.00	8.00	6.50	46.00	●	0.02-0.06
PICCO R020.0500-30N	20.0	5.00	29.00	29.00	8.00	6.50	51.00	●	0.02-0.06
PICCO R020.0500-35N	20.0	5.00	34.00	34.00	8.00	6.50	56.00	●	0.02-0.05
PICCO R020.0500-40N	20.0	5.00	39.00	39.00	8.00	6.50	61.00	●	0.02-0.05

- All inserts have two coolant holes which may be used with coolant pressure up to 100 bars
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

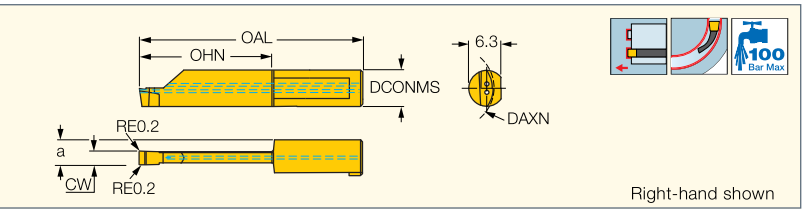
(1) Minimum axial grooving diameter



PICCOCUT

PICCO-016/020 (Face Grooving)

Inserts with Coolant Holes for Deep Face Grooving



Designation	Dimensions DAXN(1)	CW	OHN(2)	DCONMS	a	OAL	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 016.0300-10	16.0	3.00	10.00	8.00	5.50	30.00	●	0.01-0.05
PICCO R 016.0300-20	16.0	3.00	20.00	8.00	5.50	40.00	●	0.01-0.05
PICCO R 016.0400-10	16.0	4.00	10.00	8.00	6.00	30.00	●	0.01-0.05
PICCO R 016.0400-20	16.0	4.00	20.00	8.00	6.00	40.00	●	0.01-0.05
PICCO R 020.0300-25	20.0	3.00	25.00	8.00	5.50	45.00	●	0.01-0.05
PICCO R 020.0300-30	20.0	3.00	30.00	8.00	5.50	50.00	●	0.01-0.04
PICCO R 020.0300-35	20.0	3.00	35.00	8.00	5.50	55.00	●	0.01-0.04
PICCO R 020.0300-40	20.0	3.00	40.00	8.00	5.50	60.00	●	0.01-0.04
PICCO R 020.0400-25	20.0	4.00	25.00	8.00	6.00	45.00	●	0.01-0.06
PICCO R 020.0400-30	20.0	4.00	30.00	8.00	6.00	50.00	●	0.01-0.06
PICCO R 020.0400-35	20.0	4.00	35.00	8.00	6.00	55.00	●	0.01-0.05
PICCO R 020.0400-40	20.0	4.00	40.00	8.00	6.00	60.00	●	0.01-0.05
PICCO R 020.0500-20	20.0	5.00	20.00	8.00	6.50	40.00	●	0.02-0.06
PICCO R 020.0500-25	20.0	5.00	25.00	8.00	6.50	45.00	●	0.02-0.06
PICCO R 020.0500-30	20.0	5.00	30.00	8.00	6.50	50.00	●	0.02-0.06
PICCO R 020.0500-35	20.0	5.00	35.00	8.00	6.50	55.00	●	0.02-0.05
PICCO R 020.0500-40	20.0	5.00	40.00	8.00	6.50	60.00	●	0.02-0.05

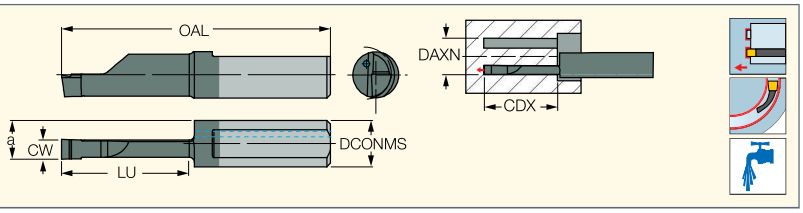
- All inserts have two coolant holes which may be used with coolant pressure up to 100 bars
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

(2) Minimum overhang

JETCUT PICCOCUT

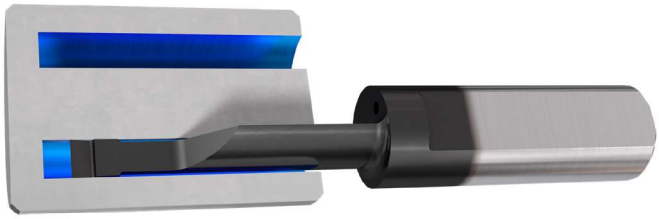
PICCO-015-N
(Face Grooving)
Inserts with Internal Coolant Channel for Deep Face Grooving



Designation	Dimensions DAXN(1)	CW	LU	DCONMS	a	OAL	IC908	Recommended Machining Data f face-groove (mm/rev)
PICCO R 015.2515-20N	8.0	2.50	19.00	7.05	5.90	41.00	●	0.01-0.04
PICCO R 015.3015-20N	8.0	3.00	19.00	7.05	5.90	41.00	●	0.02-0.05
PICCO R 015.3015-30N	8.0	3.00	29.00	7.05	5.90	51.00	●	0.01-0.04

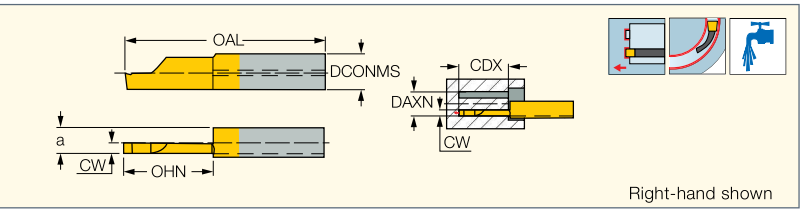
- Only right-hand inserts are available as standard, left-hand inserts on request
- All inserts are with sharp corners
- Solid tools are suitable for PICCO-N / PICCO ACE-N type holders only
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter



PICCOCUT

PICCO-015 (Face Grooving)
Inserts for Deep Face Grooving



Designation	Dimensions DAXN(1)	CW	OHN(2)	DCONMS	a	OAL	CDX	IC228	Recommended Machining Data f face-groove (mm/rev)
PICCO R 015.2515-20	8.0	2.50	20.00	7.00	5.90	35.00	20.00	●	0.01-0.04
PICCO R/L 015.3015-20	8.0	3.00	20.00	7.00	5.90	35.00	20.00	●	0.02-0.05
PICCO R 015.3015-30	8.0	3.00	30.00	7.00	5.90	45.00	30.00	●	0.01-0.04

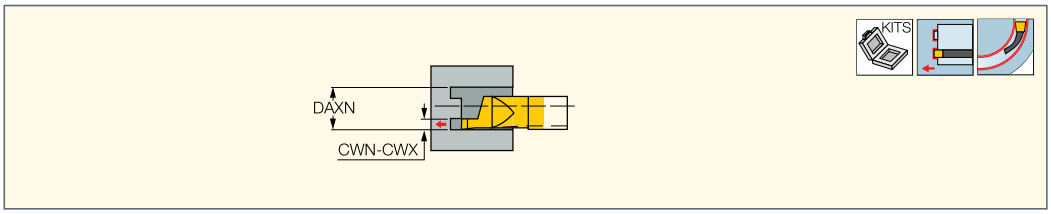
- Only right-hand inserts are available as standard, left-hand inserts on request
- All inserts are with sharp corners
- For detailed cutting data, see page 604

(1) Minimum axial grooving diameter

(2) Minimum overhang

PICCOCUT

KIT PICCO Face
Contains One Toolholder and a Set of Solid Carbide Miniature Face Turning and Grooving Boring Bars



Designation	DAXN(1)	CWN(2)	CWX(3)
KIT PICCO SET-4R	8.0	1.00	3.00

(1) Minimum axial grooving diameter

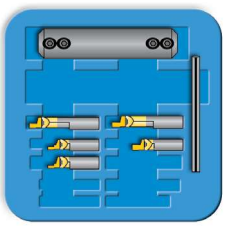
(2) Minimum cutting width

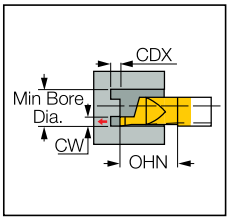
(3) Maximum cutting width

PICCO
Face Grooving PICCO Mini-Bar Tool Set - 4R

Designation	Mini Bore Dia.	OHN	CDX	CW	Pcs.	Designation
PICCO 16.D6					1x	Holder
PICCO R/L 010.1008-10	8.0	11	1.5	1.0	1x	Mini Carbide Bar
PICCO R/L 010.1508-10	8.0	11	2.5	1.5	1x	Mini Carbide Bar
PICCO R/L 010.2008-10	8.0	11	3.0	2.0	1x	Mini Carbide Bar
PICCO R/L 010.2508-20	8.0	21	3.5	2.5	1x	Mini Carbide Bar
PICCO R/L 010.3008-20	8.0	21	3.5	3.0	1x	Mini Carbide Bar

Available grade: IC228

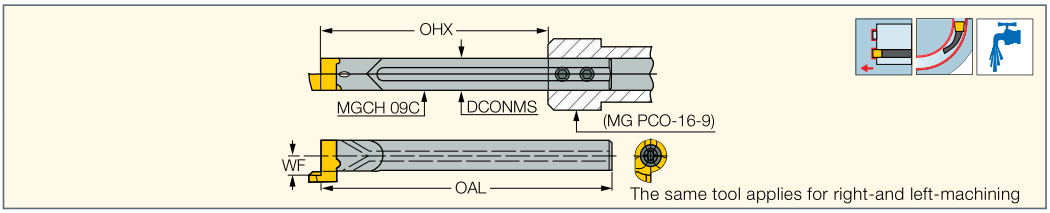




CHAMGROOVE

CHAMGROOVE

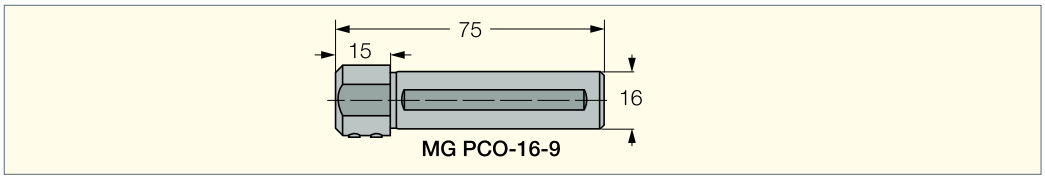
MGCH-C (face)
Face Machining Tools Carrying GFQR Inserts for Dmin 12 - Dmax 19 mm Penetration Range



Designation	DCONMS	OAL	OHX(1)	WF		
MGCH 09C	9.00	83.50	65.0	5.50	SR 76-2145	T-15/5

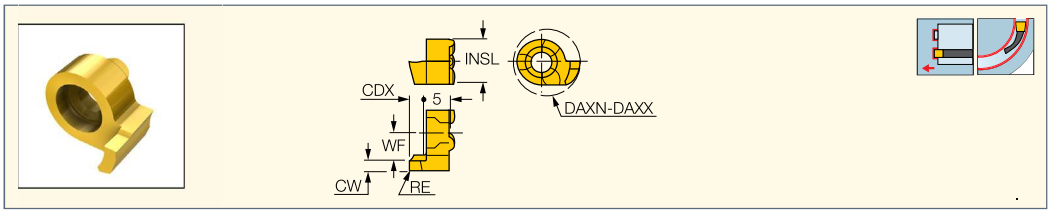
(1) Maximum overhang
Inserts: GFQR
Holders: PICCO/MG PCO (Holder)

MG PCO
Holder Bar for Adjustable Shank



CHAMGROOVE

GFQR
Face Grooving Inserts



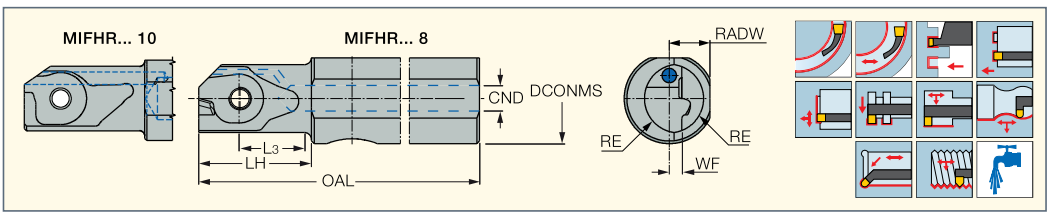
Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)	IC528	Recommended Machining Data f face-groove (mm/rev)
GFQR 12-1.00-0.05	1.00	0.05	0.02	0.030	1.50	12.0	16.0	•	0.01-0.04
GFQR 12-1.50-0.20	1.50	0.20	0.02	0.030	2.50	12.0	17.0	•	0.01-0.04
GFQR 12-2.00-0.20	2.00	0.20	0.02	0.030	3.00	12.4	18.0	•	0.02-0.05
GFQR 12-2.50-0.20	2.50	0.20	0.02	0.030	3.00	13.0	19.0	•	0.02-0.05

• For detailed cutting data, see page 604
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum penetration diameter
(4) Maximum penetration diameter

MINCUT

MINCUT MINI FACE LINE

MIFHR
Bars for Face and Internal Grooving, Undercutting and Threading Inserts



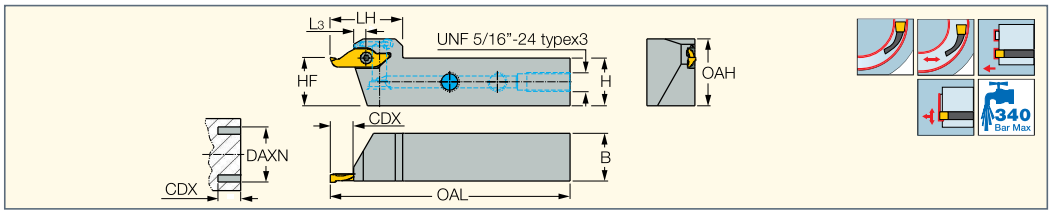
Designation	DCONMS	CND	WF	RADW	OAL	L3	LH	RE	Insert			
MIFHR 8SC-8-SRK (1)	8.00	1.2	1.4	3.70	75.00	7.40	11.7	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 10C-8	10.00	5.0	1.4	4.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-8	12.00	5.0	1.4	5.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-10 (2)	12.00	6.0	2.4	5.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-10 (2)	16.00	6.0	2.4	7.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-15	16.00	8.0	2.7	7.50	100.00	12.50	19.0	10.30	MI.R 15	SR 34-506/L	T-9/5	PL 16
MIFHR 20C-15	20.00	8.5	4.7	9.00	100.00	12.50	19.0	11.30	MI.R 15	SR 34-506/L	T-9/5	PL 20

(1) Solid carbide shank
(2) Only face grooving inserts are available for this tool
Inserts: MEFL • MIFR • MIGR 8 • MITR 8-MT • MIUR 8
Holders: PICCO/MG PCO (Holder)

MINCUT MINI FACE LINE

MFHR-JHP

Square Shank Tools for
MIFR 10 Face Grooving Inserts



Designation	H	B	OAL	LH	L3	CDX	DAXN(1)	OAH	HF	Insert			
MFHR 12C-10-JHP	12.0	12.0	100.00	27.0	5.20	9.00	10.0	20.0	12.0	MI.R 10	SR 34-506	T-9/5	SR 5/16UNF TL360
MFHR 16C-10-JHP	16.0	16.0	100.00	27.0	5.20	9.00	10.0	24.0	16.0	MI.R 10	SR 34-506	T-9/5	SR 5/16UNF TL360
MFHR 20C-10-JHP	20.0	20.0	100.00	30.0	5.20	9.00	10.0	28.0	20.0	MI.R 10	SR 34-506	T-9/5	SR 5/16UNF TL360

• For DAXN, refer to insert data • For user guide and accessories, see pages 604-615

(1) Minimum axial grooving diameter

Inserts: MEFL • MIFR

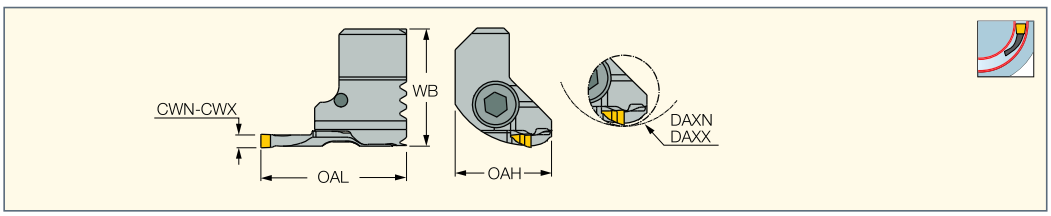
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
MFHR 12C-10-JHP	3	5-9	9-11
MFHR 16C-10-JHP	3	7-9	9-11

MINCUT MINI FACE LINE

IHSR-MIFR

Trepanning Cartridges Carrying
MINCUT Inserts Mounted on the
BHR MB32-32X63 Boring Head



Designation	DAXN(1)	DAXX(2)	CWN(3)	CWX(4)	OAL	WB	OAH	Insert		
IHSR 8-21 MIFR8	8.0	21.0	1.50	2.20	32.00	23.00	17.50	MI.R 8	SR 14-297	T-8/5
IHSR 19-34 MIFR10	19.0	34.0	2.00	3.00	27.00	22.00	17.80	MI.R 10	SR 34-506	T-9/5

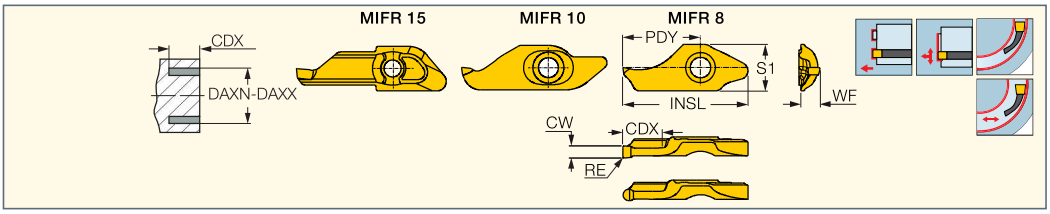
(1) Minimum axial grooving diameter
(2) Maximum axial grooving diameter
(3) Minimum cutting width
(4) Maximum cutting width

Inserts: MIFR

MIN CUT MINI FACE LINE

MIFR

Screw-Clamped Inserts for Internal Face Grooving and Turning



Designation	Dimensions											IC908	Recommended Machining Data	
	INSL	CW	CWTOL(1)	RE	RETOL(2)	WF	S1	DAXN(3)	DAXX(4)	CDX	PDY		f face-groove (mm/rev)	f face-turn (mm/rev)
MIFR 8-1.50-0.20	17.70	1.50	0.02	0.20	0.020	2.60	6.5	8.0	11.5	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 8-1.60-0.80	17.70	1.60	0.02	0.80	0.020	2.60	6.5	8.0	12.1	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 8-2.00-0.20	17.70	2.00	0.02	0.20	0.020	2.80	6.5	8.0	16.0	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 8-2.20-0.20	17.70	2.20	0.02	0.20	0.020	2.90	6.5	8.0	21.0	5.50	11.00	●	0.02-0.10	0.02-0.06
MIFR 10-2.00-0.20	25.10	2.00	0.02	0.20	0.020	3.00	7.6	10.0	-	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-2.00-1.00	25.10	2.00	0.02	1.00	0.020	3.00	7.6	10.0	-	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-2.50-0.20	25.10	2.50	0.02	0.20	0.020	3.10	7.6	10.0	30.0	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-2.50-1.25	25.10	2.50	0.02	1.25	0.020	3.30	7.6	10.0	-	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-3.00-0.20	25.10	3.00	0.02	0.20	0.020	3.40	7.6	10.0	30.0	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 10-3.00-1.50	25.10	3.00	0.02	1.50	0.020	3.30	7.6	10.0	34.0	9.00	14.80	●	0.02-0.10	0.02-0.06
MIFR 15-2.50-0.20	30.00	2.50	0.02	0.20	0.020	5.55	9.0	15.0	60.0	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-2.50-1.25	30.00	2.50	0.02	1.25	0.020	5.55	9.0	12.0	47.0	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-3.00-0.20	30.00	3.00	0.02	0.20	0.020	5.85	9.0	15.0	60.0	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-3.00-1.50	30.00	3.00	0.02	1.50	0.020	5.85	9.0	10.0	-	15.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-3.50-0.20	30.00	3.50	0.02	0.20	0.020	6.00	9.0	10.0	-	15.00	19.30	●	0.03-0.05	0.03-0.04

- Recommended cutting speeds and feeds can increased by 20-30% for aluminum, and reduced by 20-30% for titanium and Inconel
- For cutting speed recommendations, see page 606

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter

Tools: IHSR-MIFR • MFHR-JHP • MIFHR

MIFR 8

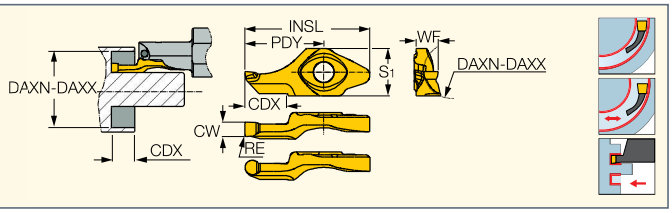
MIFR 10

MIFR 15

MIN CUT MINI FACE LINE

MEFL

Screw-Clamped Inserts for External Face Grooving and Turning Next to Shafts



Designation	Dimensions											IC908	Recommended Machining Data	
	CW	RE	CWTOL(1)	RETOL(2)	WF	S1	CDX	PDY	INSL	DAXN(3)	DAXX(4)		f face-groove (mm/rev)	f face-turn (mm/rev)
MEFL 8-1.50-0.20	1.50	0.20	0.02	0.020	2.60	6.6	5.50	11.00	17.40	8.0	15.0	●	0.02-0.10	0.02-0.06
MEFL 8-1.60-0.80	1.60	0.80	0.02	0.020	2.70	6.6	5.50	11.00	17.40	7.0	12.1	●	0.02-0.10	0.02-0.06
MEFL 8-2.00-0.20	2.00	0.20	0.02	0.020	3.10	6.6	5.50	11.00	17.40	7.0	20.0	●	0.02-0.10	0.02-0.06
MEFL 8-2.00-1.00	2.00	1.00	0.02	0.020	2.90	6.6	5.50	11.00	17.40	7.0	14.0	●	0.02-0.10	0.02-0.06
MEFL 8-2.20-0.20	2.20	0.20	0.02	0.020	3.10	6.6	5.50	11.00	17.40	7.0	20.0	●	0.02-0.10	0.02-0.06
MEFL 10-2.50-0.20	2.50	0.20	0.02	0.020	3.15	7.6	9.00	14.85	24.50	10.0	45.0	●	0.02-0.06	0.02-0.05
MEFL 10-2.50-1.25	2.50	1.25	0.02	0.020	3.15	7.6	9.00	14.85	24.50	10.0	45.0	●	0.02-0.06	0.02-0.05
MEFL 10-3.00-0.20	3.00	0.20	0.02	0.020	3.60	7.6	9.00	14.85	24.50	10.0	100.0	●	0.02-0.06	0.02-0.05
MEFL 10-3.00-1.50	3.00	1.50	0.02	0.020	3.40	7.6	9.00	14.85	24.50	10.0	100.0	●	0.02-0.06	0.02-0.05

- For cutting speed recommendations, see pages 606

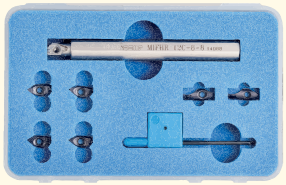
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter

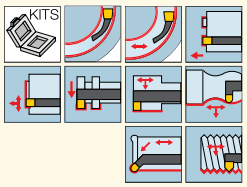
Tools: MFHR-JHP • MIFHR

MIN CUT
MINI FACE LINE

MINCUT KIT

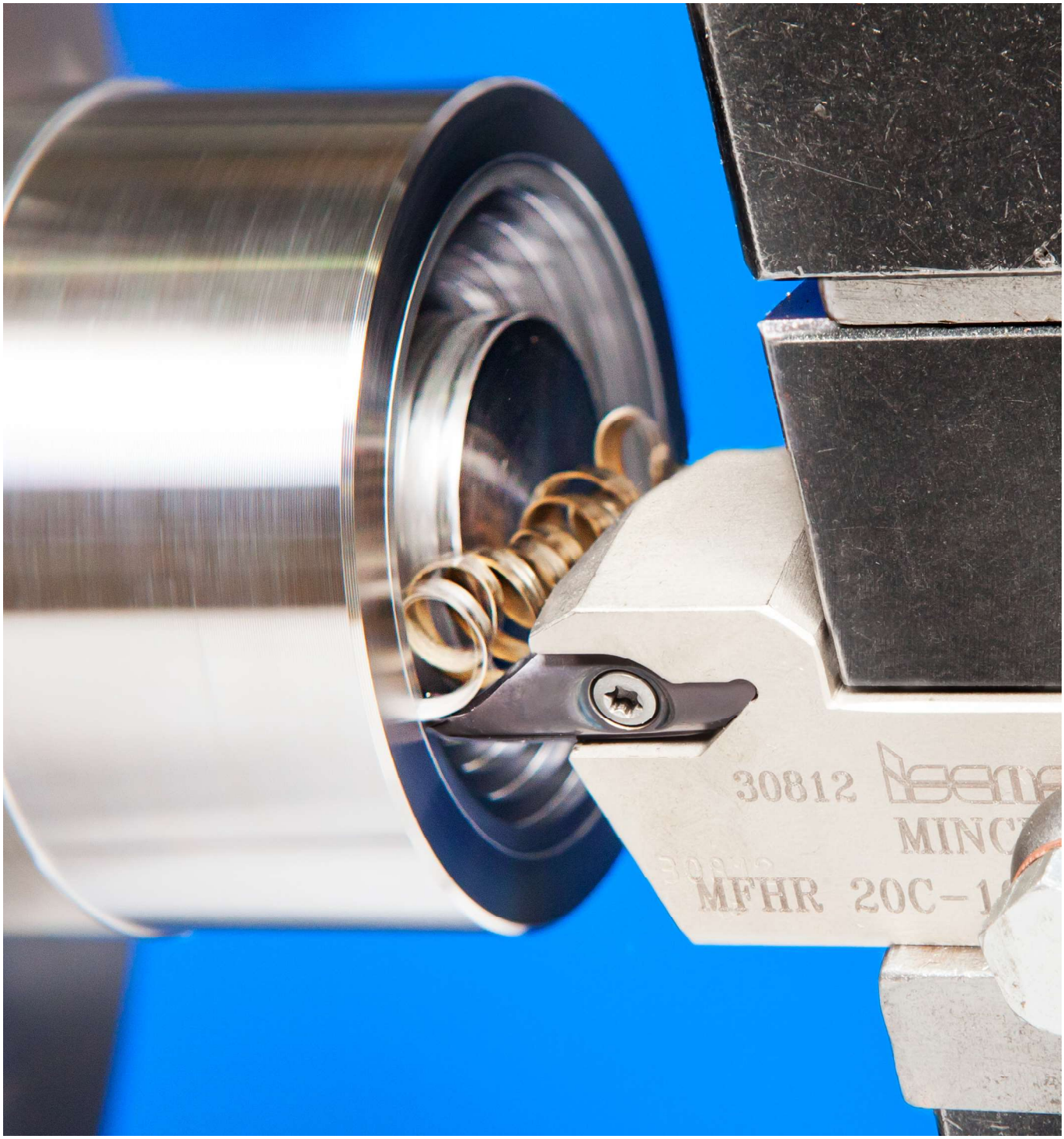
Contains One Toolholder and a Set of 6 Different Inserts for Internal Face Grooving and Turning Applications





Designation	Qty
KIT MINCUT	7

Catalog No	Designation	Quantity
2801523	MIFHR 12C-8	1
6404029	MIGR 8-1.60-0.80	1
6404045	MIFR 8-2.20-0.20	1
6404049	MIFR 8-1.60-0.80	1
6405165	MITR 8-MT1-0.05	1
6405188	MIUR 8-1.00-0.50	1
6405194	MIGR 8-2.00-0.10	1



Cutting Speed Recommendations

HELIFACE

Machining Data for Face Machining

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1
		>= 0.25 %C	Annealed	650	190	2
		< 0.55 %C	Quenched and tempered	850	250	3
		>= 0.55 %C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
	Stainless steel and cast steel		Ferritic/martensitic	680	200	12
			Martensitic	820	240	13
M	Stainless steel and cast steel		Austenitic	600	180	14
K	Cast iron nodular (GG)		Ferritic/pearlitic		180	15
			Pearlitic/ Martensitic		260	16
	Grey cast iron (GGG)		Ferritic		160	17
			Pearlitic		250	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum-wrought alloys		Not cureable		60	21
			Cured		100	22
	Aluminum-cast-alloys	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temperature		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics			29
			Hard rubber			30
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
		Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium Ti alloys			RM 400		36
			Alpha+beta alloys cured	RM 1050		37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron		Hardened		55 HRC	41

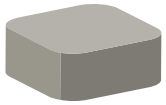
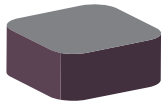
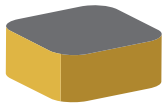
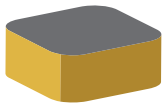
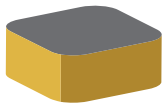
Material No.	IC228/528	IC830	IC354	IC908	IC808	IC8250
1	85 - 125	90 - 135	95 - 145	120 - 180	125 - 190	180 - 270
2	75 - 110	80 - 115	90 - 125	110 - 155	115 - 165	165 - 230
3	60 - 85	65 - 95	70 - 100	85 - 125	90 - 130	125 - 185
4	65 - 100	70 - 110	75 - 115	95 - 145	100 - 150	140 - 215
5	50 - 85	55 - 90	60 - 95	75 - 120	80 - 125	110 - 180
6	65 - 100	70 - 110	75 - 115	95 - 145	100 - 150	140 - 215
7	50 - 85	55 - 95	60 - 100	75 - 125	80 - 130	110 - 185
8	50 - 85	55 - 90	60 - 95	75 - 120	80 - 125	110 - 180
9	50 - 75	50 - 80	55 - 90	70 - 110	75 - 115	105 - 165
10	75 - 110	80 - 115	90 - 125	110 - 155	115 - 165	165 - 230
11	50 - 75	50 - 80	55 - 90	70 - 110	75 - 115	105 - 165
	IC806	**IC808**	**IC354**	**IC830**	**IC20**	
12	110 - 200	100 - 180	80 - 145	75 - 135	50 - 90	
13	100 - 185	90 - 170	70 - 135	65 - 125	45 - 85	
	IC806	**IC808**	**IC354**	**IC830**	**IC20**	
14	90 - 170	80 - 155	65 - 125	60 - 115	40 - 75	
	IC5010	**IC428**	**IC8250**	**IC808**	**IC20**	
15	135 - 255	125 - 230	110 - 205	85 - 160	60 - 115	
16	120 - 180	110 - 160	100 - 145	75 - 110	55 - 80	
17	130 - 215	120 - 195	110 - 175	85 - 135	60 - 95	
18	105 - 170	95 - 155	85 - 140	65 - 110	45 - 75	
19	160 - 265	145 - 240	130 - 215	100 - 170	70 - 120	
20	130 - 215	120 - 195	110 - 175	85 - 135	60 - 95	
	IC808	**IC20**				
21	330 - 990	300 - 900				
22	250 - 825	225 - 750				
23	250 - 825	225 - 750				
24	165 - 495	150 - 450				
25	165 - 330	150 - 300				
26	165 - 330	150 - 300				
27	120 - 250	110 - 225				
28	80 - 165	75 - 150				
29	40 - 165	35 - 150				
30						
	IC806	**IC908**	**IC808**	**IC830**	**IC20**	
31	45 - 70	35 - 55	35 - 60	25 - 40	25 - 40	
32	30 - 50	25 - 40	25 - 40	20 - 30	15 - 30	
33	30 - 50	25 - 40	25 - 40	20 - 30	15 - 30	
34	25 - 45	20 - 35	20 - 35	15 - 25	15 - 25	
35	20 - 30	15 - 25	15 - 25	10 - 20	10 - 15	
36	105 - 180	85 - 145	90 - 150	65 - 110	60 - 100	
37	40 - 50	30 - 40	30 - 40	25 - 35	35 - 45	
	IC808	**IC20**				
38	25-30	20-30				
39	20-30	15-25				
40	30-45	30-40				
41	25-30	25-30				

CHAMGROOVE PICCOCUT

Machining Data for Face Machining

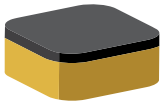
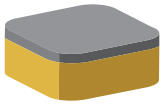
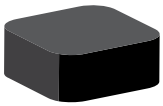
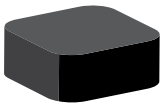
ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.	Cutting Speed (m/min)	GFQR IC528 Feed (mm/rev)	PICCO IC228 Feed (mm/rev)	MIFR/ MEFL 8 IC908 Feed (mm/rev)	MIFR 10 IC908 Feed (mm/rev)	MIFR 15 IC908 Feed (mm/rev)
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	1	80-180	0.02-0.08	0.015-0.05	0.015-0.08	0.03-0.10	0.03-0.08
		>= 0.25 %C	Annealed	650	190	2						
		< 0.55 %C	Quenched and tempered	850	250	3	80-130	0.02-0.06	0.015-0.04			
		>= 0.55 %C	Annealed	750	220	4						
			Quenched and tempered	1000	300	5	80-120	0.02-0.06	0.015-0.04			
	Low alloy and cast steel (less than 5% of alloying elements)		Annealed	600	200	6	80-140	0.02-0.08	0.015-0.04			
			Quenched and tempered	930	275	7	80-140	0.02-0.08	0.015-0.04			
				1000	300	8	80-120	0.02-0.06	0.015-0.03			
				1200	350	9	80-120	0.02-0.05	0.015-0.03			
	High alloyed steel, cast steel, and tool steel		Annealed	680	200	10	80-140	0.02-0.08	0.015-0.04			
			Quenched and tempered	1100	325	11	80-120	0.02-0.08	0.015-0.03			
	Stainless steel and cast steel		Ferritic/ martensitic	680	200	12	40-120	0.02-0.08	0.015-0.04	0.015-0.07	0.03-0.08	0.02-0.05
			Martensitic	820	240	13	40-120	0.02-0.07	0.015-0.04	0.015-0.07	0.03-0.08	0.02-0.05
M	Stainless steel and cast steel		Austenitic	600	180	14	40-100	0.02-0.06	0.015-0.03	0.015-0.07	0.03-0.08	0.02-0.05
K	Cast iron nodular (GG)		Ferritic/ pearlitic		180	15	80-140	0.02-0.08	0.015-0.05	0.02-0.10	0.05-0.12	0.04-0.10
			Pearlitic/ Martensitic		260	16	80-120	0.02-0.07	0.015-0.04			
	Grey cast iron (GGG)		Ferritic		160	17	80-140	0.02-0.08	0.015-0.04			
			Pearlitic		250	18	80-120	0.02-0.07	0.015-0.04			
	Malleable cast iron		Ferritic		130	19	80-140	0.02-0.06	0.015-0.04			
			Pearlitic		230	20	80-120	0.02-0.07	0.015-0.04			
N	Aluminum-wrought alloys		Not cureable		60	21	150-320	0.02-0.08	0.015-005	0.02-0.10	0.05-0.15	0.05-0.12
			Cured		100	22	100-250	0.02-0.08	0.015-005			
	Aluminum-cast-alloys	<=12% Si	Not cureable		75	23	150-300	0.02-0.08	0.015-005			
			Cured		90	24	150-300	0.02-0.08	0.015-005			
		>12% Si	High temperature		130	25	100-150	0.02-0.08	0.015-005			
	Copper alloys	>1% Pb	Free cutting		110	26	80-230	0.02-0.08	0.015-005			
			Brass		90	27	70-200	0.02-0.08	0.015-005			
			Electrolitic copper		100	28	50-180	0.02-0.08	0.015-005			
	Non-metallic		Duroplastics, fiber plastics			29						
			Hard rubber			30						
S	High temp. alloys	Fe based	Annealed		200	31	20-40	0.02-0.06	0.015-0.04	0.015-0.7	0.02-0.08	0.02-0.05
			Cured		280	32	15-30	0.02-0.06	0.015-0.04			
		Ni or Co based	Annealed		250	33	15-20	0.02-0.06	0.015-0.04			
			Cured		350	34	15-20	0.02-0.06	0.015-0.04			
			Cast		320	35	15-20	0.02-0.06	0.015-0.04			
	Titanium Ti alloys			RM 400		36	40-120	0.02-0.06	0.015-0.04			
			Alpha+beta alloys cured	RM 1050		37	20-50	0.02-0.06	0.015-0.04			
H	Hardened steel		Hardened		55 HRC	38						
			Hardened		60 HRC	39						
	Chilled cast iron		Cast		400	40						
	Cast iron		Hardened		55 HRC	41						

ISCAR Face Gooving Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC354	P20-P40 M20-M30	A tough substrate with PVD coating, suitable for general use on a wide range of carbon steels, alloy steels and stainless steel at moderate speeds and feeds.	TiCN Base	
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC830	P30-P45 M25-M40 S20-S30	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	

* For coated grades

ISCAR Face Gooving Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
CVD COATED	IC5010	K10-K20	A hard substrate with MTCVD coating with a special SUMOTEC surface treatment. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds, provides very good resistance to chipping.	TiN Al_2O_3 TiCN Base	
	IC8250	P15-P35 M15-M25	A tough substrate with a cobalt enriched layer and MTCVD coating with a special SUMOTEC surface treatment. Recommended for general use machining of steels, alloy steels and martensitic stainless steel in a wide range of conditions. Features high toughness and good wear resistance.	TiN Al_2O_3 TiCN Base	
	IC418	K10-K25	A tough substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at medium to high cutting speeds. Can be used for interrupted cuts and under heavy machining conditions.	Al_2O_3 Tic Base	
	IC428	K05-K20 H15-H25	A hard substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds.	Al_2O_3 Tic Base	
	IC9015	P10-P25 K10-K15	A hard substrate with a cobalt enriched layer and MTCVD coating. Recommended for high speed machining of steels, alloy steels and martensitic stainless steel with moderate feeds at stable conditions.	TiN Al_2O_3 TiCN Base	

* For coated grades

	Grade	ISO	Grade Description	Coating Layers	Uncoated
UNCOATED	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base	
	IC20	K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	

Clamping the Insert

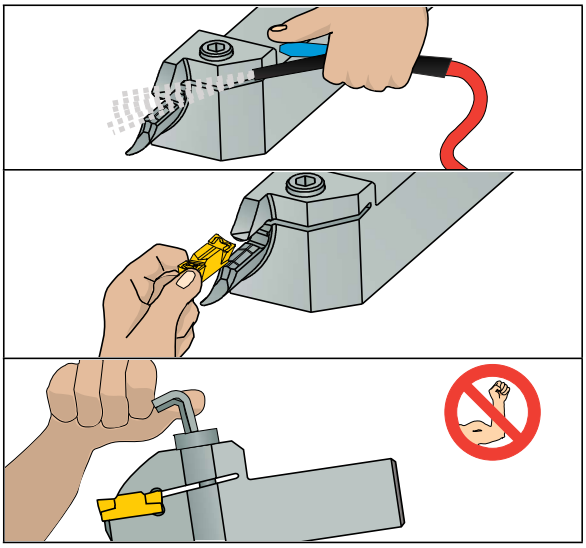
Clamping an insert correctly into the holder is necessary for stable machining.

- Be sure that the seat is clean of dirt and swarf.
- In the first stage of clamping, ease the insert gently into place. Make sure that the prismatic surfaces match.

Screw Clamping Torque

Insert Width	Nxm
3	4-5
4	5-6
5	6-7
6/8	7-9
CGFG 51...	4-6

The unique chipformer is designed for deep grooving and face turning both toward and away from the center with excellent chip formation.

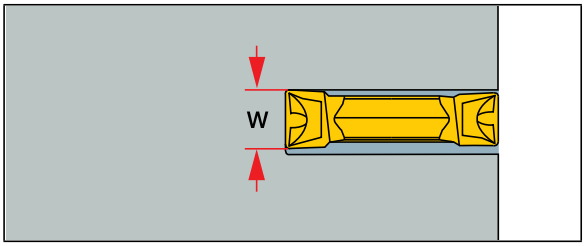


HELI-FACE HFPR/L & HGPL Type	HELI-GRIP GRIP...Y Type
	
For general use in turning & grooving on all types of materials. Use for deep grooving in low-to-medium feeds 0.04-0.15 mm/rev. Min grooving dia. 12 mm.	The "all in one" insert for parting, external grooving and turning, internal grooving and turning, face grooving and turning.

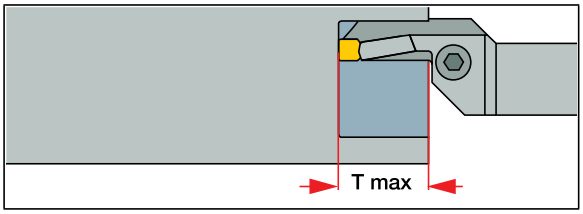
DO-GRIP DGN...C Type	DO-GRIP DGN...J Type
	
For grooving operations only. Strong cutting edge for hard materials and tough applications in feeds 0.1-0.2 mm/rev.	For grooving operations only. Positive rake, for soft materials in low-to-medium feeds 0.05-0.15 mm/rev.

Face Machining Guide

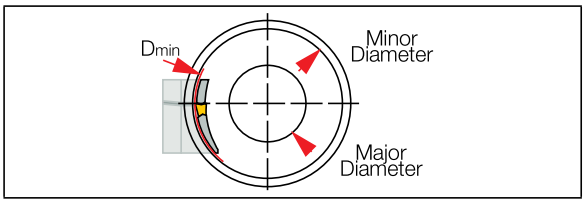
Tool Selection - Follow these recommendations to choose the right tool for high peformance.



Choose the widest possible insert and tool, according to the cutting width and geometry to be machined.



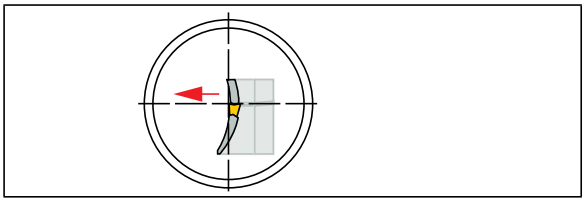
Choose the shortest tool blade overhang, according to the maximum depth required.



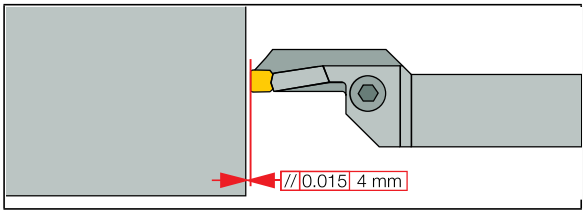
Choose the tool range with the largest diameter, depending on the initial grooving diameter required in the application.

Remark: On integral shank tools the given range refers to the holder capacity.

Tool Adjustment - Prior to machining, check and adjust the following tool positions.



Check the cutting edge height at center line, machine in light turning down to center and check for burr.

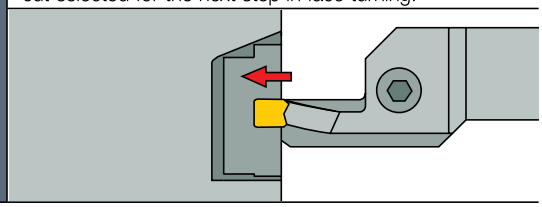


Check parallelism of the cutting edge and machined surface. Correct position can guarantee good surface quality when face turning in both directions.

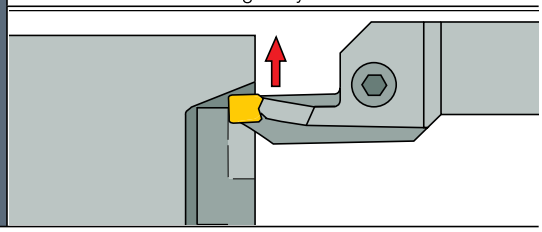
Face Machining Guide

Recommended machining sequence in roughing operation using multifunction HELI-FACE tools.

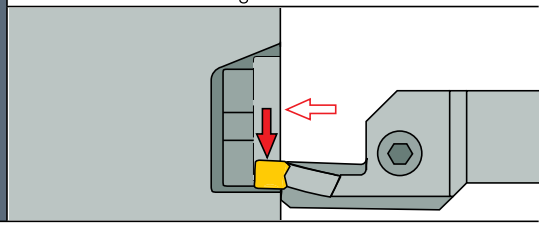
1 Groove at the initial diameter up to the depth of cut selected for the next step in face turning.



2 Continue with face turning away from the center.



3 After rapid positioning back into initial groove, continue with face turning to center.

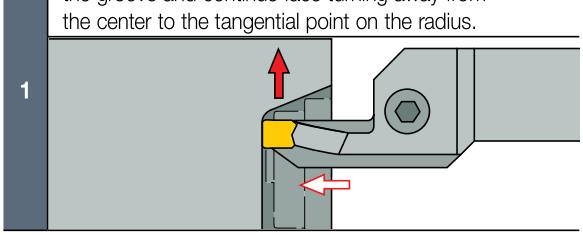


Note: When face grooving, reduce the speed by 40% in relation to that used in face turning.

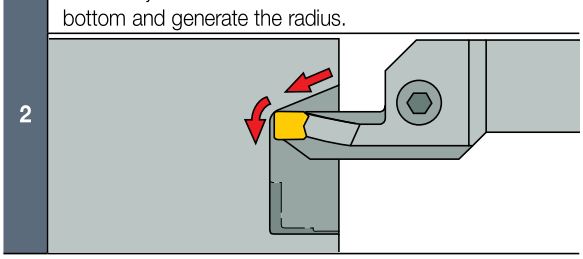
Optimizing the Machining Sequence

Recommended machining sequence using multifunction tools.

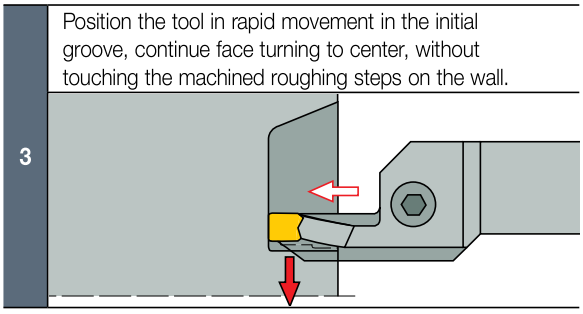
1 Groove at the initial diameter to the final depth of the groove and continue face turning away from the center to the tangential point on the radius.



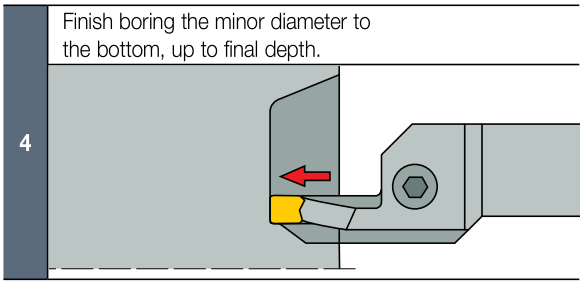
2 Finish major diameter toward the bottom and generate the radius.



3 Position the tool in rapid movement in the initial groove, continue face turning to center, without touching the machined roughing steps on the wall.



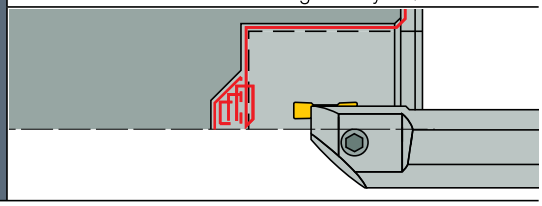
4 Finish boring the minor diameter to the bottom, up to final depth.



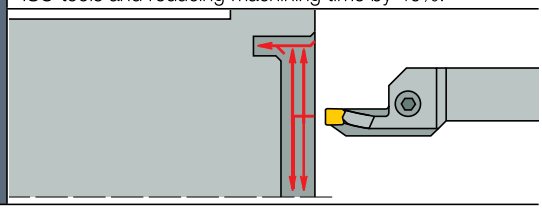
Note: When face grooving, reduce the speed by 40% in relation to that used in face turning.

The Multifunction Advantage

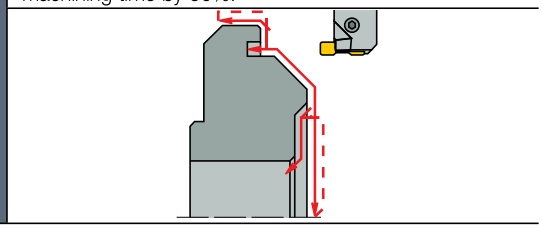
1 The **HELI-FACE** internal boring bar HFIR/L MC typewith internal coolant can replace the three different ISO tools and shorten machining time by 20%.



2 A single multifunction tool machines the whole part: grooving, face turning and chamfering, replacing three ISO tools and reducing machining time by 40%.



3 A single integral **HELI-FACE** tool HFHPL-M replaces three ISO tools and reduces machining time by 50%.

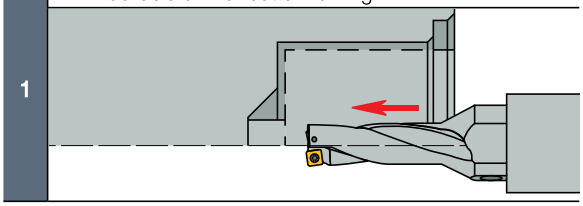


Note: When face grooving, reduce the speed by 40% in relation to that used in face turning.

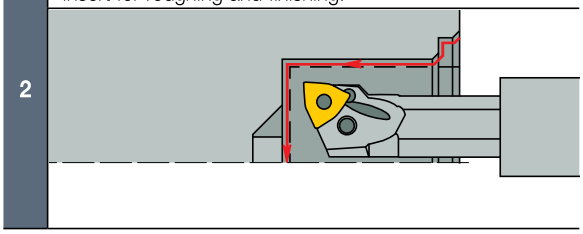
The Multifunction Advantage

This workpiece was machined using three different conventional tools.

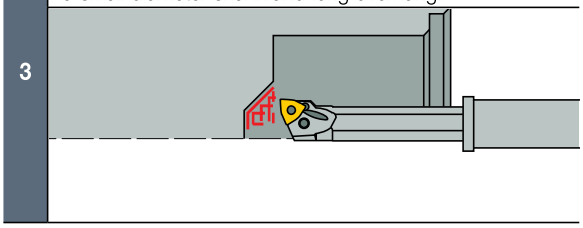
1 An indexable drill for bottom drilling.



2 A standard internal boring bar with a trigon insert for roughing and finishing.

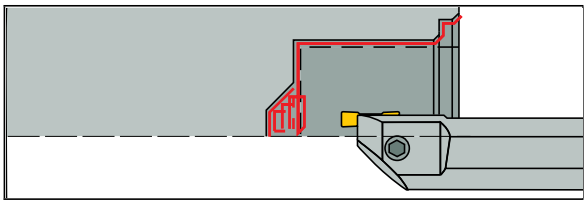


3 A standard internal boring bar with a trigon insert for bottom machining. This operation requires a small diameter shank and long overhang.



The HELI-FACE Solution

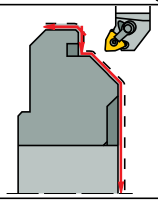
The **HELI-FACE** internal boring bar HFIR/L MC type with internal coolant can replace the three different ISO tools and shorten machining time by 20%.



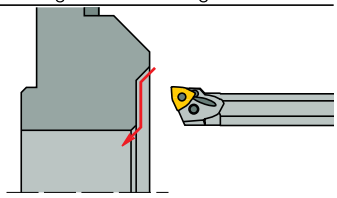
The Multifunction Advantage

This part was machined using three different conventional tools.

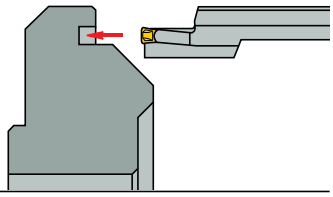
1 A standad ISO tool for external turning.



2 A boring bar for face turning and chamfering.

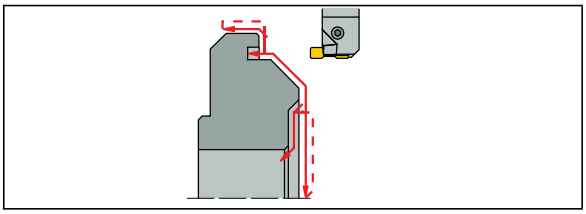


3 A face grooving tool for grooving, recessing and chamfering.



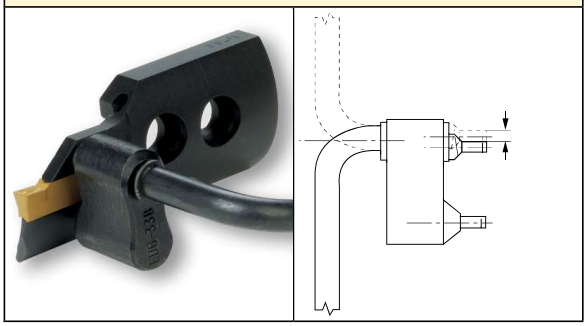
The HELI-FACE Solution

A single integral **HELI-FACE** tool HFHPL-M replaces three ISO tools and reduces machining time by 50%.



Insert Replacement

EDG 33B



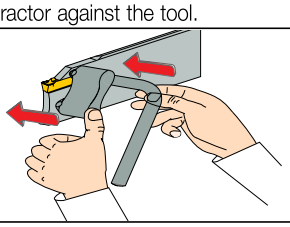
Eccentric Extractor

Simple to operate; controlled rotation requires low force; guarantees limited upper jaw movement and secures maximum load on blade.
Two extractor pins are placed in the two holes in the holder blades.

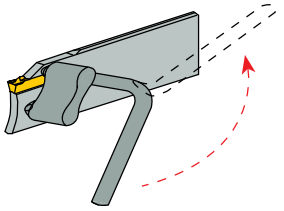
Indexing

Place the EDG extractor in the holes

1 Hold the extractor against the tool.

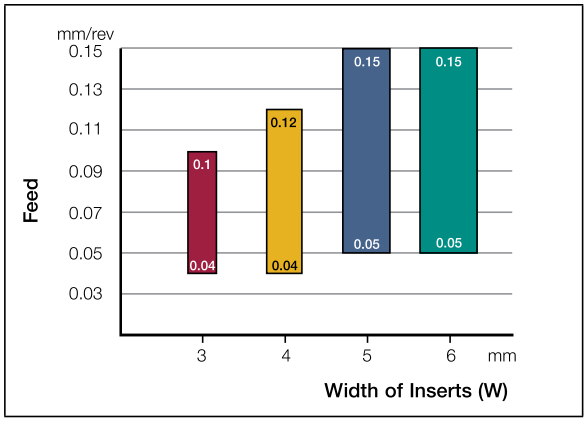


2 Rotate the eccentric handle to lift the upper jaw.

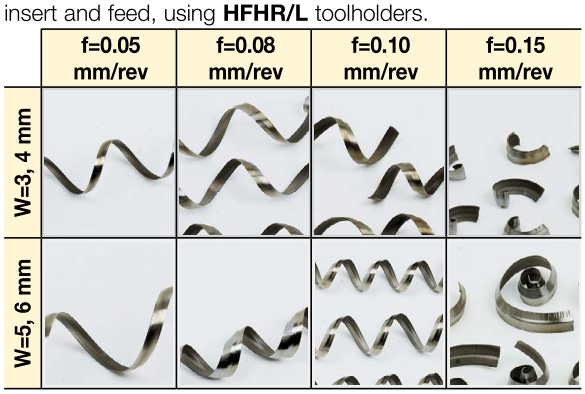


Machining Conditions in Face Grooving

Recommended feed range for grooving with **HFPR/L** inserts in various widths.

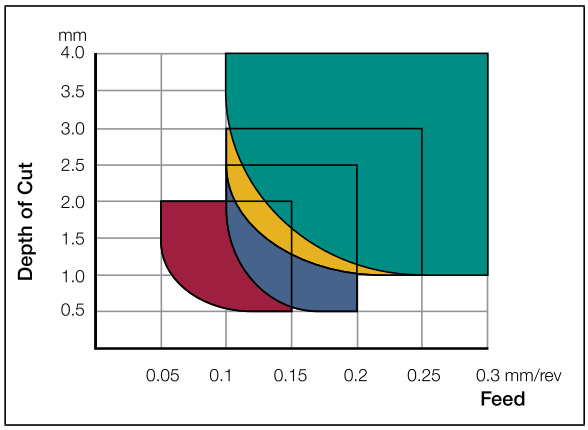


Chip shapes for grooving, according to width of insert and feed, using **HFHR/L** toolholders.

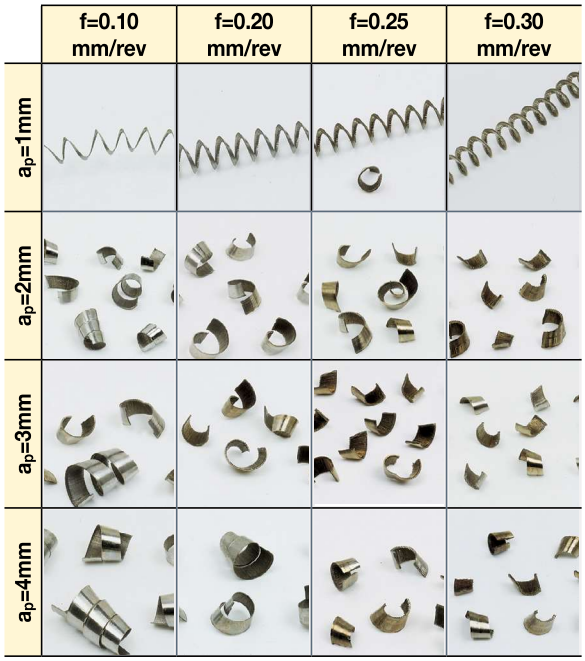


Note: In face grooving, narrowed and deformed chips are preferred. Curled and long chips can flow out more easily from deep grooves.

Recommended depth of cut and feed range for face turning using **HFHR/L** toolholders carrying **HFPR/L** inserts in various widths.



Chip shapes in face turning with inserts HFPR/L-5004 & **HFPR/L** 6004 and **HFHR/L** toolholders.



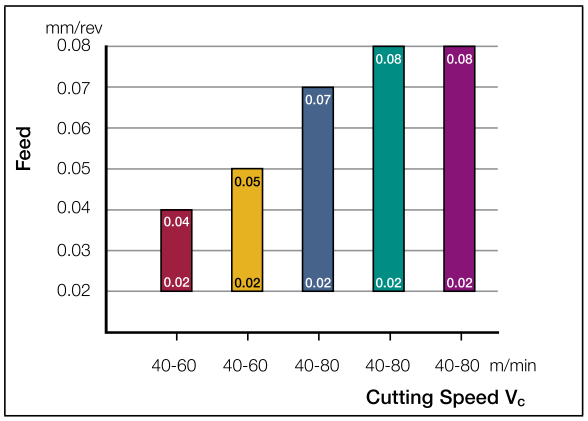
Note: In roughing, increase feed at small depth of cut and reduce feed at large depth of cut.

- HFPR/L 3003 GRIP/HGPL 300Y
- HFPR/L 4004 GRIP/HGPL 400Y
- HFPR/L 5004 GRIP/HGPL 500Y
- HFPR/L 6004 GRIP/HGPL 600Y

Face Grooving and Turning Recommendations

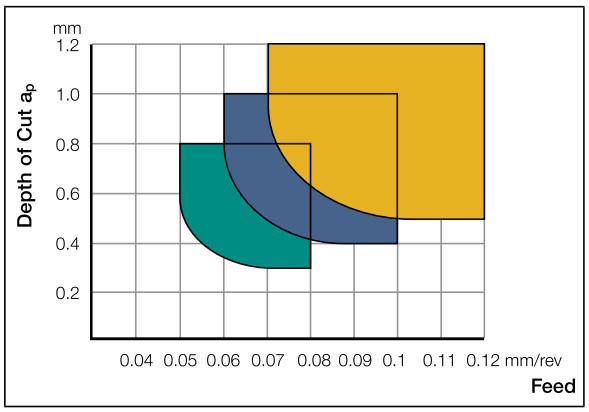
Using Adapters for 3 mm Inserts

Recommended feed range for grooving with Grip 3... and **HGPL 3...** inserts and **HGAIR/L** and **HGAER/L** adapters. Feed range changes according to adapter type.



- **HGAIR/L 12-3T6**
  HGAER/L 12-3T6
- **HGAIR/L 14-3T7**
  HGAER/L 14-3T7
- **HGAIR/L 17-3T8**
  HGAER/L 17-3T8
- **HGAIR/L 21-3T9**
  HGAER/L 21-3T9
- **HGAIR/L 25-3T9**

Recommended depth of cut and feed range for turning with **HGPL 3...** inserts with **HGAIR/L** and **HGAER/L** adapters. Feed range changes according to adapter type.

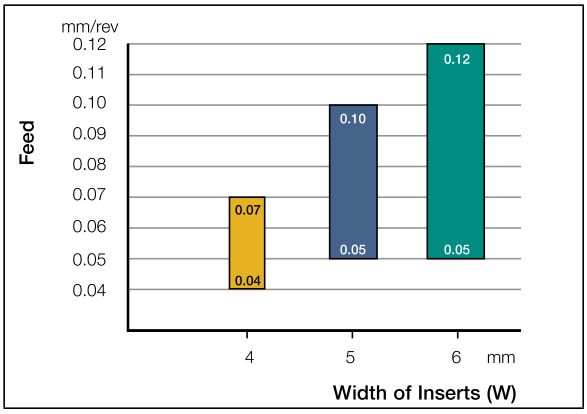


- **HGAIR/L 21-3T9**
  HGAER/L 21-3T9
  HGAIR/L 25-3T9
- **HGAIR/L 14-3T7**
  HGAER/L 14-3T7
  HGAIR/L 17-3T8
  HGAER/L 17-3T8
- **HGAIR/L 12-3T6**
  HGAER/L 12-3T6

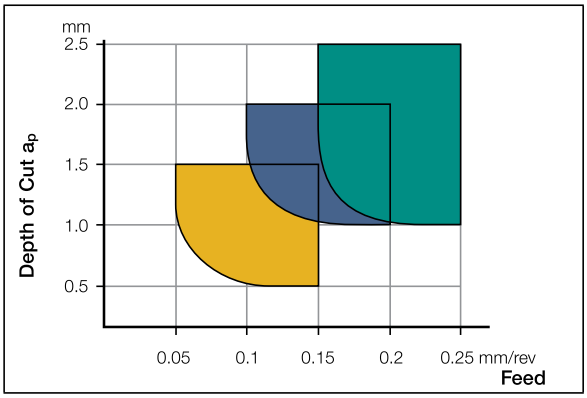
Note: In roughing, increase feed at small depth of cut, and reduce feed at large depth of cut.

Using Adapters for 4-6 mm Inserts

Recommended feed range in grooving with **HFPR/L** inserts and **HFAIR/L** & **HFAER/L** adapters.



Recommended depth of cut and feed range in turning with **HFPR/L** inserts and **HFAIR/L** & **HFAER/L** adapters. Feed range changes according to adapter type.



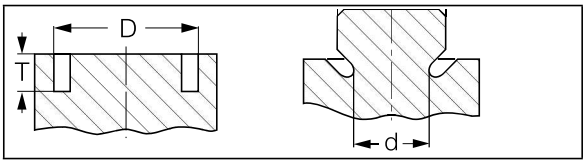
- **HFAIR/L- ...4**
  HFAER/L- ...4
- **HFAIR/L- ...5**
  HFAER/L- ...5
- **HFAIR/L- ...6**
  HFAER/L- ...6

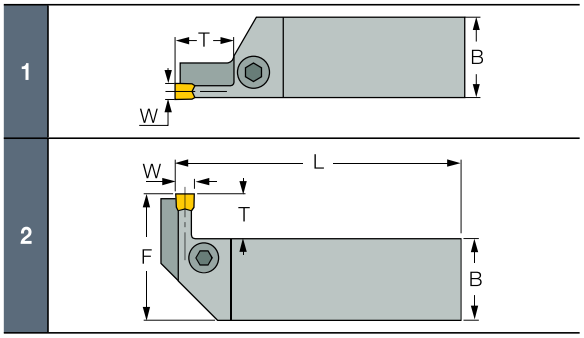
Note: In roughing, reduce feed when depth of cut is increased, ad increase feed at small depth of cut.

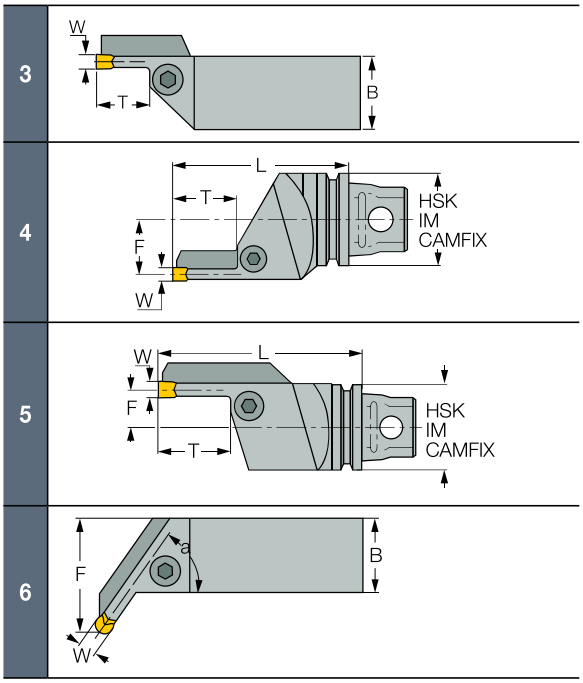
Specially Tailored

Semi-Standard Face Grooving and Undercutting Tools

The following drawings show typical semi-standard face grooving tools that can be ordered. Please specify all relevant dimensions and attach workpiece material geometric details.







Grade Selection for Facing Applications

Material groups		ISO P		ISO M	ISO K	ISO N	ISO S	ISO H
		1-11	12-13	14	15-20	21-28	31-37	38-41
		Steel	Stainless Steel Ferritic & Martensitic	Stainless Steel Austenitic & Duplex (Ferritic-Austenitic)	Cast Iron	Non-ferrous	High Temperature Alloys	Hard Steel & Cast Iron
FACING	Harder	IC808	IC808	IC808	IC5010			IC808
		IC8250	IC8250	IC8250		IC20	IC20	
		IC830	IC830			IC08		IC908
	Tougher				IC428		IC808	

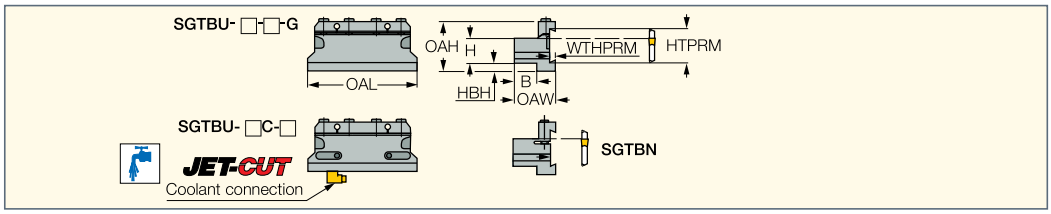
■ First choice

TOOL BLOCKS

TOOL BLOCKS

SGTBU/SGTBN

Blocks for Various Parting and Grooving Blades



Designation	H	B	HTPRM	OAW	OAH	HBH	WTHPRM	OAL
SGTBN 16-2	16.0	16.0	19.0	26.00	30.0	4.0	2.00	76.00
SGTBU 16-5G	16.0	17.0	26.0	34.00	43.0	13.0	4.10	86.00
SGTBU 20-5G	20.0	21.0	26.0	38.00	43.0	9.0	4.10	86.00
SGTBU 20-6G	20.0	19.1	32.0	38.20	50.0	12.9	5.30	100.00
SGTBU 25-5G	25.0	26.1	26.0	43.10	45.0	5.0	4.10	110.00
SGTBU 25-6G	25.0	23.0	32.0	42.20	50.0	7.8	5.30	110.00
SGTBU 25-8M	25.0	23.0	45.0	42.20	70.0	27.0	5.30	110.00
SGTBU 25C-6 (1)	25.0	23.0	32.0	42.20	50.0	7.8	5.30	110.00
SGTBU 32-25-6G	32.0	25.1	32.0	44.15	54.0	4.8	5.30	110.00
SGTBU 32-6G	32.0	29.1	32.0	28.20	54.0	4.8	5.30	110.00
SGTBU 32-8M	32.0	29.0	45.0	48.20	70.0	20.0	5.30	110.00
SGTBU 32C-14 (1)	32.0	28.0	52.6	63.00	99.8	41.7	12.60	140.00
SGTBU 40-6G	40.0	-	32.0	60.00	57.0	-	5.30	114.00
SGTBU 40-9	40.0	41.0	52.6	66.00	81.0	22.0	8.00	130.00
SGTBU 40C-14 (1)	40.0	28.0	52.6	63.00	99.8	33.8	12.60	140.00
SGTBU 50-9	50.0	41.0	52.6	66.00	83.0	14.0	8.00	135.00
SGTBU 50C-14 (1)	50.0	28.0	52.6	63.00	99.8	23.8	12.60	140.00
SGTBU 100-9-12 (2)	50.0	49.0	100.0	106.00	155.0	73.5	15.00	225.00
SGTBU 150-9-12 (2)	50.0	49.0	150.0	106.00	209.0	127.5	15.00	306.00

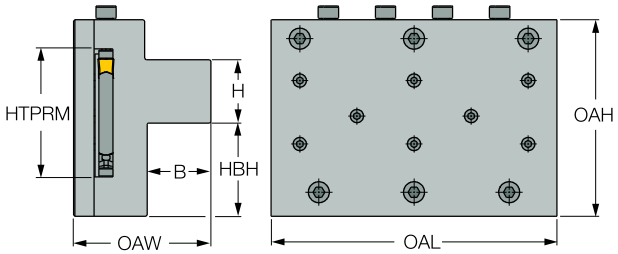
- Choose blade by HTPRM and WTHPRM dimensions

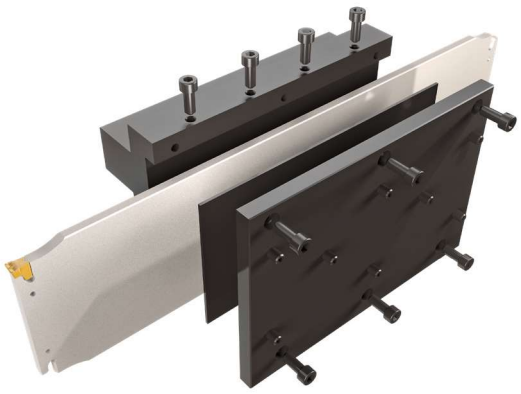
(1) Elbow-style connector unit supplied with each JET-CUT tool block

(2) See more detailed information below

Tools: Anti-Vibration Blades • CGFG 51-P8 • CGHN-8-10D • CGHN-D • CGHN-DG • CGHN-P8 • CGHR/L-12-14D • CGHR/L-P8DG • DGFH • DGFHR/L • DGFHR/L-B-D..(R/L) • HFFA • HFFH • HFFR/L-T • HGFH • PCHBR/L • SGFFA • SGFFH • TGFH/R/L • TGFHL-TR • TGFHR/L • TGHN-D • TNFFA-IQ • TNFFH-IQ

SGTBU 100/150-9-12





Spare Parts

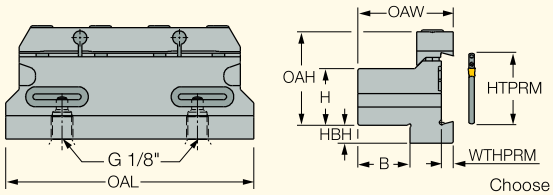
Designation										
SGTBN 16-2		SR M5X20DIN912		HW 4.0						
SGTBU 16-5G	BKU 86	SR M6X16 DIN912		HW 5.0						
SGTBU 20-5G	BKU 86	SR M6X16 DIN912		HW 5.0						
SGTBU 20-6G	BKU 100	SR M6X16 DIN912		HW 5.0						
SGTBU 25-5G	BKU 105	SR M6X16 DIN912		HW 5.0						
SGTBU 25-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 25-8M	BKU 110	SR M6X16 DIN912	SR M6X30 DIN912	HW 5.0						
SGTBU 25C-6	BKU 110	SR M6X16 DIN912		HW 5.0			SGCU-344*	CF 343*	CGF 343*	CGM 343*
SGTBU 32-25-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 32-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 32-8M	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 32C-14	BKU 32-14	SR M10X30 DIN912		HW 8.0	JHP ELBOW 90-G1/8-7/16UNF	OR 34X2.5N				
SGTBU 40-6G	BKU 110	SR M6X16 DIN912		HW 5.0						
SGTBU 40-9	BK 509	SR M8X25DIN912		HW 6.0						
SGTBU 40C-14	BKU 32-14	SR M10X30 DIN912		HW 8.0	JHP ELBOW 90-G1/8-7/16UNF	OR 34X2.5N				
SGTBU 50-9	BK 509	SR M8X25DIN912		HW 6.0						
SGTBU 50C-14	BKU 32-14	SR M10X30 DIN912		HW 8.0	JHP ELBOW 90-G1/8-7/16UNF	OR 34X2.5N				
SGTBU 100-9-12		SR M10X25 DIN912		HW 8.0						
SGTBU 150-9-12		SR M10X25 DIN912		HW 8.0						

* Optional, should be ordered separately

JETCUT

TGTBU-JHP

Tool Blocks for Parting and Grooving Blades for High Pressure Coolant



Choose blade by prism height dimension

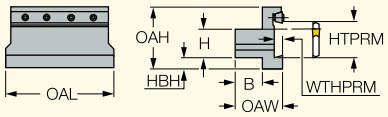
Designation	H	B	HTPRM	OAW	OAH	HBH	WTHPRM	OAL				
TGTBU 16-5G-JHP	16.0	16.9	26.0	35.60	29.9	13.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-5G-JHP	20.0	20.9	26.0	39.60	33.9	9.1	4.10	86.00	BKU 86	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-35-JHP	20.0	19.0	35.0	38.00	32.3	23.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 20-6G-JHP	20.0	19.0	32.0	39.20	36.4	15.0	5.30	100.00	BKU 100	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-5G-JHP	25.0	26.1	26.0	44.10	39.0	5.5	4.10	110.00	BKU 105	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-6G-JHP	25.0	23.0	32.0	43.20	41.4	8.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 25-35-JHP	25.0	23.0	35.0	42.00	37.3	18.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-6G-JHP	32.0	29.0	32.0	49.20	48.4	5.0	5.30	110.00	BKU 110	SR M6X16 DIN912	HW 5.0	OR 14X2.5N N
TGTBU 32-35-JHP	32.0	29.0	35.0	48.00	44.3	11.7	6.00	110.00	BKU 210	SR M6X20 DIN912	HW 5.0	OR 14X2.5N N

Tools: DGFH-JHP • DGFHR/L-BC-JHP • TGFH-JHP • TGFHR/L-JHP

TOOL BLOCKS

SGTBK

Blocks for Heavy Duty Parting and Grooving Blades



Designation	H	B	WTHPRM	HTPRM	OAW	OAH	HBH	OAL			
SGTBK 32-9	32.0	28.0	8.50	32.0	48.00	62.0	3.0	120.00	BK 32-9 WEDG	SR M6X16 DIN912	HW 5.0
SGTBK 38-9	38.0	35.0	8.50	52.6	60.00	90.0	25.0	135.00	BK 40-9	SR M6X20 DIN912	HW 5.0
SGTBK 40-9	40.0	35.0	8.50	52.6	60.00	90.0	23.0	135.00	BK 40-9	SR M6X20 DIN912	HW 5.0
SGTBK 50-9	50.0	40.0	8.50	52.6	65.00	90.0	15.0	135.00	BK 40-9	SR M6X20 DIN912	HW 5.0

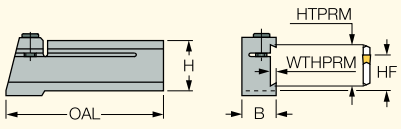
• Choose blade by HTPRM dimension

Tools: Anti-Vibration Blades • CGFG 51-P8 • CGHN-8-10D • CGHN-P8 • CGHR/L-12-14D • CGHR/L-P8DG • DGFH • HFFH • PCHBR/L • SGFFH • TGFH/R/L • TGFHR/L • TNFFH-IQ

TOOL BLOCKS

SGTBR/L

Blocks for Parting and Grooving Blades for Conventional Lathes



Right-hand shown

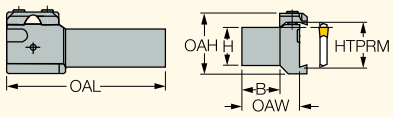
Designation	H	HF	HTPRM	B	OAL	WTHPRM		
SGTBR 19-2	25.0	19.0	19.0	19.0	100.00	2.00	SR M6X25 DIN912	HW 5.0
SGTBL 25-6	32.0	25.0	26.0	20.0	121.50	5.00	SR M6X25 DIN912	HW 5.0
SGTBR 25-6	32.0	25.0	26.0	20.0	120.00	5.00	SR M6X30 DIN912	HW 5.0

• Choose blade by HTPRM dimension

Tools: DGFH • DGFHR/L • DGFHR/L-B-D..(R/L) • HGFH • PCHBR/L • TGFH/R/L • TGFHL-TR • TGFHR/L

TOOL BLOCKS

UBHCR/L
Holders for Grooving, Turning and Parting Blades



Right-hand shown

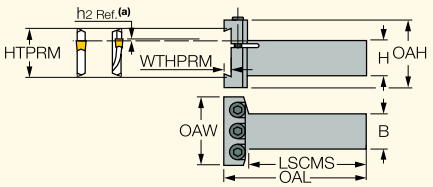
Designation	H	HTPRM	B	OAH	OAW	OAL				
UBHCR/L 20-26	20.0	26.0	20.0	42.0	35.60	100.00	BKU 176 307	SR M6X16 DIN912	HW 5.0	SPRING PLUNGER M6X14X3.5
UBHCR/L 25-32	25.0	32.0	25.0	46.0	40.00	130.00	BKU 176 307	SR M6X16 DIN912	HW 5.0	SPRING PLUNGER M6X14X3.5
UBHCR/L 32-32	32.0	32.0	32.0	46.0	47.00	130.00	BKU 176 307	SR M6X16 DIN912	HW 5.0	SPRING PLUNGER M6X14X3.5

- Choose blade by HTPRM dimension

Tools: CGHN-D • CGHN-DG • CGHN-S • CGHR/L-P8DG • DGFH • DGFHR/L • DGFHR/L-B-D..(R/L)
• HFFA • HFFH • HFFR/L-T • HGFH • SGFFA • SGFFH • TGFH/R/L • TGFHL-TR • TGFHR/L • TGHN-D
• TGHN-S • TNFFA-IQ • TNFFH-IQ

TOOL BLOCKS

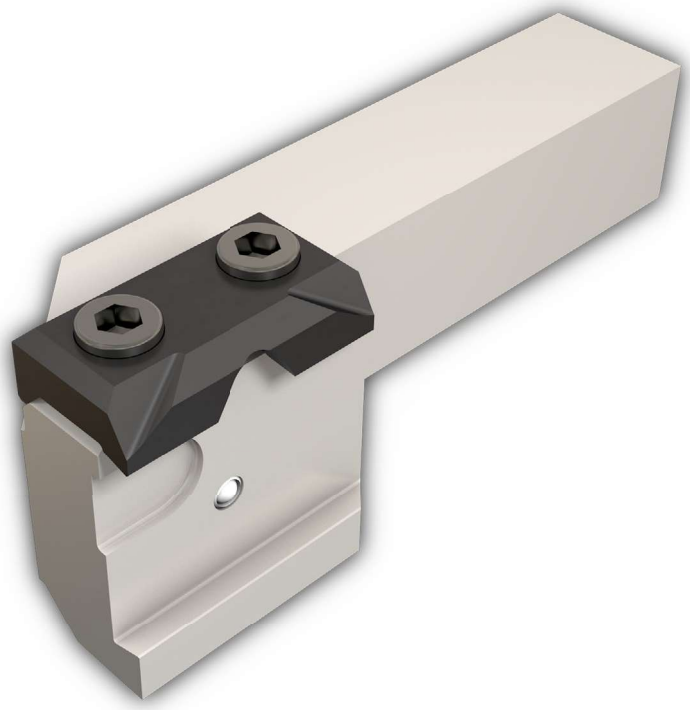
SGTBF
Perpendicular Blocks for Parting and Grooving Blades



Designation	H	B	HTPRM	OAL	LSCMS	OAW	OAH	WTHPRM		
SGTBF 25-A	25.0	25.0	32.0	102.00	80.00	48.00	48.0	5.50	SR M6X40 DIN912	HW 5.0
SGTBF 32-A	32.0	32.0	32.0	116.00	100.00	48.00	48.0	5.50	SR M6X40 DIN912	HW 5.0

- (a) h2 Ref. as defined for SELF-GRIP face grooving blades • Choose blade by HTPRM dimension

Tools: DGFH • DGFHR/L • DGFHR/L-B-D..(R/L) • HFFH • HFFR/L-T • HGFH • SGFFA • SGFFH
• TGFH/R/L • TGFHR/L • TNFFA-IQ • TNFFH-IQ

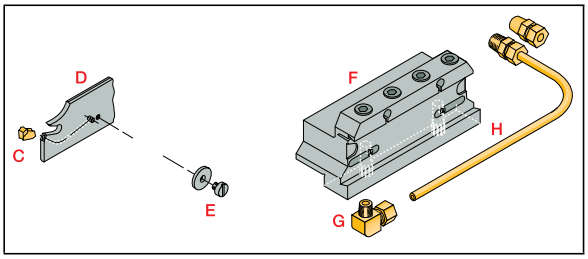


JETCUT Assembly

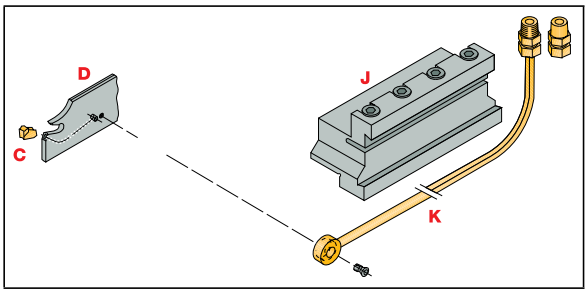
SELF-GRIP

- **C** Insert **GF**☐
- **D** Blade **SGFH**☐**K-**☐
- **E** Cap **SGC 340** supplied with a blade; to be used with Option 1 only.
- **F** Tool block **SGTBU**☐**C-**☐
- **G** Elbow-style connector unit supplied with each tool block
- **H** **SGCU-344 H 3/16”** copper Tube 343 (length 250 mm)
- **J** Standard current tool blocks **SGTBN, SGTBU, SGTBF**
- **K** Coolant connection unit **SGCU**-341
- **M** Integral shank holder **SGTFR/L**☐**K-**☐

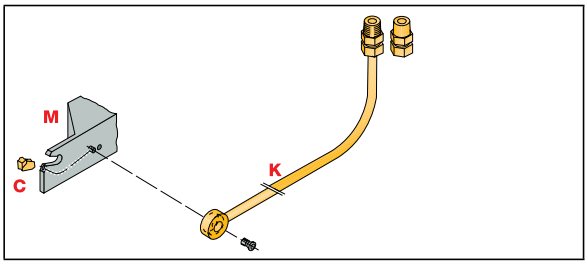
Option 1:
Coolant supplied through the tool block.



Option 2:
Coolant supplied directly to the blade.



Option 3:
Coolant supplied directly to the integral shank tool.



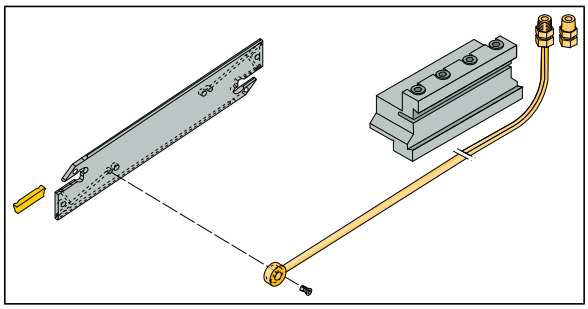
DO-GRIP 500 STRAIGHT LINE

The coolant supply tube can be used with the following options:

- DGTR...C integral tool
- DGFH-C blades used on regular blocks by connecting directly to the blade
- SGTBU-C blocks with coolant passages and connecting ports

The Right Connection for Your Application

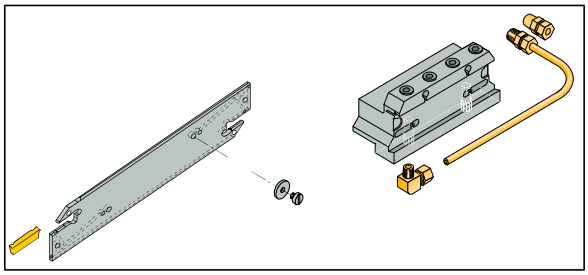
Option 1:
Coolant supplied directly to the blade.



SGCU 341 Coolant connection unit

Connectors:
CGM 343 (G1/8 external thread)
CGF 343 (G1/8 internal thread)
CF 343 (NPT1/8 internal thread)

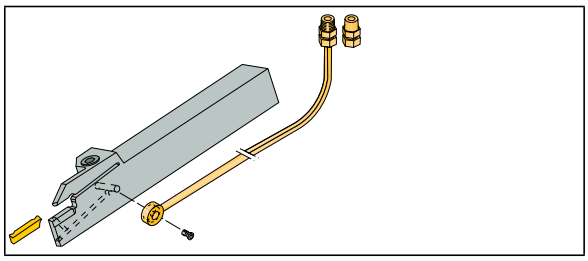
Option 2:
Coolant supplied through the tool block.



SGCU 344 Elbow connector

TUBE 343
3/16” copper tube (length 250 mm)
(G1/8 external thread) (G1/8 internal thread)
(NPT1/8 external thread) (NPT1/8 internal thread)

Option 3:
Coolant supplied directly to the tool.



SGCU 341 Coolant connection unit

Connectors:
CGM 343 (G1/8 external thread)
CGF 343 (G1/8 internal thread)
CF 343 (NPT1/8 internal thread)