



KGD/KGDF

Grooving & Cut-Off Series



Improved Grooving Performance with Expansive Tooling System Lineup

Good Chip Control

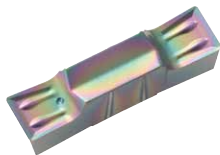
MEGACOAT / MEGACOAT NANO Coating Technology for Long Tool Life and High Efficiency Machining

Comprehensive Toolholder Lineup

NEW

Inserts for External Grooving
(For Aluminium)

AM Chipbreaker



NEW

1.25" Shank Toolholder for
0° SwitchBlade Combinations



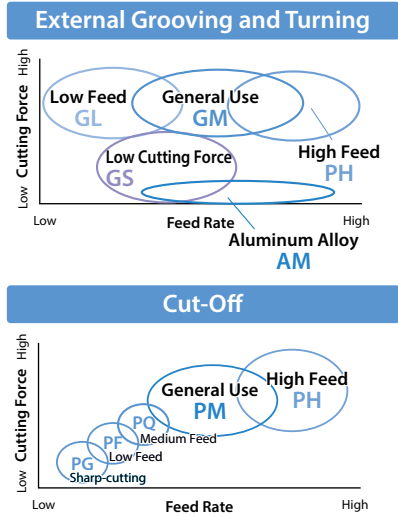
KGD External Grooving / Cut-Off

Good Chip Control

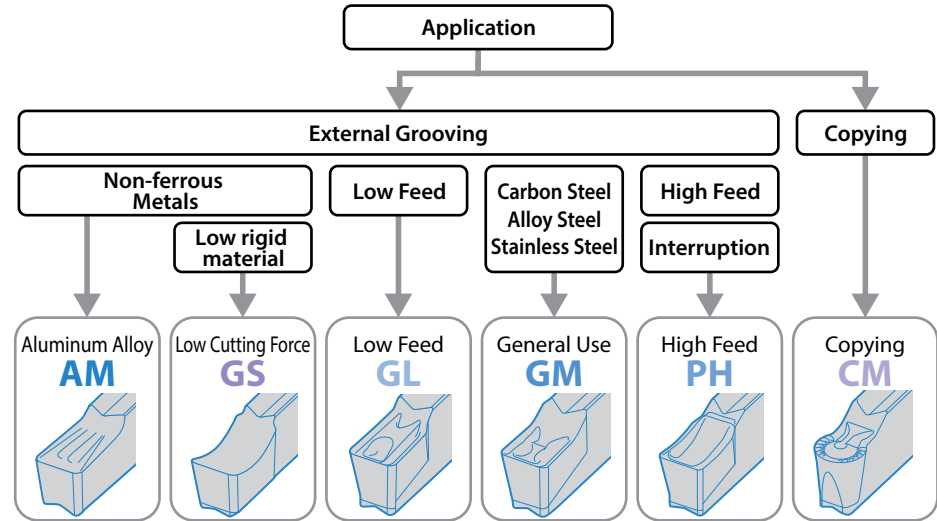
MEGACOAT / MEGACOAT NANO Coating Technology for Long Tool Life and High Efficiency Machining

1 Wide Range of Chipbreakers

Application Maps



Chipbreaker Selection(External)



Chip Control Comparison (In-house Evaluation)

Cutting Conditions : $V_c = 490$ sfm, $f = 0.006$ ipr Workpiece : Chromium Molybdenum Steel

Better Chip Control than Competitors

Reduces Damage of Cutting Edge Caused by Crushing Chips

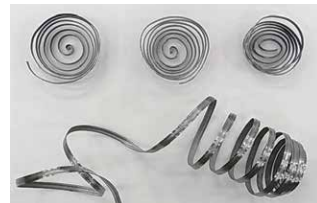
GM Chipbreaker



Competitor A

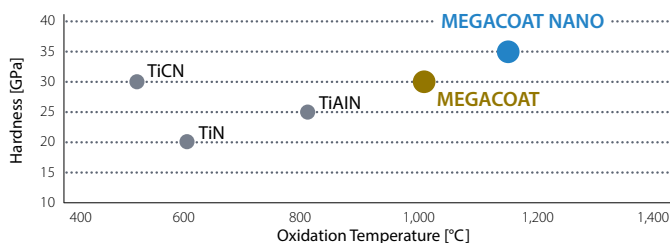


Competitor B



2 MEGACOAT / MEGACOAT NANO Coating Technology for Long Tool Life

Coating Properties



PR1225 (MEGACOAT)

For Steel Grooving and Cut-off

PR1215 (MEGACOAT)

Superior wear resistance
For machining of cast iron

PR1535 (MEGACOAT NANO)

For machining of stainless steel

Available two types of toolholder, Integral type and SwitchBlade type

Integral Type ➔ P7



Integral type toolholder

with wide lineup (for various groove width and depth)

SwitchBlade Type ➔ P12



SwitchBlade type toolholder

Applicable for various types of grooving and cut-off, such as external and face grooving by replacing blade parts

High Pressure Coolant Toolholder Lineup

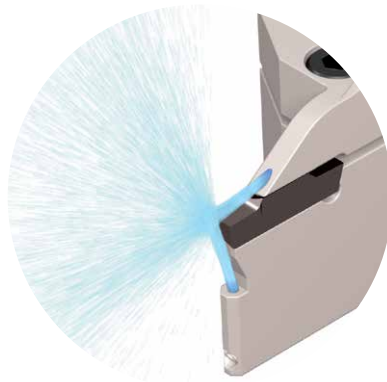
JCT ➔ P9



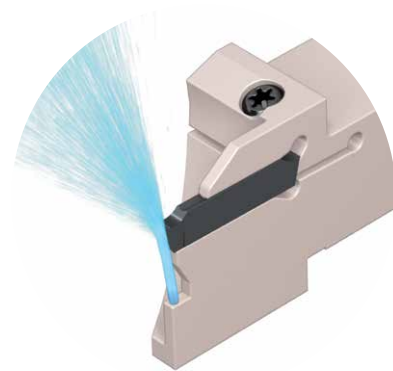
Coolant is directed from two directions

Discharges coolant in two directions toward both the rake surface and the flank face of the insert

Excellent Chip Control and Long Tool Life

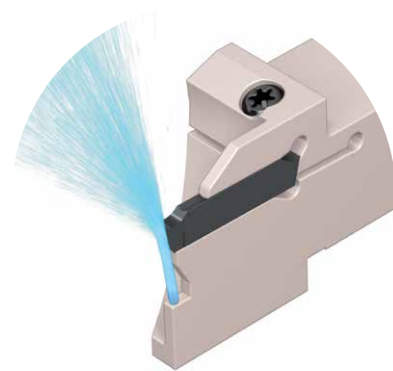


JCTM for Small Parts Machining ➔ P20



Delivers coolant directly to front flank face

Cooling the cutting edge leads to longer tool life



Integral type / SwitchBlade type Selection Reference

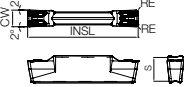
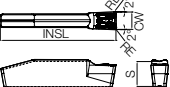
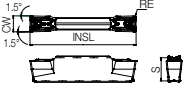
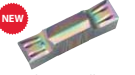
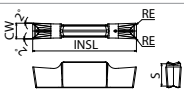
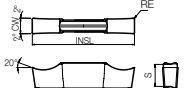
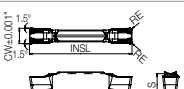
Integral	SwitchBlade
• Various toolholder lineup Available for various grooving depths (shallow / medium / deep) Optimum overhang length • Available for low-rigidity machines and workpieces • For small machines with limited work space (Automatic lathe, small lathe, etc.) • Coolant-through holders for high pressure coolant	• Good for high-mix low-volume production Good for various groove widths by replacing blades • Good for difficult-to-cut material Tough cutting conditions Toolholder cost reduction with replaceable blades • Face grooving is possible by changing blade * Be sure to check the hand compatibility of the blade and toolholder

Face Grooving KGDF Toolholder and GDFM Inserts ➔ P28



Applicable Inserts

Usage Classification	P	Carbon Steel / Alloy Steel	●	○		●	☉		
	M	Stainless Steel				●	☉	☉	
● : Light Interruption / 1st Choice ☉ : Light Interruption / 2nd Choice ● : Continuous / 1st Choice ○ : Continuous / 2nd Choice	K	Cast Iron						●	☉
	N	Non-ferrous Metals							●
	S	Titanium Alloy				●			☉
	H	Hard Materials (≤40HRC)					○		
		Hard Materials (≥40HRC)							

Insert			Part Number		Dimensions (in)				Cermet		MEGA COAT NANO	MEGACOAT		DLC	Carbide			
					Edge Width (CW)			RE	INSL	S	TN620	TN90	PR1535	PR1225	PR1215	PDL015	GW15	
					inch	mm	Tolerance											
Grooving and Turning			GDM 2420N-020GM	0.094	2.4	±0.0012	0.008	0.787	0.169	●	●	●	●	●				
			3020N-020GM	0.118	3.0					●	●	●	●	●				
			3020N-040GM	0.118	3.0					●	●	●	●	●				
			4020N-020GM	0.157	4.0					●	●	●	●	●				
			4020N-040GM	0.157	4.0					●	●	●	●	●				
			4020N-080GM	0.157	4.0					●	●	●	●	●				
			5020N-040GM	0.197	5.0	±0.0016	0.016	0.787	0.169	●	●	●	●	●				
			5020N-080GM	0.197	5.0					●	●	●	●	●				
			6020N-040GM	0.236	6.0					●	●	●	●	●				
			6020N-080GM	0.236	6.0					●	●	●	●	●				
			8030N-080GM	0.315	8.0					±0.0020	0.032	1.181	0.217	●	●	●		
			GDG 3120N-020GM	0.125	3.18					±0.0008	0.008	0.787	0.169		●			
General Purpose 1-Edge		GDMS 2220N-020GM	0.087	2.2	±0.0012	0.008	0.787	0.169	●	●	●	●	●					
		3020N-040GM	0.118	3.0					●	●	●	●	●					
		4020N-040GM	0.157	4.0					●	●	●	●	●					
		5020N-080GM	0.197	5.0	±0.0016	0.032	0.787	0.169	●		●	●	●					
		6020N-080GM	0.236	6.0					●		●	●	●					
									●		●	●	●					
Grooving			GDM 2420N-020GL	0.094	2.4	±0.0012	0.008	0.787	0.169	●	●	●	●	●				
			3020N-020GL	0.118	3.0					●	●	●	●	●				
			3020N-040GL	0.118	3.0					●	●	●	●	●				
			4020N-020GL	0.157	4.0					●	●	●	●	●				
			4020N-040GL	0.157	4.0					●	●	●	●	●				
			5020N-040GL	0.197	5.0					±0.0016	0.016	0.787	0.169	●	●	●	●	
	6020N-040GL	0.236	6.0	0.016	●		●	●	●									
	Aluminum Alloy			GDG 3020N-020AM	0.118	3.0	±0.0008	0.008	0.787	0.169						●	●	
				4020N-040AM	0.157	4.0					0.016					●	●	
				5020N-040AM	0.197	5.0					0.016					●	●	
				6020N-040AM	0.236	6.0					0.016					●	●	
GDG 2520N-020GS				0.098	2.5	±0.0008	0.008	0.787	0.169	●	●	●	●	●		●		
3020N-020GS				0.118	3.0					●	●	●	●	●		●		
3520N-020GS	0.138	3.5	●	●	●					●	●		●					
4020N-040GS	0.157	4.0	●	●	●					●	●		●					
5020N-040GS	0.197	5.0	●	●	●					●	●		●					
6020N-040GS	0.236	6.0	0.016		●					●	●		●					
Full-R / Copying			8030N-040GS	0.315	8.0	0.016	1.181	0.217	●	●	●	●	●		●			
			GDM 3020N-150R-CM	0.118	3.0	±0.0012	0.059	0.787	0.169	●	●	●	●					
			4020N-200R-CM	0.157	4.0					●	●	●	●					
			5020N-250R-CM	0.197	5.0					●	●	●	●					
			6020N-300R-CM	0.236	6.0	±0.0016	*0.827	0.169	●	●	●	●						
						0.118			●		●	●	●					
	Grooving and Cut-Off (High Feed)			GDM 2020N-020PH	0.079	2.0			±0.0012	0.008	0.787	0.169		●	●	●		
				3020N-030PH	0.118	3.0	0.012						●	●	●			
				4020N-030PH	0.157	4.0	0.012						●	●	●			
				GDMS 2020N-020PH	0.079	2.0	±0.0012	0.008	0.787	0.169		●	●	●				
				3020N-030PH	0.118	3.0					0.012		●	●	●			
				4020N-030PH	0.157	4.0					0.012		●	●	●			

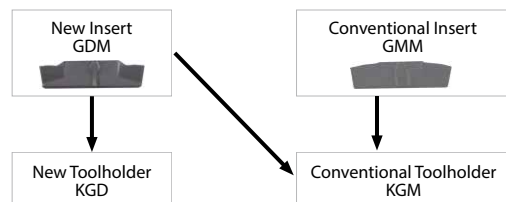
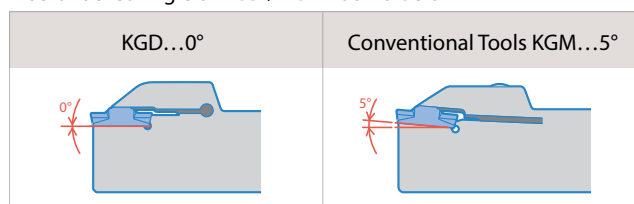
* GDM50/60-CM differs from other part numbers in length (INSL) to avoid interference of the toolholder with workpiece.

Recommended Cutting Conditions [Page 25-27](#) ● : Standard Item

Inserts sold in 10 piece boxes

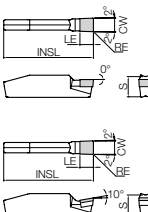
* KGD / KGM Combinations

Insert Pocket Angle of KGD / KGM Toolholders



Installing conventional inserts into new KGD toolholder is not recommended.

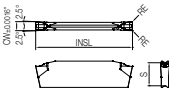
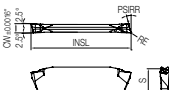
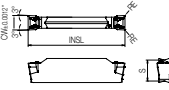
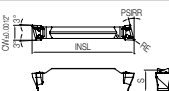
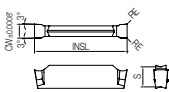
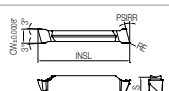
Applicable Inserts

Applicable Inserts			GDGS (CBN / PCD) Usage Classification			N	Non-ferrous Metals							
			● : Light Interruption / 1st Choice ⦿ : Light Interruption / 2nd Choice ● : Continuous / 1st Choice ○ : Continuous / 2nd Choice			S	Titanium Alloy						●	
						H	Hard Materials (≤40HRC)							
							Hard Materials (≥40HRC)				●			
						Powdered Steel					●			
Insert			Part Number	Dimensions (in)						Angle	MEGACOAT CBN	CBN	PCD	
				Edge Width (CW)			RE	INSL	S	LE	θ	KBN05M	KBN570	KPD001
Grooving			GDGS 2020N-020NB	0.079	2.0	±0.0012	0.008	0.787	0.169	0.114	-	●	●	●
			3020N-020NB	0.118	3.0		0.008							●
			3020N-040NB	0.118	3.0		0.016					●	●	
			4020N-020NB	0.157	4.0		0.008							●
			4020N-040NB	0.157	4.0		0.016					●	●	
			5020N-020NB	0.197	5.0		0.008							●
			5020N-040NB	0.197	5.0		0.016					●	●	
			6020N-020NB	0.236	6.0		0.008							●
			6020N-040NB	0.236	6.0		0.016					●		

Recommended Cutting Conditions [Page 25-27](#) ● : Standard Item

PCD & CBN Inserts sold in 1 piece boxes

Applicable Inserts

Applicable Inserts			GDM/GDG (Cut-Off)		Usage Classification	P	Carbon Steel / Alloy Steel									
			 : Light Interruption / 1st Choice  : Light Interruption / 2nd Choice  : Continuous / 1st Choice  : Continuous / 2nd Choice			M	Stainless Steel									
						N	Non-ferrous Metals									
Insert			Part Number		Dimensions (in)				Angle	MEGA COAT NANO	MEGACOAT		DLC Coated Carbide	Carbide		
					Edge Width (CW)			RE	INSL	S	PSIR/L	PR1535	PR1225	PR1215	PDL025	GW15
					inch	mm	Tolerance									
Cut-Off (Low Feed)			GDM 1316N-003PF	0.051	1.3	±0.0016	0.0012	0.630	0.146	-						
			1316N-015PF	0.051	1.3		0.0059									
			1516N-003PF	0.059	1.5		0.0012									
			1516N-015PF	0.059	1.5		0.0059									
			2020N-003PF	0.079	2.0		0.0012									
			2020N-015PF	0.079	2.0		0.0059									
			2520N-003PF	0.098	2.5		0.0012									
			2520N-015PF	0.098	2.5		0.0059									
			GDM 1316%-003PF-15D	0.051	1.3	±0.0016	0.0012	0.630	0.146							
			1516%-003PF-15D	0.059	1.5		0.0012									
			1516%-015PF-15D	0.059	1.5		0.0059									
			2020%-003PF-15D	0.079	2.0		0.0012									
			2020%-015PF-15D	0.079	2.0		0.0059									
			2520%-003PF-15D	0.098	2.5		0.0012									
			2520%-015PF-15D	0.098	2.5		0.0059									
			3020%-003PF-15D	0.118	3.0		0.0012									
3020%-015PF-15D	0.118	3.0	0.0059													
Cut-Off (Medium Feed)			GDM 2020N-010PQ	0.079	2.0	±0.0012	0.0039	0.787	0.169	-						
			2520N-010PQ	0.098	2.5											
			3020N-010PQ	0.118	3.0											
			GDM 2020R-010PQ-15D	0.079	2.0	±0.0012	0.0039	0.787	0.169							
			2520R-010PQ-15D	0.098	2.5											
			3020R-010PQ-15D	0.118	3.0											
Cut-Off (Low Cutting Force)			GDG 2020N-005PG	0.079	2.0	±0.0008	0.0020	0.787	0.169	-						
			2520N-005PG	0.098	2.5											
			3020N-005PG	0.118	3.0											
			GDG 2020R-005PG-15D	0.079	2.0	±0.0008	0.0020	0.787	0.169							
			2520R-005PG-15D	0.098	2.5											
			3020R-005PG-15D	0.118	3.0											

Using PF/PM chipbreaker (designed for cut-off) for grooving will not create a flat bottom (See Fig.)

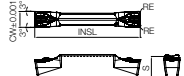
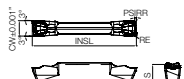
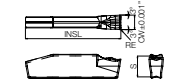
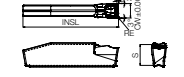
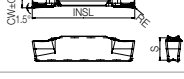
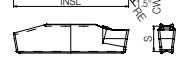


Recommended Cutting Conditions [Page 25-27](#) ● : Standard Item (R) : Standard Item (R-hand Only)

Inserts sold in 10 piece boxes

Applicable Inserts

Usage Classification	P	Carbon Steel / Alloy Steel			
 : Light Interruption / 1st Choice	M	Stainless Steel			
 : Light Interruption / 2nd Choice	N	Non-ferrous Metals			

Insert			Part Number	Dimensions (in)					Angle	MEGA COAT NANO	MEGACOAT				
				Edge Width (CW)			RE	INSL			S	PSIR/L	PR1535	PR1225	PR1215
				inch	mm	Tolerance									
Cut-Off			GDM 2020N-020PM	0.079	2.0	±0.0012	0.008	0.787	0.169	-	●	●	●		
			2520N-020PM	0.098	2.5		0.008				●	●	●		
			3020N-025PM	0.118	3.0		0.010				●	●	●		
			4020N-030PM	0.157	4.0		0.012				●	●	●		
			GDM 2020R-020PM-6D	0.079	2.0	±0.0012	0.008	0.787	0.169	6°	Ⓜ	Ⓜ	Ⓜ		
			2520R-020PM-6D	0.098	2.5		0.008				Ⓜ	Ⓜ	Ⓜ		
			3020R-025PM-6D	0.118	3.0		0.010				Ⓜ	Ⓜ	Ⓜ		
			GDMS 2020N-020PM	0.079	2.0	±0.0012	0.008	0.787	0.169	-	●	●	●		
			3020N-025PM	0.118	3.0		0.010				●	●	●		
			4020N-030PM	0.157	4.0		0.012				●	●	●		
			GDMS 2020R-020PM-6D	0.079	2.0	±0.0012	0.008	0.787	0.169	6°	Ⓜ	Ⓜ	Ⓜ		
			3020R-025PM-6D	0.118	3.0		0.010				Ⓜ	Ⓜ	Ⓜ		
4020R-030PM-6D			0.157	4.0	0.012		Ⓜ				Ⓜ	Ⓜ			
Grooving and Cut-Off (High Feed)			GDM 2020N-020PH	0.079	2.0	±0.0012	0.008	0.787	0.169	-	●	●	●		
			3020N-030PH	0.118	3.0		0.012				●	●	●		
			4020N-030PH	0.157	4.0		0.012				●	●	●		
			GDMS 2020N-020PH	0.079	2.0	±0.0012	0.008	0.787	0.169	-	●	●	●		
			3020N-030PH	0.118	3.0		0.012				●	●	●		
			4020N-030PH	0.157	4.0		0.012				●	●	●		

Using PF/PM chipbreaker (designed for cut-off) for grooving will not create a flat bottom (See Fig.)



● : Standard Item Ⓡ : Standard Item (R-hand Only)

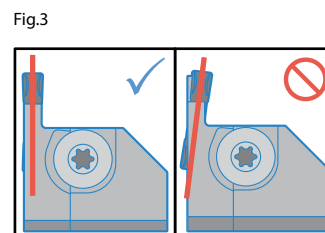
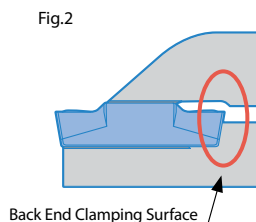
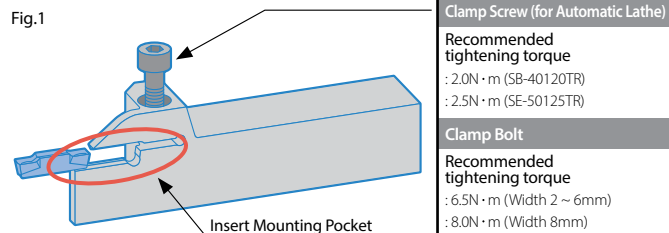
Inserts sold in 10 piece boxes

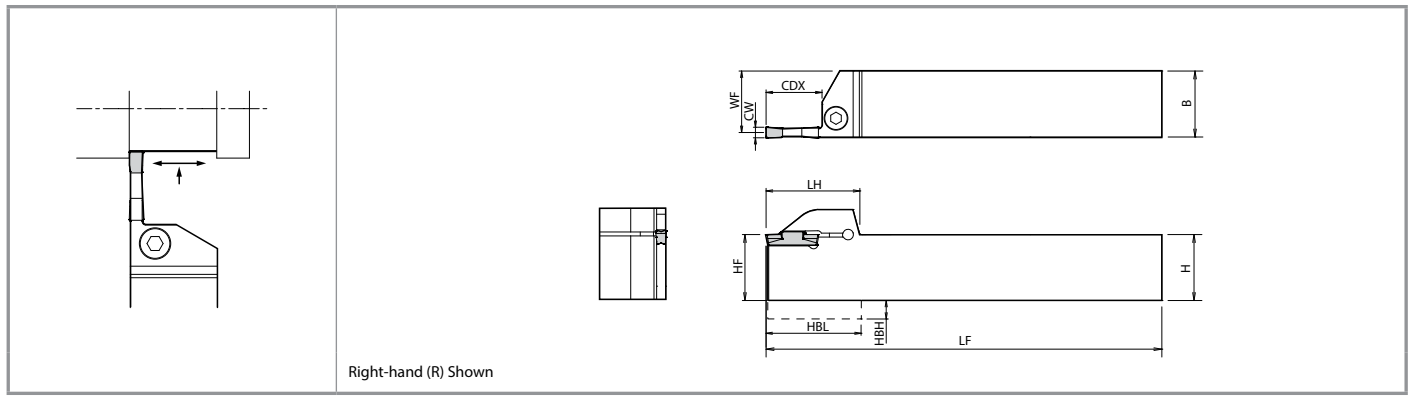
Insert Identification System

Tolerance		Edge Width		Hand of Tool		Chipbreaker (External Grooving / Cut-Off)	
M : M-Class G : G-Class		13 : 1.3 mm 15 : 1.5 mm 20 : 2 mm	25 : 2.5mm 30 : 3 mm 40 : 4 mm	R : Right-hand L : Left-hand N : Neutral	GM : Grooving and Traversing GL : Low Feed GS : Low Cutting Force CM : Copying PH : High Feed PM : Cut-Off (General Purpose) PF : Cut-Off (Low Feed) PQ : Cut-Off (Medium Feed) PG : Cut-Off (Low Cutting Force) NB : Without Chipbreaker AM : Aluminum Alloy		
GD	M	S	30	20	N	-	025
Series	No. of Edges	Insert Length	Corner-R(RE)		Chipbreaker (Face Grooving)		Lead Angle
GD : External Grooving / Cut-Off GDF : Face Grooving	No Indication : 2-edge S : 1-edge	16 : 16 mm 20 : 20 mm 30 : 30 mm	003 : 0.03 mm 030 : 0.3 mm 015 : 0.15 mm 150R : 1.5 mm (Full-R) 020 : 0.2 mm		GM : Grooving and Traversing CM : Full-R DM : Grooving GS : Aluminum / Non-ferrous metals GH : High Feed		No Indication : 0° 6D : 6° 15D : 15°

Setting the Insert

1. Completely eliminate chips from the insert mounting part. (see Fig.1)
2. Put the insert into the toolholder and push until it contacts the holder's surface for fixing the insert's back end. (see Fig.1, Fig.2)
3. Keeping the insert pushed against the toolholder's locating surface, tighten the insert clamp bolt at an appropriate torque.
4. Make sure there is no gap between the insert and the toolholder's locating surface and that the insert is set straight. (see Fig.2, Fig.3)





Toolholder Dimensions (Inch Size)

Width	Max. Grooving Depth (in)	Part Number	Stock		Dimensions (in)										Insert Width CW		Spare Parts	
			R	L	H	HF	HBH	B	LF	LH	HBL	WF	CDX*	MIN	MAX			
0.079" (2mm)	0.669" (17mm)	KGD [®] 12-2T17	●	●	0.75	0.75	-	0.75	4.92	1.28	-	0.71	0.669" (17mm)	0.079" (2mm)	0.118" (3mm)	HH5X16	LW-4	
		16-2T17	●	●	1.00	1.00	-	1.00	5.90	1.28	-	0.96			HH5X25			
0.118" (3mm)	0.393" (10mm)	KGD [®] 12-3T10	●	●	0.75	0.75	-	0.75	4.92	1.20	-	0.70	0.393" (10mm)	0.118" (3mm)	0.157" (4mm)	HH5X16	LW-4	
		16-3T10	●	●	1.00	1.00	-	1.00	5.90	1.20	-	0.95				HH5X25		
	0.787" (20mm)	KGD [®] 12-3T20	●	●	0.75	0.75	-	0.75	4.92	1.35	-	0.70	0.787" (20mm)			HH5X16	LW-4	
		16-3T20	●	●	1.00	1.00	-	1.00	5.90	1.39	-	0.95				HH5X25		
	1.000" (25.4mm)	KGD [®] 12-3T254	●	●	0.75	0.75	-	0.75	4.92	1.52	-	0.70	1.000" (25.4mm)			HH5X16	LW-4	
		16-3T254	●	●	1.00	1.00	-	1.00	5.90	1.52	-	0.95				HH5X25		
0.157" (4mm)	0.393" (10mm)	KGD [®] 12-4T10	●	●	0.75	0.75	-	0.75	4.92	1.20	-	0.68	0.393" (10mm)	0.157" (4mm)	0.197" (5mm)	HH5X16	LW-4	
		16-4T10	●	●	1.00	1.00	-	1.00	5.90	1.20	-	0.93				HH5X25		
	0.787" (20mm)	KGD [®] 12-4T20	●	●	0.75	0.75	-	0.75	4.92	1.35	-	0.68	0.787" (20mm)			HH5X16	LW-4	
		16-4T20	●	●	1.00	1.00	-	1.00	5.90	1.39	-	0.93				HH5X25		
	0.984" (25mm)	KGD [®] 16-4T25	●	●	1.00	1.00	-	1.00	5.90	1.59	-	0.93	0.984" (25mm)			HH5X25	LW-4	
0.197" (5mm)	0.393" (10mm)	KGD [®] 12-5T10	●	●	0.75	0.75	-	0.75	4.92	1.20	-	0.66	0.393" (10mm)	0.197" (5mm)	0.236" (6mm)	HH5X16	LW-4	
		16-5T10	●	●	1.00	1.00	-	1.00	5.90	1.20	-	0.91				HH5X25		
	0.669" (17mm)	KGD [®] 12-5T17	●	●	0.75	0.75	-	0.75	4.92	1.47	-	0.66	0.669" (17mm)			HH5X16	LW-4	
		16-5T17	●	●	1.00	1.00	-	1.00	5.90	1.47	-	0.91				HH5X25		
	0.984" (25mm)	KGD [®] 16-5T25	●	●	1.00	1.00	-	1.00	5.90	1.59	-	0.91	0.984" (25mm)			HH5X25	LW-4	
0.236" (6mm)	0.591" (15mm)	KGD [®] 16-6T15	●	●	1.00	1.00	-	1.00	5.90	1.28	-	0.89	0.591" (15mm)	0.236" (6mm)	0.236" (6mm)	HH5X25	LW-4	
	1.181" (30mm)	KGD [®] 16-6T30	●	●	1.00	1.00	-	1.00	5.90	1.79	-	0.89	1.181" (30mm)					

Note 1) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

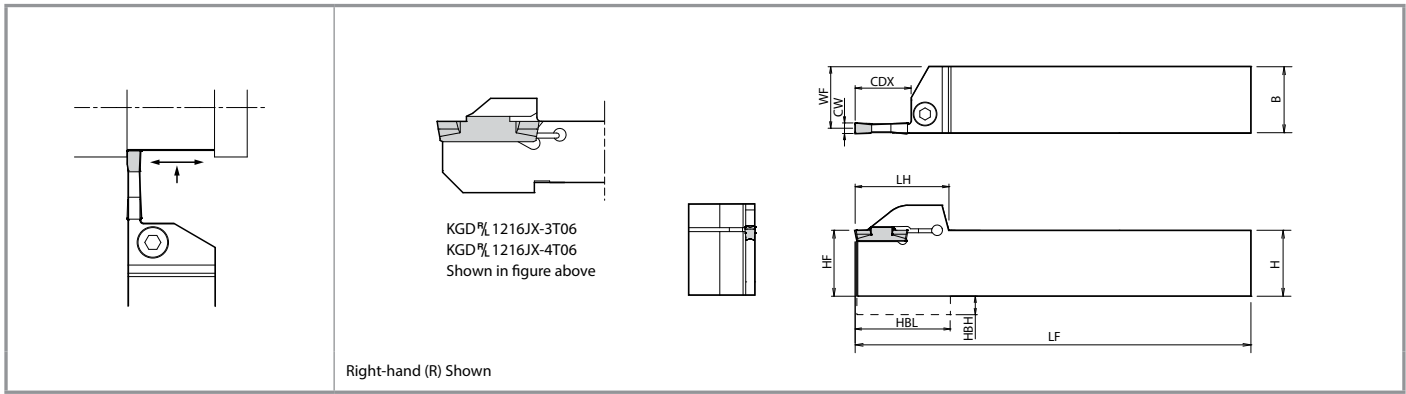
2) Recommended tightening torque for clamp bolt/screw is 6.5Nm for HH5X16, 8.0Nm for HH6X25 and 2.5Nm for SE-50125TR.

3) Above toolholders can also be used for cut-off applications.

Choose an insert with a width that falls within the **MIN** and **MAX** parameters shown in table above.

Applicable Inserts See [Page 4-6](#)

● : Standard Item



Toolholder Dimensions (Metric Size)

Width	Max. Grooving Depth (mm)	Part Number	Stock		Dimensions (mm)									Insert Width CW		Spare Parts				
			R	L	H	HF	HBH	B	LF	LH	HBL	WF	CDX*	MIN	MAX	Clamp Bolt/Screw	Wrench			
0.079" (2mm)	6	KGD 1616H-2T06	●	●	16	16	4.0	16	100	27.7	28.0	15.2	6	0.079" (2mm)	0.118" (3mm)	HH5X16	LW-4			
		2020K-2T06	●	●	20	20	-	20	125	28.0	-	19.2				HH5X16				
		2525M-2T06	●	●	25	25	-	25	150	28.0	-	24.2				HH5X25				
	10	KGD 1616H-2T10	●	●	16	16	4.0	16	100	30.2	30.5	15.2	10			HH5X16	LW-4			
		2020K-2T10	●	●	20	20	-	20	125	30.5	-	19.2				HH5X16				
		2525M-2T10	●	●	25	25	-	25	150	30.5	-	24.2				HH5X25				
	17	KGD 1616H-2T17	●	●	16	16	4.0	16	100	31.2	31.5	15.2	17			HH5X16	LW-4			
		2012K-2T17	●	●	20	20	-	12	125	32.5	-	11.2				HH5X16				
		2020K-2T17	●	●	20	20	-	20	125	32.5	-	19.2				HH5X16				
		2525M-2T17	●	●	25	25	-	25	150	32.5	-	24.2				HH5X25				
	0.094" (2.4mm)	17	KGD 2012K-2.4T17	●	●	20	20	-	12	125	32.5	-	11.0			17	0.094" (2.4mm)	0.118" (3mm)	HH5X16	LW-4
			2020K-2.4T17	●	●	20	20	-	20	125	32.5	-	19.0						HH5X16	
0.118" (3mm)	6	KGD 1216JX-3T06	●	●	12	12	2.0	16	120	19.5	19.0	14.8	6	0.118" (3mm)	0.157" (4mm)	SE-50125TR	LW-4			
		1616H-3T06	●	●	16	16	4.0	16	100	27.7	28.0	14.8				HH5X16				
		2020K-3T06	●	●	20	20	-	20	125	28.0	-	18.8				HH5X16				
		2525M-3T06	●	●	25	25	-	25	150	28.0	-	23.8				HH5X25				
	10	KGD 1616H-3T10	●	●	16	16	4.0	16	100	30.2	30.5	14.8	10			HH5X16	LW-4			
		2020K-3T10	●	●	20	20	-	20	125	30.5	-	18.8				HH5X16				
		2525M-3T10	●	●	25	25	-	25	150	30.5	-	23.8				HH5X25				
		KGD 1616H-3T20	●	●	16	16	4.0	16	100	34.2	34.5	14.8				HH5X16		LW-4		
	20	2012K-3T20	●	●	20	20	-	12	125	34.5	-	10.8	HH5X16							
		2020K-3T20	●	●	20	20	-	20	125	34.5	-	18.8	HH5X16							
		2525M-3T20	●	●	25	25	-	25	150	35.5	-	23.8	HH5X25							
		0.157" (4mm)	6	KGD 1216JX-4T06	●	●	12	12	2.0	16	120	19.5	19.0			14.3	6	0.157" (4mm)	0.197" (5mm)	SE-50125TR
10	KGD 2020K-4T10		●	●	20	20	-	20	125	30.5	-	18.3	10	HH5X16						
	2525M-4T10		●	●	25	25	-	25	150	30.5	-	23.3		HH5X25						
20	KGD 2020K-4T20		●	●	20	20	-	20	125	34.5	-	18.3	20	HH5X16						
	2525M-4T20		●	●	25	25	-	25	150	35.5	-	23.3		HH5X25						
25	KGD 2525M-4T25	●	●	25	25	-	25	150	40.5	-	23.3	25	HH5X25							
0.197" (5mm)	10	KGD 2020K-5T10	●	●	20	20	-	20	125	30.5	-	17.8	10	0.197" (5mm)	0.236" (6mm)	HH5X16	LW-4			
		2525M-5T10	●	●	25	25	-	25	150	30.5	-	22.8				HH5X25				
	17	KGD 2020K-5T17	●	●	20	20	-	20	125	37.5	-	17.8	17			HH5X25				
		2525M-5T17	●	●	25	25	-	25	150	37.5	-	22.8				HH5X25				
0.236" (6mm)	15	KGD 2525M-6T15	●	●	25	25	-	25	150	32.5	-	22.4	15	0.236" (6mm)	0.236" (6mm)	HH5X25	LW-4			
	30	KGD 2525M-6T30	●	●	25	25	-	25	150	45.5	-	22.4	30			HH5X25				
0.315" (8mm)	25	KGD 2525M-8T25	●	●	25	25	7.0	25	150	43.3	44.2	22.0	25	0.315" (8mm)	0.315" (8mm)	HH6X25	LW-5			
		3232P-8T25	●	●	32	32	-	32	170	43.3	-	29.0				HH6X25				

Note 1) Dimension CDX*: Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

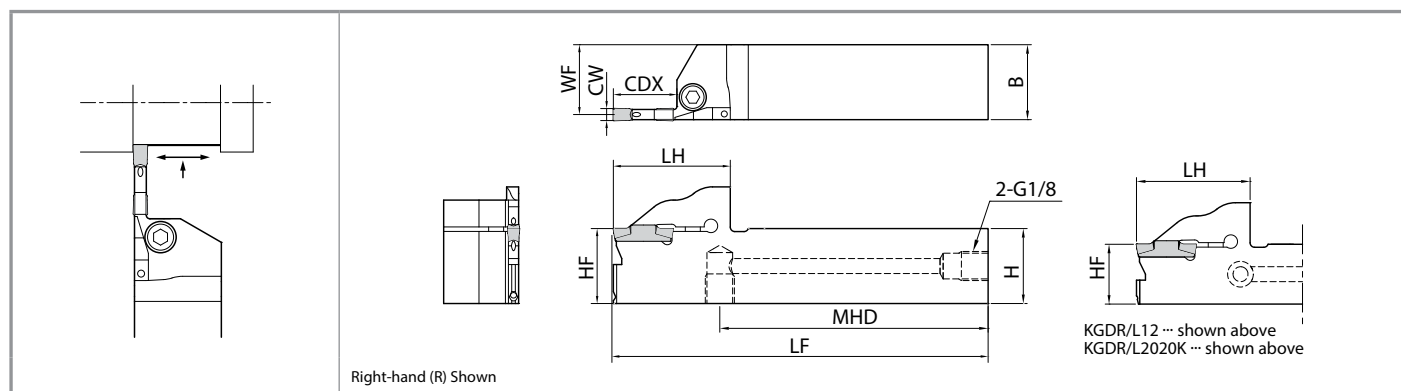
2) Recommended tightening torque for clamp bolt/screw is 6.5Nm for HH5X16, 8.0Nm for HH6X25 and 2.5Nm for SE-50125TR.

3) Above toolholders can also be used for cut-off applications.

Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

Applicable Inserts See [Page 4-6](#)

● : Standard Item



Toolholder Dimensions (Inch Size)

Pressure Resistance: up to 2,175 psi

Width	Max. Grooving Depth (in)	Part Number	Stock		Dimensions (in)								Insert Width CW		Spare Parts		
			R	L	H	HF	B	LF	LH	WF	CDX	MHD	MIN	MAX	Clamp Screw	Wrench	Plug
0.118" (3mm)	0.787" (20mm)	KGD [®] /L 12-3T20JCT	●	●	0.750	0.750	0.750	5.000	1.496	0.702	0.787" (20mm)	3.590	0.118" (3mm)	0.157" (4mm)	HH5X16	LW-4	HSG1/8X8.0
		16-3T20JCT	●	●	1.000	1.000	1.000	5.000	1.535	0.952		3.551			HH5X25	LW-4	HSG1/8X8.0
0.157" (4mm)	0.787" (20mm)	KGD [®] /L 12-4T20JCT	●		0.750	0.750	0.750	5.000	1.496	0.683	0.787" (20mm)	3.590	0.157" (4mm)	0.197" (5mm)	HH5X16	LW-4	HSG1/8X8.0
		16-4T20JCT	●	●	1.000	1.000	1.000	5.000	1.535	0.933		3.551			HH5X25	LW-4	HSG1/8X8.0
	1.000" (25.4mm)	KGD [®] /L 16-4T25.4JCT	●	●	1.000	1.000	1.000	5.000	1.732	0.933	1.000" (25.4mm)	3.354			HH5X25	LW-4	HSG1/8X8.0

Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

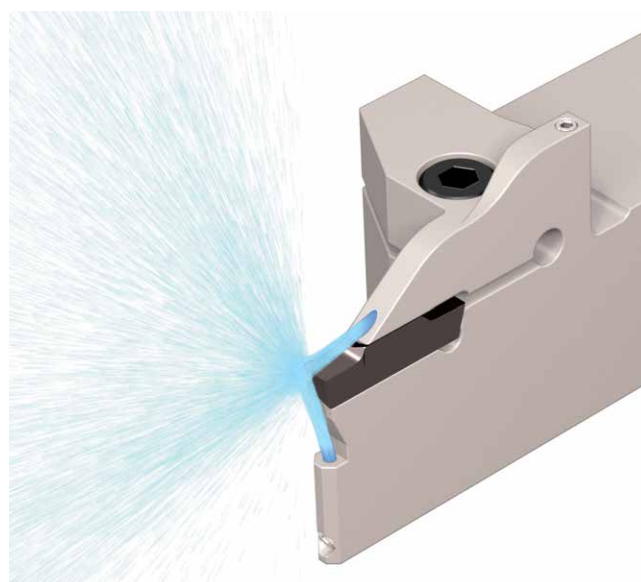
Applicable Inserts See [Page 4-6](#)

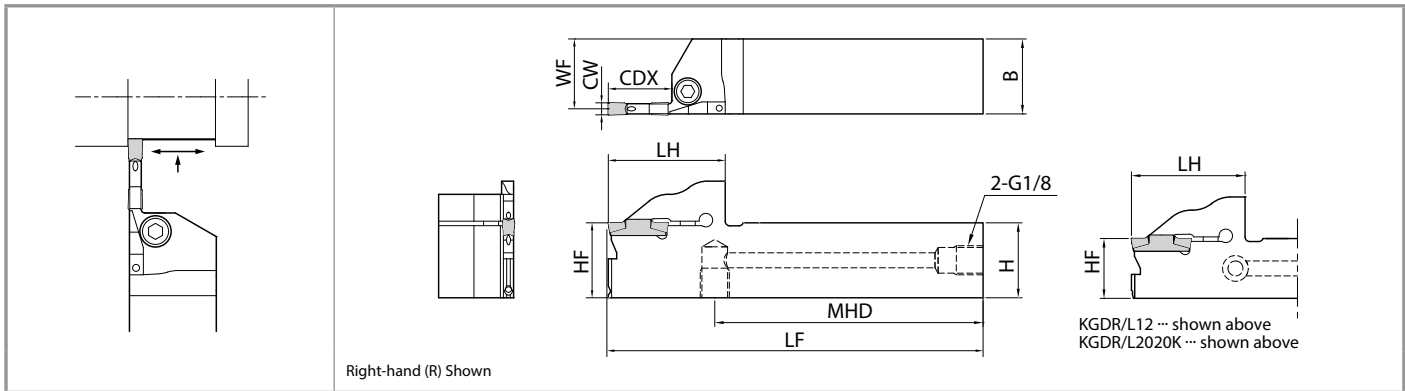
● : Standard Item

Coolant is directed from two directions

Discharges coolant in two directions toward both the rake surface and the flank face of the insert

Excellent Chip Control and Long Tool Life





Toolholder Dimensions (Metric Size)

Pressure Resistance: up to 2,175 psi

Width	Max. Grooving Depth (mm)	Part Number	Stock		Dimensions (mm)								Edge Width CW		Spare Parts		
			R	L	H	HF	B	LF	LH	WF	CDX	MHD	MIN	MAX	Clamp Screw	Wrench	Plug
0.118" (3mm)	6	KGD % 2020K-3T06JCT	●	●	20	20	20	125	31.5	18.8	6	96.2	0.118" (3mm)	0.157" (4mm)	HH5X16	LW-4	HSG1/8X8.0
		2525K-3T06JCT	●	●	25	25	25			23.8		96.5			HH5X25		
	10	2020K-3T10JCT	●	●	20	20	20		34.0	18.8	10	94.2			HH5X16		
		2525K-3T10JCT	●	●	25	25	25			23.8		94.5			HH5X25		
	20	2020K-3T20JCT	●	●	20	20	20		38.0	18.8	20	90.2			HH5X16		
		2525K-3T20JCT	●	●	25	25	25			23.8		89.5			HH5X25		
0.157" (4mm)	10	KGD % 2020K-4T10JCT	●	●	20	20	20	125	34.0	18.3	10	94.2	0.157" (4mm)	0.197" (5mm)	HH5X16	LW-4	HSG1/8X8.0
		2525K-4T10JCT	●	●	25	25	25			23.3		94.5			HH5X25		
	20	KGD % 2020K-4T20JCT	●	●	20	20	20		38.0	18.3	20	90.2			HH5X16		
		2525K-4T20JCT	●	●	25	25	25			23.3		89.5			HH5X25		
	25	KGD % 2525K-4T25JCT	●	●	25	25	25		44.0	23.3	25	84.5			HH5X25		

Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

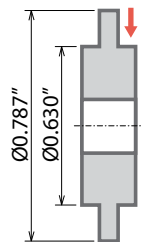
● : Standard Item

Applicable Inserts See [Page 4-6](#)

Case Studies

Ring - 5120 (Equivalent)

Vc = 525 sfm
(n = 3,200 rpm)
D.O.C. = 0.098"
f = 0.0028 ipr
Wet (Water Soluble), Normal Pressure
KGDR2020K-3T10JCT
GDM3020M-025PM PR1225



Tool Life

KGD-JCT
(Internal Coolant)

9,000 pcs / edge

Tool Life
x1.5

Competitor H
(External Coolant)

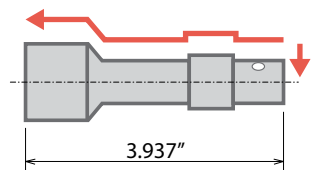
6,000 pcs / edge

Change to KGD-JCT (internal coolant) from Competitor H (external coolant) extended tool life by 1.5 times.

(User Evaluation)

Valve - Free Cutting Steel

Vc = 525 sfm
D.O.C. = 0.551"
f = 0.0047-0.0059 ipr
Wet (Water Soluble), Normal Pressure
KGDR2525K-3T20JCT
GDM3020M-040GM PR1535



Tool Life

KGD-JCT
(Internal Coolant)

1,000 pcs / edge

Chip Control
Surface Finish
Good **Good**

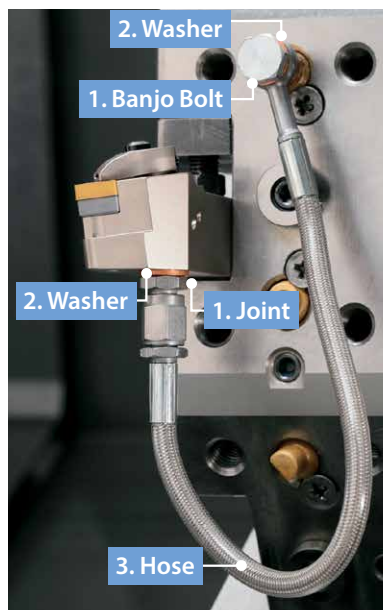
Competitor I
(Internal Coolant)

1,000 pcs / edge

KGD-JCT maintained stable machining for the required number of pieces
Better chip control and surface finish

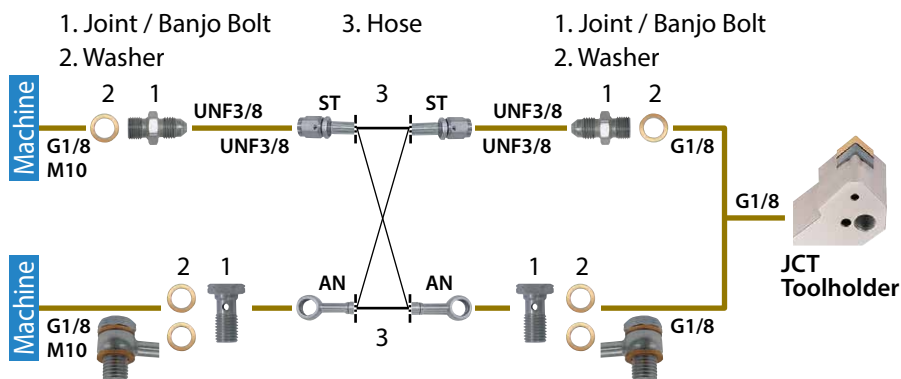
(User Evaluation)

Easy Connection with High Pressure Hose and Joint



- Even without a high pressure pump, internal coolant can be used at a normal pressure
- Banjo bolt available for angled hose connection and can be used in a variety of machines

Piping Installation Guide



Piping Parts

Optional Piping Parts Available

Choose from parts below to match your machine specifications

1. Joint / Banjo Bolt

Pressure Resistance: up to 4,350 psi

Shape	Part Number	Stock	Thread Standard
	J-G1/8-UNF3/8	●	G1/8
	J-M10X1.5-UNF3/8	●	M10X1.5
	BB-G1/8	●	G1/8
	BB-M10X1.5	●	M10X1.5

1. Joint / Banjo bolt × 2

2. Washer × 2-4

3. Hose × 1

2. Washer

Pressure Resistance: up to 4,350 psi

Shape	Part Number	Stock
	WS-10	●

* Use 2 washers for a banjo bolt

3. Hose

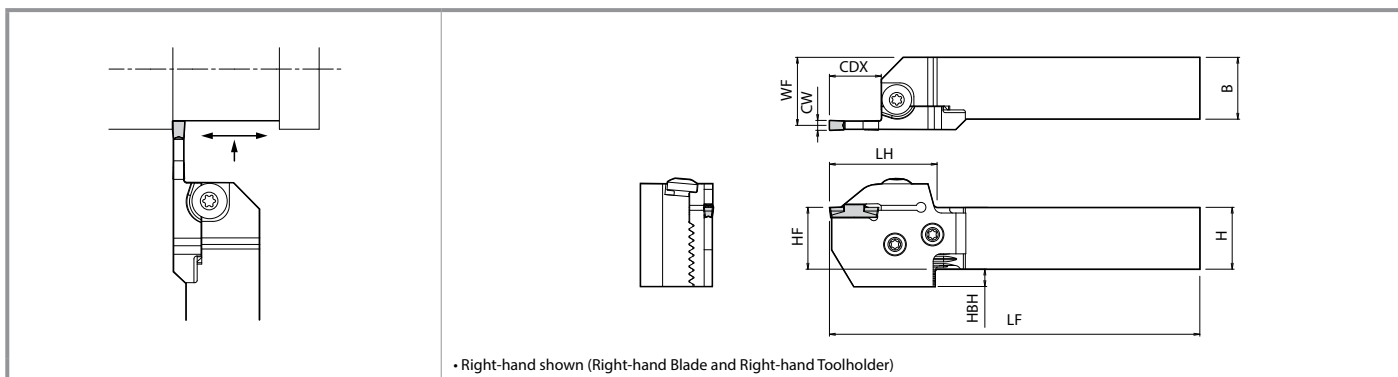
Pressure Resistance: up to 4,350 psi

Shape	Part Number	Stock	Thread Standard		Dimensions (mm)
	HS-ST-ST-200	●	UNF3/8	UNF3/8	200
	HS-ST-ST-250	●			250
	HS-ST-AN-200	●	UNF3/8	-	200
	HS-ST-AN-250	●			250
	HS-AN-AN-200	●	-	-	200
	HS-AN-AN-250	●			250

Precautions

● : Standard Item

1. Make sure machine door is completely closed before use of these parts.
2. Use appropriate seal for the male thread of the piping parts and make sure the connection is secure. Use plugs to seal off unused coolant holes.
3. Connect and fasten the coolant hose firmly.
4. The use of copper washers may cause leakage but will have no effect on the performance.
5. Commercial piping parts can be used if the thread standards are the same. Check the pressure resistance before use.
6. Regularly changing the coolant filter is recommended.



Toolholder + Blade Dimensions (Inch Size)

Shank Angle	Width	Max. Grooving Depth	Shank Size (in)	Unit Part Number (Toolholder + Blade)	Stock		Toolholder Part Number P17	Blade Part Number P17	Dimensions (in)								Insert Width CW	
					R	L			H	HF	HBH	B	LF	LH	WF	CDX*	MIN.	MAX.
0°	0.079" (2mm)	0.669" (17mm)	0.75	KGD 12X-2T17S	●	●	KGD 12-C	KGD 12-T17-C	0.75	0.75	0.472	0.75	4.80	1.57	0.88	0.669" (17mm)	0.079" (2mm)	0.118" (3mm)
			1.00	16X-2T17S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	5.78	1.57	1.13			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.58	1.57	1.38				
	0.118" (3mm)	0.394" (10mm)	0.75	KGD 12X-3T10S	●	●	KGD 12-C	KGD 12-T10-C	0.75	0.75	0.472	0.75	4.52	1.29	0.86	0.394" (10mm)	0.118" (3mm)	0.157" (4mm)
			1.00	16X-3T10S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	5.51	1.29	1.11			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.30	1.29	1.37				
		0.787" (20mm)	0.75	KGD 12X-3T20S	●	●	KGD 12-C	KGD 12-T20-C	0.75	0.75	0.472	0.75	4.92	1.68	0.86	0.787" (20mm)		
			1.00	16X-3T20S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	5.90	1.68	1.11			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.70	1.68	1.37				
	0.157" (4mm)	0.394" (10mm)	0.75	KGD 12X-4T10S	●	●	KGD 12-C	KGD 12-T10-C	0.75	0.75	0.472	0.75	4.52	1.29	0.84	0.394" (10mm)	0.157" (4mm)	0.197" (5mm)
			1.00	16X-4T10S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	5.51	1.29	1.09			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.30	1.29	1.35				
		0.787" (20mm)	0.75	KGD 12X-4T20S	●	●	KGD 12-C	KGD 12-T20-C	0.75	0.75	0.472	0.75	4.92	1.68	0.84	0.787" (20mm)		
			1.00	16X-4T20S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	5.90	1.68	1.09			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.70	1.68	1.35				
		0.984" (25mm)	0.75	KGD 12X-4T25S	●	●	KGD 12-C	KGD 12-T25-C	0.75	0.75	0.472	0.75	5.11	1.88	0.84	0.984" (25mm)		
			1.00	16X-4T25S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	6.10	1.88	1.09			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.89	1.88	1.35				
	0.197" (5mm)	0.394" (10mm)	0.75	KGD 12X-5T10S	●	●	KGD 12-C	KGD 12-T10-C	0.75	0.75	0.472	0.75	4.52	1.29	0.82	0.394" (10mm)	0.197" (5mm)	0.236" (6mm)
			1.00	16X-5T10S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	5.51	1.29	1.07			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.30	1.29	1.33				
		0.984" (25mm)	0.75	KGD 12X-5T25S	●	●	KGD 12-C	KGD 12-T25-C	0.75	0.75	0.472	0.75	5.12	1.89	0.83	0.984" (25mm)		
			1.00	16X-5T25S	●	●	KGD 16-C		1.00	1.00	0.276	1.00	6.10	1.88	1.07			
			1.25	No Unit Part Number➡		KGD 20-C	1.25		1.25	-	1.25	6.89	1.88	1.33				

Note 1) When using the toolholder in normal mounting position, the lower jaw of the toolholder may interfere with the tool presetter.

2) The toolholder and blade part numbers are printed on the toolholder body. (Unit part numbers are not printed)

KGD-S: Right-hand blades for right-hand toolholders, and left-hand blades for left-hand toolholders.

3) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

4) Dimension CDX*: Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

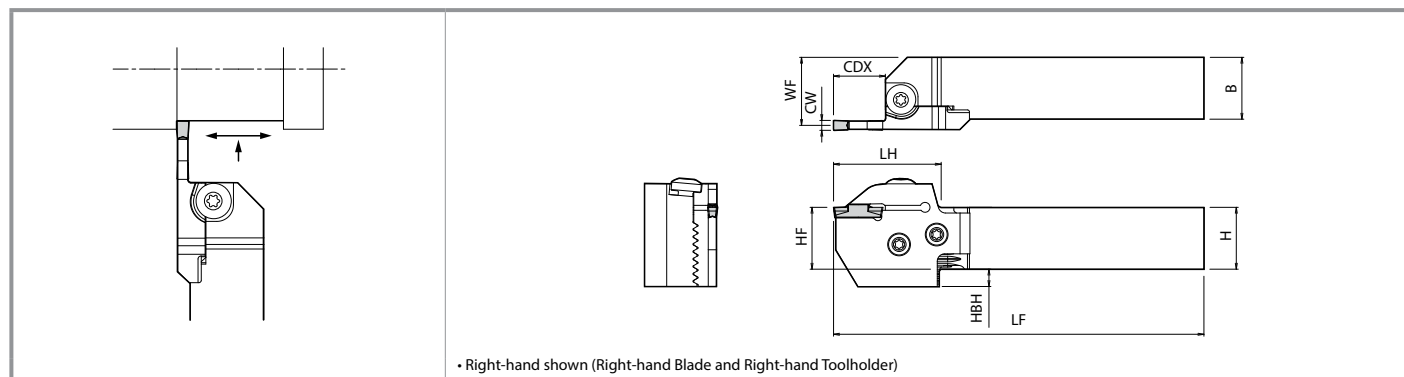
Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

● : Standard Item

Applicable Inserts See [Page 4-6](#)

Spare Parts (Common with SwitchBlade types) * The parts are included in the toolholder and unit.

Unit Description	Spare Parts		
	Clamp Bolt (for Insert Clamp)	Clamp Screw (for Blade)	Wrench
KGD 12...S	BH6X10TR	SB-60120TR	LTW-25



Toolholder + Blade Dimensions (Metric Size)

Shank Angle	Width	Max. Grooving Depth	Shank Size (mm)	Unit Part Number (Toolholder + Blade)		Stock		Toolholder Part Number P17	Blade Part Number P17	Dimensions (mm)								Insert Width CW	
						R	L			H	HF	HBH	B	LF	LH	WF	CDX*	MIN.	MAX.
0°	0.079" (2mm)	0.669" (17mm)	□20	KGD % 2020X-2T17S	●		KGD % 2020-C	KGD % -2T17-C	20	20	12	20	122	40	23.4	0.669" (17mm)	0.079" (2mm)	0.118" (3mm)	
			□25	2525X-2T17S	●	●	KGD % 2525-C		25	25	7	25	147	40	28.4				
			□32	No Unit Part Number ➡		KGD % 3232-C	32		32	-	32	167	40	35.4					
	0.118" (3mm)	0.394 (10mm)	□20	KGD % 2020X-3T10S	●		KGD % 2020-C	KGD % -3T10-C	20	20	12	20	115	33	23.0	0.394 (10mm)	0.118" (3mm)	0.157" (4mm)	
			□25	2525X-3T10S	●		KGD % 2525-C		25	25	7	25	140	33	28.0				
			□32	No Unit Part Number ➡		KGD % 3232-C	32		32	-	32	160	33	35.0					
		0.787" (20mm)	□20	KGD % 2020X-3T20S	●	●	KGD % 2020-C	KGD % -3T20-C	20	20	12	20	125	43	23.0	0.787" (20mm)			
			□25	2525X-3T20S	●	●	KGD % 2525-C		25	25	7	25	150	43	28.0				
			□32	3232X-3T20S	●		KGD % 3232-C		32	32	-	32	170	43	35.0				
	0.157" (4mm)	0.394" (10mm)	□20	KGD % 2020X-4T10S	●		KGD % 2020-C	KGD % -4T10-C	20	20	12	20	115	33	22.5	0.394" (10mm)	0.157" (4mm)	0.197" (5mm)	
			□25	2525X-4T10S	●		KGD % 2525-C		25	25	7	25	140	33	27.5				
			□32	No Unit Part Number ➡		KGD % 3232-C	32		32	-	32	160	33	34.5					
		0.787" (20mm)	□20	KGD % 2020X-4T20S	●		KGD % 2020-C	KGD % -4T20-C	20	20	12	20	125	43	22.5	0.787" (20mm)			
			□25	2525X-4T20S	●	●	KGD % 2525-C		25	25	7	25	150	43	27.5				
			□32	3232X-4T20S	●		KGD % 3232-C		32	32	-	32	170	43	34.5				
		0.984" (25mm)	□20	KGD % 2020X-4T25S	●	●	KGD % 2020-C	KGD % -4T25-C	20	20	12	20	130	48	22.5	0.984" (25mm)			
			□25	2525X-4T25S	●	●	KGD % 2525-C		25	25	7	25	155	48	27.5				
			□32	3232X-4T25S	●		KGD % 3232-C		32	32	-	32	175	48	34.5				
	0.197" (5mm)	0.787" (20mm)	□20	KGD % 2020X-5T10S	●	●	KGD % 2020-C	KGD % -5T10-C	20	20	12	20	115	33	22.0	0.787" (20mm)			
			□25	2525X-5T10S	●		KGD % 2525-C		25	25	7	25	140	33	27.0				
			□32	No Unit Part Number ➡		KGD % 3232-C	32		32	-	32	160	33	34.0					
		0.984" (25mm)	□20	No Unit Part Number ➡		KGD % 2020-C	KGD % -5T25-C	20	20	12	20	130	48	22.0	0.984" (25mm)				
			□25	KGD % 2525X-5T25S	●	●		KGD % 2525-C	25	25	7	25	155	48		27.0			
			□32	3232X-5T25S	●			KGD % 3232-C	32	32	-	32	175	48		34.0			

Note 1) When using the toolholder in normal mounting position, the lower jaw of the toolholder may interfere with the tool presetter.

2) The toolholder and blade part numbers are printed on the toolholder body. (Unit part numbers are not printed)

KGD-S: Right-hand blades for right-hand toolholders, and left-hand blades for left-hand toolholders.

3) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

4) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

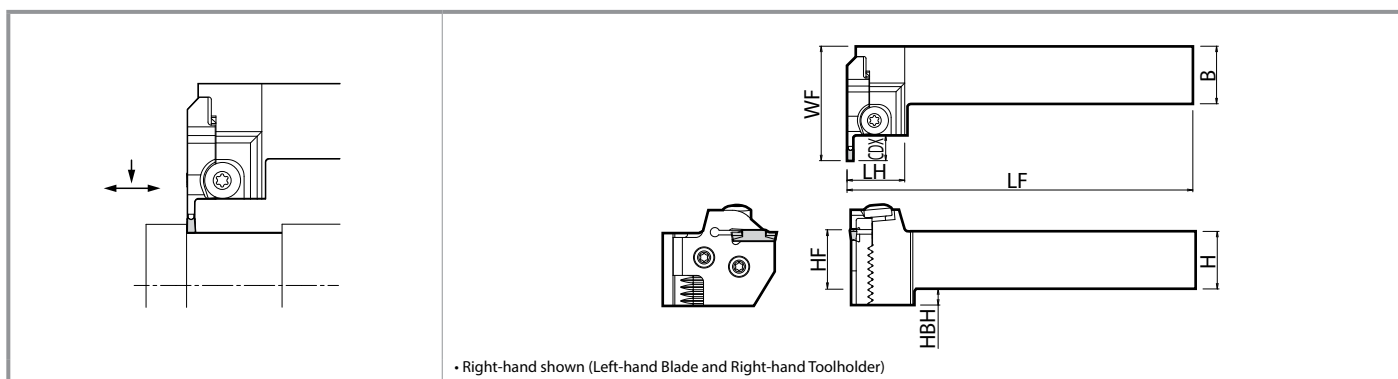
Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

Applicable Inserts See [Page 4-6](#)

● : Standard Item

Spare Parts (Common with SwitchBlade types) * The parts are included in the toolholder and unit.

Unit Description	Spare Parts		
	Clamp Bolt (for Insert Clamp)	Clamp Screw (for Blade)	Wrench
			
KGD % ...S	BH6X10TR	SB-60120TR	LTW-25



Toolholder + Blade Dimensions (Inch Size)

Shank Angle	Width	Max. Grooving Depth	Shank Size (in)	Unit Part Number (Toolholder + Blade)	Stock		Toolholder Part Number 🔩 P17	Blade Part Number 🔩 P17	Dimensions (in)							Insert Width CW	
					R	L			H	HF	HBH	B	LF	LH	WF	CDX*	MIN.
90°	0.079" (2mm)	0.669" (17mm)	📏0.75	No Unit Part Number ➡	KGDS 12-C	KGD 2T17-C	0.75	0.75	0.472	0.75	4.92	1.09	2.19	0.669" (17mm)	0.079" (2mm)	0.118" (3mm)	
			📏1.00		KGDS 16-C		1.00	1.00	0.276	1.00	5.91	1.09	2.25				
	0.118" (3mm)	0.394" (10mm)	📏0.75		KGDS 12-C	KGD 3T10-C	0.75	0.75	0.472	0.75	4.92	1.09	1.92	0.394" (10mm)	0.118" (3mm)	0.157" (4mm)	
			📏1.00		KGDS 16-C		1.00	1.00	0.276	1.00	5.91	1.09	1.97				
		0.787" (20mm)	📏0.75		KGDS 12-C	KGD 3T20-C	0.75	0.75	0.472	0.75	4.92	1.09	2.31	0.787" (20mm)			
					📏1.00		KGDS 16-C	1.00	1.00	0.276	1.00	5.91	1.09				2.37
	0.157" (4mm)	0.394" (10mm)	📏0.75		KGDS 12-C	KGD 4T10-C	0.75	0.75	0.472	0.75	4.92	1.09	1.92	0.394" (10mm)	0.157" (4mm)	0.197" (5mm)	
					📏1.00		KGDS 16-C	1.00	1.00	0.276	1.00	5.91	1.09				1.97
		0.787" (20mm)	📏0.75		KGDS 12-C	KGD 4T20-C	0.75	0.75	0.472	0.75	4.92	1.09	2.31	0.787" (20mm)			
					📏1.00		KGDS 16-C	1.00	1.00	0.276	1.00	5.91	1.09				2.37
	0.197" (5mm)	0.984" (25mm)	📏0.75		KGDS 12-C	KGD 4T25-C	0.75	0.75	0.472	0.75	4.92	1.09	2.51	0.984" (25mm)	0.197" (5mm)	0.236" (6mm)	
					📏1.00		KGDS 16-C	1.00	1.00	0.276	1.00	5.91	1.09				2.56
		0.394" (10mm)	📏0.75		KGDS 12-C	KGD 5T10-C	0.75	0.75	0.472	0.75	4.92	1.09	1.92	0.394" (10mm)			
					📏1.00		KGDS 16-C	1.00	1.00	0.276	1.00	5.91	1.09				1.97
	0.984" (25mm)	📏0.75	KGDS 12-C		KGD 5T25-C	0.75	0.75	0.472	0.75	4.92	1.09	2.51	0.984" (25mm)				
			📏1.00			KGDS 16-C	1.00	1.00	0.276	1.00	5.91	1.09		2.56			

Note 1) When using the toolholder in normal mounting position, the lower jaw of the toolholder may interfere with the tool presetter.

2) The toolholder and blade part numbers are printed on the toolholder body. (Unit part numbers are not printed)

KGDS-S: Left-hand blades for right-hand toolholders, and right-hand blades for left-hand toolholders.

3) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

4) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

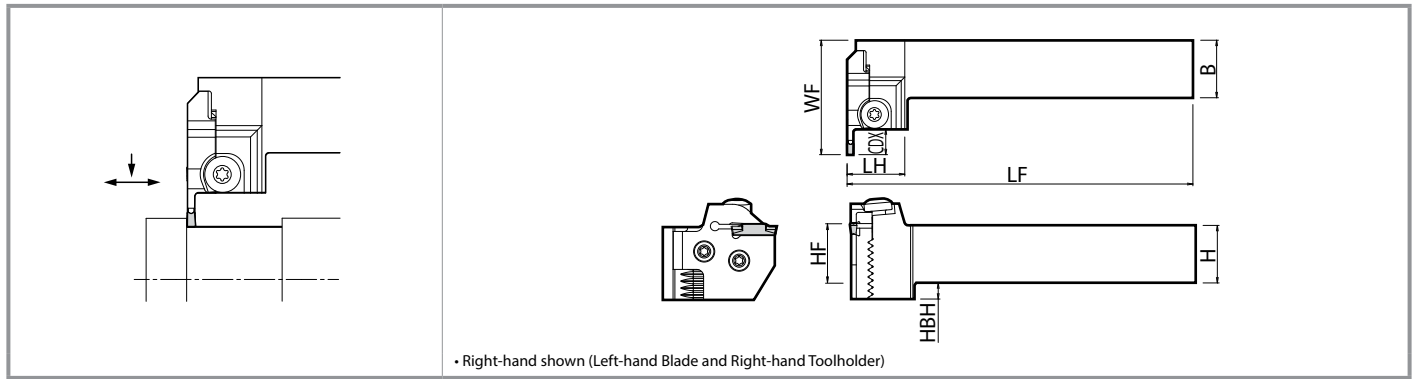
Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

● : Standard Item

Applicable Inserts See ● Page 4-6

Spare Parts (Common with SwitchBlade types) * The parts are included in the toolholder and unit.

Unit Description	Spare Parts		
	Clamp Bolt (for Insert Clamp)	Clamp Screw (for Blade)	Wrench
			
KGDS%...S	BH6X10TR	SB-60120TR	LTW-25



Toolholder + Blade Dimensions (Metric Size)

Shank Angle	Width	Max. Grooving Depth	Shank Size (mm)	Unit Part Number (Toolholder + Blade)	Stock		Toolholder Part Number ➡ P17	Blade Part Number ➡ P17	Dimensions (mm)								Insert Width CW		
					R	L			H	HF	HBH	B	LF	LH	WF	CDX*	MIN.	MAX.	
90°	0.079" (2mm)	0.669" (17mm)	□20	No Unit Part Number ➡			KGDS % 2020-C	KGD % -2T17-C	20	20	12	20	125	27.7	56.7	0.669" (17mm)	0.079" (2mm)	0.118" (3mm)	
			□25				KGDS % 2525-C		25	25	7	25	150	27.7	56.7				
	0.118" (3mm)	0.394" (10mm)	□20	KGDS % 2020X-3T10S	●	●	KGDS % 2020-C	KGD % -3T10-C	20	20	12	20	125	27.7	49.7	0.394" (10mm)	0.118" (3mm)	0.157" (4mm)	
			□25	2525X-3T10S	●	●	KGDS % 2525-C		25	25	7	25	150	27.7	49.7				
		0.787" (20mm)	No Unit Part Number ➡					KGDS % 2020-C	KGD % -3T20-C	20	20	12	20	125	27.7	59.7			0.787" (20mm)
								KGDS % 2525-C		25	25	7	25	150	27.7	59.7			
	0.157" (4mm)	0.394" (10mm)	□20	No Unit Part Number ➡				KGDS % 2020-C	KGD % -4T10-C	20	20	12	20	125	27.7	49.7	0.394" (10mm)		
			□25							KGDS % 2525-C	25	25	7	25	150	27.7		49.7	
		0.787" (20mm)	□20					KGDS % 2020-C	KGD % -4T20-C	20	20	12	20	125	27.7	59.7	0.787" (20mm)		
			□25					KGDS % 2525-C		25	25	7	25	150	27.7	59.7			
		0.984" (25mm)	□20					KGDS % 2020-C	KGD % -4T25-C	20	20	12	20	125	27.7	64.7	0.984" (25mm)		
			□25					KGDS % 2525-C		25	25	7	25	150	27.7	64.7			
	0.197" (5mm)	0.394" (10mm)	□20	No Unit Part Number ➡				KGDS % 2020-C	KGD % -5T10-C	20	20	12	20	125	27.7	49.7	0.394" (10mm)		
			□25							KGDS % 2525-C	25	25	7	25	150	27.7		49.7	
		0.984" (25mm)	□20					KGDS % 2020-C	KGD % -5T25-C	20	20	12	20	125	27.7	64.7	0.984" (25mm)		
			□25					KGDS % 2525-C		25	25	7	25	150	27.7	64.7			

Note 1) When using the toolholder in normal mounting position, the lower jaw of the toolholder may interfere with the tool presetter.

2) The toolholder and blade part numbers are printed on the toolholder body. (Unit part numbers are not printed)

KGDS-S: Left-hand blades for right-hand toolholders, and right-hand blades for left-hand toolholders.

3) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

4) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

Applicable Inserts See ➡ Page 4-6

● : Standard Item

Spare Parts (Common with SwitchBlade types) * The parts are included in the toolholder and unit.

Unit Description	Spare Parts		
	Clamp Bolt (for Insert Clamp)	Clamp Screw (for Blade)	Wrench
KGDS%...S	BH6X10TR	SB-60120TR	LTW-25

KGD R 1616 H - 3 T 06 (Integral Type)

Toolholder hand	Shank Size	Toolholder Length	Applicable Inserts	Max. Grooving Depth
R : Right-hand L : Left-hand	16 × 16 mm	H : 100 mm	GDM/GDMS 3 ~ 4 mm	06 : 6 mm

KGD R 2020 K - 3 T 06 JCT (Coolant-through Holders)

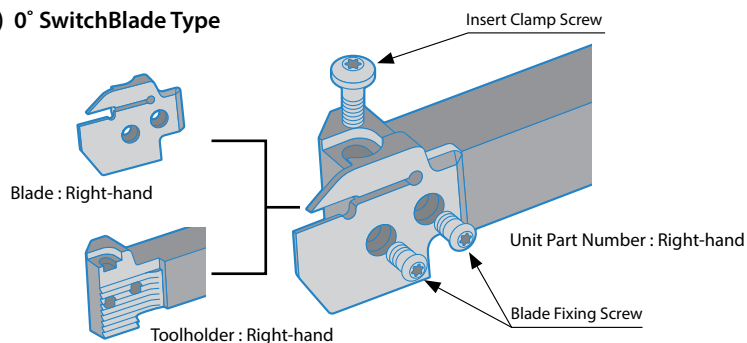
Toolholder hand	Shank Size	Toolholder Length	Applicable Inserts	Max. Grooving Depth	Others
R : Right-hand L : Left-hand	20 × 20 mm	K : 125 mm	GDM/GDMS 3 ~ 4 mm	06 : 6 mm	Coolant-through Holders

KGD KGDS R 2020 X - 3 T 10 S (SwitchBlade Type / Unit Description)

Toolholder hand	Shank Size	Toolholder Length	Applicable Inserts	Max. Grooving Depth
R : Right-hand L : Left-hand	20 × 20 mm	Unit Description	GDM/GDMS 3 ~ 4 mm	10 : 10 mm

SwitchBlade Toolholder Unit Structure (External Grooving, Cut-Off)

1) 0° SwitchBlade Type



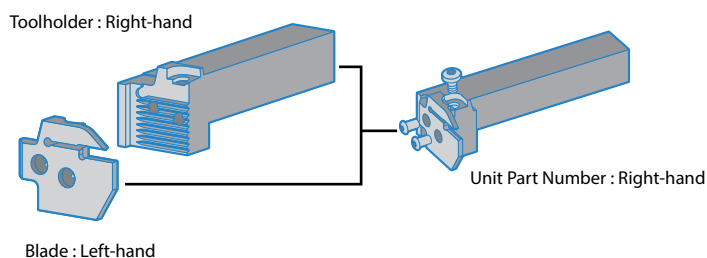
Toolholder (KGD^{R/L}○○-C)

+

Blade (KGD^{R/L}-○○○○-C)

⇒ Right-hand Blade for Right-hand Toolholder,
Left-hand Blade for Left-hand Toolholder.

2) 90° SwitchBlade Type



Toolholder (KGDS^{R/L}○○-C)

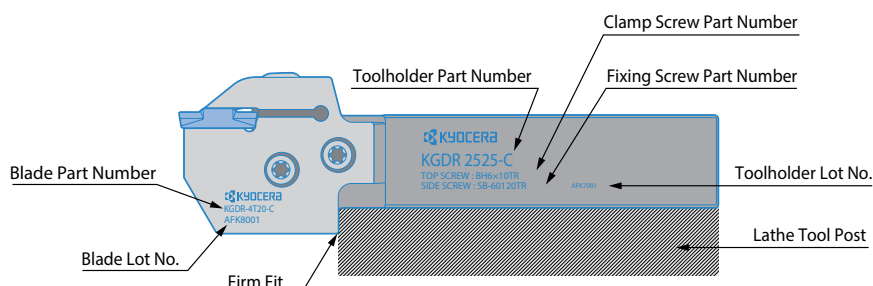
+

Blade (KGD^{R/L}-○○○○-C)

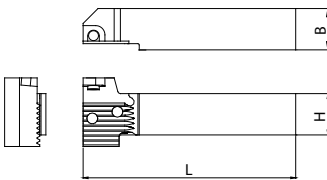
⇒ Left-hand Blade for Right-hand Toolholder,
Right-hand Blade for Left-hand Toolholder.

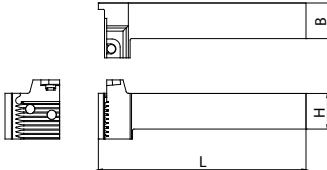
SwitchBlade Toolholder Identification System and Lathe Setting

Firmly fit the lower jaw to the tool post of the lathe.

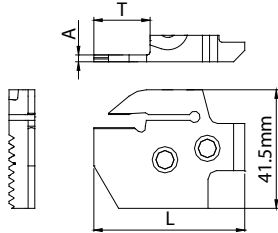


Toolholder Dimensions

KGD-S (0° SwitchBlade Type) Right-hand shown	Toolholder Part Number	Stock		Unit	Dimensions		
		R	L		L	B	H1
	KGDR/L 12-C	●	●	inch	4.09	0.75	0.75
	16-C	●	●		5.08	1.00	1.00
	NEW 20-C	●	●		5.86	1.25	1.25
	KGDR/L 2020-C	●	●	mm	104	20	20
	2525-C	●	●		129	25	25
	3232-C	●	●		149	32	32

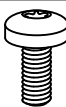
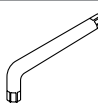
KGDS-S (90° SwitchBlade Type) Right-hand shown	Toolholder Part Number	Stock		Unit	Dimensions		
		R	L		L	B	H1
	KGDSR/L 12-C	●	●	inch	4.80	0.75	0.75
	16-C	●	●		5.79	1.00	1.00
	KGDSR/L 2020-C	●	●	mm	122	20	20
	2525-C	●	●		147	25	25

Blade Dimensions

Blade Right-hand shown	Blade Part Number	Stock		Unit	Dimensions		
		R	L		L	T	A
	KGDR/L -2T17-C	●	●	mm	51.2	17.2	1.7
	-3T10-C	●	●		44.2	10.2	2.4
	-3T20-C	●	●		53.2	20.2	2.4
	-4T10-C	●	●		44.2	10.2	3.4
	-4T20-C	●	●		54.2	20.2	3.4
	-4T25-C	●	●		59.2	25.2	3.4
	-5T10-C	●	●		44.2	10.2	4.4
	-5T25-C	●	●		59.2	25.2	4.4

● : Standard Item

Spare Parts (Common with SwitchBlade Types)

Unit Part Number	Spare Parts		
	Clamp Screw (for Insert Clamp)	Clamp Screw (for Blade)	Wrench
KGDR/LS KGDSR/LS	 BH6X10TR	 SB-60120TR	 LTW-25

* Parts are included with the toolholder and unit.

Setting the Blade Into the Toolholder (SwitchBlade Type)

1. Use compressed air or other measures to remove chips and dust from the serrated surface. (See Fig.1)
2. Mate and fit the serrations of the blade and toolholder, and also fit the blade end to the toolholder. (See Fig.2)
3. Tighten the blade fixing screws at an appropriate torque. You can tighten them in any order. (See Fig.2) (Recommended tightening torque : 8Nm)
4. Set the insert after setting the blade. (See [Page 6](#) for insert setting instructions)

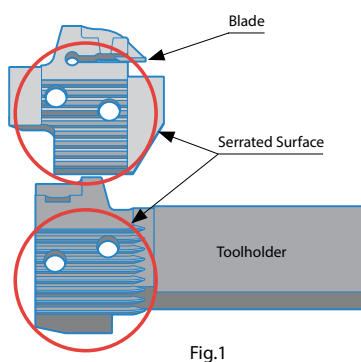


Fig.1

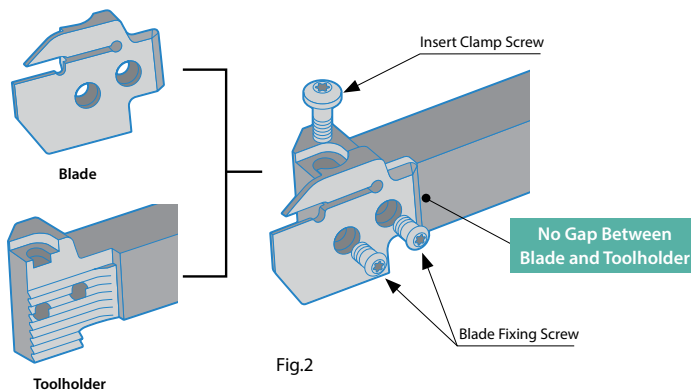
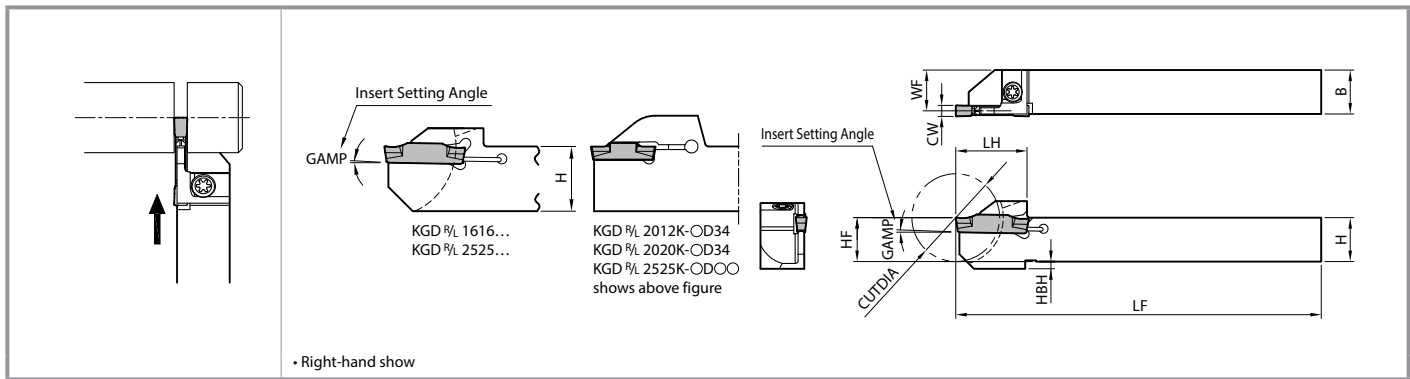


Fig.2

Insert Width: 0.051" ~ 0.157" / 1.3mm ~ 4.0mm



Toolholder Dimensions (Inch Size)

Part Number	Stock		Cut-Off Dia.	Dimensions (in)							Angle	Insert Width CW		Spare Parts	
	R	L		CUTDIA	H	HF	HBH	B	LF	LH	WF	MIN	MAX	Clamp Screw/Bolt	Wrench
KGD % 6-1.3JX	●	●	0.787	0.375	0.375	0.098	0.375	4.75	0.709	0.356	1°	0.051" (1.3mm)	0.051" (1.3mm)	SB-40120TR	LTW-15S
8-1.3JX	●	●	0.944	0.500	0.500	0.051	0.500	4.75	0.768	0.481					
KGD % 6-1.5JX	●	●	0.787	0.375	0.375	0.098	0.375	4.75	0.709	0.351	1°	0.051" (1.5mm)	0.051" (1.5mm)	SB-40120TR	LTW-15S
8-1.5JX	●	●	0.944	0.500	0.500	0.051	0.500	4.75	0.768	0.476					
KGD % 6-2JX	●	●	0.787	0.375	0.375	0.098	0.375	4.75	0.709	0.342	1°	0.079" (2mm)	0.118" (3mm)	SB-40120TR	LTW-15S
8-2JX	●	●	0.944	0.500	0.500	0.051	0.500	4.75	0.768	0.467					
10-2JX	●	●	1.259	0.625	0.625	-	0.625	4.75	0.965	0.592					
KGD % 6-2.4JX	●	●	0.787	0.375	0.375	0.098	0.375	4.75	0.709	0.336	1°	0.094" (2.4mm)	0.118" (3mm)	SB-40120TR	LTW-15S
8-2.4JX	●	●	0.944	0.500	0.500	0.051	0.500	4.75	0.768	0.461					
10-2.4JX	●	●	1.259	0.625	0.625	-	0.625	4.75	0.965	0.586					
KGD % 8-3JX	●	●	0.944	0.500	0.500	0.051	0.500	4.75	0.768	0.453	1°	0.118" (3mm)	0.118" (3mm)	SB-40120TR	LTW-15S
10-3JX	●	●	1.259	0.625	0.625	-	0.625	4.75	0.965	0.578			0.157" (4mm)		
KGD % 10-3D38JX	●	●	1.496	0.625	0.625	-	0.625	4.75	1.142	0.578	1°	0.118" (3mm)	0.157" (4mm)	SE-50125TR	LTW-20
12-3D42JX	●	●	1.653	0.750	0.750	-	0.750	4.75	1.220	0.703					
43-3D42JX	●	●	1.653	0.750	0.750	-	0.500	4.75	1.220	0.453					

Note 1) 0.157" (4mm) width insert can be installed in KGD % 8-3JX, but is not recommended due to the toolholder's rigidity.

2) Recommended tightening torque for clamp screw is 2.0Nm for SB-40120TR and 2.5Nm for SE-50125TR.

3) When machining material greater than Ø1.417" (36mm) with KGD % 10-3D38JX, KGD % 12-3D42JX, or KGD % 43-3D42JX toolholders, use 1-edge inserts.

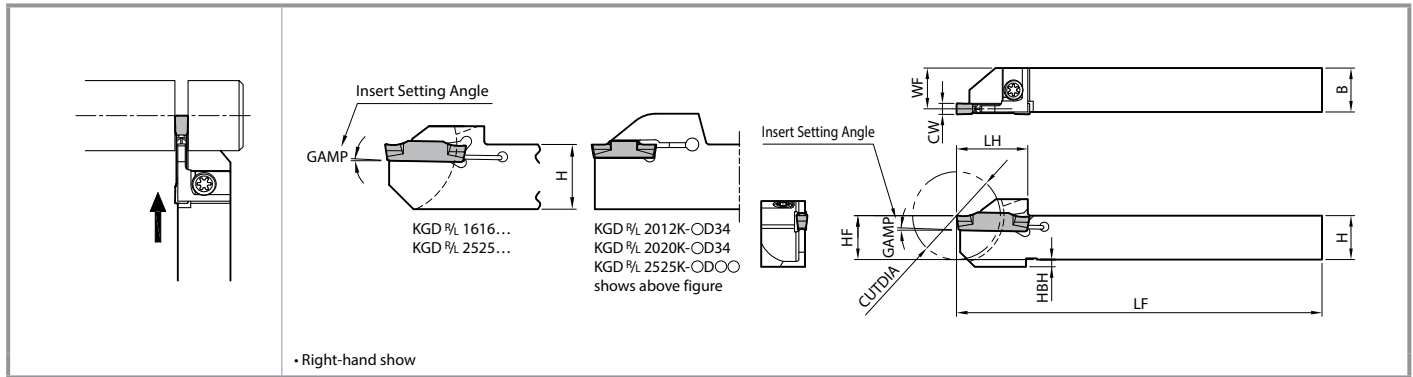
Max. workpiece diameter for 2-edge inserts is Ø1.417" (36mm)

Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

Applicable Inserts See [Page 4-6](#)

● : Standard Item

Insert Width: 0.051" ~ 0.157" / 1.3mm ~ 4.0mm



Toolholder Dimensions (Metric Size)

Part Number	Stock		Cut-Off Dia.	Dimensions (mm)							Angle	Insert Width CW		Spare Parts	
	R	L		H	HF	HBH	B	LF	LH	WF		MIN	MAX	Clamp Screw/Bolt	Wrench
KGD % 1010JX-1.3D16	●	●	16	10	10	2	10	120	18	9.9	5°	0.051" (1.3mm)	0.051" (1.3mm)	SB-40120TR	LTW-15S
1010JX-1.3	●	●	20	10	10	2	10	120	18	9.5					
1212F-1.3D16	●	●	16	12	12	2	12	85	19.5	11.9					
1212JX-1.3D16	●	●	16	12	12	2	12	120	19.5	11.9					
1212F-1.3	●	●	24	12	12	2	12	85	19.5	11.5					
1212JX-1.3	●	●	24	12	12	2	12	120	19.5	11.5	5°	0.051" (1.5mm)	0.051" (1.5mm)	SB-40120TR	LTW-15S
KGD % 1010JX-1.5D16	●	●	16	10	10	2	10	120	18	9.7					
1010JX-1.5	●	●	20	10	10	2	10	120	18	9.4					
1212F-1.5D16	●	●	16	12	12	2	12	85	19.5	11.7					
1212JX-1.5D16	●	●	16	12	12	2	12	120	19.5	11.7					
1212F-1.5	●	●	24	12	12	2	12	85	19.5	11.4	1°	0.079" (2mm)	0.118" (3mm)	SB-40120TR	LTW-15S
1212JX-1.5	●	●	24	12	12	2	12	120	19.5	11.4					
KGD % 1010JX-2	●	●	20	10	10	2	10	120	18	9.2					
1212F-2	●	●	24	12	12	2	12	85	19.5	11.2					
1212JX-2	●	●	24	12	12	2	12	120	19.5	11.2					
1616JX-2	●	●	32	16	16	-	16	120	24.5	15.2	0°			HH5X16	LW-4
2012K-2D34	●	●	34	20	20	-	12	125	32.5	11.2					
2020K-2D34	●	●	34	20	20	-	20	125	32.5	19.2	1°	0.094" (2.4mm)	0.118" (3mm)	SB-40120TR	LTW-15S
KGD % 1010JX-2.4	●	●	20	10	10	2	10	120	18	9					
1212F-2.4	●	●	24	12	12	2	12	85	19.5	11					
1212JX-2.4	●	●	24	12	12	2	12	120	19.5	11					
1616JX-2.4	●	●	32	16	16	-	16	120	24.5	15					
2012K-2.4D34	●	●	34	20	20	-	12	125	32.5	11	0°			HH5X16	LW-4
2020K-2.4D34	●	●	34	20	20	-	20	125	32.5	19					
KGD % 1212JX-3	●	●	24	12	12	2	12	120	19.5	10.8	1°	0.118" (3mm)	0.118" (3mm)	SB-40120TR	LTW-15S
1616JX-3	●	●	32	16	16	-	16	120	24.5	14.8			0.157" (4mm)		
1616JX-3D38	●	●	38	16	16	-	16	120	29	14.8		0.118" (3mm)	0.157" (4mm)	SE-50125TR	LTW-20
1913K-3D38	●	●		19	19	-	13	125	29	11.8					
2012JX-3D42	●	●	42	20	20	-	12	120	31	10.8					
2012JX-3D51	●	●	51	20	20	-	12	120	36	10.8					
2020JX-3D42	●	●	42	20	20	-	20	120	31	18.8					
2020JX-3D51	●	●	51	20	20	-	20	120	36	18.8					

Note 1) 0.157" (4mm) width insert can be installed in KGD % 8-3JX, but is not recommended due to the toolholder's rigidity.

2) Recommended tightening torque for clamp screw is 2.0Nm for SB-40120TR and 2.5Nm for SE-50125TR.

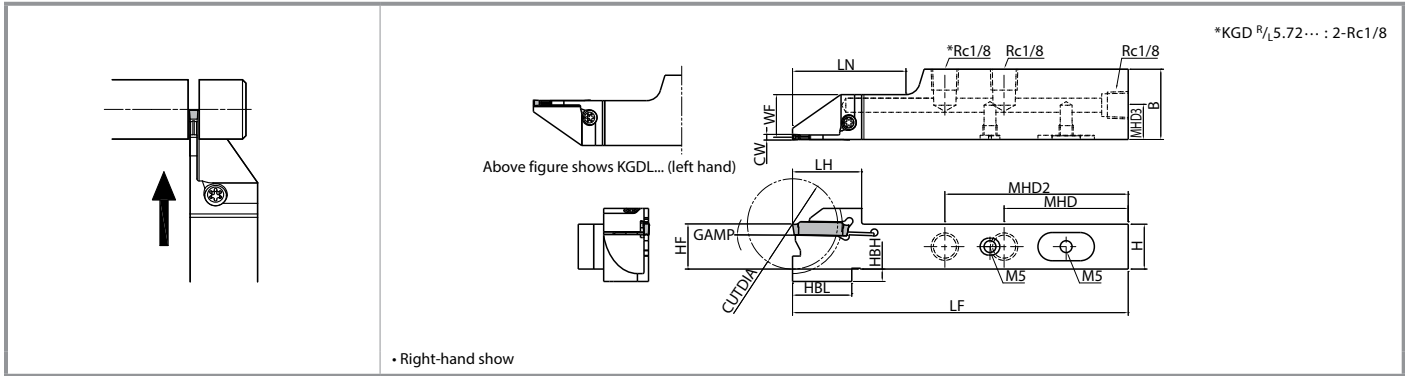
3) When machining material greater than Ø1.417" (36mm) with KGD % 10-3D38JX, KGD % 12-3D42JX, or KGD % 43-3D42JX toolholders, use 1-edge inserts.

Max. workpiece diameter for 2-edge inserts is Ø1.417" (36mm)

Choose an insert with a width that falls within the **MIN** and **MAX** parameters shown in table above.

Applicable Inserts See [Page 4-6](#)

● : Standard Item



Toolholder Dimensions (Inch Size)

Part Number	Stock		Cut-Off Dia.	Dimensions (in)										Angle	Insert Width CW		Spare Parts				
	R	L		CUTDIA	H=HF	HBH	B	LF	LH	HBL	LN	WF	MHD		MHD2	MHD3	GAMP	MIN	MAX	Clamp Screw	Wrench
																					
KGDR 5.72-2JCTM	●		0.945	0.500	0.330	0.709	4.750	0.770	0.825	1.725	0.500	2.125	-	0.331	1°	0.079" (2mm)	0.118" (3mm)	SB-40120TR	LTW-15S	GP-1	HS5X4LP
KGDL 5.72-2JCTM		●							0.843					0.303							
KGDR 82.5-2JCTM	●		1.260	0.625	0.175	1.000		0.965	0.825	1.585	0.625	1.730	2.560	0.480							
KGDL 82.5-2JCTM		●							0.303												
KGDR 5.72-2.4JCTM	●		0.945	0.500	0.330	0.709	4.750	0.770	0.825	1.725	0.500	2.125	-	0.331	1°	0.094" (2.4mm)	0.118" (3mm)				
KGDL 5.72-2.4JCTM		●							0.843					0.303							
KGDR 82.5-2.4JCTM	●		1.260	0.625	0.175	1.000		0.965	0.825	1.585	0.625	1.730	2.560	0.480							
KGDL 82.5-2.4JCTM		●							0.303												
KGDR 5.72-3JCTM	●		0.945	0.500	0.330	0.709	4.750	0.770	0.825	1.725	0.500	2.125	-	0.331	1°	0.118" (3mm)	0.118" (3mm)				
KGDL 5.72-3JCTM		●							0.843					0.303							
KGDR 82.5-3JCTM	●		1.260	0.625	0.175	1.000		0.965	0.825	1.585	0.625	1.730	2.560	0.480			0.157" (4mm)				
KGDL 82.5-3JCTM		●							0.303												

For coolant piping parts, see [Page 22-23](#)

Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.

Applicable Inserts See [Page 4-6](#)

Supports Internal Coolant with or without Piping Systems

Internal Coolant without Piping

***When the tool turret supports direct coolant**

Coolant is supplied directly from the tool turret into the holder without the need to install piping

Applicable to Wide Range of Machines

The tool turret is optional. Please contact our company sales representative for details.

CITIZEN MACHINERY CO., LTD. (L20, D25, M32)

STAR MICRONICS CO., LTD. (SB-R series, SR series, SV series)

TSUGAMI CORPORATION (S205/206-II □16 type, S205A/206A-II □16 type)

(Random order)
Based on Kyocera Survey in January 2021

Compatible with various machine including the above. Toolholders can be customized as well.



Optimized Coolant Supply

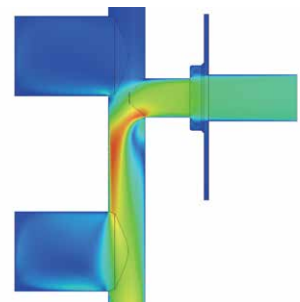
Supply hole designed to reduce energy loss based on extensive flow analysis

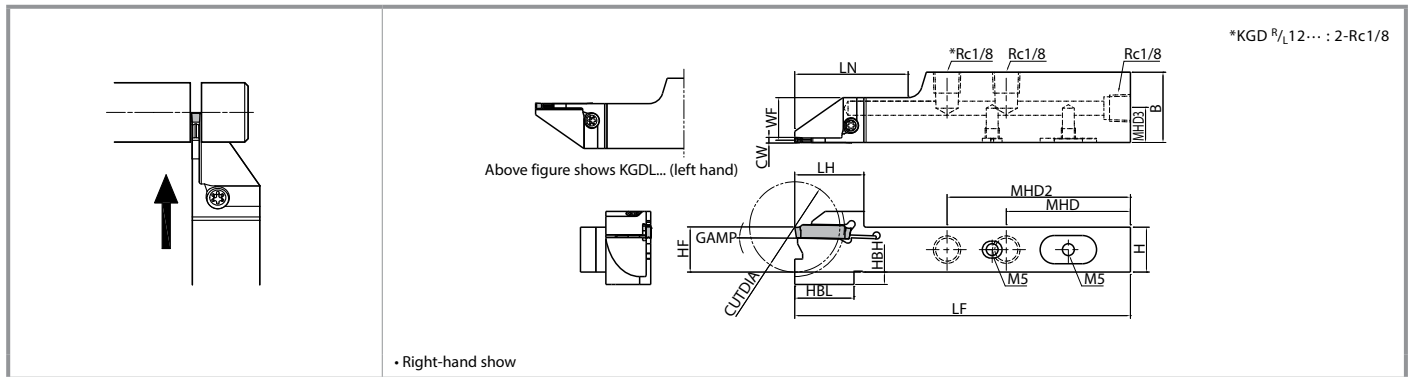
Analysis Image
(Internal Evaluation)

High

Flow velocity

Low





Toolholder Dimensions (Metric Size)

Part Number	Stock		Cut-Off Dia.	Dimensions (mm)											Angle	Insert Width CW		Spare Parts														
	R	L		CUTDIA	H=HF	HBH	B	LF	LH	HBL	LN	WF	MHD	MHD2		MHD3	GAMP	MIN	MAX	Clamp Screw	Wrench	Plug 1	Plug 2									
																																
KGDR 1218JX-2JCTM	●		24	12	8.5	18	120	19.5	21	44	11.2	54	-	8.4	1°	0.079" (2mm)	0.118" (3mm)	SB-40120TR	LTW-15S	GP-1	H55X4LP											
KGDL 1218JX-2JCTM	●							21.5	7.7																							
KGDR 1625JX-2JCTM	●		32	16	4.5	25		24.5	21	40	15.2	44	65	12.2																		
KGDL 1625JX-2JCTM	●							7.7																								
KGDR 1218JX-2.4JCTM	●		24	12	8.5	18	120	19.5	21	44	11	54	-	8.4	1°	0.094" (2.4mm)	0.118" (3mm)					SB-40120TR	LTW-15S	GP-1	H55X4LP							
KGDL 1218JX-2.4JCTM	●							21.5	7.7																							
KGDR 1625JX-2.4JCTM	●		32	16	4.5	25		24.5	21	40	15	44	65	12.2																		
KGDL 1625JX-2.4JCTM	●							7.7																								
KGDR 1218JX-3JCTM	●		24	12	8.5	18	120	19.5	21	44	10.8	54	-	8.6	1°	0.118" (3mm)	0.118" (3mm)									SB-40120TR	LTW-15S	GP-1	H55X4LP			
KGDL 1218JX-3JCTM	●							21.5	7.7																							
KGDR 1625JX-3JCTM	●		32	16	4.5	25		24.5	21	40	14.8	44	65	12.2																1°	0.118" (3mm)	0.157" (4mm)
KGDL 1625JX-3JCTM	●							7.7																								

For coolant piping parts, see [Page 22-23](#)

Choose an insert with a width that falls within the **MIN** and **MAX** parameters shown in table above.

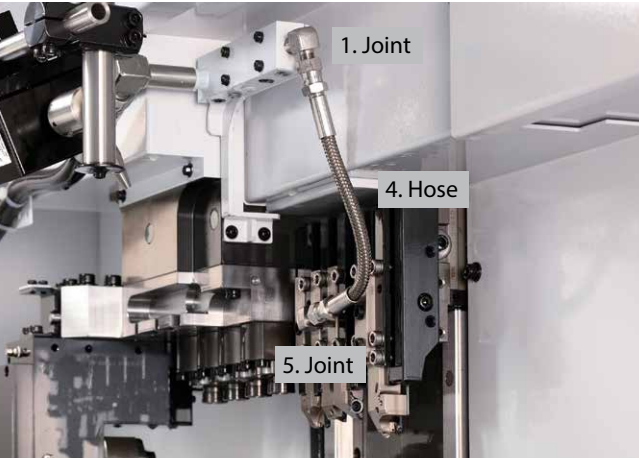
Applicable Inserts See [Page 4-6](#)

Coolant Piping Parts

Pipe parts will be required separately if internal coolant is used

Pump Pressure: up to 2,900 psi
Pump Pressure: up to 1,090 psi if couplers are used

Without Coupler (Pump Pressure: up to 2,900 psi)

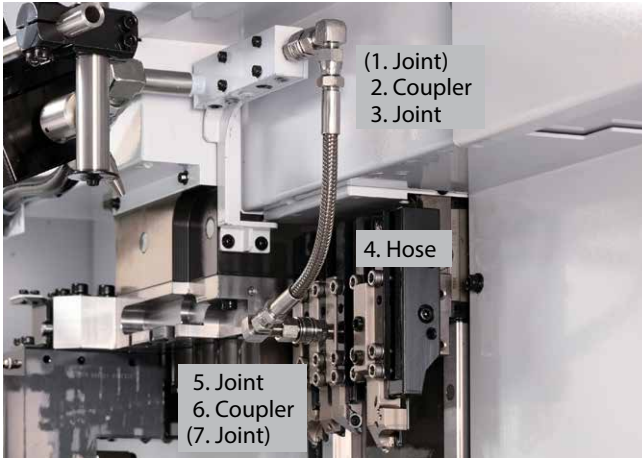


Combination Part Number (Example)

Part	Part Number
1. Joint	J-ST-R1/8-G1/8
4. Hose	HS-G1/8-G1/8-500
5. Joint	J-ST-R1/8-G1/8

Convert the thread standards on the machine's side (Rc1/4, Rc1/8, NPT1/8, etc.) to the thread standard on the hose side (G1/8) for use.
Use sealing agents such as seal tapes when installing piping parts.

With Coupler (Pump Pressure: Up to 1,090 psi)



Combination Part Number (Example)

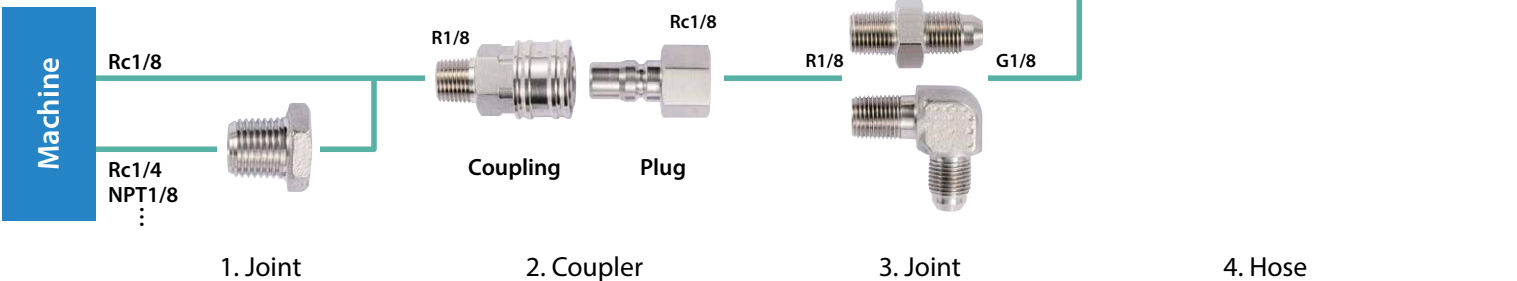
Part	Part Number
(1. Joint)	-
2. Coupler	CP-ST-R1/8, P-ST-RC1/8
3. Joint	J-AN-R1/8-G1/8
4. Hose	HS-G1/8-G1/8-200
5. Joint	J-AN-R1/8-G1/8
6. Coupler	P-ST-RC1/8, CP-ST-R1/8
(7. Joint)	-

Convert the thread standards on the machine's side (Rc1/4, Rc1/8, NPT1/8, etc.) to thread standards of the coupler (Rc1/8, etc.) or hose (G1/8) for use.
Use sealing agents such as seal tapes when installing piping parts.

Without Coupler (Pump Pressure: up to 2,900 psi)



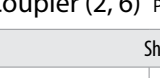
With Coupler (Pump Pressure: up to 1,090 psi)



Piping Installation Parts Description

Joint (1, 3, 5, 7) Pressure Resistance: up to 2,900 psi

(Unit: mm)

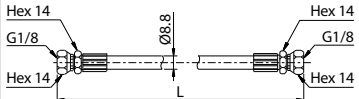
Shape	Part Number	Stock	Ød1	Ød2	L	L1	L2	T1	T2
	J-ST-R1/4-G1/8	●	5.5	4.0	34	13	13	R1/4	G1/8
	J-ST-NPT1/8-G1/8	●	3.5	3.5	29	10	13	NPT1/8	G1/8
	J-ST-R1/8-G1/8	●	4.0	4.0	29	10	13	R1/8	G1/8
	J-AN-R1/8-G1/8	●	4.0	4.0	27	14	13	R1/8	G1/8
	J-ST-R1/4-RC1/8	●	-	-	17	12	-	R1/4	Rc1/8
	J-ST-NPT1/8-RC1/8	●	3.5	-	30	10	-	NPT1/8	Rc1/8
	J-ST-R1/8-RC1/8	●	3.5	-	33	13	-	R1/8	Rc1/8

Coupler (2, 6) Pressure Resistance: up to 1,090 psi (Unit: mm)

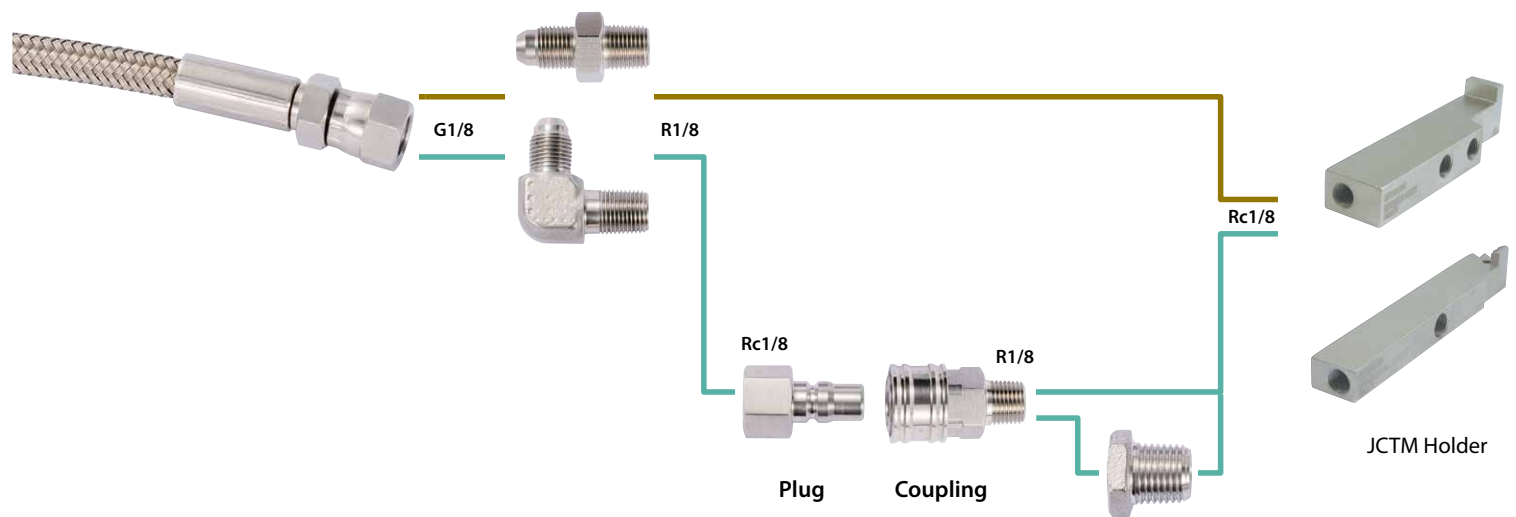
Shape	Part Number	Stock
	CP-ST-R1/8	●
	P-ST-RC1/8	●

Hose (4) Pressure Resistance: up to 2,900 psi

(Unit: mm)

Shape	Part Number	Stock	L
	HS-G1/8-G1/8-200	●	200
	HS-G1/8-G1/8-300	●	300
	HS-G1/8-G1/8-400	●	400
	HS-G1/8-G1/8-500	●	500
	HS-G1/8-G1/8-600	●	600
	HS-G1/8-G1/8-800	●	800

● : Standard Item

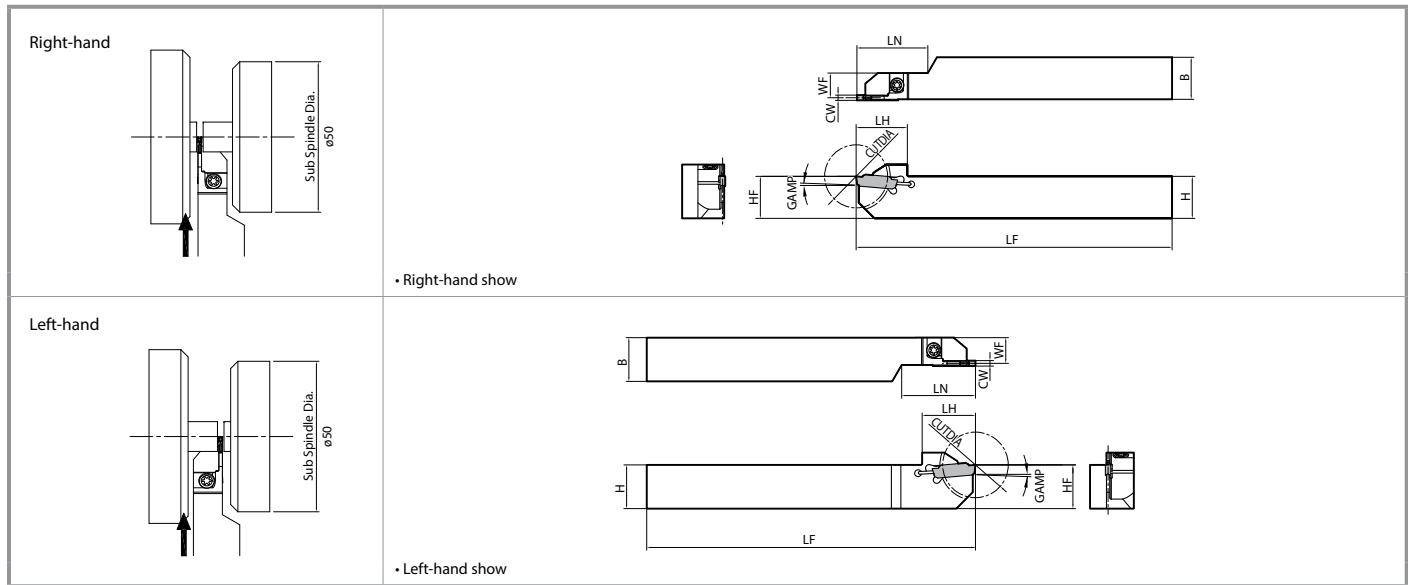


4. Hose

5. Joint

6. Coupler

7. Joint (Extension Joint)



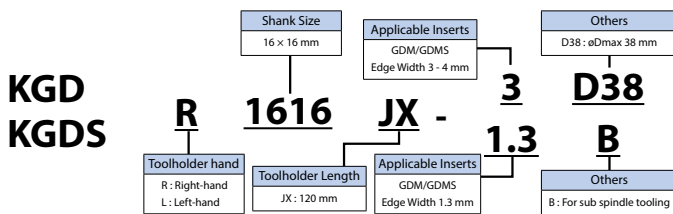
Toolholder Dimensions (Metric Size)

Part Number	Stock		Cut-Off Dia.	Dimensions (mm)							Angle	Insert Width CW		Spare Parts	
	R	L		CUTDIA	H	HF	B	LF	LH	LN		WF	GAMP	MIN	MAX
															
KGDS [®] 1616JX-1.3B	●	●	24	16	16	16	120	19.5	27	9.5	5°	0.051" (1.3mm)	0.051" (1.3mm)	SB-40120TR	LTW-155
1616JX-1.5B	●	●								9.4		0.051" (1.5mm)	0.051" (1.5mm)		
1616JX-2B	●	●								9.2	1°	0.079" (2mm)	0.118" (3mm)		

Choose an insert with a width that falls within the **MIN** and **MAX** parameters shown in table above.

Applicable Inserts See [Page 4-6](#)

Toolholders Identification System (Small Parts Machining)



KGDS / KGDS Selection Reference

KGDS Standard Type

Both Right-hand and Left-hand types are applicable to gang tool post. Basically Left-hand type is used for cut-off operation using a sub spindle.

KGDR (Right-hand)	KGDL (Left-hand)
1st Recommendation Use insert with lead angle to remove boss - No sub-spindle - Cut-off close to main spindle	1st Recommendation Insert without lead angle - Sub-spindle use - Cut-off close to sub-spindle

KGDS Sub Spindle Type

When machining workpiece with small diameter, use KGDS to reduce overhang distance from the main spindle.

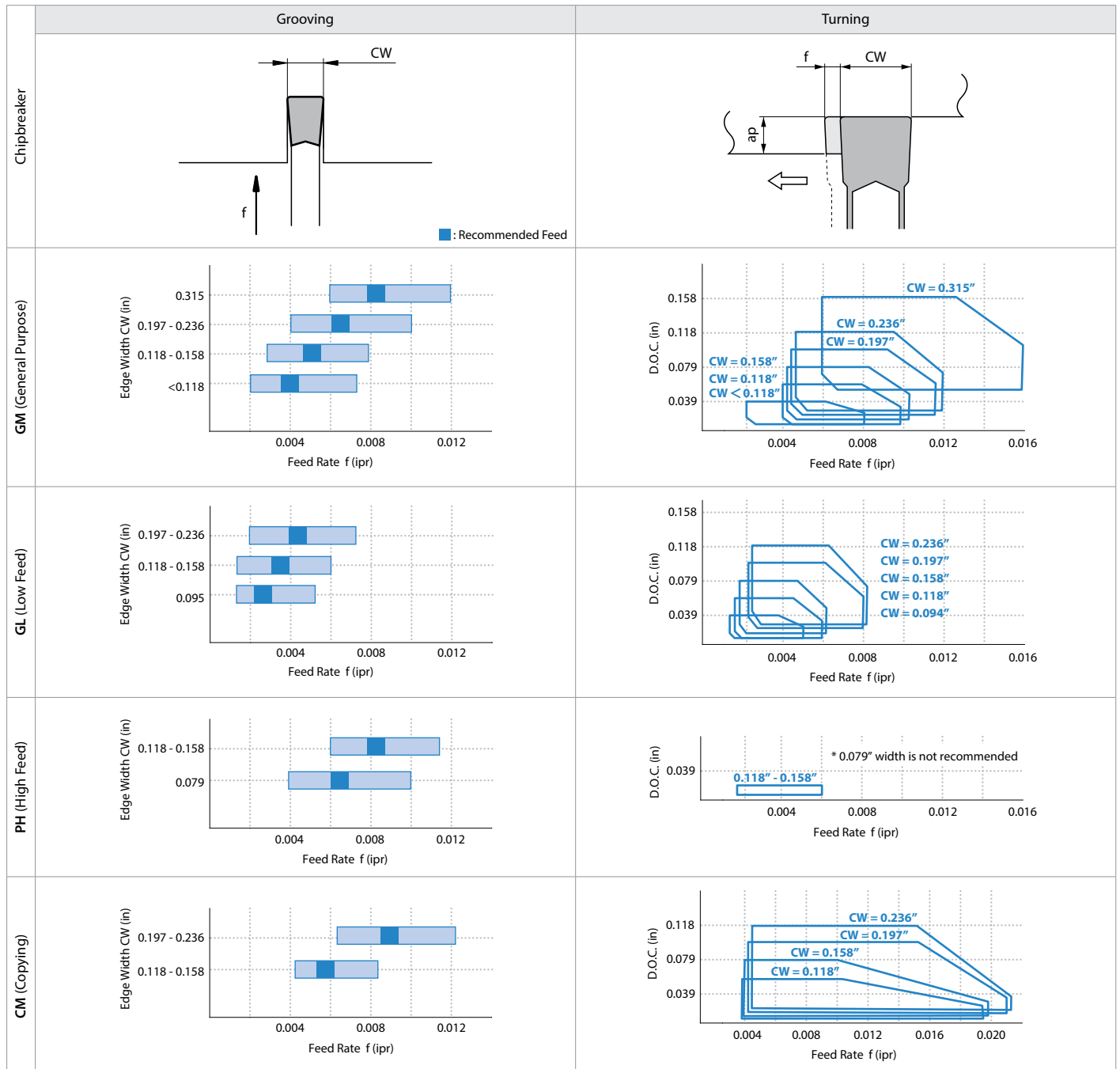
KGDSR (Right-hand)	KGDSL (Left-hand)
- Long workpiece and more rigidity - Cut-off near main spindle	- Short workpiece and less rigidity - Cut-off near sub-spindle

Recommended Cutting Conditions (External Grooving) ★ 1st Recommendation ☆ 2nd Recommendation

Workpiece	Chipbreaker	Recommended Insert Grade (Vc : sfm)									Notes
		Cermet		MEGACOAT NANO	MEGACOAT		Carbide	MEGACOAT CBN	CBN	PCD	
		TN620	TN90	PR1535	PR1225	PR1215	GW15	KBN05M	KBN570	KPD001	
Carbon Steel	GM	☆ 260 - 720	☆ 330 - 720	☆ 260 - 660	★ 260 - 660	☆ 330 - 660	-	-	-	-	Coolant
Alloy Steel	GL	☆ 230 - 660	☆ 260 - 660	☆ 230 - 590	★ 230 - 590	☆ 260 - 590	-	-	-	-	
Stainless Steel	CM	-	-	★ 200 - 490	☆ 200 - 490	☆ 200 - 490	-	-	-	-	
Cast Iron	PH	-	-	-	-	★ 330 - 660	-	-	-	-	
Aluminum Alloy	GS	-	-	-	-	-	☆ 660 - 1,640	-	-	★ 490 - 6,560	
Brass	AM	-	-	-	-	-	☆ 330 - 660	-	-	★ 660 - 2,620	
Hard Materials	NB	-	-	-	-	-	-	★ 260 - 490	-	-	
Powdered Steel	NB	-	-	-	-	-	-	-	★ 330 - 820	-	

Recommended Cutting Conditions (Feed Rate / Depth of Cut)

(Workpiece : 1049)

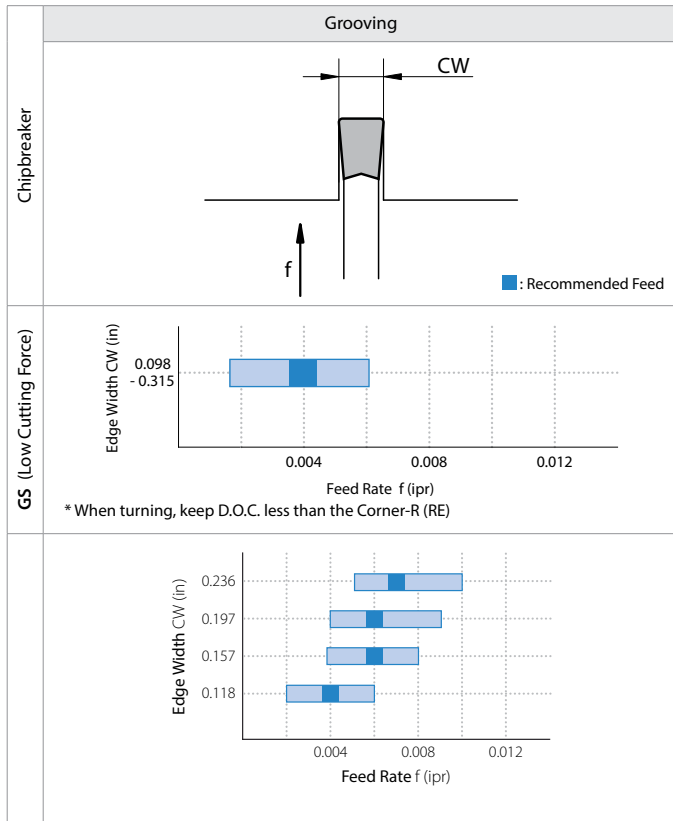


1) The above values reflect a T dimension that is 0.669" (17mm) or less.

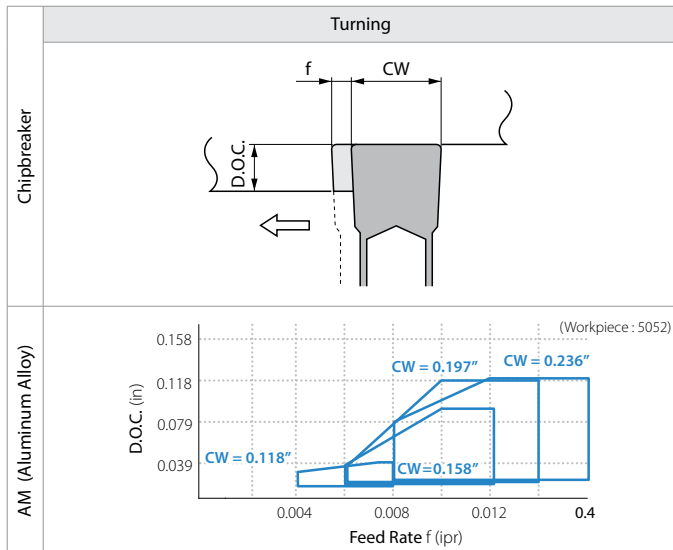
2) If the toolholder is not for the 0.315" (8mm) width insert and its T dimension is over 0.669" (17mm), set the values for turning to less than 90% of recommended cutting conditions above.

Recommended Cutting Conditions (External Grooving)

Recommended Cutting Conditions (Feed Rate / D.O.C.)

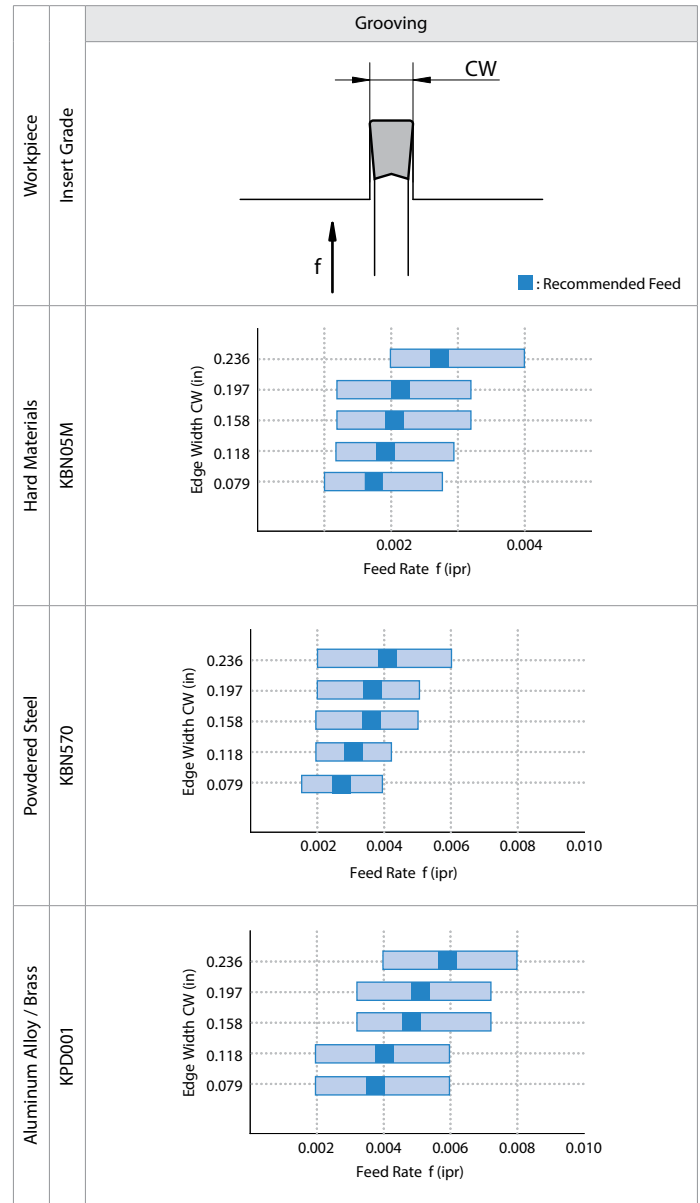


Note 1) The above values are based on the condition that CDX of toolholder is 0.669" (17mm) or less.



Note 1) The above values are based on the condition that CDX of toolholder is 0.669" (17mm) or less.

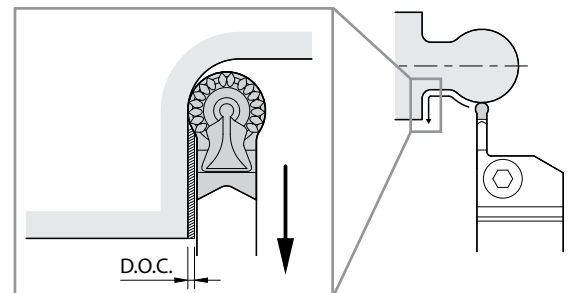
Recommended Cutting Conditions (Feed Rate)



CM Chipbreaker (Back Turning)

Estimated maximum cutting amount (D.O.C.) for back turning

Part Number	Max. D.O.C. (in)				
	Toolholder Part Number				
	KGD...-2T...	KGD...-3T...	KGD...-4T...	KGD...-5T...	KGD...-6T...
GDM 3020N-150R-CM	0.009	0.008	-	-	-
4020N-200R-CM	-	0.009	0.008	-	-
5020N-250R-CM	-	-	0.012	0.008	-
6020N-300R-CM	-	-	-	0.012	0.010



Guide for External Grooving

1) Turning After Grooving

1. Grooving Depth Over 0.020" (0.5mm) : At Roughing (see Fig.1)

Before turning, pull the tool back about 0.004" (0.1mm) after grooving, instead of turning subsequent to grooving.

(Failure to pull the tool back before traverse cutting will result in an unbalanced load applied on only one side of the cutting edge.)

2. Grooving Depth Under 0.020" (0.5mm) : At Finishing (see Fig.2)

Turning subsequent to grooving is possible because shallow groove depths relate a small load on the cutting edge. (Dwell-motion is not necessary)

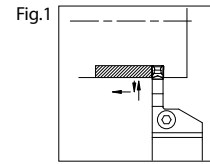
2)

1. When widening the groove width, apply the "Step Turning" as shown in Fig.3

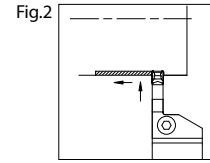
2. The widened groove and side walls should be finished last.

(For better chip control, D.O.C. over 0.020" (0.5mm) is recommended.)

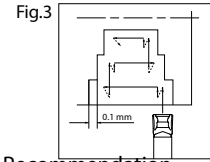
Note : If the workpiece is not supported at the center, reduce the feed rate when grooving towards center



Before turning, pull the tool back about 0.004" (0.1mm) after grooving (Grooving depth over 0.020" (0.5mm) : At Roughing)



Turning subsequent to grooving (Grooving depth under 0.020" (0.5mm) : At Finishing)



Recommended Cutting Conditions (Cut-Off) ★ 1st Recommendation ☆ 2nd Recommendation

PF Chipbreaker

Workpiece	Cutting Conditions (Vc : sfm)				Feed Rate (f : ipr)						Notes
	Recommended Insert Grade				PF Corner-R (RE) = 0.001			PF Corner-R (RE) = 0.006			
	MEGACOAT NANO	MEGACOAT		Carbide	Insert Width (W)			Insert Width (W)			
	PR1535	PR1225	PR1215	GW15	0.051" - 0.059" 1.3mm - 1.5mm	0.079" 2.0mm	0.098" - 0.118" 2.5mm - 3.0mm	0.051" - 0.059" 1.3mm - 1.5mm	0.079" 2.0mm	0.098" - 0.118" 2.5mm - 3.0mm	
Carbon Steel	☆ 230 - 490	★ 230 - 490	☆ 230 - 590	-	0.0004 - 0.0016	0.0008 - 0.0024	0.0008 - 0.0031	0.0004 - 0.0020	0.0012 - 0.0031	0.0016 - 0.0039	Coolant
Alloy Steel	☆ 230 - 490	★ 230 - 490	☆ 230 - 590	-							
Stainless Steel	★ 200 - 390	☆ 200 - 390	☆ 200 - 490	-	0.0004 - 0.0012	0.0004 - 0.0016	0.0004 - 0.0020	0.0004 - 0.0016	0.0012 - 0.0028	0.0016 - 0.0031	
Cast Iron	-	-	★ 260 - 660	☆ 160 - 330	0.0004 - 0.0020	0.0008 - 0.0028	0.0012 - 0.0031	0.0004 - 0.0024	0.0012 - 0.0035	0.0016 - 0.0039	

PQ / PG Chipbreaker

Workpiece	Cutting Conditions (Vc : sfm)					Feed Rate (f : ipr)				Notes
	Recommended Insert Grade					PQ		PG		
	MEGACOAT NANO	MEGACOAT		DLC Coated Carbide	Carbide	Insert Width (W)		Insert Width (W)		
	PR1535	PR1225	PR1215	PDL025	GW15	0.079" 2.0mm	0.098" - 0.118" 2.5mm - 3.0mm	0.079" 2.0mm	0.098" - 0.118" 2.5mm - 3.0mm	
Carbon Steel	☆ 230 - 490	★ 230 - 490	☆ 230 - 590	-	-	0.0012 - 0.0039	0.0016 - 0.0047	0.0004 - 0.0016	0.0004 - 0.0020	Coolant
Alloy Steel	☆ 230 - 490	★ 230 - 490	☆ 230 - 590	-	-					
Stainless Steel	★ 200 - 390	☆ 200 - 390	☆ 200 - 490	-	-	0.0008 - 0.0028	0.0008 - 0.0031	0.0004 - 0.0012	0.0004 - 0.0016	
Cast Iron	-	-	★ 260 - 660	-	☆ 160 - 330	0.0016 - 0.0039	0.0016 - 0.0047	0.0004 - 0.0016	0.0004 - 0.0020	
Aluminum Alloy	-	-	-	★ 660 - 1,640	☆ 660 - 1,480	-	-	0.0004 - 0.0020	0.0004 - 0.0024	
Brass	-	-	-	-	★ 330 - 660	-	-	0.0004 - 0.0028	0.0004 - 0.0031	

PM / PH Chipbreaker

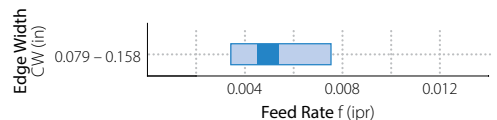
Workpiece	Cutting Conditions (Vc : sfm)			Feed Rate (f : ipr)			Notes
	Recommended Insert Grade			PM	PH		
	MEGACOAT NANO	MEGACOAT		Insert Width (W)	Insert Width (W)		
	PR1535	PR1225	PR1215	0.079" - 0.158" 2.0mm - 4.0mm	0.079" 2.0mm	0.095" - 0.158" 3.0mm - 4.0mm	
Carbon Steel	☆ 260 - 660	★ 260 - 660	☆ 330 - 660	0.0031 - 0.0071	0.0039 - 0.0098	0.0059 - 0.0110	Coolant
Alloy Steel	☆ 230 - 590	★ 230 - 590	☆ 260 - 590				
Stainless Steel	★ 200 - 490	☆ 200 - 490	☆ 200 - 490	0.0024 - 0.0047	0.0020 - 0.0047	0.0031 - 0.0059	
Cast Iron	-	-	★ 330 - 660	0.0031 - 0.0071	0.0039 - 0.0098	0.0059 - 0.0110	

Example of feed

In the graph below indicates the most recommended value of feed (f)

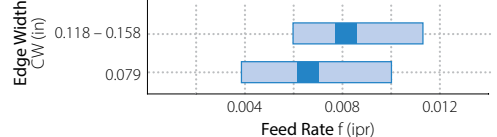
• PM Chipbreaker

(Workpiece : 1049)



• PH Chipbreaker

(Workpiece : 1049)



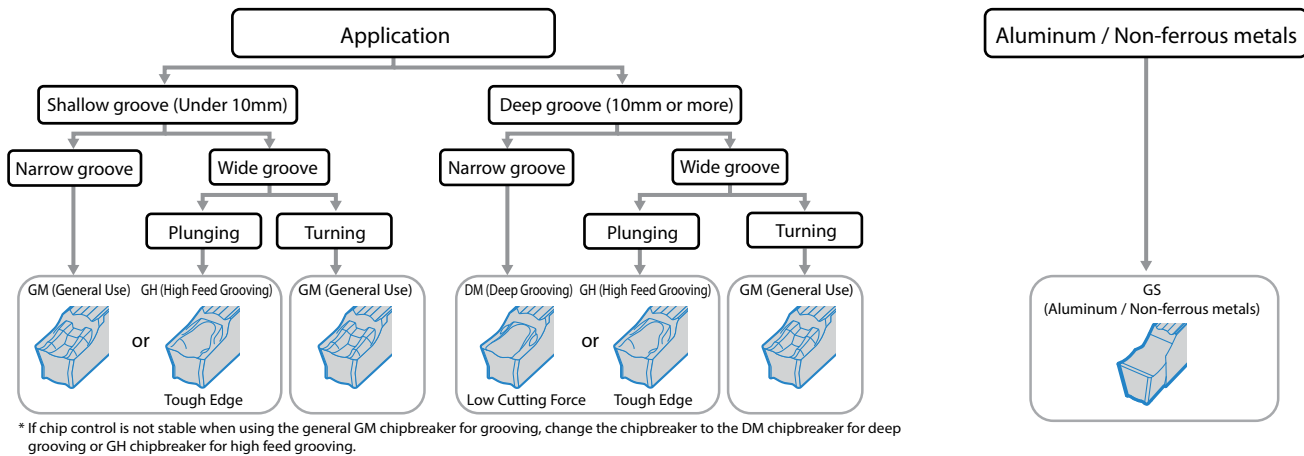
KGDF Face Grooving

Good Chip Control

MEGACOAT Coating Technology for Long Tool Life and High Efficiency Machining

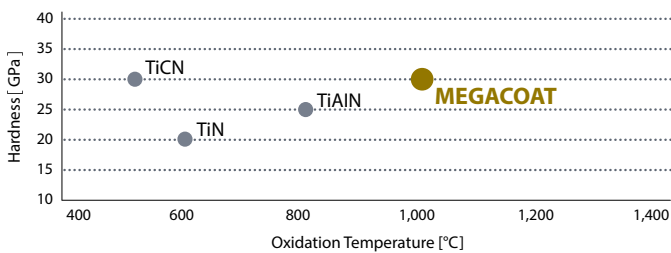
1 Wide Range of Chipbreakers Available for Face Grooving

Chipbreaker Selection



2 MEGACOAT Coating Technology for Long Tool Life

Coating Properties



PR1225 (MEGACOAT)

1st. Recommendation for Face Grooving

PR1215 (MEGACOAT)

Superior Wear Resistance,

1st. Recommendation for Cast Iron Machining

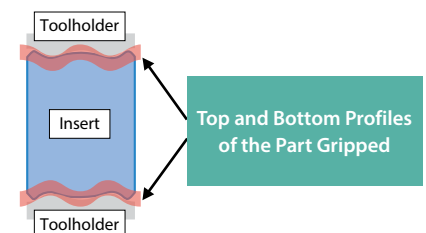


3 High Clamping Strength

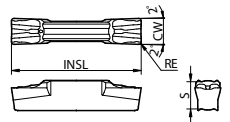
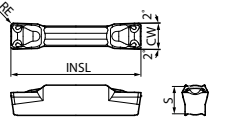
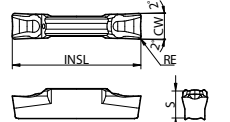
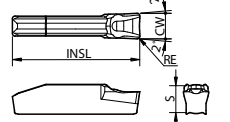
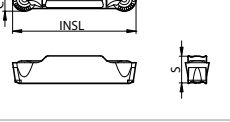
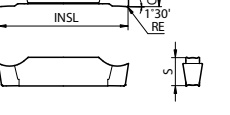
Prevents abnormal machining surface and / or insert breakage resulting from slip of insert.

Improves repetitive installation accuracy of insert

New Insert Clamping System "W Grip"



Applicable Inserts

Applicable Inserts			Usage Classification		P	Carbon Steel / Alloy Steel	●	○	●	☺					
					M	Stainless Steel			●	☺					
					K	Cast Iron			●						
					N	Non-ferrous Metals					●				
					S	Titanium Alloy					☺				
					H	Hard Materials (≤40HRC)									
						Hard Materials (≥40HRC)									
Insert			Part Number	Dimensions (in)			Cermet		MEGACOAT		Carbide				
				Edge Width (CW)			RE	INSL	S	TN620		TN90	PR1225	PR1215	GW15
				inch	mm	Tolerance									
Grooving and Turning			GDFM 2020N-020GM	0.079	2.0		0.008	0.827	0.154		●	●	●		
			3020N-030GM	0.118	3.0	±0.0012	0.012		0.169		●	●	●		
			4020N-040GM	0.157	4.0		0.016				●	●	●		
			5020N-040GM	0.197	5.0		0.016				●	●	●		
			5020N-080GM	0.197	5.0	±0.0016	0.031	0.787	0.177		●	●	●		
			6020N-040GM	0.236	6.0		0.016				●	●	●		
			6020N-080GM	0.236	6.0		0.031				●	●	●		
Grooving and Turning (High Feed)			GDFM 4020N-040GH	0.157	4.0	±0.0012	0.016					●	●		
			5020N-040GH	0.197	5.0		0.016					●	●		
			5020N-080GH	0.197	5.0	±0.0016	0.031	0.787	0.177			●	●		
			6020N-040GH	0.236	6.0		0.016				●	●			
			6020N-080GH	0.236	6.0		0.031					●	●		
Deep Grooving and Turning			GDFM 3020N-030DM	0.118	3.0	±0.0012	0.012		0.169		●	●	●		
			4020N-040DM	0.157	4.0		0.016				●	●	●		
			5020N-040DM	0.197	5.0	±0.0016	0.016	0.787	0.177		●	●	●		
			6020N-040DM	0.236	6.0		0.016				●	●	●		
			GDFMS 3020N-030DM	0.118	3.0	±0.0012	0.012		0.169		●	●	●		
			4020N-040DM	0.157	4.0		0.016				●	●	●		
			5020N-040DM	0.197	5.0	±0.0016	0.016	0.787	0.177		●	●	●		
			6020N-040DM	0.236	6.0		0.016				●	●	●		
Full Radius (R) Grooving			GDFM 3020N-150R-CM	0.118	3.0	±0.0012	0.059	0.787	0.169	●		●	●		
			4020N-200R-CM	0.157	4.0		0.079	*0.827		●		●	●		
			5020N-250R-CM	0.197	5.0	±0.0016	0.098	*0.827	0.177	●		●	●		
			6020N-300R-CM	0.236	6.0		0.118	*0.866		●		●	●		
Aluminum / Non-Ferrous Metals			GDFG 3020N-020GS	0.118	3.0	±0.0008	0.008		0.169					●	
			4020N-040GS	0.157	4.0									●	
			5020N-040GS	0.197	5.0		0.016	0.787	0.177					●	
			6020N-040GS	0.236	6.0									●	

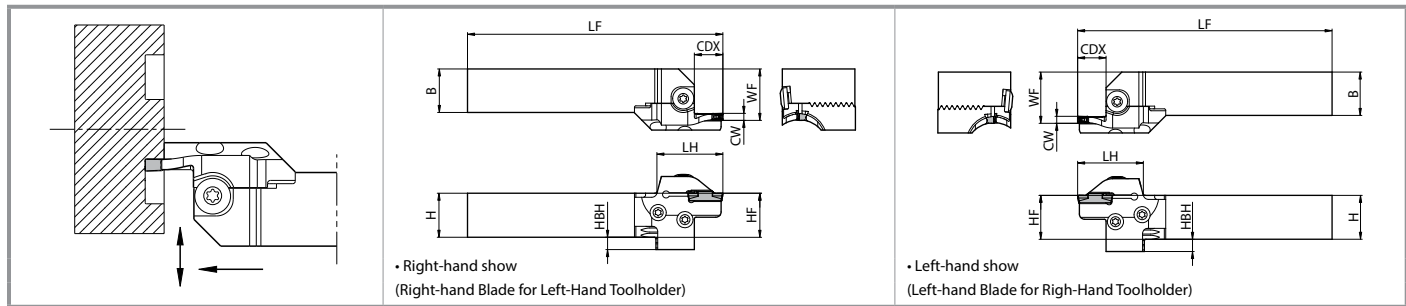
* GDFM40/50/60-CM differs from other part numbers in length (INSL) to avoid interference of the toolholder with workpiece.

Recommended Cutting Conditions [Page 54](#) ● : Standard Item

Insert Identification System

Inserts sold in 10 piece boxes

GDF	M	S	30	20	N	-	030	DM
Series	Tolerance	No. of Edges	Insert Width	Insert Length	Hand of Tool		Corner-R(re)	Chipbreaker
	M : M-Class	No Indication : 2-Edge S : 1-Edge	20 : 2 mm 30 : 3 mm :	20 : 20 mm	N : Neutral		020 : 0.20mm 030 : 0.30mm 040 : 0.40 mm 150R : 1.50mm (Full-R)	GM : Grooving and Turning DM : Grooving GH : High Feed CM : Full-R GS : Aluminum / Non-Ferrous


Toolholder + Blade Dimensions (0.079" Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number ➡ P17	Stock		Blade Part Number ➡ P52	Stock		Dimensions (in)																
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*									
0°	0.079" (2mm)	0.75	0.236" (6mm)	0.984	1.181	KGDL12-C	●		KGDFR -25-2A-C	●		0.750	0.750	0.510	0.750	4.528	1.299	0.927	0.236" (6mm)									
				1.181	1.378					●										-30-2A-C	●							
				1.378	1.772					●											-35-2A-C	●						
				1.772	2.362					●												-45-2A-C	●					
				2.362	3.150					●													-60-2A-C	●				
				3.150	3.937					●														-80-2A-C	●			
				3.937	5.118					●															-100-2A-C	●		
			0.512" (13mm)	0.984	1.181				KGDFR -25-2B-C	●		0.750	0.750	0.510	0.750	4.646	1.417	0.927	0.512" (13mm)									
				1.181	1.378					KGDFR -30-2B-C	●																	
				1.378	1.772						●										-35-2B-C	●						
				1.772	2.362						●											-45-2B-C	●					
				2.362	3.150						●												-60-2B-C	●				
				3.150	3.937						●													-80-2B-C	●			
				3.937	5.118						●														-100-2B-C	●		
		1.00	0.236" (6mm)	0.984	1.181	KGDL16-C		●		KGDFR -25-2A-C	●		1.000	1.000	0.260	1.000	5.512	1.299	1.177	0.236" (6mm)								
				1.181	1.378						●										-30-2A-C	●						
				1.378	1.772						●											-35-2A-C	●					
				1.772	2.362						●												-45-2A-C	●				
				2.362	3.150						●													-60-2A-C	●			
				3.150	3.937						●														-80-2A-C	●		
				3.937	5.118						●															-100-2A-C	●	
			0.512" (13mm)	0.984	1.181					KGDFR -25-2B-C	●		1.000	1.000	0.260	1.000	5.630	1.417	1.177	0.512" (13mm)								
				1.181	1.378						KGDFR -30-2B-C	●																
				1.378	1.772							●										-35-2B-C	●					
				1.772	2.362							●											-45-2B-C	●				
				2.362	3.150							●												-60-2B-C	●			
				3.150	3.937							●													-80-2B-C	●		
				3.937	5.118							●														-100-2B-C	●	
		1.25	0.236" (6mm)	0.984	1.181	KGDL20-C			●		KGDFR -25-2A-C	●		1.250	1.250	-	1.250	6.299	1.299	1.427	0.236" (6mm)							
				1.181	1.378							●										-30-2A-C	●					
				1.378	1.772							●											-35-2A-C	●				
				1.772	2.362							●												-45-2A-C	●			
				2.362	3.150							●													-60-2A-C	●		
				3.150	3.937							●														-80-2A-C	●	
				3.937	5.118							●															-100-2A-C	●
			0.512" (13mm)	0.984	1.181						KGDFR -25-2B-C	●		1.250	1.250	-	1.250	6.417	1.417	1.427	0.512" (13mm)							
				1.181	1.378							KGDFR -30-2B-C	●															
				1.378	1.772								●										-35-2B-C	●				
				1.772	2.362								●											-45-2B-C	●			
				2.362	3.150								●												-60-2B-C	●		
				3.150	3.937								●													-80-2B-C	●	
				3.937	5.118								●														-100-2B-C	●
	0.591" (15mm)	1.181	1.378																									
		1.378	1.772																									
		1.772	2.362																									
		2.362	3.150																									
		3.150	3.937																									
		3.937	5.118																									
		0.591" (15mm)	1.181																		1.378							
	1.378	1.772																										
	1.772	2.362																										
	2.362	3.150																										
	3.150	3.937																										
	3.937	5.118																										

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see Page 40

Applicable Inserts See Page 29

Toolholder + Blade Dimensions (0.118" Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (in)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.118" (3mm)	0.75	0.512" (13mm)	0.984	1.181	KGD% 12-C	●	●	KGDF% -25-3A-C	●	●	0.750	0.750	0.510	0.750	4.650	1.420	0.927	0.512" (13mm)
				1.181	1.575					●	●								
				1.575	1.969					●	●								
			0.591" (15mm)	1.969	2.559				-40-3A-C	●	●	0.750	0.750	0.510	0.750	4.720	1.500	0.927	0.591" (15mm)
				2.559	3.346					●	●								
				3.346	4.331					●	●								
			0.866" (22mm)	4.331	5.709				-50-3B-C	●	●	0.750	0.750	0.510	0.750	5.000	1.770	0.927	0.866" (22mm)
				1.969	2.559					●	●								
				2.559	3.346					●	●								
			0.984" (25mm)	3.346	4.331				-65-3B-C	●	●	0.750	0.750	0.510	0.750	5.120	1.890	0.927	0.984" (25mm)
				4.331	5.709					●	●								
				3.346	4.331					●	●								
			0.512" (13mm)	0.984	1.181	KGD% 16-C	●	●	KGDF% -50-3C-C	●	●	1.000	1.000	0.260	1.000	5.630	1.420	1.177	0.512" (13mm)
				1.181	1.575					●	●								
				1.575	1.969					●	●								
			0.591" (15mm)	1.969	2.559				-30-3A-C	●	●	1.000	1.000	0.260	1.000	5.710	1.500	1.177	0.591" (15mm)
				2.559	3.346					●	●								
				3.346	4.331					●	●								
			0.866" (22mm)	4.331	5.709				-40-3A-C	●	●	1.000	1.000	0.260	1.000	5.980	1.770	1.177	0.866" (22mm)
				1.969	2.559					●	●								
				2.559	3.346					●	●								
			0.984" (25mm)	3.346	4.331				-50-3B-C	●	●	1.000	1.000	0.260	1.000	6.100	1.890	1.177	0.984" (25mm)
				4.331	5.709					●	●								
				3.346	4.331					●	●								
		1.25	0.512" (13mm)	0.984	1.181	KGD% 20-C	●	●	KGDF% -65-3B-C	●	●	1.250	1.250	-	1.250	6.417	1.417	1.427	0.512" (13mm)
				1.181	1.575					●	●								
				1.575	1.969					●	●								
			0.591" (15mm)	1.969	2.559				-50-3B-C	●	●	1.250	1.250	-	1.250	6.496	1.496	1.427	0.591" (15mm)
				2.559	3.346					●	●								
				3.346	4.331					●	●								
			0.866" (22mm)	4.331	5.709				-85-3B-C	●	●	1.250	1.250	-	1.250	6.772	1.772	1.427	0.866" (22mm)
				1.969	2.559					●	●								
				2.559	3.346					●	●								
			0.984" (25mm)	3.346	4.331				-110-3B-C	●	●	1.250	1.250	-	1.250	6.890	1.890	1.427	0.984" (25mm)
				4.331	5.709					●	●								
				3.346	4.331					●	●								
			0.512" (13mm)	0.984	1.181				KGDF% -50-3C-C	●	●	1.250	1.250	-	1.250	6.890	1.890	1.427	0.984" (25mm)
				1.181	1.575					●	●								
				1.575	1.969					●	●								

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see Page 40

Applicable Inserts See Page 29

Toolholder + Blade Dimensions (0.157" Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (in)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.157" (4mm)	0.75	0.512" (13mm)	0.984	1.378	KGD P/L 12-C	●	●	KGDF P/L -25-4A-C	●	●	0.750	0.750	0.510	0.750	4.650	1.420	0.927	0.512" (13mm)
				1.378	1.969					●	●	0.750	0.750	0.510	0.750	4.720	1.500	0.927	0.591" (15mm)
				1.969	2.756					●	●								
			0.591" (15mm)	2.756	3.937					●	●								
				3.937	5.906					●	●								
				5.906	8.661					●	●								
				8.661	∞					●	●								
			0.984" (25mm)	1.378	1.969				KGDF P/L -35-4C-C	●	●	0.750	0.750	0.510	0.750	5.120	1.890	0.927	0.984" (25mm)
				1.969	2.756					●	●								
				2.756	3.937					●	●								
				3.937	5.906					●	●								
				5.906	8.661					●	●								
				8.661	∞					●	●								
		1.00	0.512" (13mm)	0.984	1.378	KGD P/L 16-C	●	●	KGDF P/L -25-4A-C	●	●	1.000	1.000	0.260	1.000	5.630	1.420	1.177	0.512" (13mm)
				1.378	1.969					●	●	1.000	1.000	0.260	1.000	5.710	1.500	1.177	0.591" (15mm)
				1.969	2.756					●	●								
			0.591" (15mm)	2.756	3.937					●	●								
				3.937	5.906					●	●								
				5.906	8.661					●	●								
				8.661	∞					●	●								
			0.984" (25mm)	1.378	1.969				KGDF P/L -35-4C-C	●	●	1.000	1.000	0.260	1.000	6.100	1.890	1.177	0.984" (25mm)
				1.969	2.756					●	●								
				2.756	3.937					●	●								
				3.937	5.906					●	●								
				5.906	8.661					●	●								
				8.661	∞					●	●								
		1.25	0.512" (13mm)	0.984	1.378	KGD P/L 20-C	●	●	KGDF P/L -25-4A-C	●	●	1.250	1.250	-	1.250	6.417	1.417	1.427	0.512" (13mm)
				1.378	1.969					●	●	1.250	1.250	-	1.250	6.496	1.496	1.427	0.591" (15mm)
				1.969	2.756					●	●								
			0.591" (15mm)	2.756	3.937					●	●								
				3.937	5.906					●	●								
				5.906	8.661					●	●								
				8.661	∞					●	●								
			0.984" (25mm)	1.378	1.969				KGDF P/L -35-4C-C	●	●	1.250	1.250	-	1.250	6.890	1.890	1.427	0.984" (25mm)
				1.969	2.756					●	●								
				2.756	3.937					●	●								
				3.937	5.906					●	●								
				5.906	8.661					●	●								
				8.661	∞					●	●								

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

 3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see [Page 40](#)

 Applicable Inserts See [Page 29](#)

Toolholder + Blade Dimensions (0.197" Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (in)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.197" (5mm)	0.75	0.591" (15mm)	0.984	1.378	KGD% 12-C	●	●	KGDF% -25-SB-C	●	●	0.750	0.750	0.510	0.750	4.720	1.500	0.927	0.591" (15mm)
				1.378	1.969					●	●								
				1.969	2.953					●	●								
				2.953	4.528					●	●								
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
			0.787" (20mm)	0.984	1.378				KGDF% -25-5C-C	●	●	0.750	0.750	0.510	0.750	4.920	1.690	0.927	0.787" (20mm)
			0.984" (25mm)	1.378	1.969					●	●								
				1.969	2.953					●	●								
				2.953	4.528					●	●								
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
		1.00	0.591" (15mm)	2.953	4.528		●	●	KGDF% -75-5D-C	●	●	0.750	0.750	0.510	0.750	5.394	2.165	0.927	1.260" (32mm)
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
			0.984" (25mm)	0.984	1.378				KGDF% -25-SB-C	●	●	1.000	1.000	0.260	1.000	5.700	1.500	1.177	0.591" (15mm)
				1.378	1.969					●	●								
				1.969	2.953					●	●								
				2.953	4.528					●	●								
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
			0.787" (20mm)	0.984	1.378				KGDF% -25-5C-C	●	●	1.000	1.000	0.260	1.000	5.900	1.690	1.177	0.787" (20mm)
			1.260" (32mm)	1.378	1.969					●	●								
				1.969	2.953					●	●								
				2.953	4.528					●	●								
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
		1.25	0.591" (15mm)	2.953	4.528	KGD% 20-C	●	●	KGDF% -75-5D-C	●	●	1.000	1.000	0.260	1.000	6.378	2.165	1.177	1.260" (32mm)
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
			0.984" (25mm)	0.984	1.378				KGDF% -25-SB-C	●	●	1.250	1.250	-	1.250	6.496	1.496	1.427	0.591" (15mm)
				1.378	1.969					●	●								
				1.969	2.953					●	●								
				2.953	4.528					●	●								
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
			0.787" (20mm)	0.984	1.378				KGDF% -25-5C-C	●	●	1.250	1.250	-	1.250	6.693	1.693	1.427	0.787" (20mm)
			1.260" (32mm)	1.378	1.969					●	●								
				1.969	2.953					●	●								
				2.953	4.528					●	●								
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
			1.260" (32mm)	2.953	4.528				KGDF% -75-5D-C	●	●	1.250	1.250	-	1.250	7.165	2.165	1.427	1.260" (32mm)
				4.528	7.087					●	●								
				7.087	9.252					●	●								
				9.252	∞					●	●								
				9.252	∞					●	●								

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see Page 40

Applicable Inserts See Page 29

Toolholder + Blade Dimensions (0.236" Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (in)																		
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*											
0°	0.236" (6mm)	0.75	0.591" (15mm)	0.984	1.378	KGD 12-C	●	●	KGDF 12-C	-25-6B-C	●	●	0.750	0.750	0.510	0.750	4.720	1.500	0.927	0.591" (15mm)										
				1.378	1.969					-35-6B-C	●	●																		
				1.969	2.953					-50-6B-C	●	●																		
				2.953	4.528					-75-6B-C	●	●																		
				4.528	7.087					-115-6B-C	●	●																		
				7.087	9.252					-180-6B-C	●	●																		
				9.252	∞					-235-6B-C	●	●																		
			0.787" (20mm)	0.984	1.378				KGDF 12-C	-25-6C-C	●	●	0.750	0.750	0.510	0.750	4.920	1.690	0.927	0.787" (20mm)										
				1.378	1.969					-35-6C-C	●	●																		
				1.969	2.953					-50-6C-C	●	●																		
				2.953	4.528					-75-6C-C	●	●																		
				4.528	7.087					-115-6C-C	●	●																		
				7.087	9.252					-180-6C-C	●	●																		
				9.252	∞					-235-6C-C	●	●																		
			1.260" (32mm)	2.953	4.528				KGDF 12-C	-75-6D-C	●	●	0.750	0.750	0.510	0.750	5.394	2.165	0.927	1.260" (32mm)										
				4.528	7.087					-115-6D-C	●	●																		
				7.087	9.252					-180-6D-C	●	●																		
				9.252	∞					-235-6D-C	●	●																		
		1.00		0.591" (15mm)	0.984	1.378	KGD 16-C	●		●	KGDF 16-C	-25-6B-C									●	●	1.000	1.000	0.260	1.000	5.700	1.500	1.177	0.591" (15mm)
					1.378	1.969						-35-6B-C									●	●								
					1.969	2.953						-50-6B-C									●	●								
			2.953		4.528	-75-6B-C			●			●																		
			4.528		7.087	-115-6B-C			●			●																		
			7.087		9.252	-180-6B-C			●			●																		
			9.252		∞	-235-6B-C			●			●																		
			0.787" (20mm)	0.984	1.378	KGDF 16-C			-25-6C-C		●	●	1.000	1.000	0.260	1.000	5.900	1.690	1.177	0.787" (20mm)										
				1.378	1.969				-35-6C-C		●	●																		
				1.969	2.953				-50-6C-C		●	●																		
				2.953	4.528				-75-6C-C		●	●																		
				4.528	7.087				-115-6C-C		●	●																		
				7.087	9.252				-180-6C-C		●	●																		
				9.252	∞				-235-6C-C		●	●																		
			1.260" (32mm)	2.953	4.528	KGDF 16-C			-75-6D-C		●	●	1.000	1.000	0.260	1.000	6.378	2.165	1.177	1.260" (32mm)										
				4.528	7.087				-115-6D-C		●	●																		
				7.087	9.252				-180-6D-C		●	●																		
				9.252	∞				-235-6D-C		●	●																		
	1.25	0.591" (15mm)		0.984	1.378		KGD 20-C	●	●	KGDF 20-C	-25-6B-C	●									●	1.250	1.250	-	1.250	6.496	1.496	1.427	0.591" (15mm)	
				1.378	1.969						-35-6B-C	●									●									
				1.969	2.953						-50-6B-C	●									●									
			2.953	4.528	-75-6B-C	●					●																			
			4.528	7.087	-115-6B-C	●					●																			
			7.087	9.252	-180-6B-C	●					●																			
			9.252	∞	-235-6B-C	●					●																			
		0.787" (20mm)	0.984	1.378	KGDF 20-C	-25-6C-C				●	●	1.250	1.250	-	1.250	6.693	1.693	1.427	0.787" (20mm)											
			1.378	1.969		-35-6C-C				●	●																			
			1.969	2.953		-50-6C-C				●	●																			
			2.953	4.528		-75-6C-C				●	●																			
			4.528	7.087		-115-6C-C				●	●																			
			7.087	9.252		-180-6C-C				●	●																			
			9.252	∞		-235-6C-C				●	●																			
		1.260" (32mm)	2.953	4.528	KGDF 20-C	-75-6D-C				●	●	1.250	1.250	-	1.250	7.165	2.165	1.427	1.260" (32mm)											
			4.528	7.087		-115-6D-C				●	●																			
			7.087	9.252		-180-6D-C				●	●																			
			9.252	∞		-235-6D-C				●	●																			

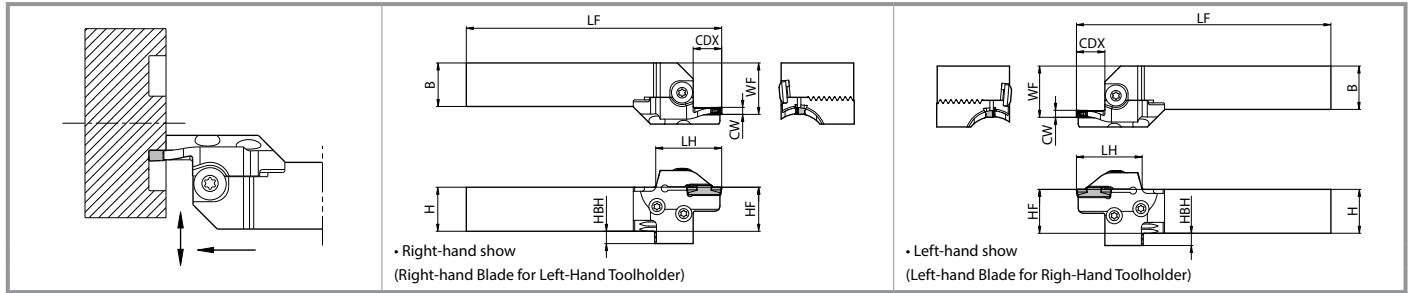
Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see Page 40

Applicable Inserts See Page 29


Toolholder + Blade Dimensions (2mm Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number 🔗 P17	Stock		Blade Part Number 🔗 P52	Stock		Dimensions (mm)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.079" (2mm)	20	0.236" (6mm)	25	30	KGDL2020-C	●	KGDFR -25-2A-C	●	20	20	12	20	115	33	24.5	6		
				30	35				●										
				35	45				●										
				45	60				●										
				60	80				●										
				80	100				●										
				100	130				●										
			0.512" (13mm)	-25-2B-C	●			20	20		12	20	118	36	24.5	13			
				-30-2B-C	●			20	20		12	20	120	38	24.5	15			
				-35-2B-C	●														
				-45-2B-C	●														
				-60-2B-C	●														
		-80-2B-C	●																
		0.591" (15mm)	-100-2B-C	●	-100-2B-C	●													
			0.236" (6mm)	25	30	KGDL2525-C	●	KGDFR -25-2A-C	●	25	25	7	25	140	33	29.5	6		
				30	35				●										
				35	45				●										
				45	60				●										
		60		80	●														
		80		100	●														
		100		130	●														
		0.512" (13mm)	-25-2B-C	●	25			25	7		25	143	36	29.5	13				
			-30-2B-C	●	25			25	7		25	145	38	29.5	15				
			-35-2B-C	●															
			-45-2B-C	●															
			-60-2B-C	●															
		-80-2B-C	●																
		0.591" (15mm)	-100-2B-C	●	-100-2B-C	●													
			0.236" (6mm)	25	30	KGDL3232-C	●	KGDFR -25-2A-C	●	32	32	-	32	160	33	36.5	6		
				30	35				●										
				35	45				●										
				45	60				●										
		60		80	●														
		80		100	●														
		100		130	●														
		0.512" (13mm)	-25-2B-C	●	32			32	-		32	163	36	36.5	13				
-30-2B-C	●		32	32	-			32	165		38	36.5	15						
-35-2B-C	●																		
-45-2B-C	●																		
-60-2B-C	●																		
-80-2B-C	●																		
0.591" (15mm)	-100-2B-C	●	-100-2B-C	●															

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see ➔ Page 40

Applicable Inserts See ➔ Page 29

Toolholder + Blade Dimensions (3mm Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (mm)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.118" (3mm)	20	0.512" (13mm)	25	30	KGD% 2020-C	●	●	KGDF% -25-3A-C	●	●	20	20	12	20	118	36	24.5	13
				30	40					●	●								
				40	50					●	●								
			0.591" (15mm)	50	65				-50-3B-C	●	●	20	20	12	20	120	38	24.5	15
				65	85					●	●								
				85	110					●	●								
				110	145					●	●								
			0.886" (22mm)	50	65				KGDF% -50-3C-C	●	●	20	20	12	20	127	45	24.5	22
				65	85					●	●								
				85	110					●	●								
				110	145					●	●	20	20	12	20	130	48	24.5	25
			0.984" (25mm)	85	110				-85-3C-C	●	●								
				110	145					●	●								
				110	145					●	●								
		25	0.512" (13mm)	25	30	KGD% 2525-C	●	●	KGDF% -25-3A-C	●	●	25	25	7	25	143	36	29.5	13
				30	40					●	●								
				40	50					●	●								
			0.591" (15mm)	50	65				-50-3B-C	●	●	25	25	7	25	145	38	29.5	15
				65	85					●	●								
				85	110					●	●								
				110	145					●	●								
			0.886" (22mm)	50	65				KGDF% -50-3C-C	●	●	25	25	7	25	152	45	29.5	22
				65	85					●	●								
				85	110					●	●								
				110	145					●	●	25	25	7	25	155	48	29.5	25
			0.984" (25mm)	85	110				-85-3C-C	●	●								
				110	145					●	●								
				110	145					●	●								
		32	0.512" (13mm)	25	30	KGD% 3232-C	●	●	KGDF% -25-3A-C	●	●	32	32	-	32	163	36	36.5	13
				30	40					●	●								
				40	50					●	●								
			0.591" (15mm)	50	65				-50-3B-C	●	●	32	32	-	32	165	38	36.5	15
				65	85					●	●								
				85	110					●	●								
				110	145					●	●								
			0.886" (22mm)	50	65				KGDF% -50-3C-C	●	●	32	32	-	32	172	45	36.5	22
				65	85					●	●								
				85	110					●	●								
				110	145					●	●	32	32	-	32	175	48	36.5	25
				85	110				-85-3C-C	●	●								
				110	145					●	●								

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

 3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see [Page 40](#)

 Applicable Inserts See [Page 29](#)

Toolholder + Blade Dimensions (4mm Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (mm)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.157" (4mm)	20	0.512" (13mm)	25	35	KGD P 2020-C	●	●	KGDF P -25-4A-C	●	●	20	20	12	20	118	36	24.5	13
				35	50				-35-4B-C	●	●	20	20	12	20	120	38	24.5	15
				50	70				-50-4B-C	●	●								
			0.591" (15mm)	70	100				-70-4B-C	●	●								
				100	150				-100-4B-C	●	●								
				150	220				-150-4B-C	●	●								
				220	∞				-220-4B-C	●	●								
			0.984" (25mm)	35	50				KGDF P -35-4C-C	●	●	20	20	12	20	130	48	24.5	25
				50	70				-50-4C-C	●	●								
				70	100				-70-4C-C	●	●								
				100	150				-100-4C-C	●	●								
				150	220				-150-4C-C	●	●								
				220	∞				-220-4C-C	●	●								
		25	0.512" (13mm)	25	35	KGD P 2525-C	●	●	KGDF P -25-4A-C	●	●	25	25	7	25	143	36	29.5	13
				35	50				-35-4B-C	●	●	25	25	7	25	145	38	29.5	15
				50	70				-50-4B-C	●	●								
			0.591" (15mm)	70	100				-70-4B-C	●	●								
				100	150				-100-4B-C	●	●								
				150	220				-150-4B-C	●	●								
				220	∞				-220-4B-C	●	●								
			0.984" (25mm)	35	50				KGDF P -35-4C-C	●	●	25	25	7	25	155	48	29.5	25
				50	70				-50-4C-C	●	●								
				70	100				-70-4C-C	●	●								
				100	150				-100-4C-C	●	●								
				150	220				-150-4C-C	●	●								
				220	∞				-220-4C-C	●	●								
		32	0.512" (13mm)	25	35	KGD P 3232-C	●	●	KGDF P -25-4A-C	●	●	32	32	-	32	163	36	36.5	13
				35	50				-35-4B-C	●	●	32	32	-	32	165	38	36.5	15
				50	70				-50-4B-C	●	●								
			0.591" (15mm)	70	100				-70-4B-C	●	●								
				100	150				-100-4B-C	●	●								
				150	220				-150-4B-C	●	●								
				220	∞				-220-4B-C	●	●								
			0.984" (25mm)	35	50				KGDF P -35-4C-C	●	●	32	32	-	32	175	48	36.5	25
				50	70				-50-4C-C	●	●								
				70	100				-70-4C-C	●	●								
				100	150				-100-4C-C	●	●								
				150	220				-150-4C-C	●	●								
				220	∞				-220-4C-C	●	●								

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see Page 40

Applicable Inserts See Page 29

Toolholder + Blade Dimensions (5mm Insert Width)

(Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (mm) Diagram on Page P35							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.197" (5mm)	20	0.591" (15mm)	25	35	KGD% 2020-C	●	●	KGDF% -25-5B-C	●	●	20	20	12	20	120	38	24.5	15
				35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.787" (20mm)	25	35				KGDF% -25-5C-C	●	●	20	20	12	20	125	43	24.5	20
			0.984" (25mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
		25	0.591" (15mm)	75	115				KGDF% -75-5D-C	●	●	20	20	12	20	137	55	24.5	32
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.787" (20mm)	25	35				KGDF% -25-5C-C	●	●	25	25	7	25	150	43	29.5	20
			0.984" (25mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
		32	0.591" (15mm)	75	115	KGD% 3232-C	●	●	KGDF% -75-5D-C	●	●	25	25	7	25	162	55	29.5	32
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.787" (20mm)	25	35				KGDF% -25-5C-C	●	●	32	32	-	32	170	43	36.5	20
			0.984" (25mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
		32	0.591" (15mm)	75	115				KGDF% -75-5D-C	●	●	32	32	-	32	182	55	36.5	32
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.787" (20mm)	25	35				KGDF% -25-5C-C	●	●								
			0.984" (25mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see Page 40

Applicable Inserts See Page 29

Toolholder + Blade Dimensions (6mm Insert Width)

 (Choose **Right-hand** Blade for **Left-hand** Toolholder and **Left-hand** Blade for **Right-hand** Toolholder)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (mm) Diagram on Page P35							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX*
0°	0.236" (6mm)	20	0.591" (15mm)	25	35	KGD% 2020-C	●	●	KGDF% -25-6B-C	●	●	20	20	12	20	120	38	24.5	15
				35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.787" (20mm)	25	35				KGDF% -25-6C-C	●	●	20	20	12	20	125	43	24.5	20
			0.984" (25mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			1.260" (32mm)	75	115				KGDF% -75-6D-C	●	●	20	20	12	20	137	55	24.5	32
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
				25	35				KGDF% -25-6B-C	●	●	25	25	7	25	145	38	29.5	15
			0.591" (15mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.787" (20mm)	25	35	KGD% 2525-C	●	●	KGDF% -25-6C-C	●	●	25	25	7	25	150	43	29.5	20
			0.984" (25mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			1.260" (32mm)	75	115				KGDF% -75-6D-C	●	●	25	25	7	25	162	55	29.5	32
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.591" (15mm)	25	35				KGDF% -25-6B-C	●	●	32	32	-	32	165	38	36.5	15
				35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			0.787" (20mm)	25	35	KGD% 3232-C	●	●	KGDF% -25-6C-C	●	●	32	32	-	32	170	43	36.5	20
			0.984" (25mm)	35	50					●	●								
				50	75					●	●								
				75	115					●	●								
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								
			1.260" (32mm)	75	115				KGDF% -75-6D-C	●	●	32	32	-	32	182	55	36.5	32
				115	180					●	●								
				180	235					●	●								
				235	∞					●	●								

Note 1) If the unit part number is not listed (No Unit Part Number), please purchase toolholder and blade separately.

● : Standard Item

2) Dimension CDX* : Shows the maximum grooving depth. If the dimension CDX is 0.787" (20mm) or more, using a 2-edge insert, the maximum grooving depth is 0.709" (18mm).

3) Insert clamp bolt (BH6x10TR) and Blade fixing bolt (SB-60120TR) come with toolholder. For Spare Parts, see Page 40

Applicable Inserts See Page 29

Spare Parts (Common with SwitchBlade Holders)

Unit Part Number	Spare Parts		
	Clamp Screw (for Insert Clamp)	Clamp Screw (for Blade)	Wrench
KGDF $\frac{R}{L}$...S	BH6X10TR	SB-60120TR	LTW-25

* The spare parts above are included with the toolholder and unit.

KGDF Toolholder Assembly Identification (Face Grooving - SwitchBlade)

Blade (Blade Part Number is Printed)		Toolholder (Toolholder Part Number is Printed)
Left-hand : KGDFL...-C		Right-hand : KGDR...-C
	+	
• Left-hand Shown		• Right-hand Shown
Right-hand : KGDFR...-C		Left-hand : KGDL...-C
	+	
• Right-hand Shown		• Left-hand Shown

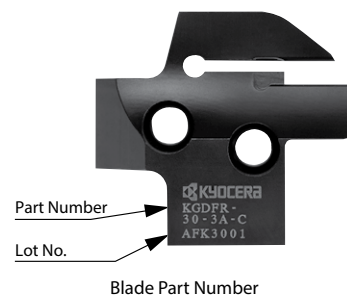
• **Right-hand** Blade for **Left-hand** Toolholder, **Left-hand** Blade for **Right-hand** Toolholder.

• Please purchase toolholder and blade separately

• The insert clamping screw (BH6X10TR), blade fixing screw (SB-60120TR) and wrench (LTW-25) which are included with the toolholder can be used.

Face Grooving Blade Assembly Identification System

Hand of Tool	Width	Blade Symbol
R : Right-hand L : Left-hand	2 : 2mm 5 : 5mm 3 : 3mm 6 : 6mm 4 : 4mm	C : Applicable to toolholder with suffix "-C"
KGDF	R	- 25 - 3 A - C
Series	Min. Face Grooving Diameter	Grooving Depth
KGDF Face Grooving	Indicates the minimum external diameter suitable for the initial face grooving.	A : 6/13mm B : 13/15mm
	25 : 25mm ⋮ 235 : 235mm	C : 20mm ~ 25mm D : 32mm
		2-Edge Insert (1-Edge Insert can also be used)
		1-Edge Insert



Face Grooving Diameter (DAXN / DAXX)

Face grooving diameter (DAXN~DAXX) is the available range for the initial plunge on the unprocessed workpiece (See Fig.1).
You can then widen the groove towards the center (excluding the models listed in the below table) and towards the outside according to machine limits.

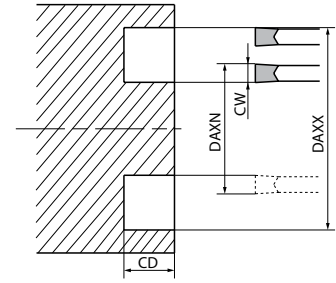


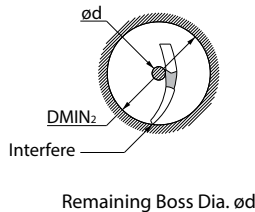
Fig.1

See video for
more information!

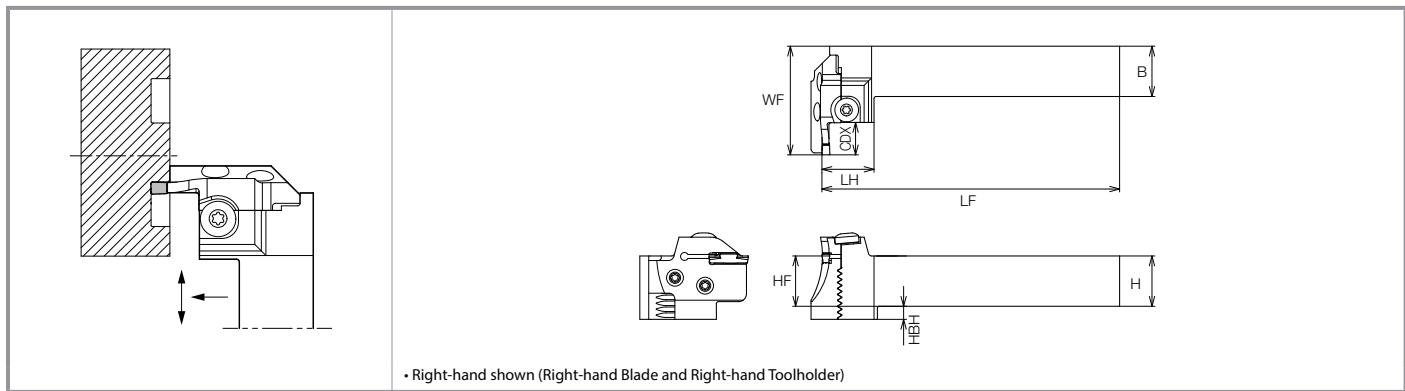


Limit of Turning Toward Center

Turning towards the Center causes the toolholder to interfere with the groove wall depending on the initial cut's diameter.

 Remaining Boss Dia. ød	DMIN ₂		25	26	27	28 and over
	Description	ød(mm)				
	KGDF ^R /L-25-3A-C + KGD ^L /R2020-C	4	2	0	0 (No remaining Boss)	
	KGDF ^R /L-25-3A-C + KGD ^L /R2525-C					
	KGDF ^R /L-25-4A-C + KGD ^L /R2020-C	6	3	0		
	KGDF ^R /L-25-4A-C + KGD ^L /R2525-C					
	KGDF ^R /L-25-5B-C + KGD ^L /R2020-C	7	4	1		
	KGDF ^R /L-25-5B-C + KGD ^L /R2525-C					
	KGDF ^R /L-25-6B-C + KGD ^L /R2020-C	9	4	1		
	KGDF ^R /L-25-6B-C + KGD ^L /R2525-C					

e.g.) If the groove of external diameter Ø0.984" (25mm) is created using KGDFR2020X25-3AS and turning is made toward the inside, a Ø0.158" (4mm) portion will be left in middle due to interference of toolholder.

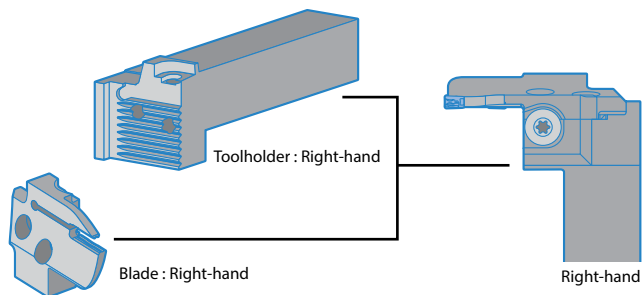


Toolholder Dimensions (0.079" Insert Width)

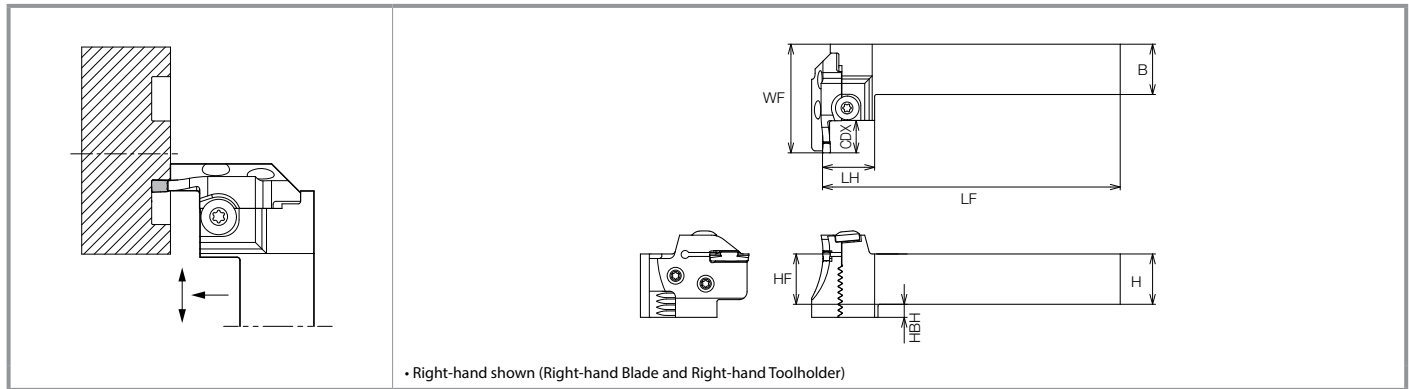
Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (in)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.079" (2mm)	0.75	0.236" (6mm)	0.984	1.181	KGDSR12-C	●		KGDFR -25-2A-C	●		0.750	0.750	0.510	0.750	4.921	0.988	1.957	0.236" (6mm)
				1.181	1.378				-30-2A-C	●									
				1.378	1.772				-35-2A-C	●									
				1.772	2.362				-45-2A-C	●									
				2.362	3.150				-60-2A-C	●									
				3.150	3.937				-80-2A-C	●									
				3.937	5.118				-100-2A-C	●									
			0.512" (13mm)	0.984	1.181				KGDFR -25-2B-C	●		0.750	0.750	0.510	0.750	4.921	0.988	2.075	0.512" (13mm)
			0.591" (15mm)	1.181	1.378				KGDFR -30-2B-C	●		0.750	0.750	0.510	0.750	4.921	0.988	2.154	0.591" (15mm)
				1.378	1.772				-35-2B-C	●									
				1.772	2.362				-45-2B-C	●									
				2.362	3.150				-60-2B-C	●									
				3.150	3.937				-80-2B-C	●									
				3.937	5.118				-100-2B-C	●									
		1.00	0.236" (6mm)	0.984	1.181	KGDSR16-C	●		KGDFR -25-2A-C	●		1.000	1.000	0.260	1.000	5.910	0.988	1.957	0.236" (6mm)
				1.181	1.378				-30-2A-C	●									
				1.378	1.772				-35-2A-C	●									
				1.772	2.362				-45-2A-C	●									
				2.362	3.150				-60-2A-C	●									
				3.150	3.937				-80-2A-C	●									
				3.937	5.118				-100-2A-C	●									
			0.512" (13mm)	0.984	1.181				KGDFR -25-2B-C	●		1.000	1.000	0.260	1.000	5.910	0.988	2.075	0.512" (13mm)
			0.591" (15mm)	1.181	1.378				KGDFR -30-2B-C	●		1.000	1.000	0.260	1.000	5.910	0.988	2.154	0.591" (15mm)
				1.378	1.772				-35-2B-C	●									
				1.772	2.362				-45-2B-C	●									
				2.362	3.150				-60-2B-C	●									
				3.150	3.937				-80-2B-C	●									
				3.937	5.118				-100-2B-C	●									

● : Standard Item

Applicable Inserts See ● Page 29



- KGDF 90° SwitchBlade type is not available as unit (toolholder + blade). Blade and toolholder are available to assemble when purchasing individually.
- **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.
- Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ● Page 40



Toolholder Dimensions (0.118" Insert Width)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number ➔ P17	Stock		Blade Part Number ➔ P52	Stock		Dimensions (in)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.118" (3mm)	0.75	0.512" (13mm)	0.984	1.181	KGDS [®] 12-C	●	●	KGDF [®] -25-3A-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.075	0.512" (13mm)
				1.181	1.575				-30-3A-C	●	●								
				1.575	1.969				-40-3A-C	●	●								
			0.591" (15mm)	1.969	2.559				-50-3B-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.154	0.591" (15mm)
				2.559	3.346				-65-3B-C	●	●								
				3.346	4.331				-85-3B-C	●	●								
			0.866" (22mm)	4.331	5.709				-110-3B-C	●	●								
				1.969	2.559				KGDF [®] -50-3C-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.350	0.866" (22mm)
				2.559	3.346				-65-3C-C	●	●								
				3.346	4.331				-85-3C-C	●	●								
			0.984" (25mm)	4.331	5.709				-110-3C-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.429	0.984" (25mm)
		1.00	0.512" (13mm)	0.984	1.181	KGDS [®] 16-C	●	●	KGDF [®] -25-3A-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.075	0.512" (13mm)
				1.181	1.575				-30-3A-C	●	●								
				1.575	1.969				-40-3A-C	●	●								
			0.591" (15mm)	1.969	2.559				-50-3B-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.154	0.591" (15mm)
				2.559	3.346				-65-3B-C	●	●								
				3.346	4.331				-85-3B-C	●	●								
			0.866" (22mm)	4.331	5.709				-110-3B-C	●	●								
				1.969	2.559				KGDF [®] -50-3C-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.350	0.866" (22mm)
				2.559	3.346				-65-3C-C	●	●								
				3.346	4.331				-85-3C-C	●	●								
			0.984" (25mm)	4.331	5.709				-110-3C-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.429	0.984" (25mm)

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

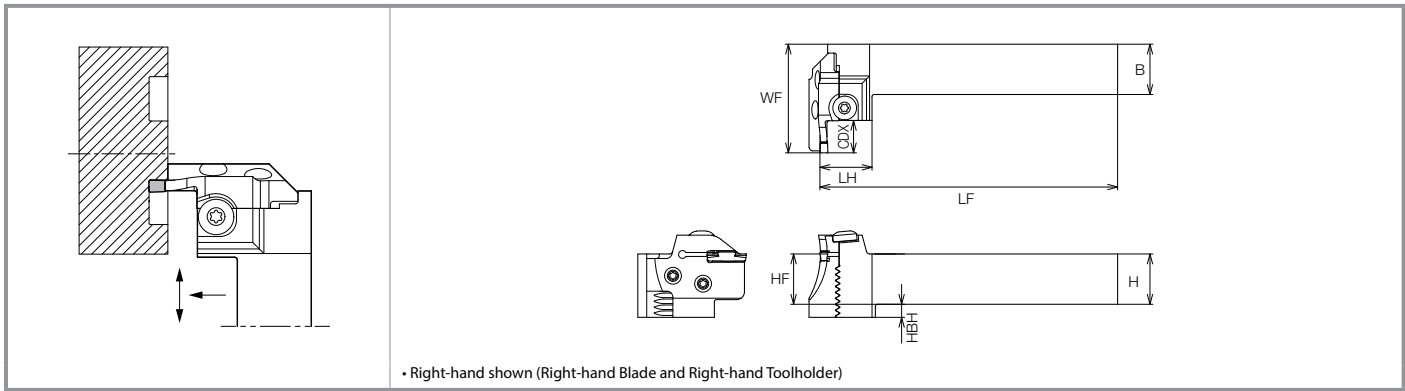
● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

Applicable Inserts See ➔ [Page 29](#)

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ➔ [Page 40](#)


Toolholder Dimensions (0.157" Insert Width)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number ➔ P17	Stock		Blade Part Number ➔ P52	Stock		Dimensions (in)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.157" (4mm)	0.75	0.512" (13mm)	0.984	1.378	KGDS 90° 12-C	●	●	KGDF 90° -25-4A-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.075	0.512" (13mm)
				1.378	1.969				KGDF 90° -35-4B-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.154	0.591" (15mm)
				1.969	2.756				-50-4B-C	●	●								
			0.591" (15mm)	2.756	3.937				-70-4B-C	●	●								
				3.937	5.906				-100-4B-C	●	●								
				5.906	8.661				-150-4B-C	●	●								
				8.661	∞				-220-4B-C	●	●								
			0.984" (25mm)	1.378	1.969				KGDF 90° -35-4C-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.550	0.984" (25mm)
				1.969	2.756				-50-4C-C	●	●								
				2.756	3.937				-70-4C-C	●	●								
				3.937	5.906				-100-4C-C	●	●								
				5.906	8.661				-150-4C-C	●	●								
				8.661	∞				-220-4C-C	●	●								
		1.00	0.512" (13mm)	0.984	1.378	KGDS 90° 16-C	●	●	KGDF 90° -25-4A-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.075	0.512" (13mm)
				1.378	1.969				KGDF 90° -35-4B-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.154	0.591" (15mm)
				1.969	2.756				-50-4B-C	●	●								
			0.591" (15mm)	2.756	3.937				-70-4B-C	●	●								
				3.937	5.906				-100-4B-C	●	●								
				5.906	8.661				-150-4B-C	●	●								
				8.661	∞				-220-4B-C	●	●								
			0.984" (25mm)	1.378	1.969				KGDF 90° -35-4C-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.550	0.984" (25mm)
				1.969	2.756				-50-4C-C	●	●								
				2.756	3.937				-70-4C-C	●	●								
				3.937	5.906				-100-4C-C	●	●								
				5.906	8.661				-150-4C-C	●	●								
				8.661	∞				-220-4C-C	●	●								

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

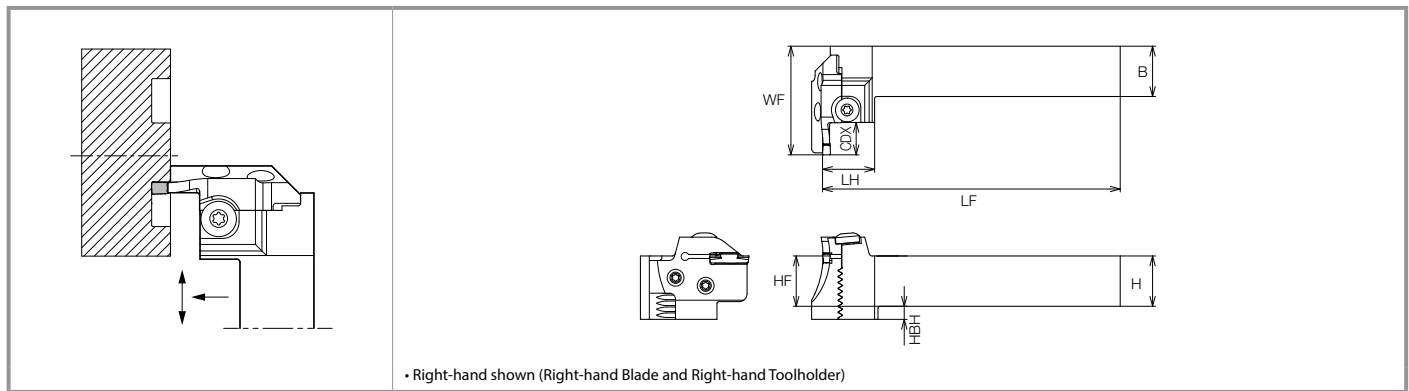
Blade and toolholder are available to assemble when purchasing individually.

● : Standard Item

Applicable Inserts See ➔ [Page 29](#)

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ➔ [Page 40](#)



Toolholder Dimensions (0.197" Insert Width)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number 🌀 P17	Stock		Blade Part Number 🌀 P52	Stock		Dimensions (in)																		
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX											
90°	0.197" (5mm)	📏 0.75	0.591" (15mm)	0.984	1.378	KGDS 12-C	●	●	KGDF 25-SB-C	●	●	0.750	0.750	0.510	0.750	4.921	0.927	2.154	0.591" (15mm)											
				1.378	1.969					-35-SB-C	●									●										
				1.969	2.953					-50-SB-C	●									●										
				2.953	4.528					-75-SB-C	●									●										
				4.528	7.087					-115-SB-C	●									●										
				7.087	9.252					-180-SB-C	●									●										
				9.252	∞					-235-SB-C	●									●										
			0.787" (20mm)	0.984	1.378				KGDF 25-5C-C	●	●	0.750	0.750	0.510	0.750	4.921	0.927	2.35	0.787" (20mm)											
			1.378	1.969	-35-5C-C					●	●																			
			1.969	2.953	-50-5C-C					●	●																			
			2.953	4.528	-75-5C-C					●	●																			
			4.528	7.087	-115-5C-C					●	●																			
			7.087	9.252	-180-5C-C					●	●																			
			9.252	∞	-235-5C-C					●	●																			
			0.984" (25mm)	2.953	4.528				KGDF 25-5D-C	●	●	0.750	0.750	0.510	0.750	4.921	0.927	2.823	1.260" (32mm)											
				4.528	7.087					-115-5D-C	●									●										
				7.087	9.252					-180-5D-C	●									●										
				9.252	∞					-235-5D-C	●									●										
		📏 1.00		0.591" (15mm)	0.984	1.378	KGDS 16-C	●		●	KGDF 25-SB-C									●	●	1.000	1.000	0.260	1.000	5.906	1.177	2.154	0.591" (15mm)	
					1.378	1.969														-35-SB-C	●									●
					1.969	2.953														-50-SB-C	●									●
			2.953		4.528	-75-SB-C			●			●																		
			4.528		7.087	-115-SB-C			●			●																		
			7.087		9.252	-180-SB-C			●			●																		
			9.252		∞	-235-SB-C			●			●																		
			0.787" (20mm)	0.984	1.378	KGDF 25-5C-C			●		●	1.000	1.000	0.260	1.000	5.906	1.177	2.35	0.787" (20mm)											
			1.378	1.969	-35-5C-C				●		●																			
			1.969	2.953	-50-5C-C				●		●																			
			2.953	4.528	-75-5C-C				●		●																			
			4.528	7.087	-115-5C-C				●		●																			
			7.087	9.252	-180-5C-C				●		●																			
			9.252	∞	-235-5C-C				●		●																			
			0.984" (25mm)	2.953	4.528	KGDF 25-5D-C			●		●	1.000	1.000	0.260	1.000	5.906	1.177	2.823	1.260" (32mm)											
				4.528	7.087				-115-5D-C		●									●										
				7.087	9.252				-180-5D-C		●									●										
				9.252	∞				-235-5D-C		●									●										

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

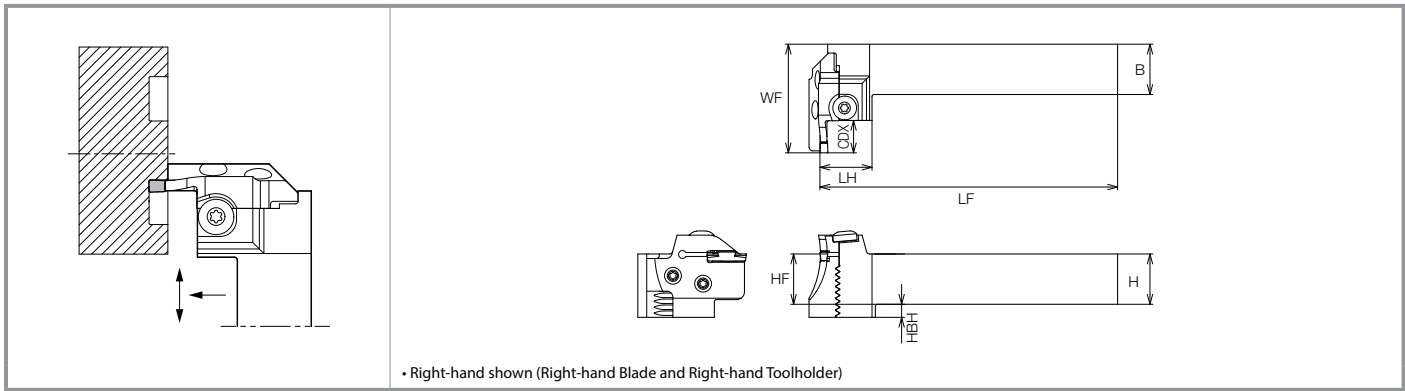
● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

Applicable Inserts See ➡ Page 29

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ➡ Page 40



Toolholder Dimensions (0.236" Insert Width)

Shank Angle	Insert Width CW	Shank Size (in)	Max. Grooving Depth	Face Grooving Dia. (in)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (in)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.236" (6mm)	0.75	0.591" (15mm)	0.984	1.378	KGDS 12-C	●	●	KGDF 25-6B-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.154	0.591" (15mm)
				1.378	1.969				-35-6B-C	●	●								
				1.969	2.953				-50-6B-C	●	●								
				2.953	4.528				-75-6B-C	●	●								
				4.528	7.087				-115-6B-C	●	●								
				7.087	9.252				-180-6B-C	●	●								
				9.252	∞				-235-6B-C	●	●								
			0.787" (20mm)	0.984	1.378				KGDF 25-6C-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.350	0.787" (20mm)
			0.984" (25mm)	1.378	1.969				-35-6C-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.547	0.984" (25mm)
				1.969	2.953				-50-6C-C	●	●								
				2.953	4.528				-75-6C-C	●	●								
				4.528	7.087				-115-6C-C	●	●								
				7.087	9.252				-180-6C-C	●	●								
				9.252	∞				-235-6C-C	●	●								
			1.260" (32mm)	2.953	4.528				KGDF 75-6D-C	●	●	0.750	0.750	0.510	0.750	4.921	0.988	2.823	1.260" (32mm)
				4.528	7.087				-115-6D-C	●	●								
				7.087	9.252				-180-6D-C	●	●								
				9.252	∞				-235-6D-C	●	●								
		1.00	0.591" (15mm)	0.984	1.378	KGDS 16-C	●	●	KGDF 25-6B-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.154	0.591" (15mm)
				1.378	1.969				-35-6B-C	●	●								
				1.969	2.953				-50-6B-C	●	●								
				2.953	4.528				-75-6B-C	●	●								
				4.528	7.087				-115-6B-C	●	●								
				7.087	9.252				-180-6B-C	●	●								
				9.252	∞				-235-6B-C	●	●								
			0.787" (20mm)	0.984	1.378				KGDF 25-6C-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.350	0.787" (20mm)
			0.984" (25mm)	1.378	1.969				-35-6C-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.547	0.984" (25mm)
				1.969	2.953				-50-6C-C	●	●								
				2.953	4.528				-75-6C-C	●	●								
				4.528	7.087				-115-6C-C	●	●								
				7.087	9.252				-180-6C-C	●	●								
				9.252	∞				-235-6C-C	●	●								
			1.260" (32mm)	2.953	4.528				KGDF 75-6D-C	●	●	1.000	1.000	0.260	1.000	5.906	0.988	2.823	1.260" (32mm)
				4.528	7.087				-115-6D-C	●	●								
				7.087	9.252				-180-6D-C	●	●								
				9.252	∞				-235-6D-C	●	●								

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

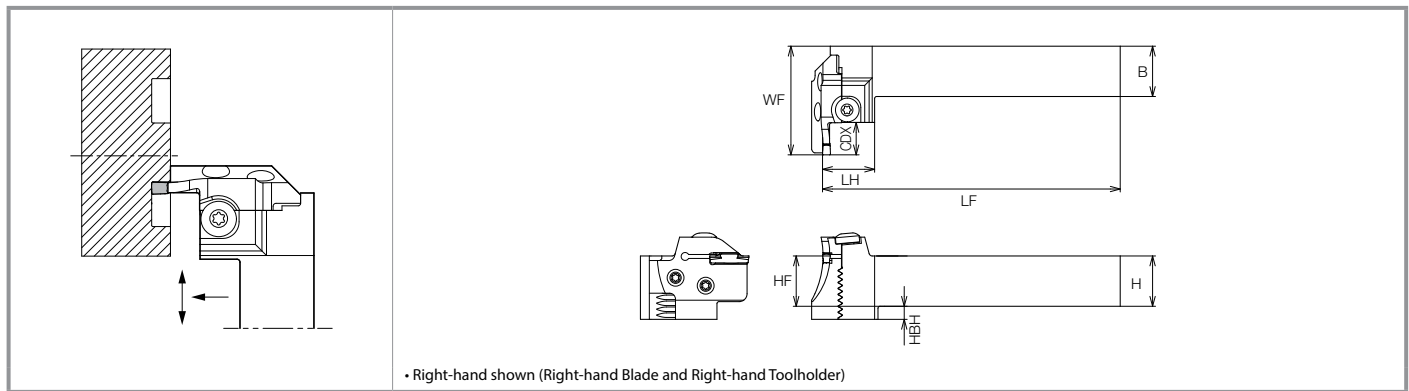
● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

Applicable Inserts See Page 29

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see Page 40



Toolholder Dimensions (2mm Insert Width)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number ➡ P17	Stock		Blade Part Number ➡ P52	Stock		Dimensions (mm)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.079" (2mm)	20	0.236" (6mm)	25	30	KGDSR2020-C	●		KGDFR -25-2A-C	●		20	20	12	20	125	27.7	49.7	6
				30	35				-30-2A-C	●									
				35	45				-35-2A-C	●									
				45	60				-45-2A-C	●									
				60	80				-60-2A-C	●									
				80	100				-80-2A-C	●									
				100	130				-100-2A-C	●									
			0.512" (13mm)	25	30				KGDFR -25-2B-C	●		20	20	12	20	125	27.7	52.7	13
				30	35				KGDFR -30-2B-C	●									
				35	45				-35-2B-C	●									
				45	60				-45-2B-C	●									
				60	80				-60-2B-C	●									
				80	100				-80-2B-C	●									
				100	130				-100-2B-C	●									
	0.079" (2mm)	25	0.236" (6mm)	25	30	KGDSR2525-C	●		KGDFR -25-2A-C	●		25	25	7	25	150	27.7	49.7	6
				30	35				-30-2A-C	●									
				35	45				-35-2A-C	●									
				45	60				-45-2A-C	●									
				60	80				-60-2A-C	●									
				80	100				-80-2A-C	●									
				100	130				-100-2A-C	●									
			0.512" (13mm)	25	30				KGDFR -25-2B-C	●		25	25	7	25	150	27.7	52.7	13
				30	35				KGDFR -30-2B-C	●									
				35	45				-35-2B-C	●									
				45	60				-45-2B-C	●									
				60	80				-60-2B-C	●									
				80	100				-80-2B-C	●									
				100	130				-100-2B-C	●									

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

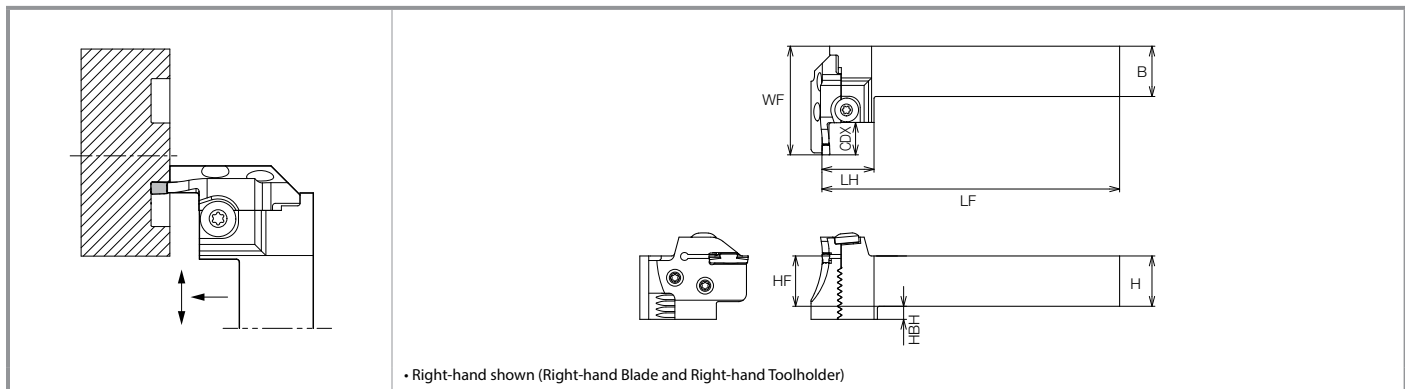
● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

Applicable Inserts See ➡ Page 29

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ➡ Page 40


Toolholder Dimensions (3mm Insert Width)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number ➡ P17	Stock		Blade Part Number ➡ P52	Stock		Dimensions (mm)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.118" (3mm)	□ 20	0.512" (13mm)	25	30	KGDS % 2020-C	●	●	KGDF % -25-3A-C	●	●	20	20	12	20	125	27.7	52.7	13
				30	40				-30-3A-C	●	●								
				40	50				-40-3A-C	●	●								
			0.591" (15mm)	50	65				KGDF % -50-3B-C	●	●	20	20	12	20	125	27.7	54.7	15
				65	85				-65-3B-C	●	●								
				85	110				-85-3B-C	●	●								
		□ 25	0.866" (22mm)	110	145				-110-3B-C	●	●	20	20	12	20	125	27.7	59.7	22
				50	65				KGDF % -50-3C-C	●	●								
				65	85				-65-3C-C	●	●								
			0.984" (25mm)	85	110				-85-3C-C	●	●	20	20	12	20	125	27.7	61.7	25
				110	145				-110-3C-C	●	●								
				25	30				KGDF % -25-3A-C	●	●	25	25	7	25	150	27.7	52.7	13
	0.118" (3mm)	□ 25	0.512" (13mm)	30	40	KGDS % 2525-C	●	●	-30-3A-C	●	●								
				40	50				-40-3A-C	●	●								
				50	65				-50-3B-C	●	●	25	25	7	25	150	27.7	54.7	15
			0.591" (15mm)	65	85				-65-3B-C	●	●								
				85	110				-85-3B-C	●	●								
				110	145				-110-3B-C	●	●								
		□ 25	0.866" (22mm)	50	65				KGDF % -50-3C-C	●	●	25	25	7	25	150	27.7	59.7	22
				65	85				-65-3C-C	●	●								
			0.984" (25mm)	85	110				KGDF % -85-3C-C	●	●	25	25	7	25	150	27.7	61.7	25
				110	145				-110-3C-C	●	●								

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

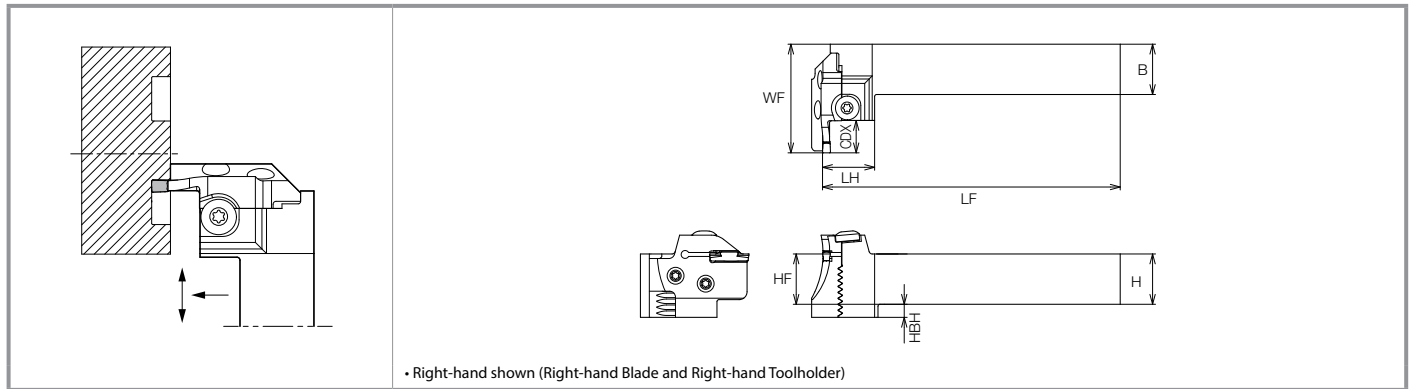
● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

Applicable Inserts See ➡ Page 29

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ➡ Page 40



Toolholder Dimensions (4mm Insert Width)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number ➡ P17	Stock		Blade Part Number ➡ P52	Stock		Dimensions (mm)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.157" (4mm)	20	0.512" (13mm)	25	35	KGDS% 2020-C	●	●	KGDF% -25-4A-C	●	●	20	20	12	20	125	27.7	52.7	13
				35	50					●	●								
			0.591" (15mm)	50	70				-35-4B-C	●	●								
				70	100				-50-4B-C	●	●								
				100	150				-70-4B-C	●	●	20	20	12	20	125	27.7	54.7	15
				150	220				-100-4B-C	●	●								
				220	∞				-150-4B-C	●	●								
				220	∞				-220-4B-C	●	●								
			0.984" (25mm)	35	50				KGDF% -35-4C-C	●	●								
				50	70					●	●								
				70	100				-50-4C-C	●	●								
				100	150				-70-4C-C	●	●	20	20	12	20	125	27.7	64.7	25
				150	220				-100-4C-C	●	●								
				220	∞				-150-4C-C	●	●								
				220	∞				-220-4C-C	●	●								
		25	0.512" (13mm)	25	35	KGDS% 2525-C	●	●	KGDF% -25-4A-C	●	●	25	25	7	25	150	27.7	52.7	13
				35	50					●	●								
			0.591" (15mm)	50	70				-35-4B-C	●	●								
				70	100				-50-4B-C	●	●								
				100	150				-70-4B-C	●	●	25	25	7	25	150	27.7	54.7	15
				150	220				-100-4B-C	●	●								
				220	∞				-150-4B-C	●	●								
				220	∞				-220-4B-C	●	●								
			0.984" (25mm)	35	50				KGDF% -35-4C-C	●	●								
				50	70					●	●								
				70	100				-50-4C-C	●	●								
				100	150				-70-4C-C	●	●	25	25	7	25	150	27.7	64.7	25
				150	220				-100-4C-C	●	●								
				220	∞				-150-4C-C	●	●								
				220	∞				-220-4C-C	●	●								

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

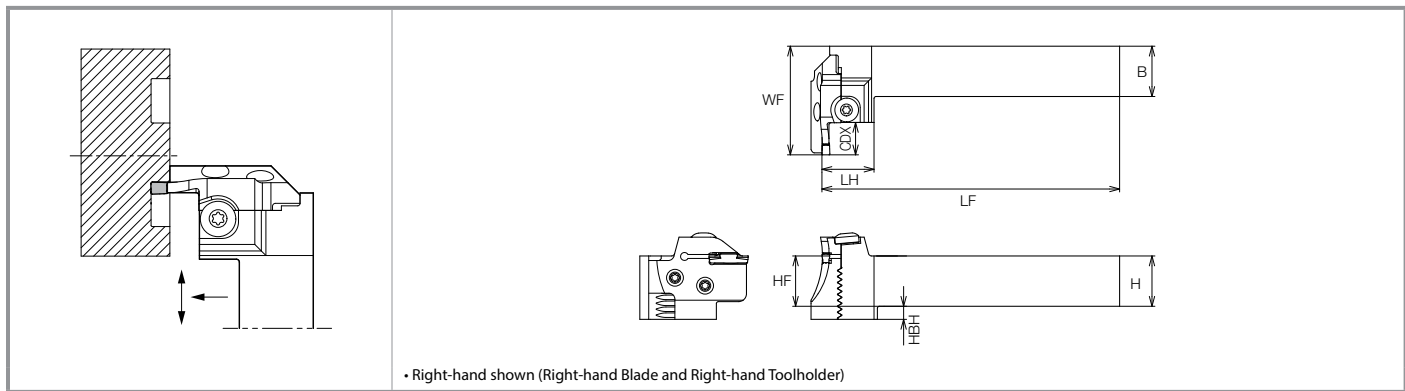
● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

Applicable Inserts See ➡ Page 29

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ➡ Page 40


Toolholder Dimensions (5mm Insert Width)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number 🔗 P17	Stock		Blade Part Number 🔗 P52	Stock		Dimensions (mm)								
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX	
90°	0.197" (5mm)	20	0.591" (15mm)	25	35	KGDS ¾ 2020-C	●	●	KGDF ¾ -25-5B-C	●	●	20	20	12	20	125	27.7	54.7	15	
				35	50					-35-5B-C	●									●
				50	75					-50-5B-C	●									●
				75	115					-75-5B-C	●									●
				115	180					-115-5B-C	●									●
				180	235					-180-5B-C	●									●
				235	∞					-235-5B-C	●									●
			0.787" (20mm)	25	35				KGDF ¾ -25-5C-C	●	●	20	20	12	20	125	27.7	59.7	20	
			0.984" (25mm)	35	50				-35-5C-C	●	●	20	20	12	20	125	27.7	64.7	25	
				50	75				-50-5C-C	●	●									
				75	115				-75-5C-C	●	●									
				115	180				-115-5C-C	●	●									
				180	235				-180-5C-C	●	●									
				235	∞				-235-5C-C	●	●									
			1.260" (32mm)	75	115				KGDF ¾ -75-5D-C	●	●	20	20	12	20	125	27.7	71.7	32	
				115	180				-115-5D-C	●	●									
				180	235				-180-5D-C	●	●									
				235	∞				-235-5D-C	●	●									
		25	0.591" (15mm)	25	35	KGDS ¾ 2525-C	●	●	KGDF ¾ -25-5B-C	●	●	25	25	7	25	150	27.7	54.7	15	
				35	50					-35-5B-C	●									●
				50	75					-50-5B-C	●									●
				75	115					-75-5B-C	●									●
				115	180					-115-5B-C	●									●
				180	235					-180-5B-C	●									●
				235	∞					-235-5B-C	●									●
			0.787" (20mm)	25	35				KGDF ¾ -25-5C-C	●	●	25	25	7	25	150	27.7	59.7	20	
			0.984" (25mm)	35	50				-35-5C-C	●	●	25	25	7	25	150	27.7	64.7	25	
				50	75				-50-5C-C	●	●									
				75	115				-75-5C-C	●	●									
				115	180				-115-5C-C	●	●									
				180	235				-180-5C-C	●	●									
				235	∞				-235-5C-C	●	●									
			1.260" (32mm)	75	115				KGDF ¾ -75-5D-C	●	●	25	25	7	25	150	27.7	71.7	32	
				115	180				-115-5D-C	●	●									
				180	235				-180-5D-C	●	●									
235	∞	-235-5D-C		●	●															

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

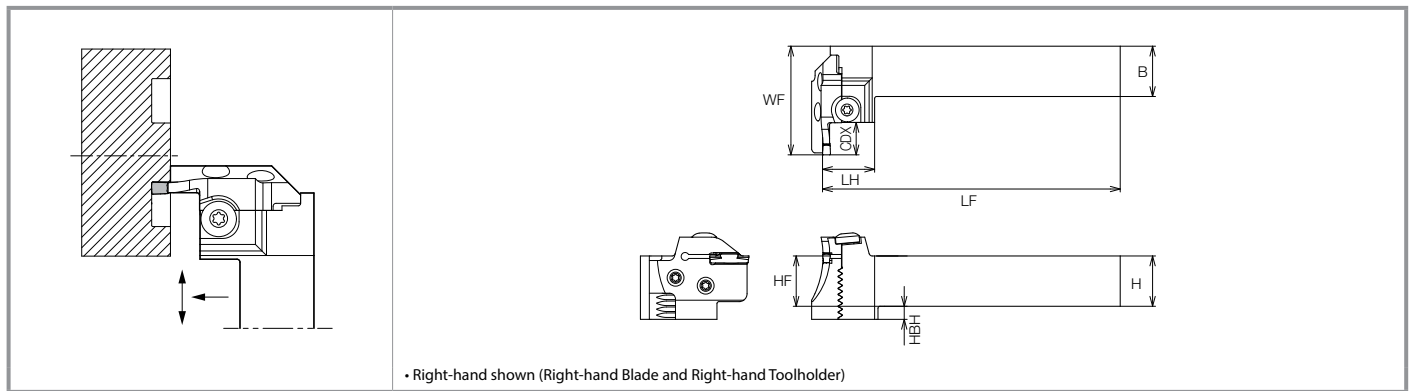
● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

Applicable Inserts See ➡ Page 29

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see ➡ Page 40



Toolholder Dimensions (6mm Insert Width)

Shank Angle	Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Toolholder Part Number P17	Stock		Blade Part Number P52	Stock		Dimensions (mm)							
				DAXN (min)	DAXX (max)		R	L		R	L	H	HF	HBH	B	LF	LH	WF	CDX
90°	0.236" (6mm)	20	0.591" (15mm)	25	35	KGDS% 2020-C	●	●	KGDF% -25-6B-C	●	●	20	20	12	20	125	27.7	54.7	15
				35	50				-35-6B-C	●	●								
				50	75				-50-6B-C	●	●								
				75	115				-75-6B-C	●	●								
				115	180				-115-6B-C	●	●								
				180	235				-180-6B-C	●	●								
				235	∞				-235-6B-C	●	●								
			0.787" (20mm)	25	35				KGDF% -25-6C-C	●	●	20	20	12	20	125	27.7	59.7	20
			0.984" (25mm)	35	50				-35-6C-C	●	●								
				50	75				-50-6C-C	●	●								
				75	115				-75-6C-C	●	●								
				115	180				-115-6C-C	●	●								
				180	235				-180-6C-C	●	●								
				235	∞				-235-6C-C	●	●								
			1.260" (32mm)	75	115				KGDF% -75-6D-C	●	●	20	20	12	20	125	27.7	71.7	32
				115	180				-115-6D-C	●	●								
				180	235				-180-6D-C	●	●								
				235	∞				-235-6D-C	●	●								
				25	35				KGDF% -25-6B-C	●	●	25	25	7	25	150	27.7	54.7	15
			0.591" (15mm)	35	50				-35-6B-C	●	●								
				50	75				-50-6B-C	●	●								
				75	115				-75-6B-C	●	●								
				115	180				-115-6B-C	●	●								
				180	235				-180-6B-C	●	●								
				235	∞				-235-6B-C	●	●								
			0.787" (20mm)	25	35	KGDS% 2525-C	●	●	KGDF% -25-6C-C	●	●	25	25	7	25	150	27.7	59.7	20
			0.984" (25mm)	35	50				-35-6C-C	●	●								
				50	75				-50-6C-C	●	●								
				75	115				-75-6C-C	●	●								
				115	180				-115-6C-C	●	●								
				180	235				-180-6C-C	●	●								
				235	∞				-235-6C-C	●	●								
			1.260" (32mm)	75	115				KGDF% -75-6D-C	●	●	25	25	7	25	150	27.7	71.7	32
				115	180				-115-6D-C	●	●								
				180	235				-180-6D-C	●	●								
				235	∞				-235-6D-C	●	●								

• KGDF 90° SwitchBlade type is not available as unit (toolholder + blade).

● : Standard Item

Blade and toolholder are available to assemble when purchasing individually.

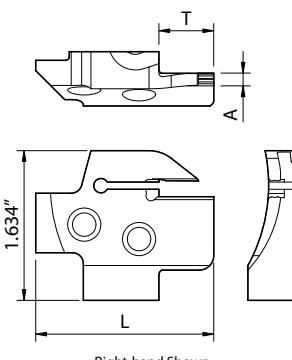
Applicable Inserts See [Page 29](#)

• **Right-hand** Blade for **Right-hand** Toolholder, **Left-hand** Blade for **Left-hand** Toolholder.

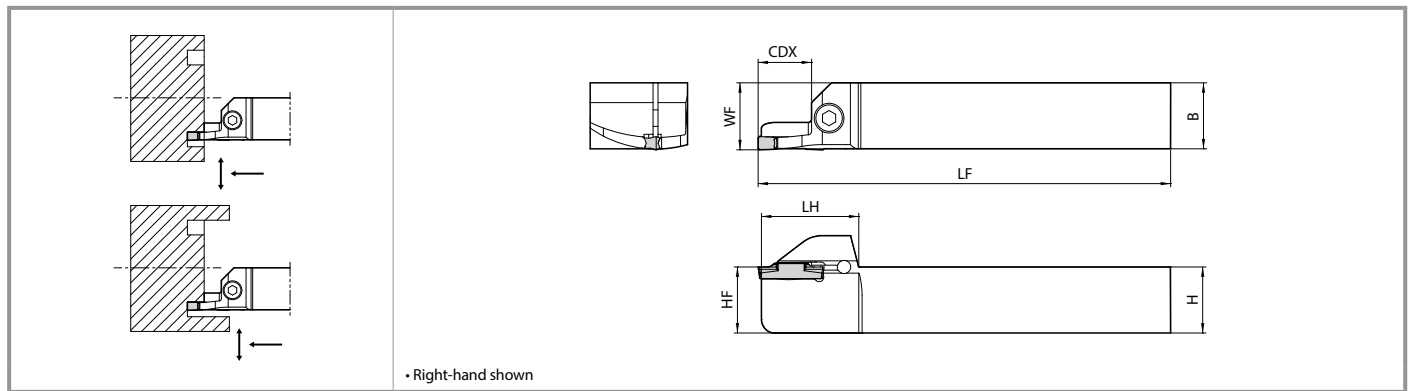
• Insert clamp screw (BH6X10TR), Blade fixing screw (SB-60120TR) and Wrench (LTW-25) come with toolholder. For Spare Parts, see [Page 40](#)

Face Grooving Blades

Blade Dimensions

Shape	Blade Part Number	Stock		Dimensions (in)			Face Grooving Dia. (in)		Insert Width (in)	Applicable Inserts ➡ P29	Toolholder Part Number ➡ P17	
		R	L	L	T	A	DAXN (min)	DAXX (max)	CW			
 Right-hand Shown	KGDFR	-25-2A-C	●	1.746	0.236	0.059	0.984	1.181	0.079 (2mm)	GDFM 2020N-020GM		
		-30-2A-C	●				1.181	1.378				
		-35-2A-C	●				1.378	1.772				
		-45-2A-C	●				1.772	2.362				
		-60-2A-C	●				2.362	3.150				
		-80-2A-C	●				3.150	3.937				
		-100-2A-C	●				3.937	5.118				
		-25-2B-C	●	1.864	0.512		0.984	1.181				
		-30-2B-C	●				1.181	1.378				
		-35-2B-C	●				1.378	1.772				
		-45-2B-C	●				1.772	2.362				
		-60-2B-C	●				2.362	3.150				
		-80-2B-C	●	1.943	0.591		3.150	3.937				
		-100-2B-C	●				3.937	5.118				
	KGDF%	-25-3A-C	●	1.864	0.512	0.079	0.984	1.181	0.118 (3mm)	GDFM 3020N-030GM GDFM 3020N-030DM GDFMS 3020N-030DM GDFM3020N-150R-CM GDFG3020N-020GS		
		-30-3A-C	●				1.181	1.575				
		-40-3A-C	●				1.575	1.969				
		-50-3B-C	●				1.969	2.559				
		-65-3B-C	●				2.559	3.346				
		-85-3B-C	●	1.943	0.591		3.346	4.331				
		-110-3B-C	●				4.331	5.709				
		-50-3C-C	●				1.969	2.559				
		-65-3C-C	●				2.559	3.346				
		-85-3C-C	●				3.346	4.331				
		-110-3C-C	●	2.337	0.984		4.331	5.709				
	KGDF%	-25-4A-C	●	1.864	0.512	0.118	0.984	1.378	0.157 (4mm)	GDFM 4020N-040GM GDFM 4020N-040GH GDFM 4020N-040DM GDFMS 4020N-040DM GDFM4020N-200R-CM GDFG4020N-040GS		
		-35-4B-C	●				1.378	1.969				
		-50-4B-C	●				1.969	2.756				
		-70-4B-C	●				2.756	3.937				
		-100-4B-C	●				3.937	5.906				
		-150-4B-C	●	1.943	0.591		5.906	8.661				
		-220-4B-C	●				8.661	∞				
		-35-4C-C	●				1.378	1.969				
		-50-4C-C	●				1.969	2.756				
		-70-4C-C	●				2.756	3.937				
		-100-4C-C	●	2.337	0.984		3.937	5.906				
		-150-4C-C	●				5.906	8.661				
		-220-4C-C	●				8.661	∞				
	KGDF%	-25-5B-C	●	1.943	0.591	0.157	0.984	1.378	0.197 (5mm)	GDFM 5020N-040GM GDFM 5020N-080GM GDFM 5020N-040GH GDFM 5020N-080GH GDFM 5020N-040DM GDFMS 5020N-040DM GDFM5020N-250R-CM GDFG5020N-040GS		
		-35-5B-C	●				1.378	1.969				
		-50-5B-C	●				1.969	2.953				
		-75-5B-C	●				2.953	4.528				
		-115-5B-C	●				4.528	7.087				
		-180-5B-C	●	2.140	0.787		7.087	9.252				
		-235-5B-C	●				9.252	∞				
		-25-5C-C	●				0.984	1.378				
		-35-5C-C	●				1.378	1.969				
		-50-5C-C	●				1.969	2.953				
		-75-5C-C	●	2.337	0.984		2.953	4.528				
		-115-5C-C	●				4.528	7.087				
		-180-5C-C	●				7.087	9.252				
		-235-5C-C	●				9.252	∞				
		-75-5D-C	●	2.612	1.260		2.953	4.528				
		-115-5D-C	●				4.528	7.087				
		-180-5D-C	●				7.087	9.252				
		-235-5D-C	●				9.252	∞				
	KGDF%	-25-6B-C	●	1.943	0.591	0.197	0.984	1.378	0.236 (6mm)	GDFM 6020N-040GM GDFM 6020N-080GM GDFM 6020N-040GH GDFM 6020N-080GH GDFM 6020N-040DM GDFMS 6020N-040DM GDFM6020N-300R-CM GDFG6020N-040GS		
		-35-6B-C	●				1.378	1.969				
		-50-6B-C	●				1.969	2.953				
		-75-6B-C	●				2.953	4.528				
		-115-6B-C	●				4.528	7.087				
		-180-6B-C	●	2.140	0.787		7.087	9.252				
		-235-6B-C	●				9.252	∞				
		-25-6C-C	●				0.984	1.378				
		-35-6C-C	●				1.378	1.969				
		-50-6C-C	●				1.969	2.953				
		-75-6C-C	●	2.337	0.984		2.953	4.528				
		-115-6C-C	●				4.528	7.087				
		-180-6C-C	●				7.087	9.252				
		-235-6C-C	●				9.252	∞				
		-75-6D-C	●	2.612	1.260		2.953	4.528				
		-115-6D-C	●				4.528	7.087				
		-180-6D-C	●				7.087	9.252				
		-235-6D-C	●				9.252	∞				

● : Standard Item


Toolholder Dimensions (3mm / 4mm / 5mm Insert Width)

Insert Width CW	Shank Size (mm)	Max. Grooving Depth	Face Grooving Dia. (mm)		Part Number	Stock		Dimensions (mm)								
			DAXN (min)	DAXX (max)		R	L	H	HF	B	LF	LH	F1	CDX		
0.118 (3mm)	□20	0.591" (15mm)	50	65	KGDF ^{R/L} 2020K50-3B-Z	●	●	20	20	20	125	30.5	20.3	15		
			65	85		●	●									
			85	110		●	●									
			110	145		●	●									
	□25		50	65	KGDF ^{R/L} 2525M50-3B-Z	●	●	25	25	25	150	30.5	25.3	15		
			65	85		●	●									
			85	110		●	●									
			110	145		●	●									
0.157 (4mm)	□20	0.591" (15mm)	50	70	KGDF ^{R/L} 2020K50-4B-Z	●	●	20	20	20	125	30.5	20.3	15		
			70	100		●	●									
			100	150		●	●									
			50	70		KGDF ^{R/L} 2525M50-4B-Z	●								●	25
	□25		70	100	●		●									
			100	150	●		●									
			0.197 (5mm)	□20	0.591" (15mm)		50	75	KGDF ^{R/L} 2020K50-5B-Z	●	●	20	20	20	125	
	75					115	●	●								
115	180	●				●										
50	75	KGDF ^{R/L} 2525M50-5B-Z				●	●	25		25	25					150
□25	75			115		●	●									
	115			180		●	●									

● : Standard Item

 Applicable Inserts See [Page 29](#)

Spare Parts

Part Number	Spare Parts	
	Clamp Screw	Wrench
KGDF ^{R/L} ...-Z	HH5X16	LW-4

Toolholder Identification System

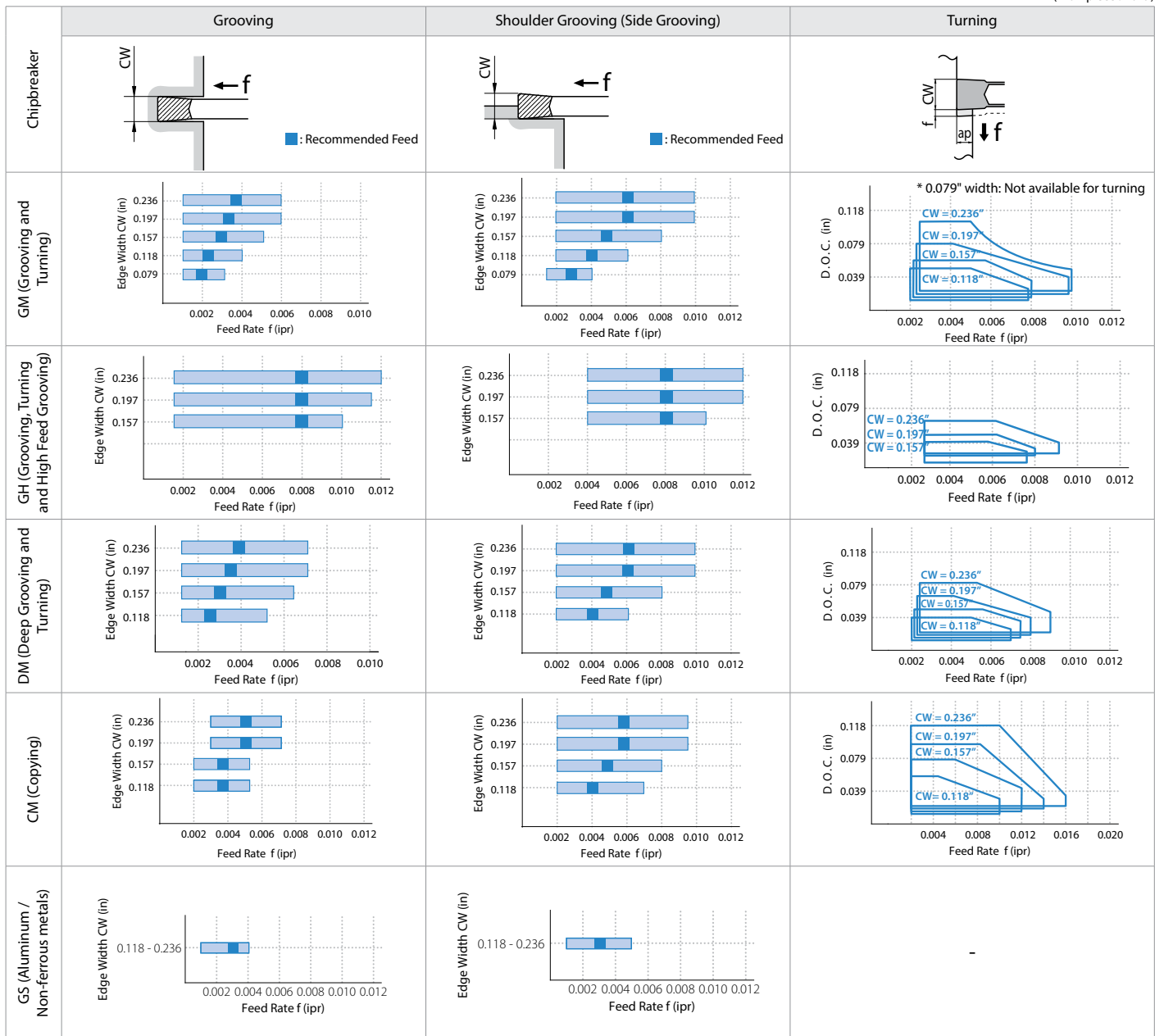
KGDF	R	2525	M	50	3	B	Z
Series	Hand of Tool	Shank Size	Toolholder Length	Min. Face Grooving Dia.	Insert Width	Grooving Depth	Toolholder Type
KGDF Face Grooving	R : Right-hand L : Left-hand	2020 : □ 20mm 2525 : □ 25mm	K : 125mm M : 150mm	50 : 50mm ∴ 115 : 115mm	3 : 3mm 4 : 4mm 5 : 5mm	B : 15mm	Z : Integral Type

Recommended Cutting Conditions (Face Grooving) ★ 1st Recommendation ☆ 2nd Recommendation

Workpiece	Recommended Insert Grade (Vc : sfm)					Notes
	Cermet		MEGACOAT		Uncoated Carbide	
	TN620	TN90	PR1225	PR1215	GW15	
Carbon Steel	☆ 200 - 660	☆ 260 - 660	★ 200 - 520	☆ 260 - 520	-	Coolant
Alloy Steel	☆ 200 - 520	☆ 230 - 520	★ 200 - 490	☆ 200 - 490	-	
Stainless Steel	-	-	★ 160 - 390	☆ 160 - 390	-	
Cast Iron	-	-	-	★ 260 - 520	-	
Aluminum Alloy	-	-	-	-	★ 520 - 1310	
Brass	-	-	-	-	★ 260 - 520	

Recommended Cutting Conditions (Feed Rate / D.O.C.)

(Workpiece : 1049)



When shouldering,
 • If D.O.C. is set smaller, set feed higher.
 • If D.O.C. is set larger, set feed lower.

1) The above values reflect a T dimension that is 0.591" (15mm) or less.

When T dimension is over 0.669" (17mm), set the values for turning to less than 90% of recommended cutting conditions above.

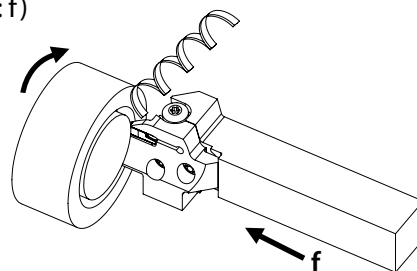
Face Grooving Guide

1 Toolholder Selection

Check the range of applicable face grooving diameter as well as the groove width and depth.

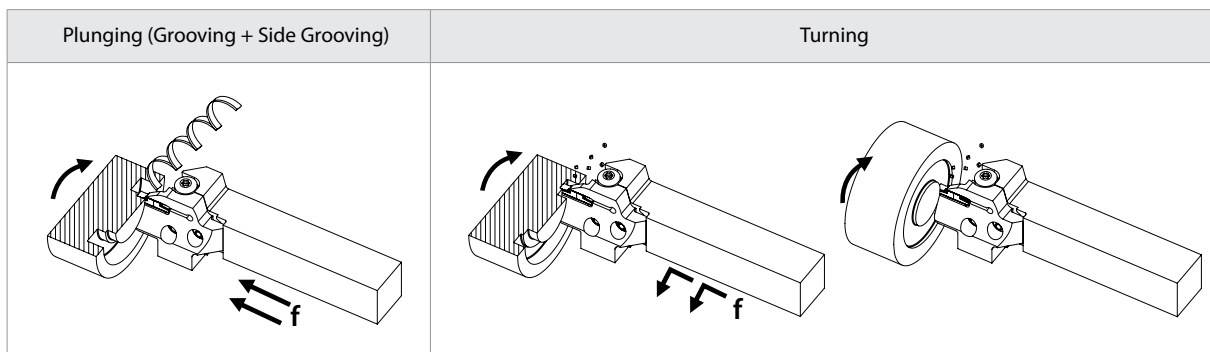
2 Cutting conditions (Feed rate : f)

When machining steel, set the feed rate (f) so that chips are created in a helical form when plunging.



3 Expanding Groove Width (Plunging and Turning)

Start machining from the outside and then proceed to the inside.
Chip control will be better in this way.



4 Guide for Turning

A. When the cutting amount (D.O.C.) is over 0.020" (0.5mm)

- (1) Use plunging
- (2) Return the cutting by 0.004" (1mm)
(Failure to pull the tool back before traverse cutting will result in an unbalanced load applied on only one side of the cutting edge.)
- (3) Perform turning (see Fig.1)

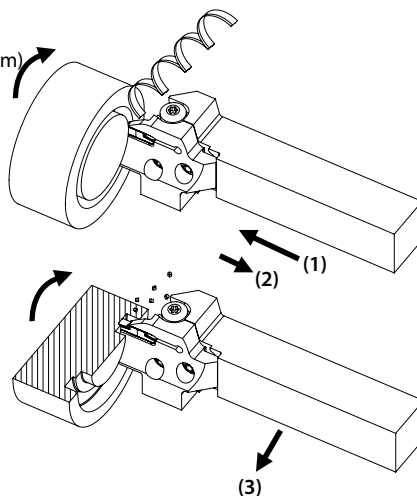


Fig.1

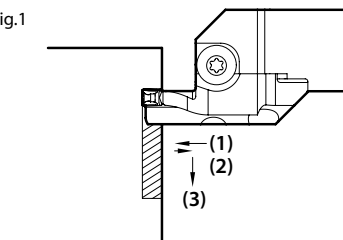
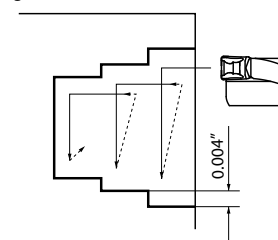


Fig.2



- When widening the face groove width (see Fig.2)
Use "Step Turning".
Then perform finishing.

B. When the cutting amount (D.O.C.) is under 0.5mm

- (1) Use Plunging
- (2) Perform turning
Machining without interruption is possible. (see Fig.3)

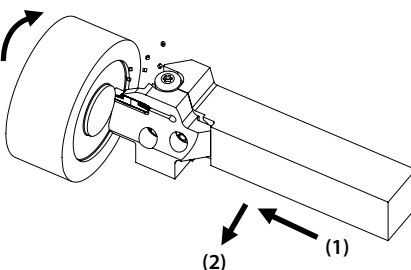
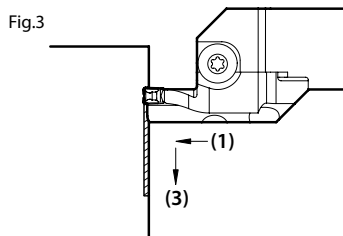


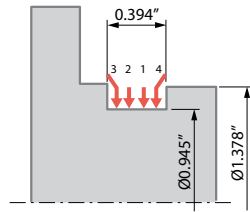
Fig.3



Case Studies

Gear 5120H (Grooving)

Vc = 370 ~ 540 sfm
f = 0.002 ipr
Wet
GDM4020N-040GM (PR1225)
KGDL2525X-3T10S



Tool Life

GM Chipbreaker
(PR1225)

1500 pcs/edge

Tool Life
6x

Competitor C
(PVD Coated Carbide)

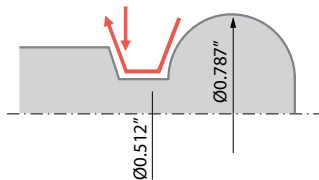
250 pcs/edge

KGD + GM chipbreaker (PR1225) improved tool life by 6 times that of Competitor C. No burned chips and good chip control.



Ball Stud 4137 (Copying)

Vc = 330 ~ 520 sfm
D.O.C. = 0.012"
f = 0.006 ~ 0.010 ipr
Wet
GDM3020N-150R-CM (PR1225)
KGDR2020X-3T10S



Tool Life

CM Chipbreaker
(PR1225)

800 pcs/edge

Tool Life
2x

Conventional A

400 pcs/edge

KGD resolved issues such as chip-biting and tangled chips due to its superior chip evacuation performance.

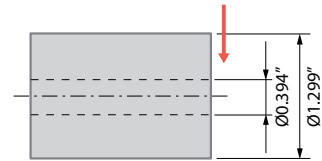
⇒ Resolved breakage of edge caused by chips.

Doubled tool life by reducing damage on the edge.

(User evaluation)

Sleeve 1045 (Cut-off)

Vc = 340 sfm
f = 0.005 ipr
Wet
GDM3020N-025PM (PR1225)
KGDL2525X-3T20S



Tool Life

PM Chipbreaker
(PR1225)

250 pcs/edge , capable of further machining

Competitor D
(PVD Coated Carbide)

250 pcs/edge , with chipping

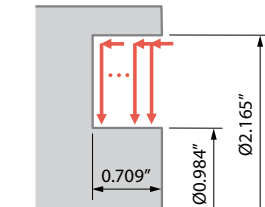
KGD + PM chipbreaker (PR1225) showed good edge condition after machining same number of workpieces as Competitor D.

Available for further machining. (Competitor D showed chipping)

(User evaluation)

Piston 4135H (Face Grooving)

Vc = 490 sfm
D.O.C. = 0.039", 0.071" (Turning)
f = 0.002 ipr (Grooving)
0.004, 0.006 ipr (Turning)
Wet
GDM4020N-040GM (PR1225)
KGDFL2525X50 - 4CS



Tool Life

GM Chipbreaker
(PR1225)

40 pcs/edge , capable of further machining

Conventional B

40 pcs/edge

KGDF + GM chipbreaker improved chip evacuation compared to Conventional B. (Resolved frequent breakage of toolholder.)

Smaller wear on the edge provided by MEGACOAT makes the tool life longer.

(Lower machining cost with longer tool life)

(User evaluation)



KYOCERA Precision Tools

238 Marc Drive
Cuyahoga Falls, OH 44223
Customer Service | 800.823.7284 - Option 1
Technical Support | 800.823.7284 - Option 2



Official Website | www.kyoceraprecisiontools.com
Distributor Website | portal.kyoceraprecisiontools.com
Email | cuttingtools@kyocerapti.com