



TopSwiss™ MBS



**Polished, Precision
Machining**

TopSwiss MBS

PRECISION INTERNAL TURNING

TopSwiss Micro Boring Solid Carbide Boring Bars & Steel Holders for Turning Small Diameter Bores



Applications



Boring



Profiling



Back Boring



Grooving



Chamfering



Threading



Face Grooving



Multi-Direction

Materials

PRIMARY

P

Steels

M

Stainless Steels

K

Cast Iron

C

Composite Materials

S

High-Temp Alloys

H

Hardened Materials

N

Non-Ferrous

Polished, Swiss & Small Parts Machining

When it comes to the precision and performance necessary to turn small diameter bores, grooves and threads, TopSwiss MBS has a versatile offering you can count on for next level internal turning.

- High performance internal turning in bores as small as $\varnothing 0.3\text{mm}$ (0.012")
- Exceptionally sharp cutting edges for best-in-class tool life and surface finishes
- Precision ground insert shanks for high accuracy and stability
- Over 1,100 standard items provide the right holder and insert for each application

Industries



Medical



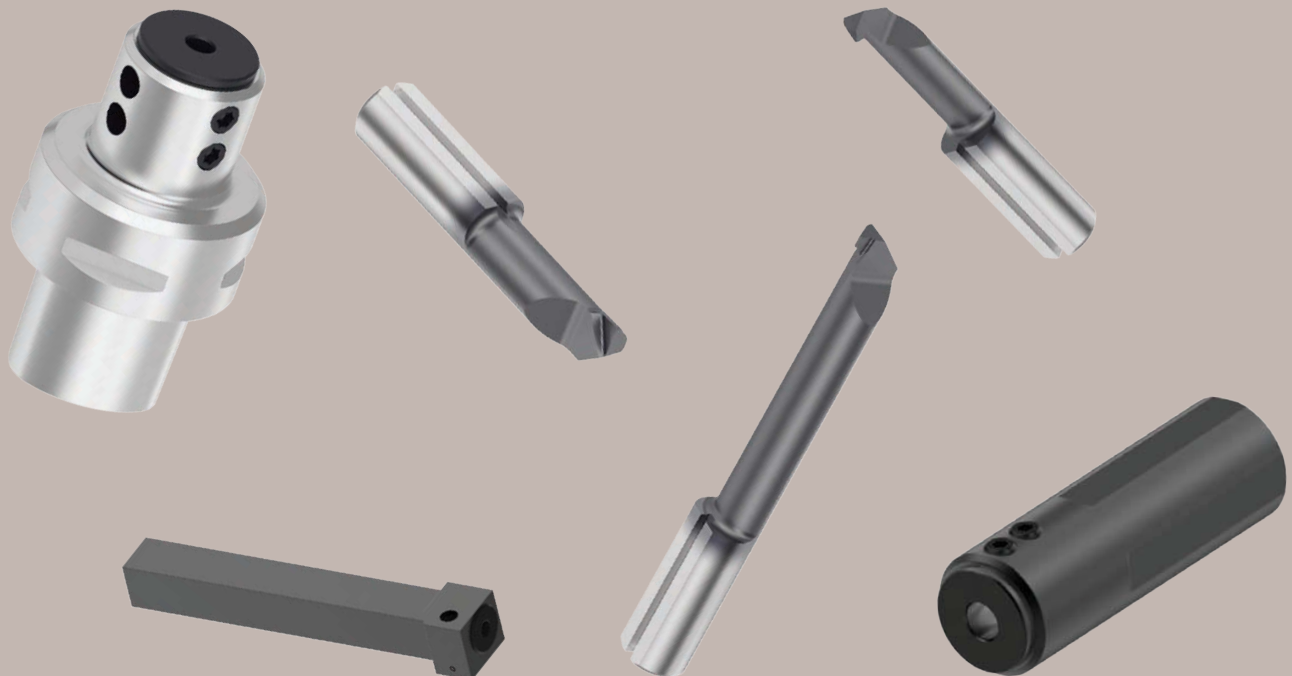
Aerospace



Automotive

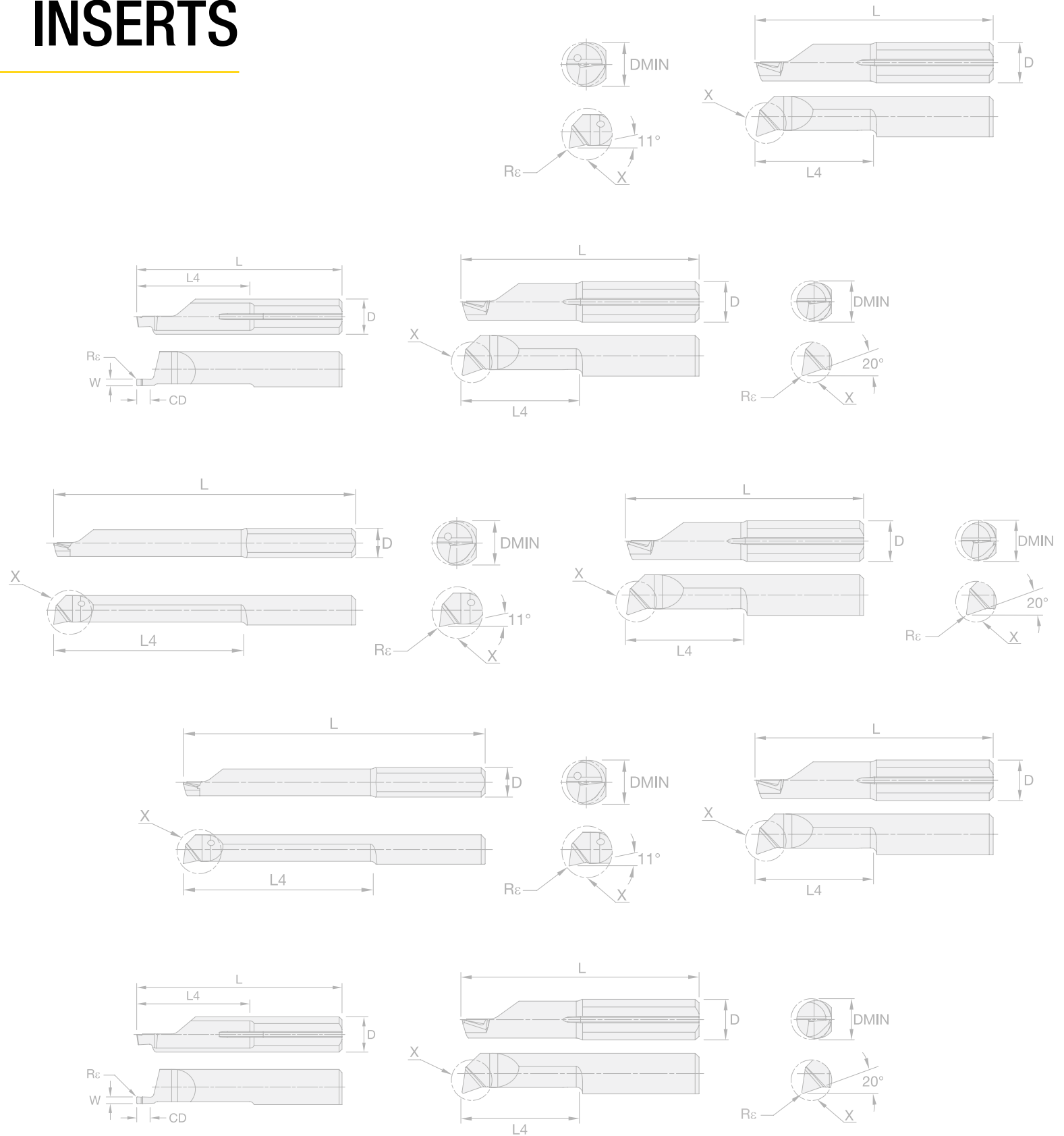


General Engineering

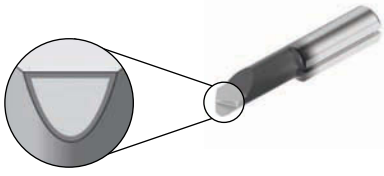


TopSwiss MBS

INSERTS



GRADES AND GRADE DESCRIPTIONS



Coatings provide high-speed capability and are engineered for roughing to finishing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials
C	CFRP Materials

Grade	Coating	Grade Description	Application Range												WET	DRY	
			Wear Resistance						Toughness								
			05	10	15	20	25	30	35	40	45	50					
KN25S		<p>*Available by request</p> <p>Composition: A hard, low binder content, unalloyed WC/Co fine-grained uncoated carbide. Application: The KN25S grade combines wear resistance with high strength for machining non-ferrous metals and non-metals. The grain structure is well controlled for minimal pits and flaws, which contributes to long, reliable service.</p>															
			N														•
KCU30S		<p>*Available by request</p> <p>Composition: A universal TiN coating over a fine-grained carbide substrate. Application: The KCU30S grade was engineered for performance and consistency across multiple materials and is ideal for general machining of steels, stainless steels and irons in low speed applications.</p>															
			P														•
			M														•
			K														•
KCN25S		<p>*Available by request</p> <p>Composition: An advanced DLC (diamond like coating) over a fine-grained carbide substrate. Application: The KCN25S grade provides high wear resistance and reduced friction, increasing tool life and improving chip flow in the machining of non-ferrous materials and composites.</p>															
			N														•

NOMENCLATURE BORING & PROFILING INSERTS



Example:
R4BPML003C01
R002 - KCSM25S

R	4	BP	ML	003	C	01	R002	-	KCSM25S
Hand	Shank Diameter	Application Area	Style (lead & relief angles)	Min Bore Size	Coolant	Machining Depth	Corner Radius	Separator	Grade
R: right hand	4: 4mm Ø	BP: boring & profiling	GA: geometry A (8° & 20°)	003: 0.3mm	C: coolant channel	01: 1mm	R000: 0.00mm (0.0000")		KCU25S
L: left hand	5: 5mm Ø	MF: multi-function	GB: geometry B (0° & 20°)	005: 0.5mm	H: coolant hole	05: 5mm	R002: 0.02mm (0.0008")		KCPM25S
	6: 6mm Ø		GC: geometry C (8° & 47°)	070: 7.0mm	D: double coolant hole	10: 10mm	R005: 0.05mm (0.002")		KCSM25S
	7: 7mm Ø		ML: medical line (8° & 11°)	160: 16.0mm		25: 25mm	R015: 0.15mm (0.006")		KCHS25S
	8: 8mm Ø		HP: high performance (6° & 7°)				R020: 0.20mm (0.008")		
			HM: hard machining (8° & 20°)				R150: 1.5mm (0.060")		
			DB: drill & bore (0° & 0°)						

NOMENCLATURE GROOVING & SPECIALIZED BORING



Example:
R4GR08003C01
R002 - KCHS25S

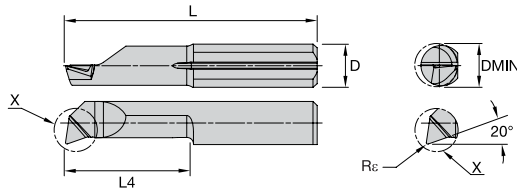
R	4	GR	08	003	C	01	R002	-	KCHS25S
Hand	Shank Diameter	Application Area	Width	Min Bore Size	Coolant	Machining Depth	Corner Radius	Separator	Grade
R: right hand	4: 4mm Ø	BB: back boring	03: 0.30mm	003: 0.3mm	C: coolant channel	01: 1mm	R000: 0.00mm (0.0000")		KCU25S
L: left hand	5: 5mm Ø	PG: pregroove	08: 0.80mm	005: 0.5mm	H: coolant hole	05: 5mm	R002: 0.02mm (0.0008")		KCPM25S
	6: 6mm Ø	BC: bore & chamfer	10: 1.00mm	070: 7.0mm	D: double coolant hole	10: 10mm	R005: 0.05mm (0.002")		KCSM25S
	7: 7mm Ø	GS: internal groove with sharp corner	20: 2.00mm	160: 16.0mm		25: 25mm	R015: 0.15mm (0.006")		KCHS25S
	8: 8mm Ø	GR: internal groove with radius corner	40: 4.00mm				R020: 0.20mm (0.008")		
		GF: internal groove with full nose radius					R150: 1.5mm (0.060")		
		FI: face groove, inboard sweep							
		FO: face groove, outboard sweep							

NOMENCLATURE THREADING



Example:
R4TPME070C01
T025 - KCU25S

R	4	TP	ME	070	C	01	T025	-	KCU25S
Hand	Shank Diameter	Application Area	Style	Min Bore Size	Coolant	Machining Depth	Pitch	Separator	Grade
R: right hand	4: 4mm Ø	TP: threading, partial profile	ME: metric ISO	003: 0.3mm	C: coolant channel	01: 1mm	T025: Metric pitch 0.25		KCU25S
L: left hand	5: 5mm Ø	TF: threading, full profile	UN: unified national	005: 0.5mm	H: coolant hole	05: 5mm	T024: UN pitch 24		KCPM25S
	6: 6mm Ø		WH: whitworth	070: 7.0mm	D: double coolant hole	10: 10mm	T016: Whitworth pitch 16		KCSM25S
	7: 7mm Ø		NP: national pipe	160: 16.0mm		25: 25mm	T018: NP pitch 18		KCHS25S
	8: 8mm Ø								
							For partial profiles		
							Indicates start of pitch range		
							T025: Metric pitch (0.25-0.3)		
							T024: UN pitch (24-28)		



APPLICATIONS



- Primary
- Secondary

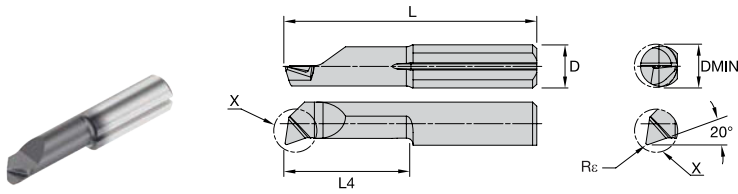
P	●
M	●
K	●
N	○
S	○
H	○

Boring & Profiling

GA

Order Number	Catalog Number	D	DMIN		L4		L		Rc		ANGLE		KCJ25S
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7219715	L4BPGA003C01R002 KCJ25S	4	0.012	0.30	0.047	1.20	0.787	20	0.001	0.02	8.0°	20°	●
7219716	L4BPGA004C01R002 KCJ25S	4	0.016	0.40	0.063	1.60	0.787	20	0.001	0.02	8.0°	20°	●
7219717	L4BPGA005C02R004 KCJ25S	4	0.020	0.50	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	●
7219718	L4BPGA006C02R004 KCJ25S	4	0.024	0.60	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	●
7219720	L4BPGA006C03R004 KCJ25S	4	0.024	0.60	0.110	2.80	0.787	20	0.002	0.04	8.0°	20°	●
7219721	L4BPGA008C04R004 KCJ25S	4	0.032	0.80	0.150	3.80	0.787	20	0.002	0.04	8.0°	20°	●
7219722	L4BPGA010C05R005 KCJ25S	4	0.039	1.00	0.177	4.50	0.787	20	0.002	0.05	8.0°	20°	●
7219723	L4BPGA010C07R005 KCJ25S	4	0.039	1.00	0.256	6.50	0.866	22	0.002	0.05	8.0°	20°	●
7219724	L4BPGA010C08R005 KCJ25S	4	0.039	1.00	0.295	7.50	0.866	22	0.002	0.05	8.0°	20°	●
7219725	L4BPGA015C05R005 KCJ25S	4	0.059	1.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219726	L4BPGA015C10R005 KCJ25S	4	0.059	1.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219727	L4BPGA015C12R005 KCJ25S	4	0.059	1.50	0.433	11.00	1.024	26	0.002	0.05	8.0°	20°	●
7219728	L4BPGA020C05R005 KCJ25S	4	0.079	2.00	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219729	L4BPGA020C10R005 KCJ25S	4	0.079	2.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219730	L4BPGA020C15R005 KCJ25S	4	0.079	2.00	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	●
7219741	L4BPGA025C05R005 KCJ25S	4	0.098	2.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219742	L4BPGA025C10R005 KCJ25S	4	0.098	2.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219743	L4BPGA025C16R005 KCJ25S	4	0.098	2.50	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7220066	L4BPGA028C10R005 KCJ25S	4	0.110	2.80	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219745	L4BPGA028C10R010 KCJ25S	4	0.110	2.80	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7220067	L4BPGA028C16R005 KCJ25S	4	0.110	2.80	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7219746	L4BPGA028C16R010 KCJ25S	4	0.110	2.80	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220068	L4BPGA028C20R005 KCJ25S	4	0.110	2.80	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219747	L4BPGA028C20R010 KCJ25S	4	0.110	2.80	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220063	L4BPGA02XC05R005 KCJ25S	4	0.083	2.10	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7220064	L4BPGA02XC10R005 KCJ25S	4	0.083	2.10	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7220065	L4BPGA02XC15R005 KCJ25S	4	0.083	2.10	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	●
7219748	L4BPGA035C10R010 KCJ25S	4	0.138	3.50	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7219749	L4BPGA035C16R010 KCJ25S	4	0.138	3.50	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7219750	L4BPGA035C20R010 KCJ25S	4	0.138	3.50	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7219751	L4BPGA035C24R010 KCJ25S	4	0.138	3.50	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220069	L4BPGA040C10R005 KCJ25S	4	0.158	4.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219752	L4BPGA040C10R010 KCJ25S	4	0.158	4.00	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7220070	L4BPGA040C16R005 KCJ25S	4	0.158	4.00	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7219753	L4BPGA040C16R010 KCJ25S	4	0.158	4.00	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220071	L4BPGA040C20R005 KCJ25S	4	0.158	4.00	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219754	L4BPGA040C20R010 KCJ25S	4	0.158	4.00	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220072	L4BPGA040C24R005 KCJ25S	4	0.158	4.00	0.906	23.00	1.496	38	0.002	0.05	8.0°	20°	●
7219755	L4BPGA040C24R010 KCJ25S	4	0.158	4.00	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220073	L4BPGA040C28R005 KCJ25S	4	0.158	4.00	1.063	27.00	1.654	42	0.002	0.05	8.0°	20°	●
7219756	L4BPGA040C28R010 KCJ25S	4	0.158	4.00	1.063	27.00	1.654	42	0.004	0.10	8.0°	20°	●
7220074	L5BPGA050C10R005 KCJ25S	5	0.197	5.00	0.354	9.00	0.984	25	0.002	0.05	8.0°	20°	●
7219757	L5BPGA050C10R015 KCJ25S	5	0.197	5.00	0.354	9.00	0.984	25	0.006	0.15	8.0°	20°	●
7220075	L5BPGA050C15R005 KCJ25S	5	0.197	5.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	●
7219758	L5BPGA050C15R015 KCJ25S	5	0.197	5.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	●
7220077	L5BPGA050C20R005 KCJ25S	5	0.197	5.00	0.748	19.00	1.378	35	0.002	0.05	8.0°	20°	●
7219759	L5BPGA050C20R015 KCJ25S	5	0.197	5.00	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	●
7220079	L5BPGA050C25R005 KCJ25S	5	0.197	5.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	●

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APPLICATIONS



● Primary
 ○ Secondary

P	●
M	●
K	○
N	○
S	○
H	○

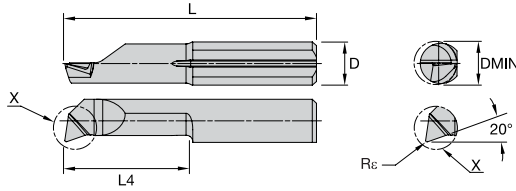
Boring & Profiling Continued

GA

Order Number	Catalog Number	D	DMIN		L4		L		Rε		ANGLE		
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7219760	L5BPGA050C25R015 KCU25S	5	0.197	5.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7220081	L5BPGA050C30R005 KCU25S	5	0.197	5.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	●
7219761	L5BPGA050C30R015 KCU25S	5	0.197	5.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7220083	L5BPGA050C35R005 KCU25S	5	0.197	5.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	●
7219762	L5BPGA050C35R015 KCU25S	5	0.197	5.00	1.339	34.00	1.969	50	0.004	0.10	8.0°	20°	●
7219763	L5BPGA050C40R015 KCU25S	5	0.197	5.00	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	●
7220085	L6BPGA060C15R005 KCU25S	6	0.236	6.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	●
7219764	L6BPGA060C15R015 KCU25S	6	0.236	6.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	●
7220087	L6BPGA060C22R005 KCU25S	6	0.236	6.00	0.827	21.00	1.457	37	0.002	0.05	8.0°	20°	●
7219765	L6BPGA060C22R015 KCU25S	6	0.236	6.00	0.827	21.00	1.457	37	0.006	0.15	8.0°	20°	●
7220089	L6BPGA060C25R005 KCU25S	6	0.236	6.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	●
7219766	L6BPGA060C25R015 KCU25S	6	0.236	6.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7220091	L6BPGA060C30R005 KCU25S	6	0.236	6.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	●
7219767	L6BPGA060C30R015 KCU25S	6	0.236	6.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7220093	L6BPGA060C35R005 KCU25S	6	0.236	6.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	●
7219769	L6BPGA060C35R015 KCU25S	6	0.236	6.00	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	●
7220095	L6BPGA060C42R005 KCU25S	6	0.236	6.00	1.614	41.00	2.244	57	0.002	0.05	8.0°	20°	●
7219770	L6BPGA060C42R015 KCU25S	6	0.236	6.00	1.614	41.00	2.244	57	0.006	0.15	8.0°	20°	●
7219771	L7BPGA068C20R015 KCU25S	7	0.268	6.80	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	●
7219772	L7BPGA068C25R015 KCU25S	7	0.268	6.80	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7219773	L7BPGA068C30R015 KCU25S	7	0.268	6.80	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7219774	L7BPGA068C35R015 KCU25S	7	0.268	6.80	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	●
7219775	L7BPGA068C40R015 KCU25S	7	0.268	6.80	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	●
7219776	L7BPGA068C45R015 KCU25S	7	0.268	6.80	1.732	44.00	2.362	60	0.006	0.15	8.0°	20°	●
7219777	L7BPGA068C50R015 KCU25S	7	0.268	6.80	1.929	49.00	2.559	65	0.006	0.15	8.0°	20°	●
7219778	L8BPGA078C50R020 KCU25S	8	0.307	7.80	1.929	49.00	2.756	70	0.008	0.20	8.0°	20°	●
7219779	L8BPGA078C60R020 KCU25S	8	0.307	7.80	2.323	59.00	3.150	80	0.008	0.20	8.0°	20°	●
7219780	R4BPGA003C01R002 KCU25S	4	0.012	0.30	0.047	1.20	0.787	20	0.001	0.02	8.0°	20°	●
7219781	R4BPGA004C01R002 KCU25S	4	0.016	0.40	0.063	1.60	0.787	20	0.001	0.02	8.0°	20°	●
7219782	R4BPGA005C02R004 KCU25S	4	0.020	0.50	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	●
7219783	R4BPGA006C02R004 KCU25S	4	0.024	0.60	0.071	1.80	0.787	20	0.002	0.04	8.0°	20°	●
7219784	R4BPGA006C03R004 KCU25S	4	0.024	0.60	0.079	2.00	0.787	20	0.002	0.04	8.0°	20°	●
7219785	R4BPGA008C04R004 KCU25S	4	0.032	0.80	0.150	3.80	0.787	20	0.002	0.04	8.0°	20°	●
7219786	R4BPGA010C05R005 KCU25S	4	0.039	1.00	0.177	4.50	0.787	20	0.002	0.05	8.0°	20°	●
7219787	R4BPGA010C07R005 KCU25S	4	0.039	1.00	0.256	6.50	0.866	22	0.002	0.05	8.0°	20°	●
7219788	R4BPGA010C08R005 KCU25S	4	0.039	1.00	0.295	7.50	0.866	22	0.002	0.05	8.0°	20°	●
7219789	R4BPGA015C05R005 KCU25S	4	0.059	1.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219790	R4BPGA015C10R005 KCU25S	4	0.059	1.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219791	R4BPGA015C12R005 KCU25S	4	0.059	1.50	0.433	11.00	1.024	26	0.002	0.05	8.0°	20°	●
7219792	R4BPGA020C05R005 KCU25S	4	0.079	2.00	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219794	R4BPGA020C10R005 KCU25S	4	0.079	2.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219795	R4BPGA020C15R005 KCU25S	4	0.079	2.00	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	●
7219796	R4BPGA025C05R005 KCU25S	4	0.098	2.50	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7219797	R4BPGA025C10R005 KCU25S	4	0.098	2.50	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219798	R4BPGA025C16R005 KCU25S	4	0.098	2.50	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7220103	R4BPGA028C10R005 KCU25S	4	0.110	2.80	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219799	R4BPGA028C10R010 KCU25S	4	0.110	2.80	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7220105	R4BPGA028C16R005 KCU25S	4	0.110	2.80	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●

Continued On Next Page

KCU25S



APPLICATIONS



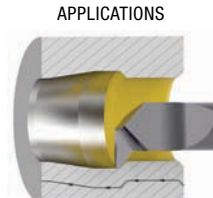
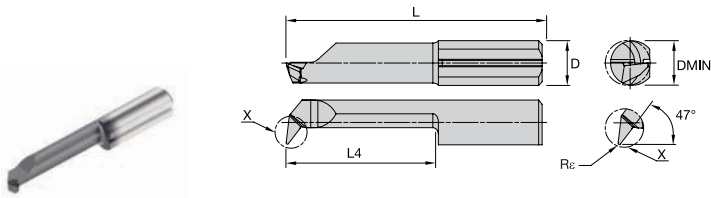
P	●
M	●
K	●
N	○
S	○
H	○

- Primary
- Secondary

Boring & Profiling Continued

GA

Order Number	Catalog Number	D	DMIN		L4		L		Rε		ANGLE		KCJ25S
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7219800	R4BPGA028C16R010 KCJ25S	4	0.110	2.80	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220107	R4BPGA028C20R005 KCJ25S	4	0.110	2.80	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219811	R4BPGA028C20R010 KCJ25S	4	0.110	2.80	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220097	R4BPGA02XC05R005 KCJ25S	4	0.079	2.00	0.177	4.50	0.748	19	0.002	0.05	8.0°	20°	●
7220099	R4BPGA02XC10R005 KCJ25S	4	0.079	2.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7220101	R4BPGA02XC15R005 KCJ25S	4	0.079	2.00	0.551	14.00	1.142	29	0.002	0.05	8.0°	20°	●
7219812	R4BPGA035C10R010 KCJ25S	4	0.138	3.50	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7219813	R4BPGA035C16R010 KCJ25S	4	0.138	3.50	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7219814	R4BPGA035C20R010 KCJ25S	4	0.138	3.50	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7219815	R4BPGA035C24R010 KCJ25S	4	0.138	3.50	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220109	R4BPGA040C10R005 KCJ25S	4	0.158	4.00	0.354	9.00	0.945	24	0.002	0.05	8.0°	20°	●
7219817	R4BPGA040C10R010 KCJ25S	4	0.158	4.00	0.354	9.00	0.945	24	0.004	0.10	8.0°	20°	●
7220111	R4BPGA040C16R005 KCJ25S	4	0.158	4.00	0.591	15.00	1.181	30	0.002	0.05	8.0°	20°	●
7219818	R4BPGA040C16R010 KCJ25S	4	0.158	4.00	0.591	15.00	1.181	30	0.004	0.10	8.0°	20°	●
7220113	R4BPGA040C20R005 KCJ25S	4	0.158	4.00	0.748	19.00	1.339	34	0.002	0.05	8.0°	20°	●
7219819	R4BPGA040C20R010 KCJ25S	4	0.158	4.00	0.748	19.00	1.339	34	0.004	0.10	8.0°	20°	●
7220115	R4BPGA040C24R005 KCJ25S	4	0.158	4.00	0.906	23.00	1.496	38	0.002	0.05	8.0°	20°	●
7219820	R4BPGA040C24R010 KCJ25S	4	0.158	4.00	0.906	23.00	1.496	38	0.004	0.10	8.0°	20°	●
7220117	R4BPGA040C28R005 KCJ25S	4	0.158	4.00	1.063	27.00	1.654	42	0.002	0.05	8.0°	20°	●
7219821	R4BPGA040C28R010 KCJ25S	4	0.158	4.00	1.063	27.00	1.654	42	0.004	0.10	8.0°	20°	●
7220119	R5BPGA050C10R005 KCJ25S	5	0.197	5.00	0.354	9.00	0.984	25	0.002	0.05	8.0°	20°	●
7219822	R5BPGA050C10R015 KCJ25S	5	0.197	5.00	0.354	9.00	0.984	25	0.006	0.15	8.0°	20°	●
7220121	R5BPGA050C15R005 KCJ25S	5	0.197	5.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	●
7219823	R5BPGA050C15R015 KCJ25S	5	0.197	5.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	●
7220123	R5BPGA050C20R005 KCJ25S	5	0.197	5.00	0.748	19.00	1.378	35	0.002	0.05	8.0°	20°	●
7219824	R5BPGA050C20R015 KCJ25S	5	0.197	5.00	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	●
7220125	R5BPGA050C25R005 KCJ25S	5	0.197	5.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	●
7219825	R5BPGA050C25R015 KCJ25S	5	0.197	5.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7220127	R5BPGA050C30R005 KCJ25S	5	0.197	5.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	●
7219826	R5BPGA050C30R015 KCJ25S	5	0.197	5.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7220129	R5BPGA050C35R005 KCJ25S	5	0.197	5.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	●
7219827	R5BPGA050C35R015 KCJ25S	5	0.197	5.00	1.339	34.00	1.969	50	0.004	0.10	8.0°	20°	●
7219828	R5BPGA050C40R015 KCJ25S	5	0.197	5.00	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	●
7220131	R6BPGA060C15R005 KCJ25S	6	0.236	6.00	0.551	14.00	1.181	30	0.002	0.05	8.0°	20°	●
7219829	R6BPGA060C15R015 KCJ25S	6	0.236	6.00	0.551	14.00	1.181	30	0.006	0.15	8.0°	20°	●
7220133	R6BPGA060C22R005 KCJ25S	6	0.236	6.00	0.827	21.00	1.457	37	0.002	0.05	8.0°	20°	●
7219830	R6BPGA060C22R015 KCJ25S	6	0.236	6.00	0.827	21.00	1.457	37	0.006	0.15	8.0°	20°	●
7220135	R6BPGA060C25R005 KCJ25S	6	0.236	6.00	0.945	24.00	1.575	40	0.002	0.05	8.0°	20°	●
7219831	R6BPGA060C25R015 KCJ25S	6	0.236	6.00	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7220137	R6BPGA060C30R005 KCJ25S	6	0.236	6.00	1.142	29.00	1.772	45	0.002	0.05	8.0°	20°	●
7219832	R6BPGA060C30R015 KCJ25S	6	0.236	6.00	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7220139	R6BPGA060C35R005 KCJ25S	6	0.236	6.00	1.339	34.00	1.969	50	0.002	0.05	8.0°	20°	●
7219833	R6BPGA060C35R015 KCJ25S	6	0.236	6.00	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	●
7220141	R6BPGA060C42R005 KCJ25S	6	0.236	6.00	1.614	41.00	2.244	57	0.002	0.05	8.0°	20°	●
7219834	R6BPGA060C42R015 KCJ25S	6	0.236	6.00	1.614	41.00	2.244	57	0.006	0.15	8.0°	20°	●
7219835	R7BPGA068C20R015 KCJ25S	7	0.268	6.80	0.748	19.00	1.378	35	0.006	0.15	8.0°	20°	●
7219836	R7BPGA068C25R015 KCJ25S	7	0.268	6.80	0.945	24.00	1.575	40	0.006	0.15	8.0°	20°	●
7219837	R7BPGA068C30R015 KCJ25S	7	0.268	6.80	1.142	29.00	1.772	45	0.006	0.15	8.0°	20°	●
7219838	R7BPGA068C35R015 KCJ25S	7	0.268	6.80	1.339	34.00	1.969	50	0.006	0.15	8.0°	20°	●
7219839	R7BPGA068C40R015 KCJ25S	7	0.268	6.80	1.535	39.00	2.165	55	0.006	0.15	8.0°	20°	●
7219840	R7BPGA068C45R015 KCJ25S	7	0.268	6.80	1.732	44.00	2.362	60	0.006	0.15	8.0°	20°	●
7219841	R7BPGA068C50R015 KCJ25S	7	0.268	6.80	1.929	49.00	2.559	65	0.006	0.15	8.0°	20°	●
7219843	R8BPGA078C50R020 KCJ25S	8	0.307	7.80	1.929	49.00	2.756	70	0.008	0.20	8.0°	20°	●
7219844	R8BPGA078C60R020 KCJ25S	8	0.307	7.80	2.323	59.00	3.150	80	0.008	0.20	8.0°	20°	●

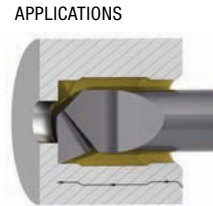
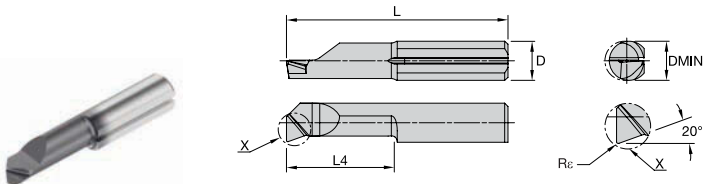


- Primary
 - Secondary
- | | | |
|---|--------|---|
| P | Blue | ● |
| M | Yellow | ● |
| K | Red | ○ |
| N | Green | ○ |
| S | Orange | ○ |
| H | Grey | ○ |

Boring & Profiling

GC

Order Number	Catalog Number	D	DMIN		L4		L		Rε		ANGLE		
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7220076	L4BPGC020C10R005 KCU25S	4	0.079	2.00	0.354	9	0.945	24	0.002	0.05	8.0°	47°	●
7220078	L4BPGC028C15R010 KCU25S	4	0.110	2.80	0.551	14	1.142	29	0.004	0.10	8.0°	47°	●
7220080	L4BPGC040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	8.0°	47°	●
7220082	L4BPGC040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8.0°	47°	●
7220084	L4BPGC040C2TR010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8.0°	47°	●
7220086	L5BPGC050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	8.0°	47°	●
7220088	L5BPGC050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	8.0°	47°	●
7220090	L5BPGC050C2TR015 KCU25S	5	0.197	5.00	0.945	24	1.181	30	0.006	0.15	8.0°	47°	●
7220092	L6BPGC060C22R015 KCU25S	6	0.236	6.00	0.827	21	1.457	37	0.006	0.15	8.0°	47°	●
7220094	L6BPGC060C30R015 KCU25S	6	0.236	6.00	1.142	29	1.772	45	0.006	0.15	8.0°	47°	●
7220096	L6BPGC060C3TR015 KCU25S	6	0.236	6.00	1.142	29	1.457	37	0.006	0.15	8.0°	47°	●
7220098	R4BPGC020C10R005 KCU25S	4	0.079	2.00	0.354	9	0.945	24	0.002	0.05	8.0°	47°	●
7220100	R4BPGC028C15R010 KCU25S	4	0.110	2.80	0.551	14	1.142	29	0.004	0.10	8.0°	47°	●
7220102	R4BPGC040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	8.0°	47°	●
7220104	R4BPGC040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8.0°	47°	●
7220106	R4BPGC040C2TR010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	8.0°	47°	●
7220108	R5BPGC050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	8.0°	47°	●
7220110	R5BPGC050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	8.0°	47°	●
7220112	R5BPGC050C2TR015 KCU25S	5	0.197	5.00	0.945	24	1.181	30	0.006	0.15	8.0°	47°	●
7220114	R6BPGC060C22R015 KCU25S	6	0.236	6.00	0.827	21	1.457	37	0.006	0.15	8.0°	47°	●
7220116	R6BPGC060C30R015 KCU25S	6	0.236	6.00	1.142	29	1.772	45	0.006	0.15	8.0°	47°	●
7220118	R6BPGC060C3TR015 KCU25S	6	0.236	6.00	1.142	29	1.457	37	0.006	0.15	8.0°	47°	●



- Primary
 - Secondary
- | | | |
|---|--------|---|
| P | Blue | ● |
| M | Yellow | ● |
| K | Red | ○ |
| N | Green | ○ |
| S | Orange | ○ |
| H | Grey | ○ |

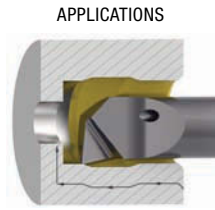
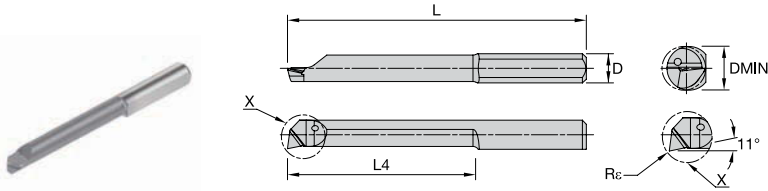
Boring & Profiling

GB

Order Number	Catalog Number	D	DMIN		L4		L		Rε		ANGLE		
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7220120	L4BPGB028C10R010 KCU25S	4	0.110	2.80	0.354	9	0.945	24	0.004	0.10	0.0°	20°	●
7220122	L4BPGB028C16R010 KCU25S	4	0.110	2.80	0.591	15	1.181	30	0.004	0.10	0.0°	20°	●
7220124	L4BPGB040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	0.0°	20°	●
7220126	L4BPGB040C16R010 KCU25S	4	0.158	4.00	0.591	15	1.181	30	0.004	0.10	0.0°	20°	●
7220128	L4BPGB040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	0.0°	20°	●
7220130	L5BPGB050C10R015 KCU25S	5	0.197	5.00	0.354	9	0.984	25	0.006	0.15	0.0°	20°	●
7220132	L5BPGB050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	0.0°	20°	●
7220134	L5BPGB050C20R015 KCU25S	5	0.197	5.00	0.748	19	1.378	35	0.006	0.15	0.0°	20°	●
7220136	L5BPGB050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	0.0°	20°	●
7220138	L6BPGB060C15R015 KCU25S	6	0.236	6.00	0.551	14	1.181	30	0.006	0.15	0.0°	20°	●
7220140	L6BPGB060C22R015 KCU25S	6	0.236	6.00	0.827	21	1.457	37	0.006	0.15	0.0°	20°	●
7220142	L6BPGB060C25R015 KCU25S	6	0.236	6.00	0.945	24	1.575	40	0.006	0.15	0.0°	20°	●
7220143	L6BPGB060C30R015 KCU25S	6	0.236	6.00	1.142	29	1.772	45	0.006	0.15	0.0°	20°	●
7220144	R4BPGB028C10R010 KCU25S	4	0.110	2.80	0.354	9	0.945	24	0.004	0.10	0.0°	20°	●
7220145	R4BPGB028C16R010 KCU25S	4	0.110	2.80	0.591	15	1.181	30	0.004	0.10	0.0°	20°	●
7220146	R4BPGB040C10R010 KCU25S	4	0.158	4.00	0.354	9	0.945	24	0.004	0.10	0.0°	20°	●
7220147	R4BPGB040C16R010 KCU25S	4	0.158	4.00	0.591	15	1.181	30	0.004	0.10	0.0°	20°	●
7220148	R4BPGB040C20R010 KCU25S	4	0.158	4.00	0.748	19	1.339	34	0.004	0.10	0.0°	20°	●
7220149	R5BPGB050C10R015 KCU25S	5	0.197	5.00	0.354	9	0.984	25	0.006	0.15	0.0°	20°	●
7220150	R5BPGB050C15R015 KCU25S	5	0.197	5.00	0.551	14	1.181	30	0.006	0.15	0.0°	20°	●
7220151	R5BPGB050C20R015 KCU25S	5	0.197	5.00	0.748	19	1.378	35	0.006	0.15	0.0°	20°	●
7220152	R5BPGB050C25R015 KCU25S	5	0.197	5.00	0.945	24	1.575	40	0.006	0.15	0.0°	20°	●

KCU25S

KCU25S



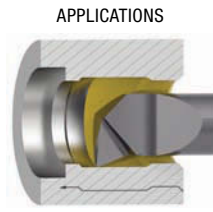
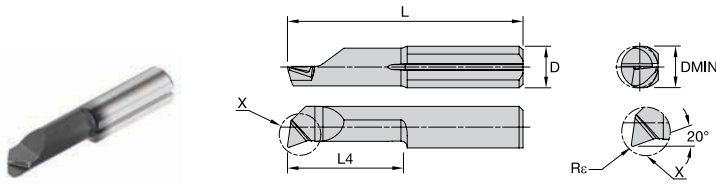
P	Blue	•
M	Yellow	•
K	Red	•
N	Green	•
S	Orange	•
H	Grey	•

- Primary
- Secondary

Boring & Profiling

ML • Medical Line

Order Number	Catalog Number	D	DMIN		L4		L		Re		ANGLE		KCSM25S
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7233060	L4BPML005H02R002 KCSM25S	4	0.020	0.50	0.079	2	0.787	20	0.001	0.02	8.0°	11°	•
7233082	L4BPML008H04R002 KCSM25S	4	0.032	0.80	0.158	4	0.787	20	0.001	0.02	8.0°	11°	•
7233083	L4BPML010H05R002 KCSM25S	4	0.039	1.00	0.197	5	0.787	20	0.001	0.02	8.0°	11°	•
7233084	L4BPML010H07R002 KCSM25S	4	0.039	1.00	0.276	7	0.866	22	0.001	0.02	8.0°	11°	•
7233085	L4BPML015H05R002 KCSM25S	4	0.059	1.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	•
7233086	L4BPML015H10R002 KCSM25S	4	0.059	1.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233087	L4BPML020H10R002 KCSM25S	4	0.079	2.00	0.197	5	0.748	19	0.001	0.02	8.0°	11°	•
7233088	L4BPML020H10R002 KCSM25S	4	0.079	2.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233089	L4BPML025H05R002 KCSM25S	4	0.098	2.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	•
7233090	L4BPML025H10R002 KCSM25S	4	0.098	2.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233091	L4BPML030H10R002 KCSM25S	4	0.118	3.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233093	L4BPML030H16R002 KCSM25S	4	0.118	3.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	•
7233094	L4BPML035H10R002 KCSM25S	4	0.138	3.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233096	L4BPML035H16R002 KCSM25S	4	0.138	3.50	0.630	16	1.181	30	0.001	0.02	8.0°	11°	•
7233097	L4BPML035H20R002 KCSM25S	4	0.138	3.50	0.787	20	1.339	34	0.001	0.02	8.0°	11°	•
7233098	L4BPML040H10R002 KCSM25S	4	0.158	4.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233099	L4BPML040H16R002 KCSM25S	4	0.158	4.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	•
7233100	L4BPML040H20R002 KCSM25S	4	0.158	4.00	0.787	20	1.339	34	0.001	0.02	8.0°	11°	•
7233101	L4BPML040H24R002 KCSM25S	4	0.158	4.00	0.945	24	1.496	38	0.001	0.02	8.0°	11°	•
7233102	R4BPML005H02R002 KCSM25S	4	0.020	0.50	0.079	2	0.787	20	0.001	0.02	8.0°	11°	•
7233103	R4BPML008H04R002 KCSM25S	4	0.032	0.80	0.158	4	0.787	20	0.001	0.02	8.0°	11°	•
7233104	R4BPML010H05R002 KCSM25S	4	0.039	1.00	0.197	5	0.787	20	0.001	0.02	8.0°	11°	•
7233105	R4BPML010H07R002 KCSM25S	4	0.039	1.00	0.276	7	0.866	22	0.001	0.02	8.0°	11°	•
7233106	R4BPML015H05R002 KCSM25S	4	0.059	1.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	•
7233107	R4BPML015H10R002 KCSM25S	4	0.059	1.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233108	R4BPML020H05R002 KCSM25S	4	0.079	2.00	0.197	5	0.748	19	0.001	0.02	8.0°	11°	•
7233109	R4BPML020H10R002 KCSM25S	4	0.079	2.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233110	R4BPML025H05R002 KCSM25S	4	0.098	2.50	0.197	5	0.748	19	0.001	0.02	8.0°	11°	•
7233111	R4BPML025H10R002 KCSM25S	4	0.098	2.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233112	R4BPML030H10R002 KCSM25S	4	0.118	3.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233113	R4BPML030H16R002 KCSM25S	4	0.118	3.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	•
7233114	R4BPML035H10R002 KCSM25S	4	0.138	3.50	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233115	R4BPML035H16R002 KCSM25S	4	0.138	3.50	0.630	16	1.181	30	0.001	0.02	8.0°	11°	•
7233116	R4BPML035H20R002 KCSM25S	4	0.138	3.50	0.787	20	1.339	34	0.001	0.02	8.0°	11°	•
7233117	R4BPML040H10R002 KCSM25S	4	0.158	4.00	0.394	10	0.945	24	0.001	0.02	8.0°	11°	•
7233119	R4BPML040H16R002 KCSM25S	4	0.158	4.00	0.630	16	1.181	30	0.001	0.02	8.0°	11°	•
7233120	R4BPML040H20R002 KCSM25S	4	0.158	4.00	0.787	20	1.339	34	0.001	0.02	8.0°	11°	•
7233131	R4BPML040H24R002 KCSM25S	4	0.158	4.00	0.945	24	1.496	38	0.001	0.02	8.0°	11°	•



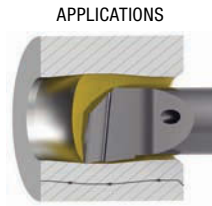
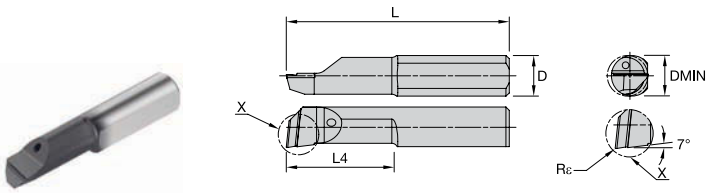
- Primary
- Secondary

P	Blue	○
M	Yellow	○
K	Red	○
N	Green	○
S	Orange	○
H	Black	○

Boring & Profiling

HM • Hardened Materials

Order Number	Catalog Number	D	DMIN		L4		L		Rε		ANGLE		KCHS25S
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7233132	L4BPHM020C05R005 KCHS25S	4	0.079	2.00	0.197	5	0.748	19	0.002	0.05	8.0°	20°	●
7233134	L4BPHM020C10R005 KCHS25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	8.0°	20°	●
7233135	L4BPHM020C15R005 KCHS25S	4	0.079	2.00	0.591	15	1.142	29	0.002	0.05	8.0°	20°	●
7233136	L4BPHM028C10R010 KCHS25S	4	0.110	2.80	0.394	10	0.945	24	0.004	0.10	8.0°	20°	●
7233137	L4BPHM028C16R010 KCHS25S	4	0.110	2.80	0.630	16	1.181	30	0.004	0.10	8.0°	20°	●
7233151	L4BPHM028C20R010 KCHS25S	4	0.110	2.80	0.787	20	1.339	34	0.004	0.10	8.0°	20°	●
7233152	L4BPHM040C10R010 KCHS25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	8.0°	20°	●
7233153	L4BPHM040C16R010 KCHS25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	8.0°	20°	●
7233154	L4BPHM040C20R010 KCHS25S	4	0.158	4.00	0.787	20	1.339	34	0.004	0.10	8.0°	20°	●
7233156	L4BPHM040C24R010 KCHS25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	8.0°	20°	●
7233157	L4BPHM040C28R010 KCHS25S	4	0.158	4.00	1.102	28	1.654	42	0.004	0.10	8.0°	20°	●
7233158	L5BPHM050C10R015 KCHS25S	5	0.197	5.00	0.394	10	0.984	25	0.006	0.15	8.0°	20°	●
7233159	L5BPHM050C15R015 KCHS25S	5	0.197	5.00	0.591	15	1.181	30	0.006	0.15	8.0°	20°	●
7233160	L5BPHM050C20R015 KCHS25S	5	0.197	5.00	0.787	20	1.378	35	0.006	0.15	8.0°	20°	●
7233161	L5BPHM050C25R015 KCHS25S	5	0.197	5.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	●
7233162	L5BPHM050C30R015 KCHS25S	5	0.197	5.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	●
7233163	L5BPHM050C35R015 KCHS25S	5	0.197	5.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	●
7233164	L6BPHM060C15R015 KCHS25S	6	0.236	6.00	0.591	15	1.181	30	0.006	0.15	8.0°	20°	●
7233165	L6BPHM060C22R015 KCHS25S	6	0.236	6.00	0.866	22	1.457	37	0.006	0.15	8.0°	20°	●
7233166	L6BPHM060C25R015 KCHS25S	6	0.236	6.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	●
7233167	L6BPHM060C30R015 KCHS25S	6	0.236	6.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	●
7233168	L6BPHM060C35R015 KCHS25S	6	0.236	6.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	●
7233169	L6BPHM060C42R015 KCHS25S	6	0.236	6.00	1.654	42	2.244	57	0.006	0.15	8.0°	20°	●
7233170	L7BPHM068C20R015 KCHS25S	7	0.268	6.80	0.787	20	1.378	35	0.006	0.15	8.0°	20°	●
7233171	L7BPHM068C25R015 KCHS25S	7	0.268	6.80	0.984	25	1.575	40	0.006	0.15	8.0°	20°	●
7233172	L7BPHM068C30R015 KCHS25S	7	0.268	6.80	1.181	30	1.772	45	0.006	0.15	8.0°	20°	●
7233173	L7BPHM068C35R015 KCHS25S	7	0.268	6.80	1.378	35	1.969	50	0.006	0.15	8.0°	20°	●
7233174	L7BPHM068C40R015 KCHS25S	7	0.268	6.80	1.575	40	2.165	55	0.006	0.15	8.0°	20°	●
7233175	L7BPHM068C45R015 KCHS25S	7	0.268	6.80	1.772	45	2.362	60	0.006	0.15	8.0°	20°	●
7233176	L7BPHM068C50R015 KCHS25S	7	0.268	6.80	1.969	50	2.559	65	0.006	0.15	8.0°	20°	●
7233177	R4BPHM020C05R005 KCHS25S	4	0.079	2.00	0.197	5	0.748	19	0.002	0.05	8.0°	20°	●
7233179	R4BPHM020C10R005 KCHS25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	8.0°	20°	●
7233180	R4BPHM020C15R005 KCHS25S	4	0.079	2.00	0.591	15	1.142	29	0.002	0.05	8.0°	20°	●
7233181	R4BPHM028C10R010 KCHS25S	4	0.110	2.80	0.394	10	0.945	24	0.004	0.10	8.0°	20°	●
7233183	R4BPHM028C16R010 KCHS25S	4	0.110	2.80	0.630	16	1.181	30	0.004	0.10	8.0°	20°	●
7233184	R4BPHM028C20R010 KCHS25S	4	0.110	2.80	0.787	20	1.339	34	0.004	0.10	8.0°	20°	●
7233185	R4BPHM040C10R010 KCHS25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	8.0°	20°	●
7233186	R4BPHM040C16R010 KCHS25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	8.0°	20°	●
7233187	R4BPHM040C20R010 KCHS25S	4	0.158	4.00	0.787	20	1.339	34	0.004	0.10	8.0°	20°	●
7233188	R4BPHM040C24R010 KCHS25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	8.0°	20°	●
7233189	R4BPHM040C28R010 KCHS25S	4	0.158	4.00	1.102	28	1.654	42	0.004	0.10	8.0°	20°	●
7233191	R5BPHM050C10R015 KCHS25S	5	0.197	5.00	0.394	10	0.984	25	0.006	0.15	8.0°	20°	●
7233192	R5BPHM050C15R015 KCHS25S	5	0.197	5.00	0.591	15	1.181	30	0.006	0.15	8.0°	20°	●
7233193	R5BPHM050C20R015 KCHS25S	5	0.197	5.00	0.787	20	1.378	35	0.006	0.15	8.0°	20°	●
7233194	R5BPHM050C25R015 KCHS25S	5	0.197	5.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	●
7233195	R5BPHM050C30R015 KCHS25S	5	0.197	5.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	●
7233196	R5BPHM050C35R015 KCHS25S	5	0.197	5.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	●
7233200	R6BPHM060C25R015 KCHS25S	6	0.236	6.00	0.984	25	1.575	40	0.006	0.15	8.0°	20°	●
7233201	R6BPHM060C30R015 KCHS25S	6	0.236	6.00	1.181	30	1.772	45	0.006	0.15	8.0°	20°	●
7233202	R6BPHM060C35R015 KCHS25S	6	0.236	6.00	1.378	35	1.969	50	0.006	0.15	8.0°	20°	●
7233203	R6BPHM060C42R015 KCHS25S	6	0.236	6.00	1.654	42	2.244	57	0.006	0.15	8.0°	20°	●
7233197	R6BPHM060C15R015 KCHS25S	6	0.236	6.00	0.590	15	1.181	30	0.006	0.15	8.0°	20°	●
7233199	R6BPHM060C22R015 KCHS25S	6	0.236	6.00	0.866	22	1.456	37	0.006	0.15	8.0°	20°	●
7233204	R7BPHM068C20R015 KCHS25S	7	0.268	6.80	0.787	20	1.378	35	0.006	0.15	8.0°	20°	●
7233205	R7BPHM068C25R015 KCHS25S	7	0.268	6.80	0.984	25	1.575	40	0.006	0.15	8.0°	20°	●
7233206	R7BPHM068C30R015 KCHS25S	7	0.268	6.80	1.181	30	1.772	45	0.006	0.15	8.0°	20°	●
7233207	R7BPHM068C35R015 KCHS25S	7	0.268	6.80	1.378	35	1.969	50	0.006	0.15	8.0°	20°	●
7233208	R7BPHM068C40R015 KCHS25S	7	0.268	6.80	1.575	40	2.165	55	0.006	0.15	8.0°	20°	●
7233209	R7BPHM068C45R015 KCHS25S	7	0.268	6.80	1.772	45	2.362	60	0.006	0.15	8.0°	20°	●
7233210	R7BPHM068C50R015 KCHS25S	7	0.268	6.80	1.969	50	2.559	65	0.006	0.15	8.0°	20°	●



P	●
M	●
K	●
N	○
S	○
H	○

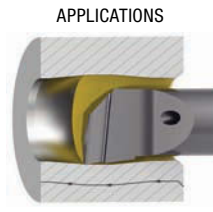
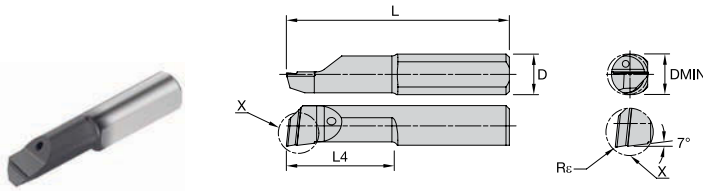
- Primary
- Secondary

Boring & Profiling

HP • High Performance

Order Number	Catalog Number	D	DMIN		L4		L		Rφ		ANGLE		Material
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7232827	L4BPHP010H05R005 KCPM25S	4	0.039	1.00	0.197	5	0.787	20	0.002	0.05	6.0°	7.0°	●
7232828	L4BPHP015H07R010 KCPM25S	4	0.059	1.50	0.276	7	0.827	21	0.004	0.10	6.0°	7.0°	●
7232829	L4BPHP020H05R015 KCPM25S	4	0.079	2.00	0.197	5	0.748	19	0.006	0.15	6.0°	7.0°	●
7232830	L4BPHP020H10R005 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232851	L4BPHP020H10R015 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.006	0.15	6.0°	7.0°	●
7232852	L4BPHP020H15R015 KCPM25S	4	0.079	2.00	0.591	15	1.142	29	0.006	0.15	6.0°	7.0°	●
7232853	L4BPHP030H16R020 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232855	L4BPHP030H10R020 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232856	L4BPHP030H16R005 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232857	L4BPHP030H16R010 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232858	L4BPHP030H16R020 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232859	L4BPHP040H10R010 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	6.0°	7.0°	●
7232860	L4BPHP040H10R020 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232861	L4BPHP040H16R005 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232862	L4BPHP040H16R010 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232863	L4BPHP040H16R020 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232864	L4BPHP040H16R040 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.016	0.40	6.0°	7.0°	●
7232865	L4BPHP040H24R010 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	6.0°	7.0°	●
7232866	L4BPHP040H24R020 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.008	0.20	6.0°	7.0°	●
7232867	L4BPHP040H24R040 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.016	0.40	6.0°	7.0°	●
7232868	L5BPHP050H15R005 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232869	L5BPHP050H15R010 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232870	L5BPHP050H15R020 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232871	L5BPHP050H15R040 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232872	L5BPHP050H25R010 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.004	0.10	6.0°	7.0°	●
7232873	L5BPHP050H25R020 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232874	L5BPHP050H30R010 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.004	0.10	6.0°	7.0°	●
7232875	L5BPHP050H30R020 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232876	L5BPHP050H30R040 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232877	L6BPHP060H15R005 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232878	L6BPHP060H15R010 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232879	L6BPHP060H15R020 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232880	L6BPHP060H15R040 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232881	L6BPHP060H22R020 KCPM25S	6	0.236	6.00	0.866	22	1.457	37	0.008	0.20	6.0°	7.0°	●
7232882	L6BPHP060H30R020 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232883	L6BPHP060H30R040 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232884	L6BPHP060H35R020 KCPM25S	6	0.236	6.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232885	L6BPHP060H42R020 KCPM25S	6	0.236	6.00	1.653	42	2.244	57	0.008	0.20	6.0°	7.0°	●
7232886	L6BPHP060H50R020 KCPM25S	6	0.236	6.00	1.968	50	2.559	65	0.008	0.20	6.0°	7.0°	●
7232887	L7BPHP070H25R020 KCPM25S	7	0.276	7.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232888	L7BPHP070H30R020 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232889	L7BPHP070H30R040 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232890	L7BPHP070H35R020 KCPM25S	7	0.276	7.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232891	L7BPHP070H40R020 KCPM25S	7	0.276	7.00	1.575	40	2.165	55	0.008	0.20	6.0°	7.0°	●
7232892	L7BPHP070H45R020 KCPM25S	7	0.276	7.00	1.772	45	2.362	60	0.008	0.20	6.0°	7.0°	●
7232893	L7BPHP070H50R020 KCPM25S	7	0.276	7.00	1.969	50	2.559	65	0.008	0.20	6.0°	7.0°	●

Continued On Next Page



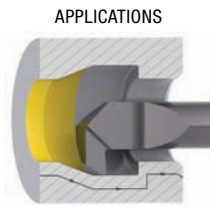
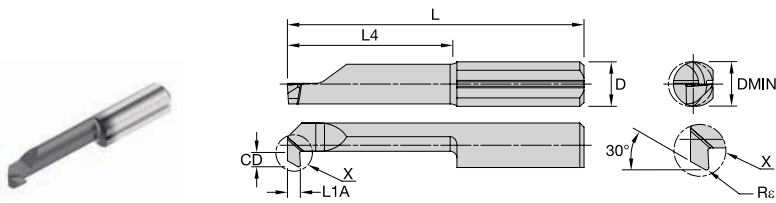
P	●	M	●	K	○	N	○	S	○	H	○
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● Primary
○ Secondary

Boring & Profiling Continued

HP • High Performance

Order Number	Catalog Number	D	DMIN		L4		L		Rε		ANGLE		KCPM25S
			in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF	
7232894	R4BPHP010H05R005 KCPM25S	4	0.039	1.00	0.197	5	0.787	20	0.002	0.05	6.0°	7.0°	●
7232895	R4BPHP015H07R010 KCPM25S	4	0.059	1.50	0.276	7	0.827	21	0.004	0.10	6.0°	7.0°	●
7232896	R4BPHP020H05R015 KCPM25S	4	0.079	2.00	0.197	5	0.748	19	0.006	0.15	6.0°	7.0°	●
7232897	R4BPHP020H10R005 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232898	R4BPHP020H10R015 KCPM25S	4	0.079	2.00	0.394	10	0.945	24	0.006	0.15	6.0°	7.0°	●
7232899	R4BPHP020H15R015 KCPM25S	4	0.079	2.00	0.591	15	1.142	29	0.006	0.15	6.0°	7.0°	●
7232900	R4BPHP030H10R005 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.002	0.05	6.0°	7.0°	●
7232911	R4BPHP030H10R020 KCPM25S	4	0.118	3.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232912	R4BPHP030H16R005 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232913	R4BPHP030H16R010 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232914	R4BPHP030H16R020 KCPM25S	4	0.118	3.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232915	R4BPHP040H10R010 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.004	0.10	6.0°	7.0°	●
7232916	R4BPHP040H10R020 KCPM25S	4	0.158	4.00	0.394	10	0.945	24	0.008	0.20	6.0°	7.0°	●
7232917	R4BPHP040H16R005 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.002	0.05	6.0°	7.0°	●
7232918	R4BPHP040H16R010 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.004	0.10	6.0°	7.0°	●
7232919	R4BPHP040H16R020 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.008	0.20	6.0°	7.0°	●
7232920	R4BPHP040H16R040 KCPM25S	4	0.158	4.00	0.630	16	1.181	30	0.016	0.40	6.0°	7.0°	●
7232921	R4BPHP040H24R010 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.004	0.10	6.0°	7.0°	●
7232922	R4BPHP040H24R020 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.008	0.20	6.0°	7.0°	●
7232923	R4BPHP040H24R040 KCPM25S	4	0.158	4.00	0.945	24	1.496	38	0.016	0.40	6.0°	7.0°	●
7232924	R5BPHP050H15R005 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232925	R5BPHP050H15R010 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232926	R5BPHP050H15R020 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232927	R5BPHP050H15R040 KCPM25S	5	0.197	5.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232928	R5BPHP050H25R010 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.004	0.10	6.0°	7.0°	●
7232929	R5BPHP050H25R020 KCPM25S	5	0.197	5.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232930	R5BPHP050H30R010 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.004	0.10	6.0°	7.0°	●
7232941	R5BPHP050H30R020 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232942	R5BPHP050H30R040 KCPM25S	5	0.197	5.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232943	R6BPHP060H15R005 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.002	0.05	6.0°	7.0°	●
7232944	R6BPHP060H15R010 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.004	0.10	6.0°	7.0°	●
7232945	R6BPHP060H15R020 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.008	0.20	6.0°	7.0°	●
7232946	R6BPHP060H15R040 KCPM25S	6	0.236	6.00	0.591	15	1.181	30	0.016	0.40	6.0°	7.0°	●
7232947	R6BPHP060H22R020 KCPM25S	6	0.236	6.00	0.866	22	1.457	37	0.008	0.20	6.0°	7.0°	●
7232948	R6BPHP060H30R020 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232949	R6BPHP060H30R040 KCPM25S	6	0.236	6.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232950	R6BPHP060H35R020 KCPM25S	6	0.236	6.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232951	R6BPHP060H42R020 KCPM25S	6	0.236	6.00	1.653	42	2.244	57	0.008	0.20	6.0°	7.0°	●
7232952	R6BPHP060H50R020 KCPM25S	6	0.236	6.00	1.968	50	2.559	65	0.008	0.20	6.0°	7.0°	●
7232953	R7BPHP070H25R020 KCPM25S	7	0.276	7.00	0.984	25	1.575	40	0.008	0.20	6.0°	7.0°	●
7232954	R7BPHP070H30R020 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.008	0.20	6.0°	7.0°	●
7232955	R7BPHP070H30R040 KCPM25S	7	0.276	7.00	1.181	30	1.772	45	0.016	0.40	6.0°	7.0°	●
7232956	R7BPHP070H35R020 KCPM25S	7	0.276	7.00	1.378	35	1.969	50	0.008	0.20	6.0°	7.0°	●
7232957	R7BPHP070H40R020 KCPM25S	7	0.276	7.00	1.575	40	2.165	55	0.008	0.20	6.0°	7.0°	●
7232958	R7BPHP070H45R020 KCPM25S	7	0.276	7.00	1.772	45	2.362	60	0.008	0.20	6.0°	7.0°	●
7232959	R7BPHP070H50R020 KCPM25S	7	0.276	7.00	1.969	50	2.559	65	0.008	0.20	6.0°	7.0°	●



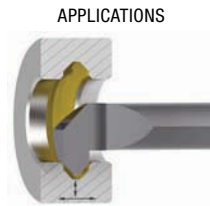
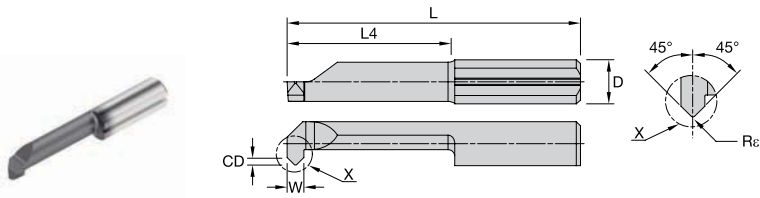
P	■	●
M	■	●
K	■	○
N	■	○
S	■	○
H	■	○

- Primary
- Secondary

Back Boring

BB

Order Number	Catalog Number	CD		D	DMIN		L4		L		Rε		W		ANGLE		
		in	mm		in	mm	in	mm	in	mm	in	mm	LEAD	RELIEF			
7221350	L4BB15030C15R010 KCU25S	0.020	0.50	4	0.118	3	1.181	30	0.532	13.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221411	L4BB15030C20R010 KCU25S	0.020	0.50	4	0.118	3	1.339	34	0.728	18.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221413	L4BB15040C15R015 KCU25S	0.031	0.80	4	0.158	4	1.181	30	0.532	13.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221414	L4BB15040C25R015 KCU25S	0.031	0.80	4	0.158	4	1.535	39	0.925	23.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221415	L5BB15050C20R020 KCU25S	0.039	1.00	5	0.197	5	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221416	L5BB15050C30R020 KCU25S	0.039	1.00	5	0.197	5	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221417	L6BB15060C20R020 KCU25S	0.071	1.80	6	0.236	6	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221418	L6BB15060C30R020 KCU25S	0.071	1.80	6	0.236	6	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221419	L7BB15070C20R020 KCU25S	0.098	2.50	7	0.276	7	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221420	L7BB15070C30R020 KCU25S	0.098	2.50	7	0.276	7	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221421	R4BB15030C15R010 KCU25S	0.020	0.50	4	0.118	3	1.181	30	0.532	13.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221422	R4BB15030C20R010 KCU25S	0.020	0.50	4	0.118	3	1.339	34	0.728	18.50	0.004	0.10	0.059	1.50	3.0°	30°	●
7221423	R4BB15040C15R015 KCU25S	0.031	0.80	4	0.158	4	1.181	30	0.532	13.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221424	R4BB15040C25R015 KCU25S	0.031	0.80	4	0.158	4	1.535	39	0.925	23.50	0.006	0.15	0.059	1.50	3.0°	30°	●
7221425	R5BB15050C20R020 KCU25S	0.039	1.00	5	0.197	5	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221426	R5BB15050C30R020 KCU25S	0.039	1.00	5	0.197	5	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221427	R6BB15060C20R020 KCU25S	0.071	1.80	6	0.236	6	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221428	R6BB15060C30R020 KCU25S	0.071	1.80	6	0.236	6	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221429	R7BB15070C20R020 KCU25S	0.098	2.50	7	0.276	7	1.378	35	0.728	18.50	0.008	0.20	0.059	1.50	3.0°	30°	●
7221430	R7BB15070C30R020 KCU25S	0.098	2.50	7	0.276	7	1.772	45	1.122	28.50	0.008	0.20	0.059	1.50	3.0°	30°	●



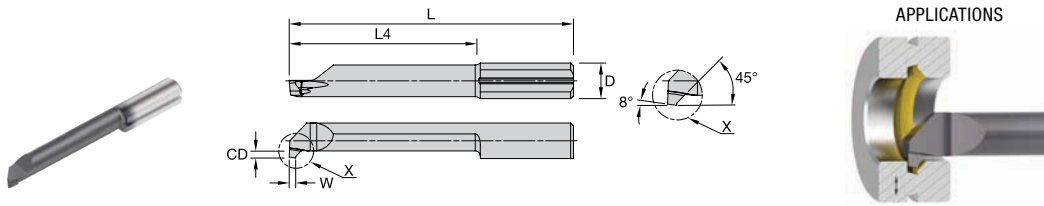
P	■	●
M	■	●
K	■	○
N	■	○
S	■	○
H	■	○

- Primary
- Secondary

Boring & Chamfering

BC

Order Number	Catalog Number	CD		DMIN	L4		L		Rε		W		ANGLE			
		in	mm		in	mm	in	mm	in	mm	LEAD	RELIEF				
7219478	L4BC12030C10R020 KCU25S	0.016	0.40	0.118	3.00	0.394	10	0.945	24	0.008	0.20	0.047	1.20	45°	45°	●
7219481	L4BC15040C16R020 KCU25S	0.020	0.50	0.158	4.00	0.630	16	1.181	30	0.008	0.20	0.059	1.50	45°	45°	●
7219483	L5BC20050C15R020 KCU25S	0.028	0.70	0.197	5.00	0.591	15	1.181	30	0.008	0.20	0.079	2.00	45°	45°	●
7219485	L5BC20050C20R020 KCU25S	0.028	0.70	0.197	5.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219487	L6BC20060C20R020 KCU25S	0.028	0.70	0.236	6.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219490	L6BC20060C25R020 KCU25S	0.028	0.70	0.236	6.00	0.984	25	1.575	40	0.008	0.20	0.079	2.00	45°	45°	●
7219492	L7BC20068C20R020 KCU25S	0.028	0.70	0.268	6.80	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219493	L7BC20068C40R020 KCU25S	0.028	0.70	0.268	6.80	1.575	40	2.165	55	0.008	0.20	0.079	2.00	45°	45°	●
7219494	R4BC12030C10R020 KCU25S	0.016	0.40	0.118	3.00	0.394	10	0.945	24	0.008	0.20	0.047	1.20	45°	45°	●
7219495	R4BC15040C16R020 KCU25S	0.020	0.50	0.158	4.00	0.630	16	1.181	30	0.008	0.20	0.059	1.50	45°	45°	●
7219496	R5BC20050C15R020 KCU25S	0.028	0.70	0.197	5.00	0.591	15	1.181	30	0.008	0.20	0.079	2.00	45°	45°	●
7219497	R5BC20050C20R020 KCU25S	0.028	0.70	0.197	5.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219498	R6BC20060C20R020 KCU25S	0.028	0.70	0.236	6.00	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219499	R6BC20060C25R020 KCU25S	0.028	0.70	0.236	6.00	0.984	25	1.575	40	0.008	0.20	0.079	2.00	45°	45°	●
7219511	R7BC20068C20R020 KCU25S	0.028	0.70	0.268	6.80	0.787	20	1.378	35	0.008	0.20	0.079	2.00	45°	45°	●
7219512	R7BC20068C40R020 KCU25S	0.028	0.70	0.268	6.80	1.575	40	2.165	55	0.008	0.20	0.079	2.00	45°	45°	●



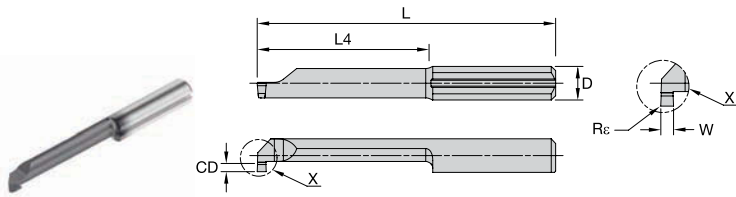
Pre-Groove PG

- Primary
- Secondary

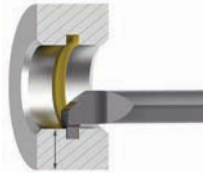
P	●
M	●
K	○
N	○
S	○
H	○

Order Number	Catalog Number	CD		D	DMIN		L4		L		W		ANGLE		
		in	mm		in	mm	in	mm	in	mm	LEAD	RELIEF			
7219513	L4PG10040C10R000 KCU25S	0.032	0.80	4	0.158	4	0.394	10	0.984	25	0.039	1	8.0°	45°	●
7219514	L4PG10040C16R000 KCU25S	0.032	0.80	4	0.158	4	0.630	16	1.181	30	0.039	1	8.0°	45°	●
7219515	L5PG10050C15R000 KCU25S	0.039	1.00	5	0.197	5	0.591	15	1.181	30	0.039	1	8.0°	45°	●
7219517	L5PG10050C20R000 KCU25S	0.039	1.00	5	0.197	5	0.787	20	1.378	35	0.039	1	8.0°	45°	●
7219518	L5PG10050C30R000 KCU25S	0.039	1.00	5	0.197	5	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219519	L6PG10060C30R000 KCU25S	0.039	1.00	6	0.236	6	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219520	L6PG10060C42R000 KCU25S	0.039	1.00	6	0.236	6	1.654	42	2.244	57	0.039	1	8.0°	45°	●
7219541	R4PG10040C10R000 KCU25S	0.032	0.80	4	0.158	4	0.394	10	0.984	25	0.039	1	8.0°	45°	●
7219542	R4PG10040C16R000 KCU25S	0.032	0.80	4	0.158	4	0.630	16	1.181	30	0.039	1	8.0°	45°	●
7219544	R5PG10050C15R000 KCU25S	0.039	1.00	5	0.197	5	0.591	15	1.181	30	0.039	1	8.0°	45°	●
7219546	R5PG10050C20R000 KCU25S	0.039	1.00	5	0.197	5	0.787	20	1.378	35	0.039	1	8.0°	45°	●
7219548	R5PG10050C30R000 KCU25S	0.039	1.00	5	0.197	5	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219550	R6PG10060C30R000 KCU25S	0.039	1.00	6	0.236	6	1.181	30	1.772	45	0.039	1	8.0°	45°	●
7219552	R6PG10060C42R000 KCU25S	0.039	1.00	6	0.236	6	1.654	42	2.244	57	0.039	1	8.0°	45°	●

KCU25S



APPLICATIONS



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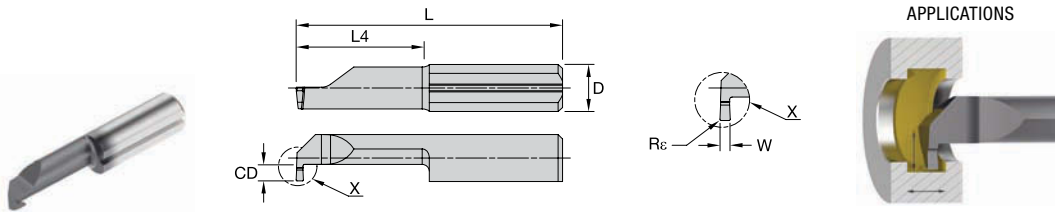
- Primary
- Secondary

Grooving

Sharp Corner • GS

Order Number	Catalog Number	CD		D	DMIN		L4		L		Re		W		Material
		in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	
7221431	L4GS03010C04R000 KCU25S	0.008	0.20	4	0.039	1	0.158	4	0.787	20	0	0	0.012	0.30	●
7221432	L4GS03010C07R000 KCU25S	0.008	0.20	4	0.039	1	0.276	7	0.866	22	0	0	0.012	0.30	●
7221433	L4GS04015C05R000 KCU25S	0.016	0.40	4	0.059	1.5	0.197	5	0.866	22	0	0	0.016	0.40	●
7221434	L4GS04015C10R000 KCU25S	0.016	0.40	4	0.059	1.5	0.394	10	0.984	25	0	0	0.016	0.40	●
7221435	L4GS04015C12R000 KCU25S	0.016	0.40	4	0.059	1.5	0.472	12	1.063	27	0	0	0.016	0.40	●
7221436	L4GS05020C05R000 KCU25S	0.016	0.40	4	0.079	2	0.197	5	0.945	24	0	0	0.020	0.50	●
7221437	L4GS05020C10R000 KCU25S	0.016	0.40	4	0.079	2	0.394	10	0.945	24	0	0	0.020	0.50	●
7221438	L4GS05020C15R000 KCU25S	0.024	0.60	4	0.079	2	0.591	15	0.748	19	0	0	0.020	0.50	●
7221443	L4GS05040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.020	0.50	●
7221444	L4GS05040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.020	0.50	●
7221445	L4GS05040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.020	0.50	●
7221439	L4GS07030C05R000 KCU25S	0.024	0.60	4	0.118	3	0.197	5	0.748	19	0	0	0.028	0.70	●
7221441	L4GS07030C10R000 KCU25S	0.024	0.60	4	0.118	3	0.394	10	0.945	24	0	0	0.028	0.70	●
7221442	L4GS07030C16R000 KCU25S	0.024	0.60	4	0.118	3	0.630	16	1.181	30	0	0	0.028	0.70	●
7221446	L4GS10040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.039	1.00	●
7221447	L4GS10040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.039	1.00	●
7221449	L4GS10040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.039	1.00	●
7221450	R4GS03010C04R000 KCU25S	0.008	0.20	4	0.039	1	0.158	4	0.787	20	0	0	0.012	0.30	●
7221451	R4GS03010C07R000 KCU25S	0.008	0.20	4	0.039	1	0.276	7	0.866	22	0	0	0.012	0.30	●
7221452	R4GS04015C05R000 KCU25S	0.016	0.40	4	0.059	1.5	0.197	5	0.866	22	0	0	0.016	0.40	●
7221453	R4GS04015C10R000 KCU25S	0.016	0.40	4	0.059	1.5	0.394	10	0.984	25	0	0	0.016	0.40	●
7221454	R4GS04015C12R000 KCU25S	0.016	0.40	4	0.059	1.5	0.472	12	1.063	27	0	0	0.016	0.40	●
7221456	R4GS05020C05R000 KCU25S	0.016	0.40	4	0.079	2	0.197	5	0.748	19	0	0	0.020	0.50	●
7221457	R4GS05020C10R000 KCU25S	0.016	0.40	4	0.079	2	0.394	10	0.945	24	0	0	0.020	0.50	●
7221458	R4GS05020C15R000 KCU25S	0.016	0.40	4	0.079	2	0.591	15	1.142	29	0	0	0.020	0.50	●
7221462	R4GS05040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.020	0.50	●
7221463	R4GS05040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.020	0.50	●
7221464	R4GS05040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.020	0.50	●
7221459	R4GS07030C05R000 KCU25S	0.024	0.60	4	0.118	3	0.197	5	0.748	19	0	0	0.028	0.70	●
7221460	R4GS07030C10R000 KCU25S	0.024	0.60	4	0.118	3	0.394	10	0.945	24	0	0	0.028	0.70	●
7221461	R4GS07030C16R000 KCU25S	0.024	0.60	4	0.118	3	0.630	16	1.181	30	0	0	0.028	0.70	●
7221465	R4GS10040C10R000 KCU25S	0.031	0.80	4	0.158	4	0.394	10	0.945	24	0	0	0.039	1.00	●
7221466	R4GS10040C16R000 KCU25S	0.031	0.80	4	0.158	4	0.630	16	1.181	30	0	0	0.039	1.00	●
7221467	R4GS10040C20R000 KCU25S	0.031	0.80	4	0.158	4	0.787	20	1.339	34	0	0	0.039	1.00	●

KCU25S



Grooving

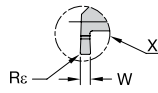
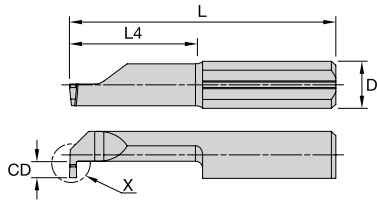
Radius Corner • GR

- Primary
- Secondary

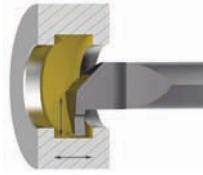
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K	○
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Order Number	Catalog Number	CD		DMIN		L4		L		Rc		W		
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
7220157	L4GR08040C20R010 KCU25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.032	0.80	●
7220158	L4GR10040C10R010 KCU25S	0.031	0.80	0.158	4.00	0.394	10	0.945	24	0.004	0.10	0.039	1.00	●
7220159	L4GR10040C16R010 KCU25S	0.031	0.80	0.158	4.00	0.630	16	1.181	30	0.004	0.10	0.039	1.00	●
7220160	L4GR10040C20R010 KCU25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.039	1.00	●
7220161	L5GR10050C15R010 KCU25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220162	L5GR10050C15R010 KCU25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220163	L5GR10050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7220164	L5GR10050C25R010 KCU25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220165	L5GR10050C30R010 KCU25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220166	L5GR15050C10R010 KCU25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220167	L5GR15050C15R010 KCU25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220168	L5GR15050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7220169	L5GR15050C25R010 KCU25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220170	L5GR15050C30R010 KCU25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220171	L5GR16050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.063	1.60	●
7220172	L5GR20050C10R010 KCU25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220173	L5GR20050C15R010 KCU25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220174	L5GR20050C20R010 KCU25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7220175	L5GR20050C25R010 KCU25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220176	L5GR20050C30R010 KCU25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220177	L6GR08060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.032	0.80	●
7220178	L6GR10060C10R010 KCU25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220179	L6GR10060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220180	L6GR10060C22R010 KCU25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220181	L6GR10060C25R010 KCU25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220182	L6GR10060C30R010 KCU25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220183	L6GR12060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.047	1.20	●
7220184	L6GR15060C10R010 KCU25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220185	L6GR15060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220186	L6GR15060C22R010 KCU25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.059	1.50	●
7220187	L6GR15060C25R010 KCU25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220188	L6GR15060C30R010 KCU25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220189	L6GR19060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.075	1.90	●
7220190	L6GR20060C10R010 KCU25S	0.071	1.80	0.236	6.00	0.394	10	1.181	30	0.004	0.10	0.079	2.00	●
7220191	L6GR20060C15R010 KCU25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220192	L6GR20060C22R010 KCU25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.079	2.00	●
7220193	L6GR20060C25R010 KCU25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220194	L6GR20060C30R010 KCU25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220195	L7GR10068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220196	L7GR10068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220197	L7GR10068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220198	L7GR10068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220199	L7GR10068C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220200	L7GR12068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.047	1.20	●
7220201	L7GR12068C22R010 KCU25S	0.098	2.50	0.2677	6.80	0.866	22	1.457	37	0.004	0.10	0.047	1.20	●
7220202	L7GR15068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220203	L7GR15068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220204	L7GR15068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.059	1.50	●
7220205	L7GR15068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220206	L7GR15068C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220207	L7GR16068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.063	1.60	●
7220208	L7GR16068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.063	1.60	●
7220209	L7GR19068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.075	1.90	●
7220210	L7GR20068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220211	L7GR20068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●

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APPLICATIONS



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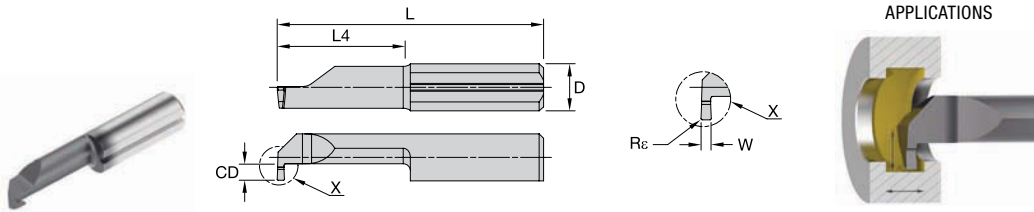
- Primary
- Secondary

Grooving Continued

Radius Corner • GR

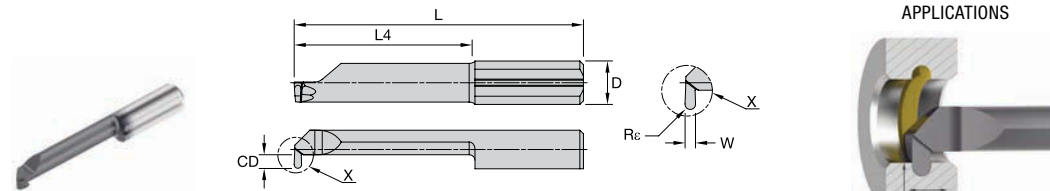
Order Number	Catalog Number	CD		DMIN		L4		L		Rc		W		KCJ25S
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
7220212	L7GR20068C22R010 KCJ25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.079	2.00	●
7220213	L7GR20068C25R010 KCJ25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220214	L7GR20068C30R010 KCJ25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220215	L8GR10078C30R010 KCJ25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.039	1.00	●
7220216	L8GR10078C40R010 KCJ25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.039	1.00	●
7220217	L8GR20078C30R010 KCJ25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.079	2.00	●
7220218	L8GR20078C40R010 KCJ25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.079	2.00	●
7220219	L8GR25078C30R010 KCJ25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.098	2.50	●
7220220	L8GR25078C40R010 KCJ25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.098	2.50	●
7220221	R4GR08040C20R010 KCJ25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.032	0.80	●
7220222	R4GR10040C10R010 KCJ25S	0.031	0.80	0.158	4.00	0.394	10	0.945	24	0.004	0.10	0.039	1.00	●
7220223	R4GR10040C16R010 KCJ25S	0.031	0.80	0.158	4.00	0.630	16	1.181	30	0.004	0.10	0.039	1.00	●
7220224	R4GR10040C20R010 KCJ25S	0.031	0.80	0.158	4.00	0.787	20	1.339	34	0.004	0.10	0.039	1.00	●
7220226	R5GR10050C15R010 KCJ25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220227	R5GR10050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7220225	R5GR10050C10R010 KCJ25S	0.000	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220228	R5GR10050C25R010 KCJ25S	0.000	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220229	R5GR10050C30R010 KCJ25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220230	R5GR15050C10R010 KCJ25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220231	R5GR15050C15R010 KCJ25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220232	R5GR15050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7220233	R5GR15050C25R010 KCJ25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220234	R5GR15050C30R010 KCJ25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220235	R5GR16050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.063	1.60	●
7220236	R5GR20050C10R010 KCJ25S	0.039	1.00	0.197	5.00	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220237	R5GR20050C15R010 KCJ25S	0.039	1.00	0.197	5.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220238	R5GR20050C20R010 KCJ25S	0.039	1.00	0.197	5.00	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7220239	R5GR20050C25R010 KCJ25S	0.039	1.00	0.197	5.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220240	R5GR20050C30R010 KCJ25S	0.039	1.00	0.197	5.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220241	R6GR08060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.032	0.80	●
7220242	R6GR10060C10R010 KCJ25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220243	R6GR10060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220244	R6GR10060C22R010 KCJ25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220245	R6GR10060C25R010 KCJ25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220246	R6GR10060C30R010 KCJ25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220247	R6GR12060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.047	1.20	●
7220248	R6GR15060C10R010 KCJ25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●
7220249	R6GR15060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.059	1.50	●
7220250	R6GR15060C22R010 KCJ25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.059	1.50	●
7220251	R6GR15060C25R010 KCJ25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.059	1.50	●
7220252	R6GR15060C30R010 KCJ25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220253	R6GR19060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.075	1.90	●
7220254	R6GR20060C10R010 KCJ25S	0.071	1.80	0.236	6.00	0.394	10	0.984	25	0.004	0.10	0.079	2.00	●
7220255	R6GR20060C15R010 KCJ25S	0.071	1.80	0.236	6.00	0.591	15	1.181	30	0.004	0.10	0.079	2.00	●
7220256	R6GR20060C22R010 KCJ25S	0.071	1.80	0.236	6.00	0.866	22	1.457	37	0.004	0.10	0.079	2.00	●
7220257	R6GR20060C25R010 KCJ25S	0.071	1.80	0.236	6.00	0.984	25	1.575	40	0.004	0.10	0.079	2.00	●
7220258	R6GR20060C30R010 KCJ25S	0.071	1.80	0.236	6.00	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220259	R7GR10068C10R010 KCJ25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.039	1.00	●
7220260	R7GR10068C15R010 KCJ25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.039	1.00	●
7220261	R7GR10068C22R010 KCJ25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.039	1.00	●
7220262	R7GR10068C25R010 KCJ25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.039	1.00	●
7220263	R7GR10068C30R010 KCJ25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220264	R7GR12068C10R010 KCJ25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.047	1.20	●
7220265	R7GR12068C22R010 KCJ25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.047	1.20	●
7220266	R7GR15068C10R010 KCJ25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.059	1.50	●

Continued On Next Page



Grooving Continued Radius Corner • GR

Order Number	Catalog Number	CD		DMIN		L4		L		R _c		W		
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
7220267	R7GR15068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.059	1.50	•
7220268	R7GR15068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.059	1.50	•
7220269	R7GR15068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.059	1.50	•
7220270	R7GR15068C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.059	1.50	•
7220271	R7GR16068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.063	1.60	•
7220272	R7GR16068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.063	1.60	•
7220273	R7GR19068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.075	1.90	•
7220274	R7GR20068C10R010 KCU25S	0.098	2.50	0.268	6.80	0.394	10	0.984	25	0.004	0.10	0.079	2.00	•
7220275	R7GR20068C15R010 KCU25S	0.098	2.50	0.268	6.80	0.591	15	1.181	30	0.004	0.10	0.079	2.00	•
7220276	R7GR20068C22R010 KCU25S	0.098	2.50	0.268	6.80	0.866	22	1.457	37	0.004	0.10	0.079	2.00	•
7220277	R7GR20068C25R010 KCU25S	0.098	2.50	0.268	6.80	0.984	25	1.575	40	0.004	0.10	0.079	2.00	•
7220278	R7GR20068C30R010 KCU25S	0.098	2.50	0.268	6.80	1.181	30	1.772	45	0.004	0.10	0.079	2.00	•
7220279	R8GR10078C30R010 KCU25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.039	1.00	•
7220280	R8GR10078C40R010 KCU25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.039	1.00	•
7220281	R8GR20078C30R010 KCU25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.079	2.00	•
7220282	R8GR20078C40R010 KCU25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.079	2.00	•
7220283	R8GR25078C30R010 KCU25S	0.118	3.00	0.307	7.80	1.181	30	1.969	50	0.004	0.10	0.098	2.50	•
7220284	R8GR25078C40R010 KCU25S	0.118	3.00	0.307	7.80	1.575	40	2.362	60	0.004	0.10	0.098	2.50	•



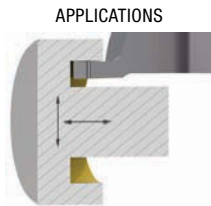
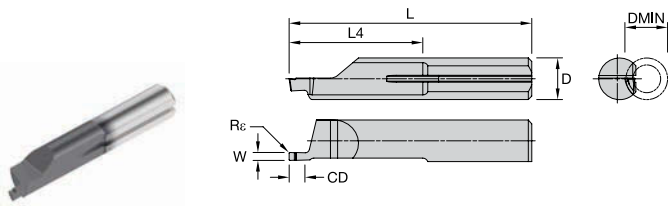
Grooving Full Nose Radius • GF

Order Number	Catalog Number	CD		D	DMIN		L4		L		R _c		W		
		in	mm		in	mm	in	mm	in	mm	in	mm			
7219543	L4GF10040C16R050 KCU25S	0.031	0.80	4	0.158	4.00	0.591	15	1.181	30	0.020	0.50	0.039	1.00	•
7219545	L5GF10050C20R050 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.020	0.50	0.039	1.00	•
7219547	L5GF15050C20R075 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.030	0.75	0.059	1.50	•
7219549	L5GF20050C20R100 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.039	1.00	0.079	2.00	•
7219551	L6GF10060C25R050 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.020	0.50	0.039	1.00	•
7219553	L6GF15060C25R075 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.030	0.75	0.059	1.50	•
7219554	L6GF20060C25R100 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.039	1.00	0.079	2.00	•
7219555	L7GF10068C30R050 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.020	0.50	0.039	1.00	•
7219556	L7GF15068C30R075 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.030	0.75	0.059	1.50	•
7219557	L7GF20068C30R100 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.039	1.00	0.079	2.00	•
7219558	R4GF10040C16R050 KCU25S	0.031	0.80	4	0.158	4.00	0.591	15	1.181	30	0.020	0.50	0.039	1.00	•
7219559	R5GF10050C20R050 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.020	0.50	0.039	1.00	•
7219560	R5GF15050C20R075 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.030	0.75	0.059	1.50	•
7219561	R5GF20050C20R100 KCU25S	0.039	1.00	5	0.197	5.00	0.748	19	1.378	35	0.039	1.00	0.079	2.00	•
7219562	R6GF10060C25R050 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.020	0.50	0.039	1.00	•
7219564	R6GF15060C25R075 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.030	0.75	0.059	1.50	•
7219566	R6GF20060C25R100 KCU25S	0.071	1.80	6	0.236	6.00	0.945	24	1.575	40	0.039	1.00	0.079	2.00	•
7219568	R7GF10068C30R050 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.020	0.50	0.039	1.00	•
7219570	R7GF15068C30R075 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.030	0.75	0.059	1.50	•
7219572	R7GF20068C30R100 KCU25S	0.098	2.50	7	0.268	6.80	1.142	29	1.772	45	0.039	1.00	0.079	2.00	•

- P ■ ●
 - M ■ ●
 - K ■ ●
 - N ■ ●
 - S ■ ●
 - H ■ ●
- Primary
○ Secondary

KCU25S

KCU25S



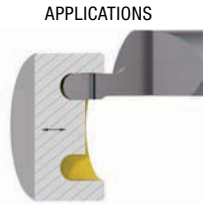
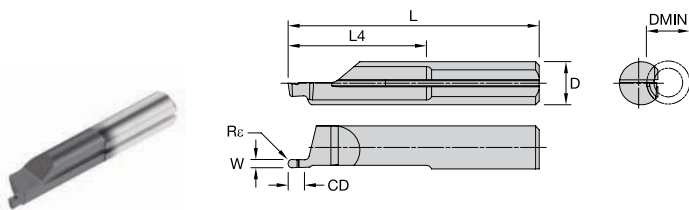
P	●
M	●
K	○
N	○
S	○
H	○

- Primary
- Secondary

Face Grooving

Outboard Sweep • F0 • Radius Corner

Order Number	Catalog Number	CD		D	DMIN		L4		L		Rε		W		
		in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	
7219342	L6F010060C20R010 KCU25S	0.079	2	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.039	1.00	●
7219343	L6F015060C20R010 KCU25S	0.118	3	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.059	1.50	●
7219344	L6F020060C20R010 KCU25S	0.157	4	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.079	2.00	●
7219345	L6F025060C20R010 KCU25S	0.197	5	6	0.236	6	0.768	19.50	1.378	35	0.004	0.10	0.098	2.50	●
7219346	L6F030060C20R010 KCU25S	0.236	6	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.118	3.00	●
7219347	R6F010060C20R010 KCU25S	0.079	2	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.039	1.00	●
7219348	R6F015060C20R010 KCU25S	0.118	3	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.059	1.50	●
7219349	R6F020060C20R010 KCU25S	0.157	4	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.079	2.00	●
7219350	R6F025060C20R010 KCU25S	0.197	5	6	0.236	6	0.768	19.50	1.378	35	0.004	0.10	0.098	2.50	●
7219431	R6F030060C20R010 KCU25S	0.236	6	6	0.236	6	0.748	19.00	1.378	35	0.004	0.10	0.118	3.00	●



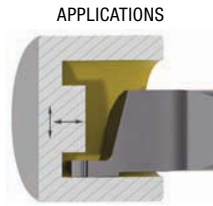
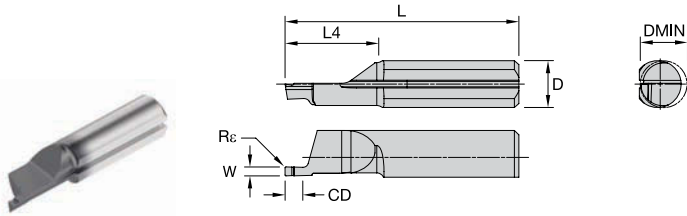
P	●
M	●
K	○
N	○
S	○
H	○

- Primary
- Secondary

Face Grooving

Outboard Sweep • F0 • Full Nose Radius

Order Number	Catalog Number	CD		D	DMIN		L4		L		Rε		W		
		in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	
7219432	L6F010060C20R050 KCU25S	0.079	2	6	0.236	6	0.748	19	1.378	35	0.020	0.50	0.039	1.00	●
7219433	L6F016060C20R080 KCU25S	0.118	3	6	0.236	6	0.748	19	1.378	35	0.032	0.80	0.063	1.60	●
7219434	L6F020060C20R100 KCU25S	0.157	4	6	0.236	6	0.748	19	1.378	35	0.039	1.00	0.079	2.00	●
7219436	L6F025060C20R125 KCU25S	0.197	5	6	0.236	6	0.748	19	1.378	35	0.049	1.25	0.098	2.50	●
7219438	L6F030060C20R150 KCU25S	0.236	6	6	0.236	6	0.748	19	1.378	35	0.059	1.50	0.118	3.00	●
7219440	R6F010060C20R050 KCU25S	0.079	2	6	0.236	6	0.748	19	1.378	35	0.020	0.50	0.039	1.00	●
7219452	R6F016060C20R080 KCU25S	0.118	3	6	0.236	6	0.748	19	1.378	35	0.032	0.80	0.063	1.60	●
7219454	R6F020060C20R100 KCU25S	0.157	4	6	0.236	6	0.748	19	1.378	35	0.039	1.00	0.079	2.00	●
7219456	R6F025060C20R125 KCU25S	0.197	5	6	0.236	6	0.748	19	1.378	35	0.049	1.25	0.098	2.50	●
7219458	R6F030060C20R150 KCU25S	0.236	6	6	0.236	6	0.748	19	1.378	35	0.059	1.50	0.118	3.00	●



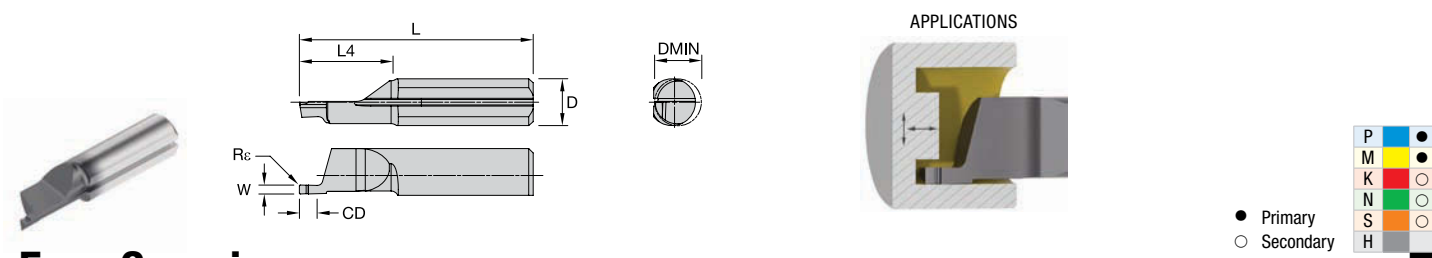
- Primary
 - Secondary
- | | |
|---|---|
| P | ● |
| M | ● |
| K | ○ |
| N | ○ |
| S | ○ |
| H | ○ |

Face Grooving

Inboard Sweep • FI • Radius Corner

Order Number	Catalog Number	CD		D	DMIN		L4		L		Rc		W		
		in	mm		in	mm	in	mm	in	mm	in	mm			
7220799	L5FI05050C11R005 KCU25S	0.039	1	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.020	0.50	●
7220800	L5FI08050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.032	0.80	●
7220951	L5FI10050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.039	1.00	●
7220954	L5FI10050C20R005 KCU25S	0.079	2	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.039	1.00	●
7220952	L5FI15050C11R005 KCU25S	0.118	3	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.059	1.50	●
7220955	L5FI15050C20R005 KCU25S	0.118	3	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.059	1.50	●
7220953	L5FI20050C11R005 KCU25S	0.157	4	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.079	2.00	●
7220956	L5FI20050C20R005 KCU25S	0.157	4	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.079	2.00	●
7220957	L6FI10060C11R010 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7220962	L6FI10060C20R010 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7220967	L6FI10060C30R010 KCU25S	0.079	2	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220958	L6FI15060C11R010 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7220963	L6FI15060C20R010 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7220968	L6FI15060C30R010 KCU25S	0.118	3	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220959	L6FI20060C11R010 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7220964	L6FI20060C20R010 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7220969	L6FI20060C30R010 KCU25S	0.157	4	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220960	L6FI25060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7220965	L6FI25060C20R010 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.098	2.50	●
7220970	L6FI25060C30R010 KCU25S	0.197	5	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.098	2.50	●
7220961	L6FI30060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●
7220966	L6FI30060C20R010 KCU25S	0.197	5	6	0.236	6	0.787	20	1.024	26	0.004	0.10	0.118	3.00	●
7220981	L6FI30060C30R010 KCU25S	0.236	6	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.118	3.00	●
7221005	L7FI10080C11R010 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7221011	L7FI10080C20R010 KCU25S	0.079	2	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7221006	L7FI15080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7221012	L7FI15080C20R010 KCU25S	0.118	3	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7221007	L7FI16080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.063	1.60	●
7221008	L7FI20080C11R010 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7221013	L7FI20080C20R010 KCU25S	0.157	4	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7221014	L7FI24080C20R010 KCU25S	0.197	5	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.095	2.40	●
7221009	L7FI25080C11R010 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7221015	L7FI25080C20R010 KCU25S	0.197	5	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.098	2.50	●
7221010	L7FI30080C11R010 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●
7221016	L7FI30080C20R010 KCU25S	0.236	6	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.118	3.00	●
7220982	R5FI05050C11R005 KCU25S	0.039	1	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.020	0.50	●
7220983	R5FI08050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.032	0.80	●
7220984	R5FI10050C11R005 KCU25S	0.079	2	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.039	1.00	●
7220987	R5FI10050C20R005 KCU25S	0.079	2	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.039	1.00	●
7220985	R5FI15050C11R005 KCU25S	0.118	3	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.059	1.50	●
7220988	R5FI15050C20R005 KCU25S	0.118	3	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.059	1.50	●
7220986	R5FI20050C11R005 KCU25S	0.157	4	5	0.197	5	0.433	11	1.024	26	0.002	0.05	0.079	2.00	●
7220989	R5FI20050C20R005 KCU25S	0.157	4	5	0.197	5	0.787	20	1.378	35	0.002	0.05	0.079	2.00	●
7220990	R6FI10060C11R010 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7220995	R6FI10060C20R010 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7221000	R6FI10060C30R010 KCU25S	0.079	2	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.039	1.00	●
7220991	R6FI15060C11R010 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7220996	R6FI15060C20R010 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●
7221001	R6FI15060C30R010 KCU25S	0.118	3	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.059	1.50	●
7220992	R6FI20060C11R010 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.079	2.00	●
7220997	R6FI20060C20R010 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.079	2.00	●
7221002	R6FI20060C30R010 KCU25S	0.157	4	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.079	2.00	●
7220993	R6FI25060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.098	2.50	●
7220998	R6FI25060C20R010 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.098	2.50	●
7221003	R6FI25060C30R010 KCU25S	0.197	5	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.098	2.50	●
7220994	R6FI30060C11R010 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.004	0.10	0.118	3.00	●
7220999	R6FI30060C20R010 KCU25S	0.236	6	6	0.236	6	0.787	20	1.378	35	0.004	0.10	0.118	3.00	●
7221004	R6FI30060C30R010 KCU25S	0.236	6	6	0.236	6	1.181	30	1.772	45	0.004	0.10	0.118	3.00	●
7221017	R7FI10080C11R010 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.039	1.00	●
7221023	R7FI10080C20R010 KCU25S	0.079	2	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.039	1.00	●
7221018	R7FI15080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.059	1.50	●
7221024	R7FI15080C20R010 KCU25S	0.118	3	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.059	1.50	●

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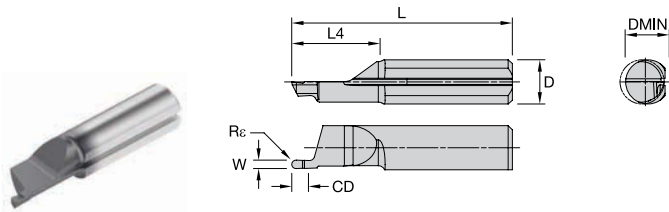


Face Grooving Continued

Inboard Sweep • FI • Radius Corner

KCU25S

Order Number	Catalog Number	CD		D	DMIN		L4		L		Rε		W		
		in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	
7221019	R7FI16080C11R010 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.063	1.60	•
7221020	R7FI20080C11R010 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.079	2.00	•
7221025	R7FI20080C20R010 KCU25S	0.157	4	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.079	2.00	•
7221026	R7FI24080C20R010 KCU25S	0.197	5	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.095	2.40	•
7221021	R7FI25080C11R010 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.098	2.50	•
7221027	R7FI25080C20R010 KCU25S	0.197	5	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.098	2.50	•
7221022	R7FI30080C11R010 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.004	0.10	0.118	3.00	•
7221028	R7FI30080C20R010 KCU25S	0.236	6	7	0.315	8	0.787	20	1.378	35	0.004	0.10	0.118	3.00	•



APPLICATIONS



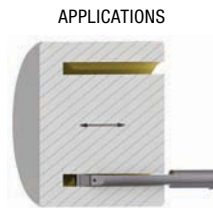
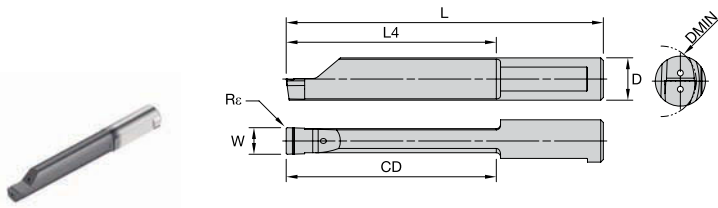
- P
 - M
 - K
 - N
 - S
 - H
- Primary
 - Secondary

Face Grooving

Inboard Sweep • FI • Full Nose Radius

Order Number	Catalog Number	CD		D	D _{MIN}		L4		L		R _c		W		
		in	mm		in	mm	in	mm	in	mm	in	mm			
7221031	L6FI10060C11R050 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221032	L6FI16060C11R080 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221033	L6FI20060C11R100 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221034	L6FI25060C11R125 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221035	L6FI30060C11R150 KCU25S	0.236	6	6	0.236	6	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221036	L6FI10060C20R050 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.020	0.50	0.039	1.00	●
7221037	L6FI16060C20R080 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.032	0.80	0.063	1.60	●
7221038	L6FI20060C20R100 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.039	1.00	0.079	2.00	●
7221039	L6FI25060C20R125 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.049	1.25	0.098	2.50	●
7221040	L6FI30060C20R150 KCU25S	0.236	6	6	0.236	6	0.787	20	1.378	35	0.059	1.50	0.118	3.00	●
7221061	L7FI10080C11R050 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221062	L7FI15080C11R078 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.031	0.78	0.059	1.50	●
7221063	L7FI16080C11R080 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221064	L7FI19080C11R099 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	0.99	0.075	1.90	●
7221065	L7FI20080C11R100 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221066	L7FI25080C11R125 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221067	L7FI30080C11R150 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221068	L7FI10080C22R050 KCU25S	0.079	2	7	0.315	8	0.866	22	1.378	35	0.020	0.50	0.039	1.00	●
7221069	L7FI16080C22R080 KCU25S	0.118	3	7	0.315	8	0.866	22	1.378	35	0.032	0.80	0.063	1.60	●
7221070	L7FI20080C22R100 KCU25S	0.157	4	7	0.315	8	0.866	22	1.378	35	0.039	1.00	0.079	2.00	●
7221091	L7FI25080C22R125 KCU25S	0.197	5	7	0.315	8	0.866	22	1.378	35	0.049	1.25	0.098	2.50	●
7221092	L7FI30080C22R150 KCU25S	0.236	6	7	0.315	8	0.866	22	1.378	35	0.059	1.50	0.118	3.00	●
7221041	R6FI10060C11R050 KCU25S	0.079	2	6	0.236	6	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221042	R6FI16060C11R080 KCU25S	0.118	3	6	0.236	6	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221043	R6FI20060C11R100 KCU25S	0.157	4	6	0.236	6	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221044	R6FI25060C11R125 KCU25S	0.197	5	6	0.236	6	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221045	R6FI30060C11R150 KCU25S	0.236	6	6	0.236	6	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221046	R6FI10060C20R050 KCU25S	0.079	2	6	0.236	6	0.787	20	1.378	35	0.020	0.50	0.039	1.00	●
7221047	R6FI16060C20R080 KCU25S	0.118	3	6	0.236	6	0.787	20	1.378	35	0.032	0.80	0.063	1.60	●
7221048	R6FI20060C20R100 KCU25S	0.157	4	6	0.236	6	0.787	20	1.378	35	0.039	1.00	0.079	2.00	●
7221049	R6FI25060C20R125 KCU25S	0.197	5	6	0.236	6	0.787	20	1.378	35	0.049	1.25	0.098	2.50	●
7221050	R6FI30060C20R150 KCU25S	0.236	6	6	0.236	6	0.787	20	1.378	35	0.059	1.50	0.118	3.00	●
7221093	R7FI10080C11R050 KCU25S	0.079	2	7	0.315	8	0.433	11	1.024	26	0.020	0.50	0.039	1.00	●
7221094	R7FI15080C11R078 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.031	0.78	0.059	1.50	●
7221095	R7FI16080C11R080 KCU25S	0.118	3	7	0.315	8	0.433	11	1.024	26	0.032	0.80	0.063	1.60	●
7221096	R7FI19080C11R099 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	0.99	0.075	1.90	●
7221097	R7FI20080C11R100 KCU25S	0.157	4	7	0.315	8	0.433	11	1.024	26	0.039	1.00	0.079	2.00	●
7221098	R7FI25080C11R125 KCU25S	0.197	5	7	0.315	8	0.433	11	1.024	26	0.049	1.25	0.098	2.50	●
7221099	R7FI30080C11R150 KCU25S	0.236	6	7	0.315	8	0.433	11	1.024	26	0.059	1.50	0.118	3.00	●
7221100	R7FI10080C22R050 KCU25S	0.079	2	7	0.315	8	0.866	22	1.378	35	0.020	0.50	0.039	1.00	●
7221111	R7FI16080C22R080 KCU25S	0.118	3	7	0.315	8	0.866	22	1.378	35	0.032	0.80	0.063	1.60	●
7221112	R7FI20080C22R100 KCU25S	0.157	4	7	0.315	8	0.866	22	1.378	35	0.039	1.00	0.079	2.00	●
7221113	R7FI25080C22R125 KCU25S	0.197	5	7	0.315	8	0.866	22	1.378	35	0.049	1.25	0.098	2.50	●
7221114	R7FI30080C22R150 KCU25S	0.236	6	7	0.315	8	0.866	22	1.378	35	0.059	1.50	0.118	3.00	●

KCU25S



P	●
M	●
K	○
N	○
S	○
H	○

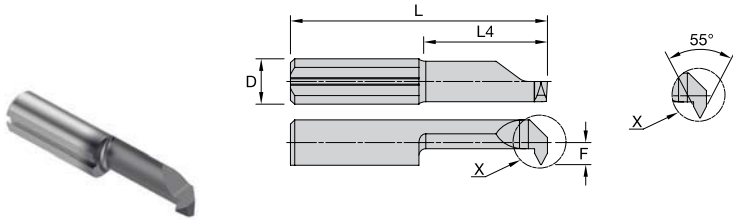
● Primary
○ Secondary

Face Grooving

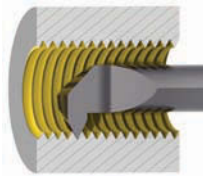
Inboard Sweep • FI • Extended Depth of Cut • Radius Corner

Order Number	Catalog Number	CD		D	DMIN		L4		L		Rε		W		
		in	mm		in	mm	in	mm	in	mm	in	mm			
7219563	L8FI20120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.079	2.00	●
7219565	L8FI20120D15R020 KCU25S	0.591	15	8	0.472	12	0.591	15	1.378	35	0.008	0.20	0.079	2.00	●
7219567	L8FI25120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.098	2.50	●
7219569	L8FI25120D20R020 KCU25S	0.787	20	8	0.472	12	0.787	20	1.575	40	0.008	0.20	0.098	2.50	●
7219571	L8FI30160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.118	3.00	●
7219573	L8FI30160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.118	3.00	●
7219576	L8FI30200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.118	3.00	●
7219577	L8FI30200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.118	3.00	●
7219578	L8FI30200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.118	3.00	●
7219579	L8FI30200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.118	3.00	●
7219574	L8FI40160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.158	4.00	●
7219575	L8FI40160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.158	4.00	●
7219580	L8FI40200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.158	4.00	●
7219581	L8FI40200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.158	4.00	●
7219582	L8FI40200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.158	4.00	●
7219583	L8FI40200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.158	4.00	●
7219584	L8FI50200D20R020 KCU25S	0.787	20	8	0.787	20	0.787	20	1.575	40	0.008	0.20	0.197	5.00	●
7219585	L8FI50200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.197	5.00	●
7219586	L8FI50200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.197	5.00	●
7219587	L8FI50200D40R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.197	5.00	●
7219588	L8FI50200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.197	5.00	●
7219589	R8FI20120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.079	2.00	●
7219590	R8FI20120D15R020 KCU25S	0.591	15	8	0.472	12	0.591	15	1.378	35	0.008	0.20	0.079	2.00	●
7219591	R8FI25120D10R020 KCU25S	0.394	10	8	0.472	12	0.394	10	1.181	30	0.008	0.20	0.098	2.50	●
7219592	R8FI25120D20R020 KCU25S	0.787	20	8	0.472	12	0.787	20	1.575	40	0.008	0.20	0.098	2.50	●
7219593	R8FI30160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.118	3.00	●
7219594	R8FI30160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.118	3.00	●
7219597	R8FI30200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.118	3.00	●
7219598	R8FI30200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.118	3.00	●
7219599	R8FI30200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.118	3.00	●
7219600	R8FI30200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.118	3.00	●
7219595	R8FI40160D10R020 KCU25S	0.394	10	8	0.630	16	0.394	10	1.181	30	0.008	0.20	0.158	4.00	●
7219596	R8FI40160D20R020 KCU25S	0.787	20	8	0.630	16	0.787	20	1.575	40	0.008	0.20	0.158	4.00	●
7219621	R8FI40200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.158	4.00	●
7219622	R8FI40200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.158	4.00	●
7219623	R8FI40200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.158	4.00	●
7219624	R8FI40200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.158	4.00	●
7219625	R8FI50200D20R020 KCU25S	0.787	20	8	0.787	20	0.787	20	1.575	40	0.008	0.20	0.197	5.00	●
7219626	R8FI50200D25R020 KCU25S	0.984	25	8	0.787	20	0.984	25	1.772	45	0.008	0.20	0.197	5.00	●
7219627	R8FI50200D30R020 KCU25S	1.181	30	8	0.787	20	1.181	30	1.969	50	0.008	0.20	0.197	5.00	●
7219628	R8FI50200D35R020 KCU25S	1.378	35	8	0.787	20	1.378	35	2.165	55	0.008	0.20	0.197	5.00	●
7219629	R8FI50200D40R020 KCU25S	1.575	40	8	0.787	20	1.575	40	2.362	60	0.008	0.20	0.197	5.00	●

KCU25S



APPLICATIONS



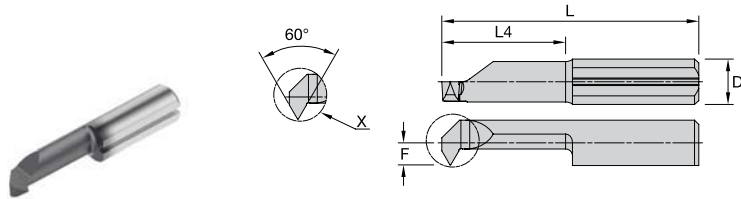
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- Primary
- Secondary

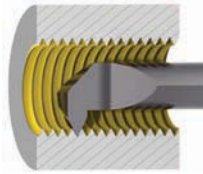
Threading

Partial Profile • TP • Whitworth • WH

Order Number	Catalog Number	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219435	L5TPWH048C15T024 KCU25S	5	0.189	4.80	0.075	1.90	0.591	15	1.181	30	55°	24 - 48	●
7219439	L6TPWH060C15T016 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	16 - 24	●
7219437	L6TPWH060C15T024 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	24 - 48	●
7219451	L7TPWH070C15T016 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	55°	16 - 24	●
7219453	R5TPWH048C15T024 KCU25S	5	0.189	4.80	0.075	1.90	0.591	15	1.181	30	55°	24 - 48	●
7219457	R6TPWH060C15T016 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	16 - 24	●
7219455	R6TPWH060C15T024 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	55°	24 - 48	●
7219459	R7TPWH070C15T016 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	55°	16 - 24	●



APPLICATIONS



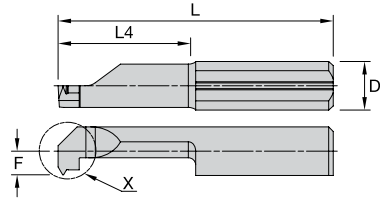
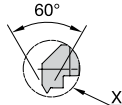
P	●
M	●
K	○
N	○
S	○
H	○

- Primary
- Secondary

Threading

Partial Profile • TP National Pipe Thread • NPT

Order Number	Catalog Number	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219476	L6TPNP060C15T018 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	18	●
7219480	L6TPNP060C15T027 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	27	●
7219477	L6TPNP060C22T018 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	18	●
7219482	L6TPNP060C22T027 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	27	●
7219484	R6TPNP060C15T018 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	18	●
7219489	R6TPNP060C15T027 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	60°	27	●
7219486	R6TPNP060C22T018 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	18	●
7219491	R6TPNP060C22T027 KCU25S	6	0.236	6	0.091	2.30	0.866	22	1.457	37	60°	27	●



APPLICATIONS



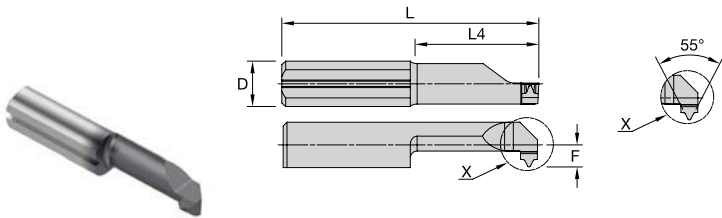
- P ■ ●
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 - K ■ ●
 - N ■ ●
 - S ■ ●
 - H ■ ●
- Primary
○ Secondary

Threading

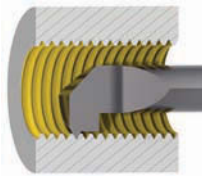
Full Profile • TF

Order Number	Catalog Number	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7221081	L4TFME024C10T050 KCU25S	4	0.095	2.40	0.008	0.20	0.394	10	0.984	25	60°	0.50	●
7221082	L4TFME024C15T050 KCU25S	4	0.095	2.40	0.008	0.20	0.591	15	1.181	30	60°	0.50	●
7221083	L4TFME032C15T070 KCU25S	4	0.126	3.20	0.035	0.90	0.591	15	1.181	30	60°	0.70	●
7221084	L4TFME032C20T070 KCU25S	4	0.126	3.20	0.035	0.90	0.787	20	1.378	35	60°	0.70	●
7221085	L4TFME040C15T050 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.50	●
7221086	L4TFME040C15T080 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.80	●
7221087	L4TFME040C25T080 KCU25S	4	0.158	4.00	0.059	1.50	0.984	25	1.575	40	60°	0.80	●
7221088	L5TFME050C15T050 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.50	●
7221089	L5TFME050C15T075 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.75	●
7221090	L5TFME050C15T080 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.80	●
7221101	L5TFME050C15T100 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	1.00	●
7221102	L5TFME050C20T100 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	1.00	●
7221103	L5TFME050C25T100 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	1.00	●
7221104	L5TFME050C30T100 KCU25S	5	0.197	5.00	0.075	1.90	1.181	30	1.772	45	60°	1.00	●
7221105	L6TFME060C15T100 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.00	●
7221106	L6TFME060C15T125 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.25	●
7221109	L6TFME060C15T150 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.50	●
7221107	L6TFME060C20T125 KCU25S	6	0.236	6.00	0.091	2.30	0.787	20	1.378	35	60°	1.25	●
7221108	L6TFME060C30T125 KCU25S	6	0.236	6.00	0.091	2.30	1.181	30	1.772	45	60°	1.25	●
7221110	L7TFME070C15T150 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	60°	1.50	●
7221121	R4TFME024C10T050 KCU25S	4	0.095	2.40	0.008	0.20	0.394	10	0.984	25	60°	0.50	●
7221122	R4TFME024C15T050 KCU25S	4	0.095	2.40	0.008	0.20	0.591	15	1.181	30	60°	0.50	●
7221123	R4TFME032C15T070 KCU25S	4	0.126	3.20	0.035	0.90	0.591	15	1.181	30	60°	0.70	●
7221124	R4TFME032C20T070 KCU25S	4	0.126	3.20	0.035	0.90	0.787	20	1.378	35	60°	0.70	●
7221125	R4TFME040C15T050 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.50	●
7221126	R4TFME040C15T080 KCU25S	4	0.158	4.00	0.059	1.50	0.591	15	1.181	30	60°	0.80	●
7221127	R4TFME040C25T080 KCU25S	4	0.158	4.00	0.059	1.50	0.984	25	1.575	40	60°	0.80	●
7221128	R5TFME050C15T050 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.50	●
7221129	R5TFME050C15T075 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.75	●
7221130	R5TFME050C15T080 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	0.80	●
7221131	R5TFME050C15T100 KCU25S	5	0.197	5.00	0.075	1.90	0.591	15	1.181	30	60°	1.00	●
7221132	R5TFME050C20T100 KCU25S	5	0.197	5.00	0.075	1.90	0.787	20	1.378	35	60°	1.00	●
7221133	R5TFME050C25T100 KCU25S	5	0.197	5.00	0.075	1.90	0.984	25	1.575	40	60°	1.00	●
7221134	R5TFME050C30T100 KCU25S	5	0.197	5.00	0.075	1.90	1.181	30	1.772	45	60°	1.00	●
7221135	R6TFME060C15T100 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.00	●
7221136	R6TFME060C15T125 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.25	●
7221139	R6TFME060C15T150 KCU25S	6	0.236	6.00	0.091	2.30	0.591	15	1.181	30	60°	1.50	●
7221137	R6TFME060C20T125 KCU25S	6	0.236	6.00	0.091	2.30	0.787	20	1.378	35	60°	1.25	●
7221138	R6TFME060C30T125 KCU25S	6	0.236	6.00	0.091	2.30	1.181	30	1.772	45	60°	1.25	●
7221140	R7TFME070C15T150 KCU25S	7	0.276	7.00	0.110	2.80	0.591	15	1.181	30	60°	1.50	●

KCU25S



APPLICATIONS



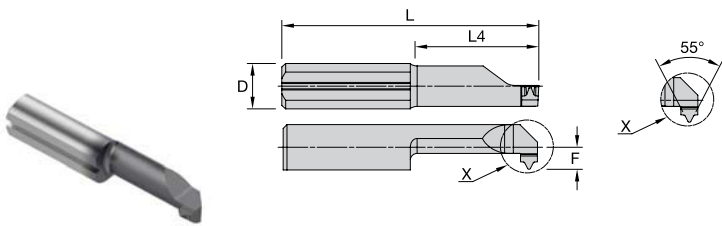
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K	○
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● Primary
○ Secondary

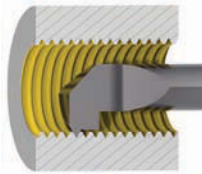
Threading

Full Profile • TF • Whitworth

Order Number	Catalog Number	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219460	L6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219471	L6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219472	L6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●
7219473	R6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219474	R6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219475	R6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●



APPLICATIONS



P	●
M	●
K	○
N	○
S	○
H	○

● Primary
○ Secondary

Threading

Full Profile • TF • Whitworth

Order Number	Catalog Number	D	DMIN		F		L4		L		KRx	Pitch	
			in	mm	in	mm	in	mm	in	mm			
7219460	L6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219471	L6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219472	L6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●
7219473	R6TFWH060C15T019 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	19	●
7219474	R6TFWH060C15T022 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	22	●
7219475	R6TFWH060C15T028 KCU25S	6	0.236	6	0.091	2.30	0.591	15	1.181	30	55°	28	●

SELECT CUTTING SPEED

Low-Carbon (<0,3% C) and Free-Machining Steels		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P0/P1	KCPM25S	40	260	130	850
	KCU25S	30	200	100	680
Medium and High-Carbon Steels (>0,3% C)		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P2	KCPM25S	20	180	60	590
	KCU25S	15	140	50	470
Alloy Steels and Tool Steels; <330 HB; <35 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P3	KCPM25S	20	130	60	420
	KCU25S	15	100	50	330
Alloy Steels and Tool Steels; 350–450 HB; 35–48 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P4	KCPM25S	10	130	30	425
	KCHS25S	10	130	30	425
	KCU25S	10	100	25	340
Ferritic, Martensitic, and PH Stainless Steels; <330 HB; <35 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P5	KCPM25S	20	160	60	520
	KCU25S	15	130	50	410
Ferritic, Martensitic, and PH Stainless Steels; 350–450 HB; 35–48 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P6	KCPM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

SELECT CUTTING SPEED

Austenitic Stainless Steels		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
M1	KCSM25S	30	180	100	590
	KCPM25S	30	180	100	590
	KCU25S	25	140	80	470

High Strength Austenitic Stainless and Cast Stainless Steels		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
M2	KCSM25S	20	140	60	460
	KCPM25S	20	140	60	460
	KCU25S	15	110	50	370

Duplex Stainless Steels (Ferritic and Austenitic Mixture)		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
M3	KCSM25S	20	110	60	360
	KCPM25S	20	110	60	360
	KCU25S	15	90	50	290

SELECT CUTTING SPEED

Iron-Based, Heat-Resistant Alloys; 160-260 HB; 25-48 HRC; 500-1200 MPa Tensile Strength		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
S1	KCSM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

Cobalt-Based, Heat-Resistant Alloys; 250-450 HB; 25-48 HRC; 1000-1450 Tensile Strength		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
S2	KCSM25S	10	60	30	200
	KCHS25S	10	60	30	200
	KCU25S	10	50	25	160

Nickel-Based, Heat-Resistant Alloys 160-450HB; <48 HRC; 600-1700 Tensile Strength		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
S3	KCSM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

Titanium and Titanium Alloys 300-400 HB; 33-48 HRC; 900-1600 Tensile Strength		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
S4	KCSM25S	10	100	30	330
	KCHS25S	10	100	30	330
	KCU25S	10	80	25	260

SELECT CUTTING SPEED

Hardened Materials; 44-48 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
H1	KCHS25S	10	90	30	290
	KCU25S	10	60	20	200

Hardened Materials; 48-55 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
H2	KCHS25S	10	90	30	290
	KCU25S	10	60	20	200

Hardened Materials; 55-60 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
H3	KCHS25S	10	80	30	260
	KCU25S	10	55	20	180

Hardened Materials; 60-66 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
H4	KCHS25S	10	60	30	200

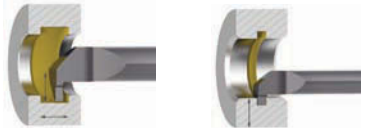
SELECT CUTTING SPEED

Grey Cast Iron		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
K1	KCU25S	15	180	50	600
	KCPM25S	20	230	60	750
	KCHS25S	20	230	60	750
Low & Medium Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI)		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
K2	KCU25S	15	120	50	390
	KCPM25S	20	150	60	490
	KCHS25S	20	150	60	490
High Strength Ductile and Austempered Ductile Iron (ADI) and Malleable Cast Irons		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
K3	KCU25S	25	180	80	600
	KCPM25S	30	230	100	750
	KCHS25S	30	230	100	750

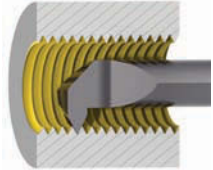

SELECT CUTTING SPEED

Low-Silicon Aluminum Alloys and Magnesium Alloys; Si12.2%		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
N2	KCU25S	60	440	200	1450
High-Silicon Aluminum and Magnesium Alloys; Si>12.2%		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
N3	KCU25S	30	290	100	950
Copper, Brass, Zinc-Based on a Machinability Index Range of 70-100		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
N4	KCU25S	40	390	130	1280
Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
N5	KCU25S	40	290	130	950

FEED RATE & DEPTH OF CUT

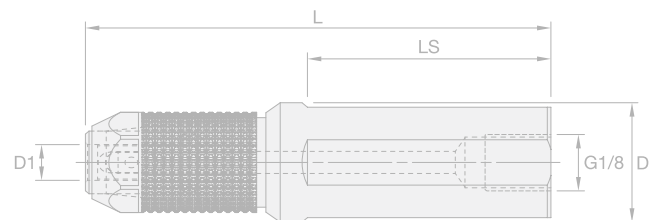
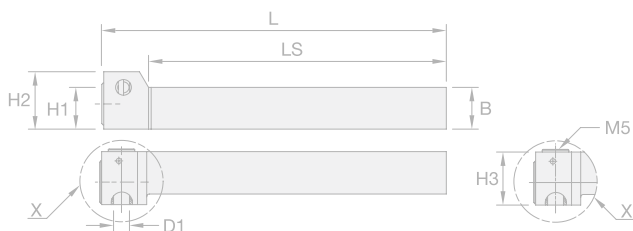
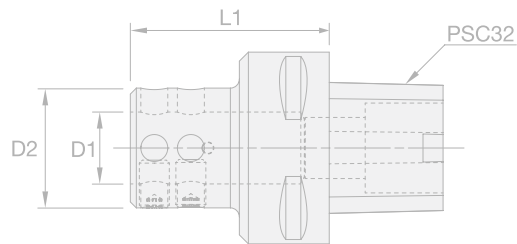
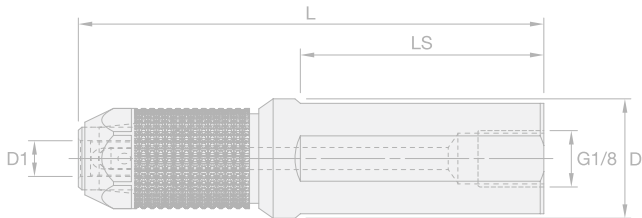
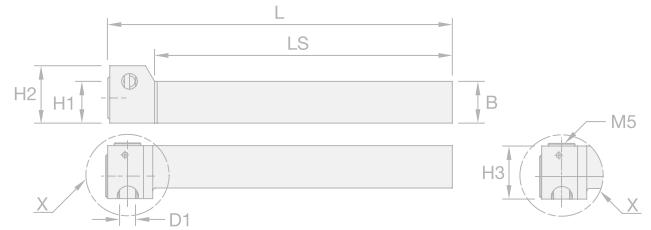
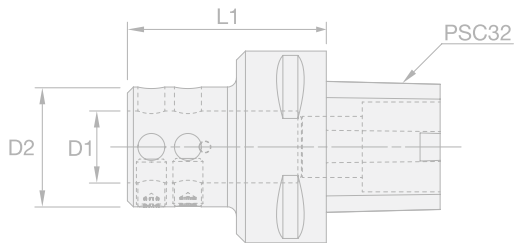
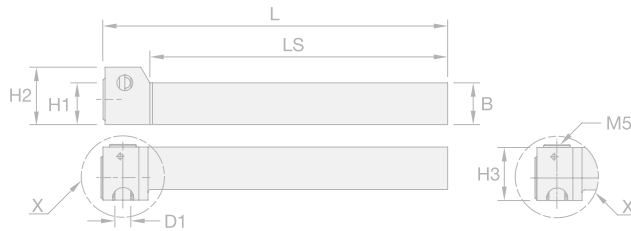
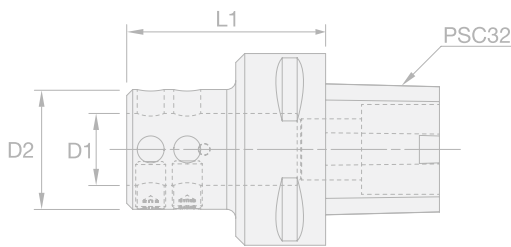
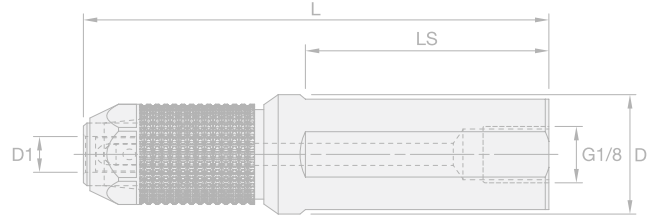
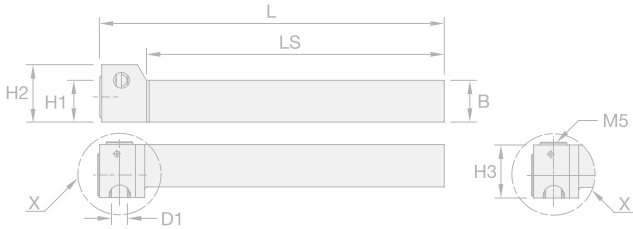
	Applications	Feed Rate (mm/rev)		Depth of Cut (mm)	
		MIN	MAX	MIN	MAX
High-Performance Boring & Profiling KCPM25S KCSM25S KCHS25S		0.005	0.25	0.005	0.77
Boring & Profiling KCU25S		0.005	0.08	0.005	0.5
Internal Grooving KCU25S		0.01	0.03	0.03	0.05
Face Grooving KCU25S		0.02	0.05	0.03	0.05

THREADING SPEED & NUMBER OF PASSES


Internal Threading KCU25S									
Material		P0	P1	P2	P3	P4	M	K	N
m/min		160	140	120	90	70	90	100	300
SFM		520	460	390	290	230	290	330	980
Thread Pitch		Number of passes							
mm	TPI								
0.5	48	5	5	5	5	8	8	5	5
0.8	32	6	6	6	6	8	8	6	6
1	24	7	7	7	7	8	8	7	7
1.25	20	8	8	8	8	10	10	8	8
1.5	16	10	10	10	10	12	12	10	10
1.75	14	12	12	12	12	14	14	12	12
2	12	13	13	13	13	15	15	13	13
2.5	10	15	15	16	16	18	18	16	15
3	8	16	16	17	17	20	20	17	16
4	6	18	18	19	19	22	22	19	18
5	5	20	20	21	21	24	24	21	20
6	4	22	22	23	23	26	26	23	22

TopSwiss MBS


HOLDERS




NOMENCLATURE ROUND SHANK HOLDERS

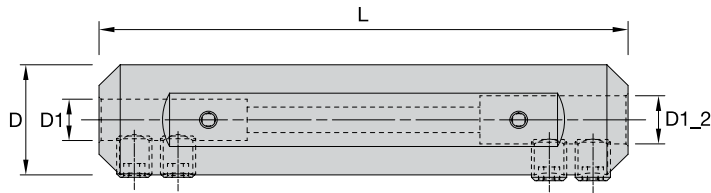
			Example: A16RMBSSPD45M					
			A	16	R	MBS	SP	D
Bar Type	Bar Diameter	Bar Length	Family Name	Tool Type	Tool Style	Insert Size(s)	Unit	
A: steel bar with coolant	METRIC: two digit # indicates bar Ø in mm	A: 32mm (30-35)	Micro Boring Solid	SP: standard performance	S: single end	4: 4mm insert	M: metric	
E: carbide bar with coolant	08: 8mm 16: 16mm	B: 40mm (40-45) D: 60mm (60-65) E: 70mm (70-75) G: 90mm (3.5") (90-95) H: 100mm (4.0") (100-105) J: 110mm (4.5") (110-115) K: 125mm (5.0") (120-135) M: 150mm (6.0") (150-155)		PP: premium performance HP: high performance DB: drill bore (multi-function) BS: bushing style	D: double end	5: 5mm insert 6: 6mm insert 7: 7mm insert 8: 8mm insert 45: 4mm & 5mm 56: 5mm & 6mm 67: 6mm & 7mm 78: 7mm & 8mm 0: all insert sizes	I: inch	
	INCH: two digit # indicates bar Ø in 1/16"							
	08: 8/16 or 1/2" 16: 16/16 or 1"							

NOMENCLATURE SQUARE SHANK HOLDERS

			Example: MBSAR1212M6C				
			MBS	A	R	1212	M
Family Name	Tool Style	Hand	Shank Size	Unit	Insert Size(s)	Coolant	
Micro Boring Solid	A: 90 degree	R: right hand L: left hand	METRIC: height x width in mm 1212: 12mm x 12mm	M: metric I: inch	4: 4mm insert 5: 5mm insert 6: 6mm insert 7: 7mm insert 8: 8mm insert 0: all insert sizes	C: coolant through	
			INCH: height x width in 1/16" increments 0808: 1/2" x 1/2"				

NOMENCLATURE QUICK CHANGE HOLDERS

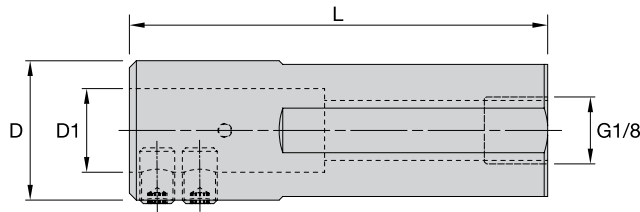
		Example: PSC3MBSBS0		
		PSC3	MBS	BS
System & Size	Family Name	Tool Style	Insert Size(s)	
PSC3	Micro Boring Solid	BS: bushing style	0: all insert sizes	
PSC4				
KM1612				
KM2016				



Round Shank • Standard Performance

Centerline Accuracy $\pm 0.0008''$ (0,020mm)

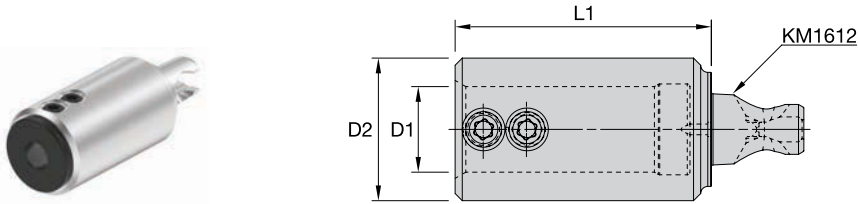
Order Number	Catalog Number	D1 (1)	D1 (2)	D		L	
		mm	mm	in	mm	in	mm
7187242	A12GMBSSPD45I	4	5	0.750	19.05	3.543	90
7187248	A12GMBSSPD67I	6	7	0.750	19.05	3.543	90
7187246	A16GMBSSPD45I	4	5	1.000	25.40	3.740	95
7187262	A16GMBSSPD67I	6	7	1.000	25.40	3.740	95
7187266	A16GMBSSPD78I	7	8	1.000	25.40	3.740	95
7187190	A12EMBSSPD45M	4	5	0.472	12.00	2.953	75
7187241	A16EMBSSPD45M	4	5	0.630	16.00	2.953	75
7187247	A16EMBSSPD67M	6	7	0.630	16.00	2.953	75
7187263	A16EMBSSPD78M	7	8	0.630	16.00	2.953	75
7187243	A20GMBSSPD45M	4	5	0.787	20.00	3.543	90
7187249	A20GMBSSPD67M	6	7	0.787	20.00	3.543	90
7187264	A20GMBSSPD78M	7	8	0.787	20.00	3.543	90
7187244	A22GMBSSPD45M	4	5	0.866	22.00	3.543	90
7187250	A22GMBSSPD67M	6	7	0.866	22.00	3.543	90
7187245	A25GMBSSPD45M	4	5	0.984	25.00	3.740	95
7187261	A25GMBSSPD67M	6	7	0.984	25.00	3.740	95
7187265	A25GMBSSPD78M	7	8	0.984	25.00	3.740	95



Round Shank • Bushing Style • Standard Performance

Centerline Accuracy $\pm 0.0008''$ (0,020mm)

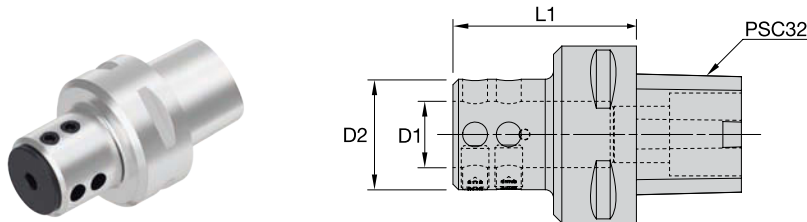
Order Number	Catalog Number	D1	D		L		G3
		mm	in	mm	in	mm	
7188876	A12DMBSBSSOI	12	0.750	19.05	2.362	60	G 1/8
7188858	A12KMBSBSSOI	12	0.750	19.05	4.724	120	G 1/8
7188880	A16DMBSBSSOI	12	1.000	25.40	2.362	60	G 1/8
7188875	A16KMBSBSSOI	12	1.000	25.40	4.724	120	G 1/8
7188857	A16KMBSBSSOM	12	0.630	16.00	4.724	120	G 1/8
7188877	A20DMBSBSSOM	12	0.787	20.00	2.362	60	G 1/8
7188859	A20KMBSBSSOM	12	0.787	20.00	4.724	120	G 1/8
7188860	A20MMBSBSSOM	12	0.787	20.00	5.906	150	G 1/8
7188878	A22DMBSBSSOM	12	0.866	22.00	2.362	60	G 1/8
7188871	A22KMBSBSSOM	12	0.866	22.00	4.724	120	G 1/8
7188872	A22MMBSBSSOM	12	0.866	22.00	5.906	150	G 1/8
7188879	A25DMBSBSSOM	12	0.984	25.00	2.362	60	G 1/8
7188873	A25KMBSBSSOM	12	0.984	25.00	4.724	120	G 1/8
7188874	A25MMBSBSSOM	12	0.984	25.00	5.906	150	G 1/8



KM • Bushing Style • Standard Performance

Centerline Accuracy $\pm 0.0008''$ (0,020mm)

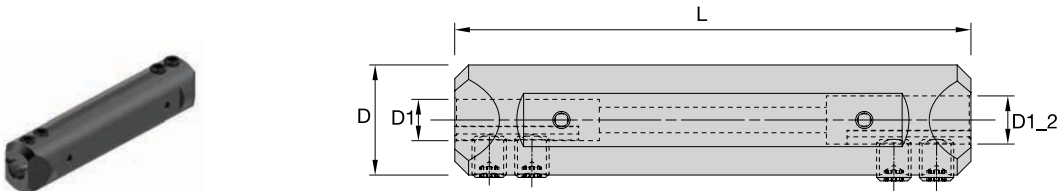
Order Number	Catalog Number	CSMS	D1		D2		L1	
			mm	in	mm	in	mm	in
7255887	KM1612MBSBS0	KM1612	12	0.787	20	1.417	36	
7255888	KM2016MBSBS0	KM2016	12	0.787	20	1.417	36	



PSC • Bushing Style • Standard Performance

Centerline Accuracy $\pm 0.0008''$ (0,020mm)

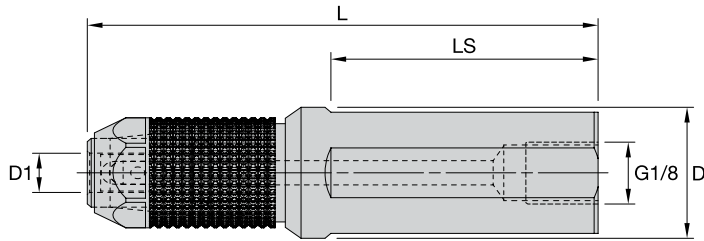
Order Number	Catalog Number	CSMS	D1		D2		L1	
			mm	in	mm	in	mm	in
7188855	PSC3MBSBS0	PSC32	12	0.787	20	1.307	33.20	
7188856	PSC4MBSBS0	PSC40	12	0.787	20	1.504	38.20	



Round Shank • Premium Performance

Centerline Accuracy $\pm 0.0004''$ (0,010mm)

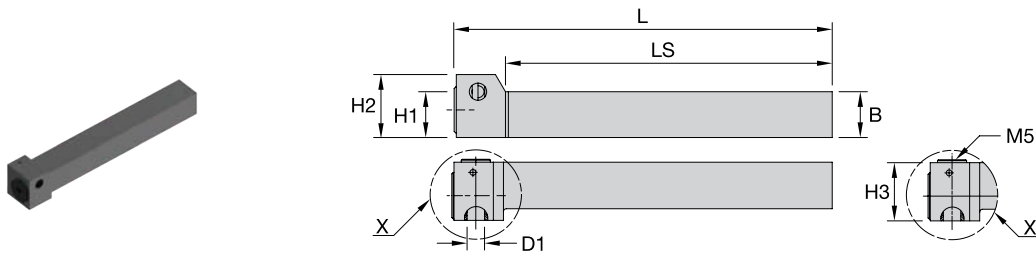
Order Number	Catalog Number	D1		D		L	
		mm	mm	in	mm	in	mm
7187268	A08EMBSPPD45I	4	5	0.500	12.70	2.953	75
7187269	A10EMBSPPD45I	4	5	0.625	15.87	2.953	75
7187276	A10EMBSPPD67I	6	7	0.625	15.87	2.953	75
7187271	A12GMBSPPD45I	4	5	0.750	19.05	3.543	90
7187278	A12GMBSPPD67I	6	7	0.750	19.05	3.543	90
7187275	A16GMBSPPD45I	4	5	1.000	25.40	3.740	95
7187293	A16GMBSPPD67I	6	7	1.000	25.40	3.740	95
7187267	A12EMBSPPD45M	4	5	0.472	12.00	2.953	75
7187270	A16EMBSPPD45M	4	5	0.630	16.00	2.953	75
7187277	A16EMBSPPD67M	6	7	0.630	16.00	2.953	75
7187294	A16EMBSPPD78M	7	8	0.630	16.00	2.953	75
7187272	A20GMBSPPD45M	4	5	0.787	20.00	3.543	90
7187280	A20GMBSPPD67M	6	7	0.787	20.00	3.543	90
7187295	A20GMBSPPD78M	7	8	0.787	20.00	3.543	90
7187273	A22GMBSPPD45M	4	5	0.866	22.00	3.543	90
7187291	A22GMBSPPD67M	6	7	0.866	22.00	3.543	90
7187274	A25GMBSPPD45M	4	5	0.984	25.00	3.740	95
7187292	A25GMBSPPD67M	6	7	0.984	25.00	3.740	95



Round Shank • High Performance

Centerline Accuracy $\pm 0.0002''$ (0,005mm)

Order Number	Catalog Number	D1		D		L		LS		G3
		mm	in	mm	in	mm	in	mm	in	
7188779	A12DMBSHPS4I	4	0.75	19.05	2.559	65	1.299	33.00	G 1/8	
7188780	A12DMBSHPS5I	5	0.75	19.05	2.559	65	1.299	33.00	G 1/8	
7188781	A12DMBSHPS6I	6	0.75	19.05	2.559	65	1.339	34.00	G 1/8	
7188782	A12DMBSHPS7I	7	0.75	19.05	2.559	65	1.508	38.30	G 1/8	
7188745	A12JMBSHPS4I	4	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188746	A12JMBSHPS5I	5	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188747	A12JMBSHPS6I	6	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188748	A12JMBSHPS7I	7	0.75	19.05	4.528	115	2.677	68.00	G 1/8	
7188797	A16DMBSHPS4I	4	1.00	25.40	2.559	65	1.181	30.00	G 1/8	
7188798	A16DMBSHPS5I	5	1.00	25.40	2.559	65	1.173	29.80	G 1/8	
7188799	A16DMBSHPS6I	6	1.00	25.40	2.559	65	1.221	31.00	G 1/8	
7188800	A16DMBSHPS7I	7	1.00	25.40	2.559	65	1.221	31.00	G 1/8	
7188771	A16JMBSHPS4I	4	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188772	A16JMBSHPS5I	5	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188773	A16JMBSHPS6I	6	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188774	A16JMBSHPS7I	7	1.00	25.40	4.528	115	2.677	68.00	G 1/8	
7188727	A12JMBSHPS4M	4	0.47	12.00	4.528	115	2.677	68.00	G 1/8	
7188728	A12JMBSHPS5M	5	0.47	12.00	4.528	115	2.677	68.00	G 1/8	
7188729	A12JMBSHPS6M	6	0.47	12.00	4.528	115	2.677	68.00	G 1/8	
7188730	A12JMBSHPS7M	7	0.47	12.00	4.528	115	2.835	72.00	G 1/8	
7188775	A16DMBSHPS4M	4	0.63	16.00	2.559	65	1.370	34.80	G 1/8	
7188776	A16DMBSHPS5M	5	0.63	16.00	2.559	65	1.370	34.80	G 1/8	
7188777	A16DMBSHPS6M	6	0.63	16.00	2.559	65	1.370	34.80	G 1/8	
7188778	A16DMBSHPS7M	7	0.63	16.00	2.559	65	1.476	37.50	G 1/8	
7188741	A16JMBSHPS4M	4	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188742	A16JMBSHPS5M	5	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188743	A16JMBSHPS6M	6	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188744	A16JMBSHPS7M	7	0.63	16.00	4.528	115	2.677	68.00	G 1/8	
7188783	A20DMBSHPS4M	4	0.79	20.00	2.559	65	1.260	32.00	G 1/8	
7188785	A20DMBSHPS5M	5	0.79	20.00	2.559	65	1.299	33.00	G 1/8	
7188786	A20DMBSHPS6M	6	0.79	20.00	2.559	65	1.339	34.00	G 1/8	
7188787	A20DMBSHPS7M	7	0.79	20.00	2.559	65	1.339	34.00	G 1/8	
7188749	A20JMBSHPS4M	4	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188750	A20JMBSHPS5M	5	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188751	A20JMBSHPS6M	6	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188752	A20JMBSHPS7M	7	0.79	20.00	4.528	115	2.677	68.00	G 1/8	
7188788	A22DMBSHPS4M	4	0.87	22.00	2.559	65	1.260	32.00	G 1/8	
7188789	A22DMBSHPS5M	5	0.87	22.00	2.559	65	1.260	32.00	G 1/8	
7188791	A22DMBSHPS6M	6	0.87	22.00	2.559	65	1.260	32.00	G 1/8	
7188792	A22DMBSHPS7M	7	0.87	22.00	2.559	65	1.339	34.00	G 1/8	
7188753	A22JMBSHPS4M	4	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188754	A22JMBSHPS5M	5	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188755	A22JMBSHPS6M	6	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188756	A22JMBSHPS7M	7	0.87	22.00	4.528	115	2.677	68.00	G 1/8	
7188793	A25DMBSHPS4M	4	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188794	A25DMBSHPS5M	5	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188795	A25DMBSHPS6M	6	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188796	A25DMBSHPS7M	7	0.98	25.00	2.559	65	1.260	32.00	G 1/8	
7188757	A25JMBSHPS4M	4	0.98	25.00	4.528	115	2.677	68.00	G 1/8	
7188758	A25JMBSHPS5M	5	0.98	25.00	4.528	115	2.677	68.00	G 1/8	
7188759	A25JMBSHPS6M	6	0.98	25.00	4.528	115	2.677	68.00	G 1/8	
7188760	A25JMBSHPS7M	7	0.98	25.00	4.528	115	2.677	68.00	G 1/8	



Square Shank • Standard Performance

Centerline Accuracy $\pm 0.0008''$ (0,020mm)

Order Number	Catalog Number	B		D1	F	H1		H2		H3		KAP	L		LS		CS
		in	mm			in	mm	in	mm	in	mm		in	mm	in	mm	
7188832	MBSAL0808I4C	0.500	12.70	4	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188834	MBSAL0808I5C	0.500	12.70	5	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188836	MBSAL0808I6C	0.500	12.70	6	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188841	MBSAL0808I7C	0.500	12.70	7	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188843	MBSAR1010I4C	0.625	15.88	4	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188845	MBSAR1010I5C	0.625	15.88	5	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188847	MBSAR1010I6C	0.625	15.88	6	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188849	MBSAR1010I7C	0.625	15.88	7	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188831	MBSAR0808I4C	0.500	12.70	4	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188833	MBSAR0808I5C	0.500	12.70	5	20	0.500	12.70	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188835	MBSAR0808I6C	0.500	12.70	6	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188839	MBSAR0808I7C	0.500	12.70	7	20	0.500	12.70	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188842	MBSAR1010I4C	0.625	15.88	4	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188844	MBSAR1010I5C	0.625	15.88	5	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188846	MBSAR1010I6C	0.625	15.88	6	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188848	MBSAR1010I7C	0.625	15.88	7	20	0.625	15.88	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188802	MBSAL1212M4C	0.472	12.00	4	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188806	MBSAL1212M5C	0.472	12.00	5	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188808	MBSAL1212M6C	0.472	12.00	6	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188810	MBSAL1212M7C	0.472	12.00	7	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188812	MBSAL1616M4C	0.630	16.00	4	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188815	MBSAL1616M5C	0.630	16.00	5	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188818	MBSAL1616M6C	0.630	16.00	6	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188820	MBSAL1616M7C	0.630	16.00	7	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188801	MBSAR1212M4C	0.472	12.00	4	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188805	MBSAR1212M5C	0.472	12.00	5	20	0.472	12.00	0.709	18	-	-	90.000°	3.543	90	2.874	73	M5
7188807	MBSAR1212M6C	0.472	12.00	6	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188809	MBSAR1212M7C	0.472	12.00	7	20	0.472	12.00	0.827	21	0.118	3	90.000°	3.543	90	2.874	73	M5
7188811	MBSAR1616M4C	0.630	16.00	4	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188813	MBSAR1616M5C	0.630	16.00	5	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188817	MBSAR1616M6C	0.630	16.00	6	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5
7188819	MBSAR1616M7C	0.630	16.00	7	20	0.630	16.00	0.866	22	-	-	90.000°	5.118	130	4.449	113	M5



Bushings

Bushing Style Holders

Order Number	Catalog Number	D1	D	L	
		mm	mm	in	m
7206143	MBSBS004	4	12	0.858	21.80
7206144	MBSBS005	5	12	0.858	21.80
7206145	MBSBS006	6	12	0.858	21.80
7206146	MBSBS007	7	12	0.858	21.80
7206147	MBSBS008	8	12	0.858	21.80

Screws

Order Number	Catalog Number	L		WST
		in	mm	
7206123	MBSS001	0.158	4	2.50
7206125	MBSS002	0.315	8	2.50
7206130	MBSS003	0.158	4	10.00
7206131	MBSS004	0.236	6	10.00
7206132	MBSS005	0.315	8	10.00
7206133	MBSS006	0.394	10	10.00
7206124	MBSS007	0.236	6	2.50
7206126	MBSS008	0.236	6	3.00

Locking Elements

Square Shank Holders

Order Number	Catalog Number	L	Shank Size	
			in	m
7206140	MBSLE001	0.532	0.5000	12mm
7206141	MBSLE002	0.551	0.6250	16mm

Locking Nut

Union Nuts • High Performance Holders

Order Number	Catalog Number	L		insert size
		in	mm	
7206139	MBSLN001	0.366	9.30	4, 5, 6, 7
7206135	MBSUN001	0.906	23.00	4
7206136	MBSUN002	0.906	23.00	5
7206137	MBSUN003	0.906	23.00	6
7206138	MBSUN004	0.906	23.00	7

Wrenches

Order Number	Catalog Number	L		WSMS
		in	mm	
7206128	MBSW001	2.210	56.00	SW2.5
7206134	MBSW002	2.126	54.00	T10
7206142	MBSW003	3.260	83.00	SW5
7206129	MBSW004	2.590	66.00	SW3

MBS SETS



Set 1		MBSSET1MD		TopSwiss MBS, SET 1, dbl ended METRIC (16mm)
Order # 7179993	7187270	A16EMBSPPD45M		TopSwiss MBS holder, dbl end, premium
	7187277	A16EMBSPPD67M		TopSwiss MBS holder, dbl end, premium
	7219800	R4BPGA028C16R010	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219818	R4BPGA040C16R010	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219824	R5BPGA050C20R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219830	R6BPGA060C22R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7221460	R4GS07030C10R000	KCU25S	TopSwiss MBS insert, Grooving
	7220223	R4GR10040C16R010	KCU25S	TopSwiss MBS insert, Grooving
	7220232	R5GR15050C20R010	KCU25S	TopSwiss MBS insert, Grooving
	7220256	R6GR20060C22R010	KCU25S	TopSwiss MBS insert, Grooving
7206134	MBSW002		Wrench, TopSwiss MBS	

Set 2		MBSSET2ID		TopSwiss MBS, SET 2, dbl ended INCH (0.625")
Order # 7179994	7187269	A10EMBSPPD45I		TopSwiss MBS holder, dbl end, premium
	7187276	A10EMBSPPD67I		TopSwiss MBS holder, dbl end, premium
	7219800	R4BPGA028C16R010	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219818	R4BPGA040C16R010	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219824	R5BPGA050C20R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219830	R6BPGA060C22R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7221460	R4GS07030C10R000	KCU25S	TopSwiss MBS insert, Grooving
	7220223	R4GR10040C16R010	KCU25S	TopSwiss MBS insert, Grooving
	7220232	R5GR15050C20R010	KCU25S	TopSwiss MBS insert, Grooving
	7220256	R6GR20060C22R010	KCU25S	TopSwiss MBS insert, Grooving
7206134	MBSW002		Wrench, TopSwiss MBS	

MBS SETS

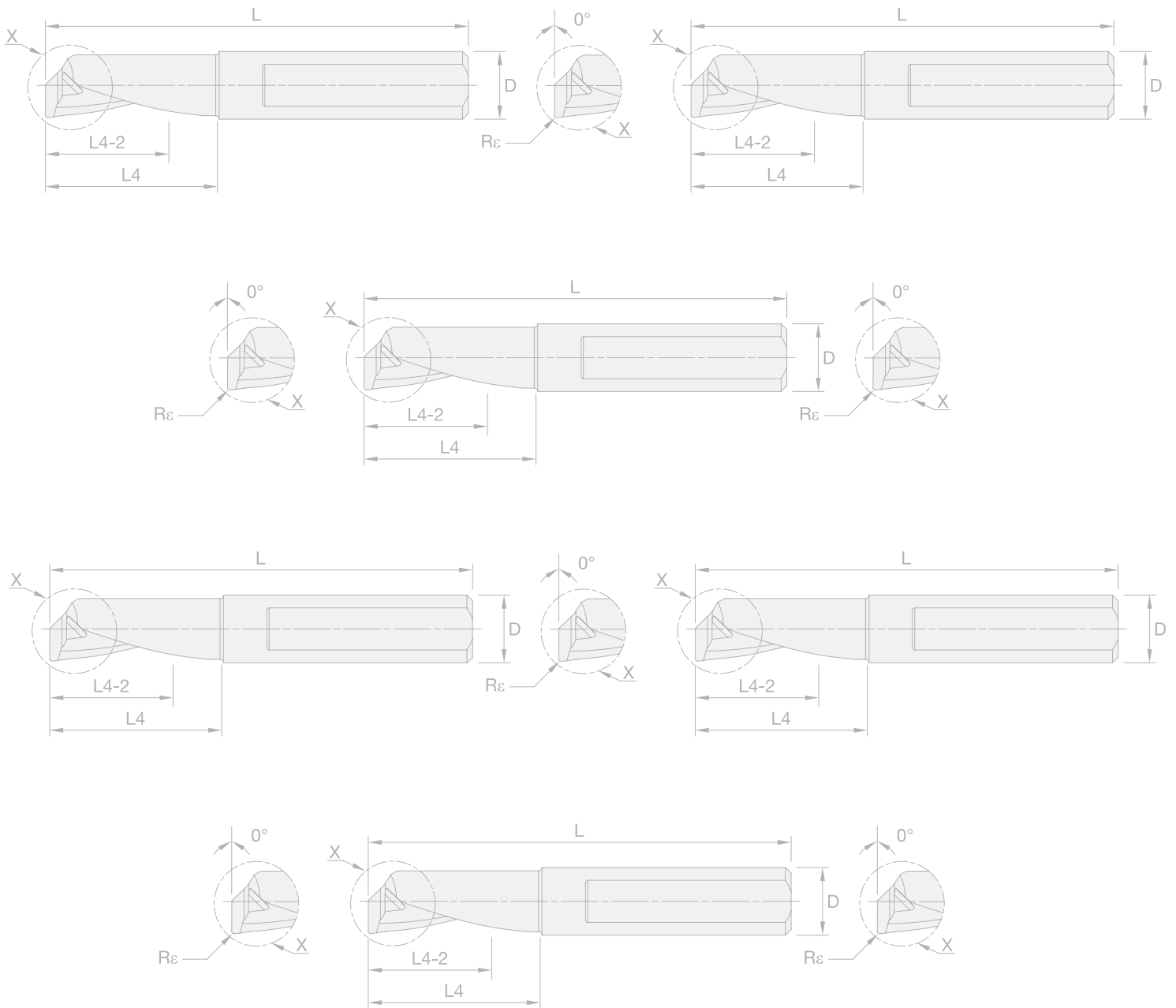


Set 3		MBSSET3MB		TopSwiss MBS, SET 3, bushing METRIC (20mm)
Order # 7179995	7188877	A20DMBSBS0M		TopSwiss MBS holder, sgl end, short BS
	7206143	MBSBS004		Bushing, TopSwiss MBS holder, size 4
	7206144	MBSBS005		Bushing, TopSwiss MBS holder, size 5
	7206145	MBSBS006		Bushing, TopSwiss MBS holder, size 6
	7206146	MBSBS007		Bushing, TopSwiss MBS holder, size 7
	7219818	R4BPGA040C16R010	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219824	R5BPGA050C20R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219830	R6BPGA060C22R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219836	R7BPGA068C25R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7206134	MBSW002		Wrench, TopSwiss MBS

Set 4		MBSSET4IB		TopSwiss MBS, SET 4, bushing INCH (0.750")
Order # 7179996	7188876	A12DMBSBS0I		TopSwiss MBS holder, sgl end, short BS
	7206143	MBSBS004		Bushing, TopSwiss MBS holder, size 4
	7206144	MBSBS005		Bushing, TopSwiss MBS holder, size 5
	7206145	MBSBS006		Bushing, TopSwiss MBS holder, size 6
	7206146	MBSBS007		Bushing, TopSwiss MBS holder, size 7
	7219818	R4BPGA040C16R010	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219824	R5BPGA050C20R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219830	R6BPGA060C22R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7219836	R7BPGA068C25R015	KCU25S	TopSwiss MBS insert, Boring & Profiling
	7206134	MBSW002		Wrench, TopSwiss MBS

TopSwiss MBS

MULTI-FUNCTION (MF) INSERTS

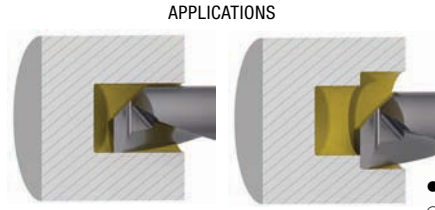
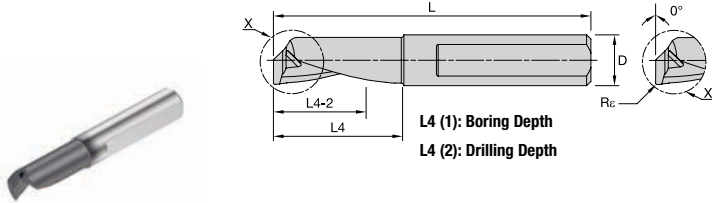


NOMENCLATURE MULTI-FUNCTION INSERTS



Example:
R4BPML003C01
R002 - KCSM25S

R	4	BP	ML	003	C	01	R002	-	KCSM25S
Hand	Shank Diameter	Application Area	Style (lead & relief angles)	Min Bore Size	Coolant	Machining Depth	Corner Radius	Separator	Grade
R: right hand	4: 4mm Ø	BP: boring & profiling	GA: geometry A (8° & 20°)	003: 0.3mm	C: coolant channel	01: 1mm	R000: 0.00mm (0.0000")		KCU25S
L: left hand	5: 5mm Ø	MF: multi-function	GB: geometry B (0° & 20°)	005: 0.5mm	H: coolant hole	05: 5mm	R002: 0.02mm (0.0008")		KCPM25S
	6: 6mm Ø		GC: geometry C (8° & 47°)	070: 7.0mm	D: double coolant hole	10: 10mm	R005: 0.05mm (0.002")		KCSM25S
	7: 7mm Ø		ML: medical line (8° & 11°)	160: 16.0mm		25: 25mm	R015: 0.15mm (0.006")		KCHS25S
	8: 8mm Ø		HP: high performance (6° & 7°)				R020: 0.20mm (0.008")		
			HM: hard machining (8° & 20°)				R150: 1.5mm (0.060")		
			DB: drill & bore (0° & 0°)						



P	■	●
M	■	●
K	■	●
N	■	●
S	■	●
H	■	●

● Primary
○ Secondary

Multi-Function MF

Order Number	Catalog Number	D		DMIN		L		L4 (1)		L4 (2)		Rε		KRA	●
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		
7221275	L4MFDB029H10R020 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.008	0.20	0.000 deg	●	
7221276	L4MFDB029H13R020 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.008	0.20	0.000 deg	●	
7221277	L4MFDB037H15R020 KCU25S	4	0.146	3.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221278	L4MFDB037H20R020 KCU25S	4	0.146	3.70	1.654	42	0.787	20	0.630	16	0.008	0.20	0.000 deg	●	
7221279	L5MFDB047H15R020 KCU25S	5	0.185	4.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221280	L5MFDB047H20R020 KCU25S	5	0.185	4.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221281	L5MFDB047H25R020 KCU25S	5	0.185	4.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221282	L6MFDB057H15R020 KCU25S	6	0.224	5.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221283	L6MFDB057H20R020 KCU25S	6	0.224	5.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221284	L6MFDB057H25R020 KCU25S	6	0.224	5.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221285	L6MFDB057H35R020 KCU25S	6	0.224	5.70	2.047	52	1.378	35	0.984	25	0.008	0.20	0.000 deg	●	
7221286	L7MFDB067H20R020 KCU25S	7	0.264	6.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221287	L7MFDB067H25R020 KCU25S	7	0.264	6.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221288	L7MFDB067H30R020 KCU25S	7	0.264	6.70	2.047	52	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221289	L7MFDB067H35R020 KCU25S	7	0.264	6.70	2.244	57	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221290	L8MFDB077H25R020 KCU25S	8	0.303	7.70	1.969	50	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221291	L8MFDB077H30R020 KCU25S	8	0.303	7.70	2.165	55	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221292	L8MFDB077H35R020 KCU25S	8	0.303	7.70	2.362	60	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221293	L8MFDB077H40R020 KCU25S	8	0.303	7.70	2.559	65	1.575	40	1.378	35	0.008	0.20	0.000 deg	●	
7221294	R4MFDB020H08R005 KCU25S	4	0.079	2.00	1.575	40	0.315	8	0.315	8	0.002	0.05	0.000 deg	●	
7221295	R4MFDB020H08R010 KCU25S	4	0.079	2.00	1.575	40	0.315	8	0.315	8	0.004	0.10	0.000 deg	●	
7221297	R4MFDB029H10R005 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.002	0.05	0.000 deg	●	
7221298	R4MFDB029H10R010 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.004	0.10	0.000 deg	●	
7221296	R4MFDB029H10R020 KCU25S	4	0.114	2.90	1.457	37	0.394	10	0.394	10	0.008	0.20	0.000 deg	●	
7221300	R4MFDB029H13R005 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.002	0.05	0.000 deg	●	
7221311	R4MFDB029H13R010 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.004	0.10	0.000 deg	●	
7221299	R4MFDB029H13R020 KCU25S	4	0.114	2.90	1.575	40	0.512	13	0.512	13	0.008	0.20	0.000 deg	●	
7221313	R4MFDB037H15R010 KCU25S	4	0.146	3.70	1.457	37	0.591	15	0.394	10	0.004	0.10	0.000 deg	●	
7221312	R4MFDB037H15R020 KCU25S	4	0.146	3.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221314	R4MFDB037H20R020 KCU25S	4	0.146	3.70	1.654	42	0.787	20	0.630	16	0.008	0.20	0.000 deg	●	
7221316	R5MFDB047H15R010 KCU25S	5	0.185	4.70	1.457	37	0.591	15	0.394	10	0.004	0.10	0.000 deg	●	
7221315	R5MFDB047H15R020 KCU25S	5	0.185	4.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221318	R5MFDB047H20R010 KCU25S	5	0.185	4.70	1.654	42	0.787	20	0.591	15	0.004	0.10	0.000 deg	●	
7221317	R5MFDB047H20R020 KCU25S	5	0.185	4.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221319	R5MFDB047H25R020 KCU25S	5	0.185	4.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221331	R6MFDB057H15R010 KCU25S	6	0.224	5.70	1.457	37	0.591	15	0.394	10	0.004	0.10	0.000 deg	●	
7221320	R6MFDB057H15R020 KCU25S	6	0.224	5.70	1.457	37	0.591	15	0.394	10	0.008	0.20	0.000 deg	●	
7221333	R6MFDB057H20R010 KCU25S	6	0.224	5.70	1.654	42	0.787	20	0.591	15	0.004	0.10	0.000 deg	●	
7221332	R6MFDB057H20R020 KCU25S	6	0.224	5.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221334	R6MFDB057H25R020 KCU25S	6	0.224	5.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221335	R6MFDB057H35R020 KCU25S	6	0.224	5.70	2.047	52	1.378	35	0.984	25	0.008	0.20	0.000 deg	●	
7221336	R7MFDB067H20R020 KCU25S	7	0.264	6.70	1.654	42	0.787	20	0.591	15	0.008	0.20	0.000 deg	●	
7221337	R7MFDB067H25R020 KCU25S	7	0.264	6.70	1.850	47	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221338	R7MFDB067H30R020 KCU25S	7	0.264	6.70	2.047	52	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221339	R7MFDB067H35R020 KCU25S	7	0.264	6.70	2.244	57	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221340	R8MFDB077H25R020 KCU25S	8	0.303	7.70	1.969	50	0.984	25	0.787	20	0.008	0.20	0.000 deg	●	
7221341	R8MFDB077H30R020 KCU25S	8	0.303	7.70	2.165	55	1.181	30	0.984	25	0.008	0.20	0.000 deg	●	
7221342	R8MFDB077H35R020 KCU25S	8	0.303	7.70	2.362	60	1.378	35	1.181	30	0.008	0.20	0.000 deg	●	
7221343	R8MFDB077H40R020 KCU25S	8	0.303	7.70	2.559	65	1.575	40	1.378	35	0.008	0.20	0.000 deg	●	

KCU25S

FEED RATE DRILLING & TURNING

Drilling (metric) Multi-Function KCU25S		Feed Rate (mm/rev)	
		MIN	MAX
MF Insert Size (mm)	Drilling Depth (mm)		
∅ ≤ 3	10	0.0025	0.0125
	13	0.0025	0.0100
∅ 3 - 4	15	0.005	0.030
	20	0.005	0.015
∅ 4 - 5	15	0.005	0.040
	25	0.005	0.020
∅ 5 - 6	15	0.005	0.030
	30	0.005	0.020
∅ 6 - 7	20	0.005	0.035
	35	0.005	0.025
∅ 7 - 8	25	0.005	0.040
	40	0.005	0.030

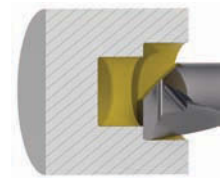
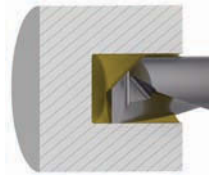
Turning (metric) Multi-Function KCU25S		Feed Rate (mm/rev)	
		MIN	MAX
MF Insert Size (mm)	Turning Depth (mm)		
∅ ≤ 3	10	0.005	0.070
	13	0.005	0.050
∅ 3 - 4	15	0.010	0.100
	20	0.005	0.100
∅ 4 - 5	15	0.010	0.100
	25	0.005	0.100
∅ 5 - 6	15	0.010	0.100
	30	0.005	0.100
∅ 6 - 7	20	0.010	0.100
	35	0.010	0.100
∅ 7 - 8	25	0.010	0.100
	40	0.010	0.100

DRILLING & TURNING MULTI-FUNCTION



		Drilling				Turning			
		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Low-Carbon (<0,3% C) and Free-Machining Steels									
P0/P1	KCU25S	80	110	260	360	80	260	260	850
Medium- and High-Carbon Steels (>0,3% C)									
P2	KCU25S	70	90	230	290	70	230	230	750
Alloy Steels and Tool Steels; <330 HB; <35 HRC									
P3	KCU25S	50	70	160	230	50	180	160	590
Alloy Steels and Tool Steels; 350–450 HB; 35–48 HRC									
P4	KCU25S	50	60	160	200	50	150	160	490
Ferritic, Martensitic, and PH Stainless Steels; <330 HB; <35 HRC									
P5	KCU25S	50	60	160	200	50	160	160	520
Ferritic, Martensitic, and PH Stainless Steels; 350–450 HB; 35–48 HRC									
P6	KCU25S	30	40	100	130	30	100	100	330

DRILLING & TURNING MULTI-FUNCTION



		Drilling				Turning			
		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Austenitic Stainless Steels									
M1	KCU25S	50	70	160	230	50	180	160	590
High Strength Austenitic Stainless and Cast Stainless Steels									
M2	KCU25S	40	60	130	200	40	140	130	460
Duplex Stainless Steels (Ferritic and Austenitic Mixture)									
M3	KCU25S	30	50	100	160	30	110	100	360

DRILLING & TURNING MULTI-FUNCTION



Iron-Based, Heat-Resistant Alloys; 160-260 HB; 25-48 HRC; 500-1200 Tensile Strength		Drilling				Turning			
Material Group	Grade	m/min		SFM		m/min		SFM	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
S1	KCU25S	20	30	60	100	20	80	60	260
Cobalt-Based, Heat-Resistant Alloys; 250-450 HB; 25-48 HRC; 1000-1450 Tensile Strength		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
S2	KCU25S	20	30	60	100	20	60	60	200
Nickel-Based, Heat-Resistant Alloys 160-450HB; <48 HRC; 600-1700 Tensile Strength		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
S3	KCU25S	30	40	100	130	30	100	100	330
Titanium and Titanium Alloys 300-400 HB; 33-48 HRC; 900-1600 Tensile Strength		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
S4	KCU25S	30	40	100	130	30	100	100	330

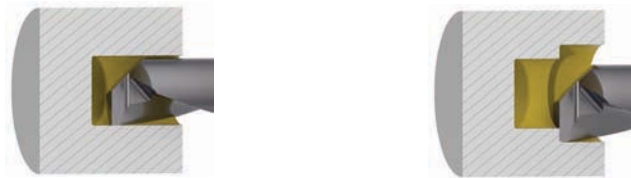
DRILLING & TURNING MULTI-FUNCTION



Hardened Materials; 44-48 HRC		Drilling				Turning			
Material Group	Grade	m/min		SFM		m/min		SFM	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
H1	KCU25S	*	*	*	*	30	90	100	300

Hardened Materials; 48-55 HRC		Drilling				Turning			
Material Group	Grade	m/min		SFM		m/min		SFM	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
H2	KCU25S	*	*	*	*	20	60	60	200

DRILLING & TURNING MULTI-FUNCTION



Grey Cast Iron		Drilling				Turning			
Material Group	Grade	m/min		SFM		m/min		SFM	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
K1	KCU25S	70	90	230	300	70	230	230	750
Low & Medium Strength Ductile Irons and Compacted Graphite Irons (CGI)		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
		K2	KCU25S	50	60	160	200	50	150
High Strength Ductile and Austempered Ductile Iron and Malleable Cast Irons		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
		K3	KCU25S	60	80	200	260	60	190

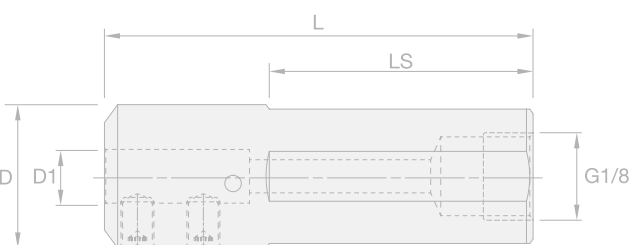
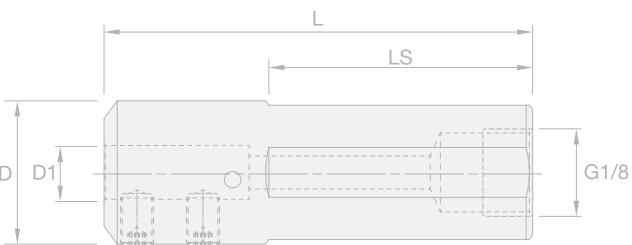
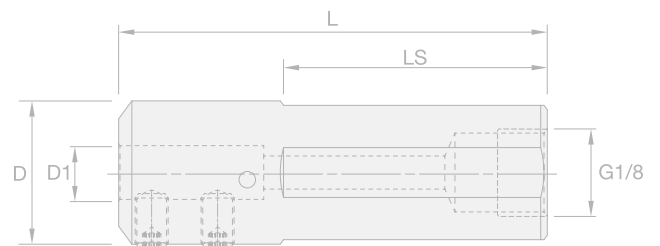
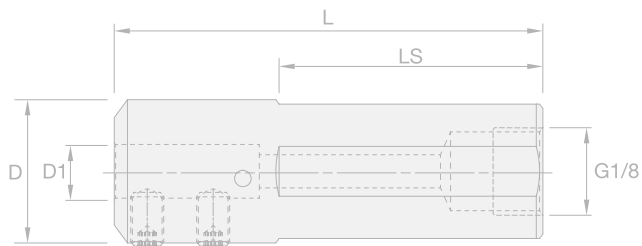
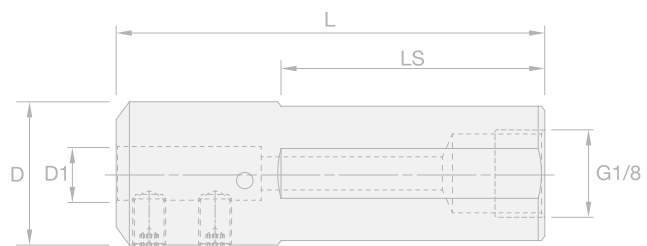
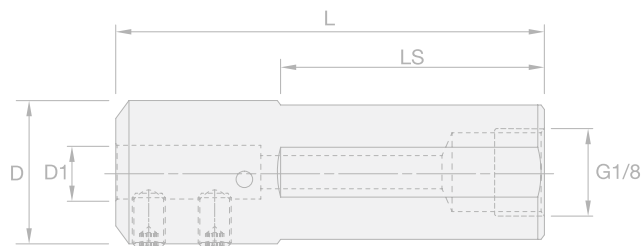
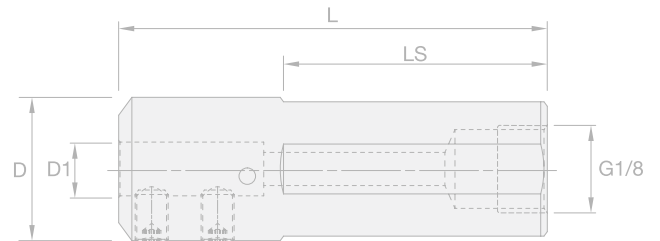
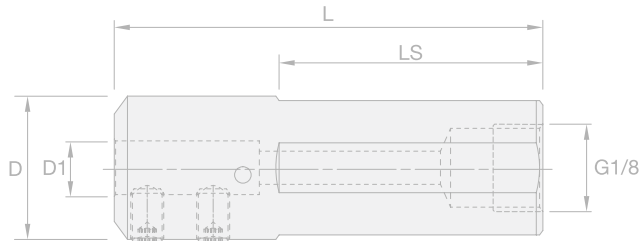
DRILLING & TURNING MULTI-FUNCTION - KCU25S



		Drilling				Turning			
		m/min		SFM		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
Wrought Aluminum Alloys									
N1	KCU25S	90	110	290	360	160	540	520	1770
Low-Silicon Aluminum Alloys and Magnesium Alloys; Si<12.2%									
N2	KCU25S	70	90	230	290	130	440	430	1440
High-Silicon Aluminum and Magnesium Alloys; Si>12.2%									
N3	KCU25S	20	60	60	200	30	290	100	950
Copper, Brass, Zinc-Based on a Machinability Index Range of 70-100									
N4	KCU25S	60	80	200	260	120	390	390	1280
Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass									
N5	KCU25S	50	70	160	230	100	330	330	1080

TopSwiss MBS

MF HOLDERS

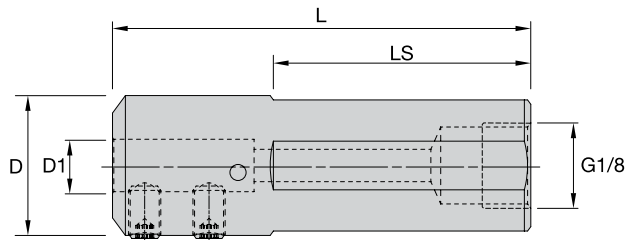


NOMENCLATURE ROUND SHANK HOLDERS



**Example:
A16RMBSSPD45M**

A	16	R	MBS	SP	D	45	M
Bar Type	Bar Diameter	Bar Length	Family Name	Tool Type	Tool Style	Insert Size(s)	Unit
A: steel bar with coolant	METRIC: two digit # indicates bar Ø in mm	A: 32mm (30-35)	Micro Boring Solid	SP: standard performance	S: single end	4: 4mm insert	M: metric
E: carbide bar with coolant	08: 8mm 16: 16mm	B: 40mm (40-45) D: 60mm (60-65) E: 70mm (70-75) G: 90mm (3.5") (90-95) H: 100mm (4.0") (100-105) J: 110mm (4.5") (110-115) K: 125mm (5.0") (120-135) M: 150mm (6.0") (150-155)		PP: premium performance HP: high performance DB: drill bore (multi-function) BS: bushing style	D: double end	5: 5mm insert 6: 6mm insert 7: 7mm insert 8: 8mm insert 45: 4mm & 5mm 56: 5mm & 6mm 67: 6mm & 7mm 78: 7mm & 8mm 0: all insert sizes	I: inch
	INCH: two digit # indicates bar Ø in 1/16"						
	08: 8/16 or 1/2"						
	16: 16/16 or 1"						



Round Shank

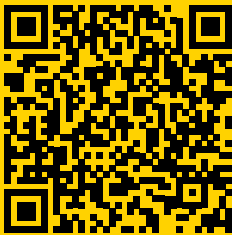
Multi-Function • MF • Centerline Accuracy $\pm 0.0004''$ (0,010mm)

Order Number	Catalog Number	D1		D		L		LS		G3
		mm	in	mm	in	mm	in	mm	in	
7188895	A12DMBSDBS4I	4	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188911	A12DMBSDBS5I	5	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188917	A12DMBSDBS6I	6	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188933	A12DMBSDBS7I	7	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188939	A12DMBSDBS8I	8	0.750	19.05	2.559	65	1.575	40	G 1/8	
7188899	A16DMBSDBS4I	4	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188915	A16DMBSDBS5I	5	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188931	A16DMBSDBS6I	6	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188937	A16DMBSDBS7I	7	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188943	A16DMBSDBS8I	8	1.000	25.40	2.559	65	1.575	40	G 1/8	
7188894	A16DMBSDBS4M	4	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188900	A16DMBSDBS5M	5	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188916	A16DMBSDBS6M	6	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188932	A16DMBSDBS7M	7	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188938	A16DMBSDBS8M	8	0.630	16.00	2.559	65	1.575	40	G 1/8	
7188896	A20DMBSDBS4M	4	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188912	A20DMBSDBS5M	5	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188918	A20DMBSDBS6M	6	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188934	A20DMBSDBS7M	7	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188940	A20DMBSDBS8M	8	0.787	20.00	2.559	65	1.575	40	G 1/8	
7188897	A22DMBSDBS4M	4	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188913	A22DMBSDBS5M	5	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188919	A22DMBSDBS6M	6	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188935	A22DMBSDBS7M	7	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188941	A22DMBSDBS8M	8	0.866	22.00	2.559	65	1.575	40	G 1/8	
7188898	A25DMBSDBS4M	4	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188914	A25DMBSDBS5M	5	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188920	A25DMBSDBS6M	6	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188936	A25DMBSDBS7M	7	0.984	25.00	2.559	65	1.575	40	G 1/8	
7188942	A25DMBSDBS8M	8	0.984	25.00	2.559	65	1.575	40	G 1/8	

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It starts in 1938 with our founder, metallurgist Philip M. McKenna, who after years of research created revolutionary tungsten-titanium carbide alloy cutting tools specifically for working with steel. That single development not only led to a new class of machining tools that cut faster, lasted longer and drove productivity in everything from the automobile to the airplane, but also led to the opening of McKenna Metals Company in Latrobe, Pennsylvania, United States. Today, that company is Kennametal Inc.—a recognized leader in metalworking serving customers across continents and industries including transportation, construction, aerospace and defense, machining and cutting, energy and general engineering. We have a reputation for building innovative solutions for our customers' most challenging applications. The name Kennametal is synonymous for high-quality, high-performance tools that can withstand the most strenuous conditions and bring ease to a wide range of machining operations. We help our customers' operations run longer, faster and with greater precision. We don't cut corners. We cut metal. Your toughest materials don't stand a chance.



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