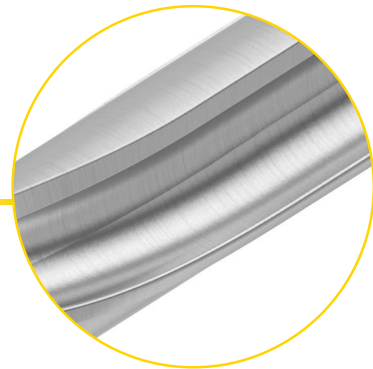
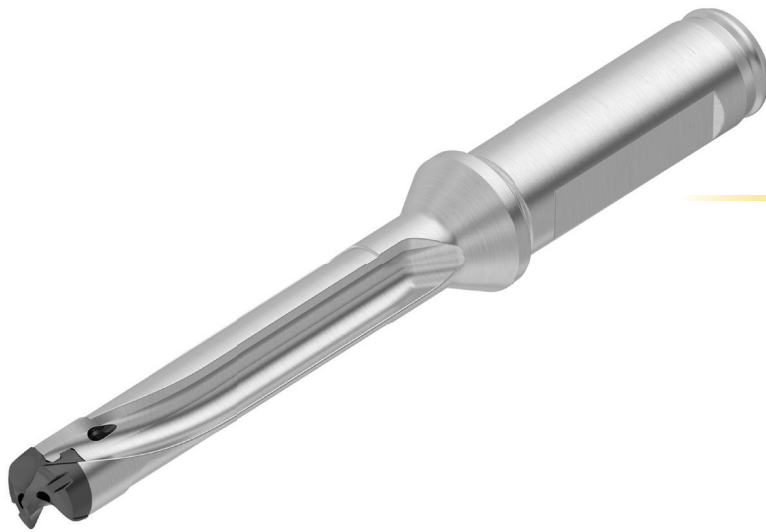


INNOVATIONS
2023 | 02 | INCH

KenTIP™ FS

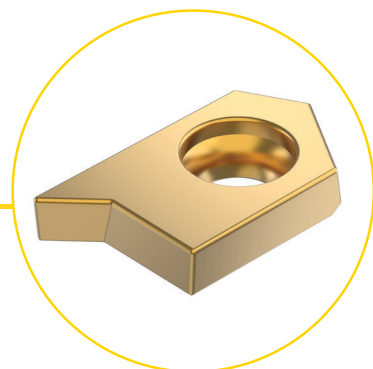
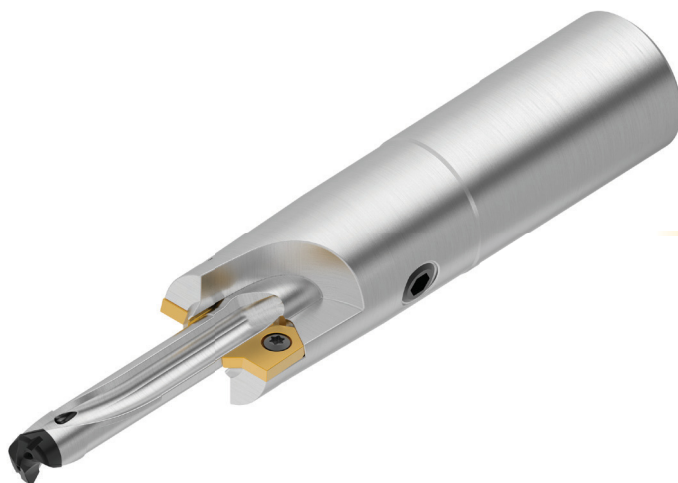
Modular Drilling



Straight fluted holders for static drilling applications.



GTP Insert for universal applications. GDrill geometry with 140° point angle. Excellent centering capabilities and low axial forces.



Straight fluted holders for combined drilling and countersinking applications.

INNOVATIONS

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CAS — Customer Application Support

Get Fast and Reliable Answers to Your Toughest Problems

Our CAS Team is the metalworking industry's leading help desk resource for tooling application solutions and problem resolution.

Easy Access to Proven Metalworking Expertise!

Kennametal Application Engineers assist customers and engineering groups throughout the world with expert tool selection and application recommendations for the entire range of Kennametal tooling.



Region	Originating Country	Language	CAS Hotline	Email
North America	USA	English	800 835 3668	na.techsupport@kennametal.com
	Mexico	Spanish	1800 253 0758	na.techsupport@kennametal.com
Africa	South Africa	English	+27117489300	na.techsupport@kennametal.com
Europe	Austria	German	0223 63181360	eu.techsupport@kennametal.com
	Belgium	English/French	0279 06 540	eu.techsupport@kennametal.com
	Denmark	English	808 89298	na.techsupport@kennametal.com
	Finland	English	0800 919412	na.techsupport@kennametal.com
	France	French	01 60 12 83 00	eu.techsupport@kennametal.com
	Germany	German	06003 8277110	eu.techsupport@kennametal.com
	Israel	English	—	na.techsupport@kennametal.com
	Italy	Italian	028 95 96 212	eu.techsupport@kennametal.com
	Netherlands	English	076 79 95 220	eu.techsupport@kennametal.com
	Norway	English	800 10080	na.techsupport@kennametal.com
	Poland	Polish	616 656 553	eu.techsupport@kennametal.com
	Russia	English	—	eu.techsupport@kennametal.com
	Sweden	English	0207 99246	na.techsupport@kennametal.com
UK	English	0138 44 08 095	na.techsupport@kennametal.com	
Ukraine	English	—	eu.techsupport@kennametal.com	
Asia Pacific	Australia	English	1800 666 667	ap-kmt.techsupport@kennametal.com
	India	English	1 800 103 5227	in.techsupport@kennametal.com
	Japan	English	03 3820 2855	ap-kmt.techsupport@kennametal.com
	Korea (South)	English	+82 2 2100 6100	ap-kmt.techsupport@kennametal.com
	Malaysia	English	1800 812 990	ap-kmt.techsupport@kennametal.com
	New Zealand	English	0800 450 941	ap-kmt.techsupport@kennametal.com
	Singapore	English	1800 6221031	ap-kmt.techsupport@kennametal.com
	Taiwan	English	0800 666 197	ap-kmt.techsupport@kennametal.com
Thailand	English	1800 4417820	ap-kmt.techsupport@kennametal.com	

Numbers shown only serve the originating country listed.

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Region	Country	Sales Hotline	Email
North America	United States	+1 800 446 7738	FtMill.Service@kennametal.com
	Canada	+1 800 446 7738	toronto.service@kennametal.com
	Mexico	+1 888 402 4963	k-mx.service@kennametal.com
Central/South America	Argentina	+54 11 4719 0700	buenos-aires.ventas@kennametal.com
	Brazil	+55 19 3936 9200	bra.marketing@kennametal.com
	Chile	+56 2 2264 1177	kennametalchile@kennametalchile.cl
Africa	Egypt	+44 1384 408060	na.techsupport@kennametal.com
	South Africa	+27 11 748 9300	na.techsupport@kennametal.com
Europe	Austria	+43 2236 3798980	brunn.sales@kennametal.com
	Belgium	+32 0800 81 372	belgium.sales@kennametal.com
	Czech Republic	+420 800 900 840	k-prha.sales@kennametal.com
	France	+33 1 60 12 81 00	info.fr@kennametal.com
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	Luxemborg	+32 4 248 48 48	liege.sales@kennametal.com
	Netherlands	+31 0800 44 33 201	netherlands.sales@kennametal.com
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	India	+91 800 103 5138	k-bngl.information@kennametal.com
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	Japan	+81 3 3820 2855	k-jp.service@kennametal.com
	Korea (South)	+82 2 2109 6100	k-kr-service@kennametal.com
	Malaysia	+60 3 5569 9080	k-sg.sales@kennametal.com
	New Zealand	+64 0800 536626	k-nz.service@kennametal.com
	Singapore*	+65 62659222	k-sg.sales@kennametal.com
	Taiwan	+886 4 2350 1920	taiwan.service@kennametal.com
Thailand	+66 2 642 3455	k-sg.sales@kennametal.com	

*Vietnam and Philippines individuals should contact the Singapore office.

Visit kennametal.com to find local Authorized Kennametal Distributors.



Spare Parts & Accessories Information

Lost a screw? Have to replace worn-out clamping wedges?
Need to find and re-order those spare parts?

Are you in need of some accessories, like a torque wrench or coolant shower plate? These tools are at your fingertips!
Go to kennametal.com and find what you need in seconds. Enter the catalog number of the corresponding tool, and it will display.

STEP 1 Enter the tool catalog number here

The screenshot shows the Kennametal website interface. At the top, there is a search bar with a magnifying glass icon. Below the search bar, there are navigation tabs for PRODUCTS, INDUSTRIES, SERVICES, RESOURCES, SUPPORT, and ABOUT US. The main content area displays the product details for a Mill 16 shell mill. The product title is "Mill 16™ • Shell Mill • Screw-On Clamping • Fine Pitch • Metric". Below the title, there is a sub-heading "Face Mill • Cast Iron Machining". The "Features and benefits" section lists: "Milling cutters for cast iron and compacted graphite iron (CGI) machining.", "Ideal for roughing of engine heads and blocks, housings, gear boxes, etc.", "Insert pocket numbering system.", and "High feed rate capability to boost productivity and reduce cycle time.". The "Uses and application" section includes icons for various applications. The "Workpiece Materials" section shows icons for P, M, K, and S. Below the product details, there is a table with technical specifications.

SAP Material Number	ISO Catalog Number	[D1] Effective Cutting Diameter	[D1MAX] Maximum Cutting Diameter	[D] Adapter / Shank / Bore Diameter	[D4] Bolt Circle 4	[D6] Hub Diameter
6159026	MILL16D063205ON08SC	63.0000	75.0200	22.0		50.0000

STEP 2 Select the spare parts & accessories

The screenshot shows the "Spare Parts for Mill 16™ • Shell Mill • Screw-On Clamping • Fine Pitch • Metric" section. It displays four product cards, each with an image of a spare part and a "Get Price" button. The first card is "Spare Part ANTI-SEIZE LUBRICANT". The second card is "WRENCH". The third card is "INSERT SCR M5-08 x 14 IP20". The fourth card is "SOCKET HEAD SCREW DIN 912 M10X25".



Digitally access spare parts and accessories information to ensure you keep your operation running.

Visit kennametal.com/novo and log into the web app. It's free!



Online Catalog

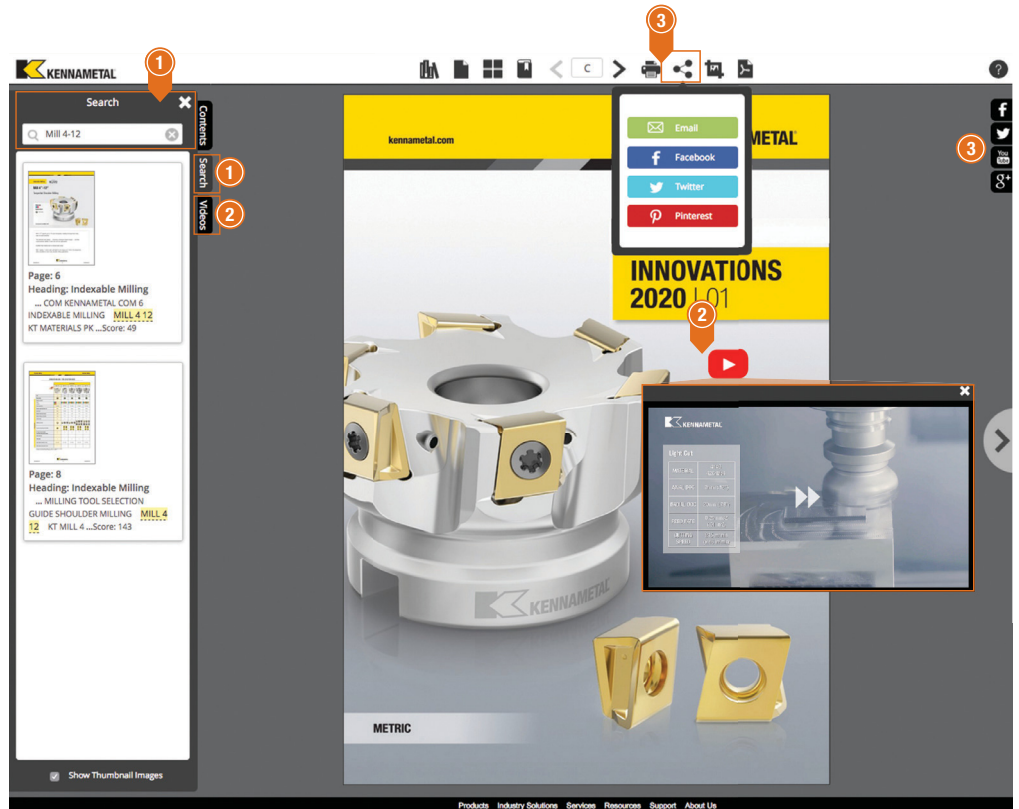
Can't find your paper copy of our catalog anymore?
No worries. Go to catalogs.kennametal.com to see what's out there.

Search for what you need, watch a video, and share pages with others, all from one site! Go to catalogs.kennametal.com, and if you want to check it out on your mobile device, just download the FREE app for iOS or Android™.

1 Search for what you need

2 Watch videos

3 Share with others






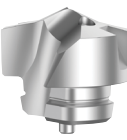



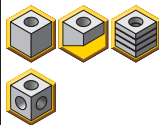

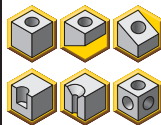

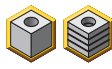













Check out our new catalog app.
Available in the Google Play™ Store or
the App Store®.

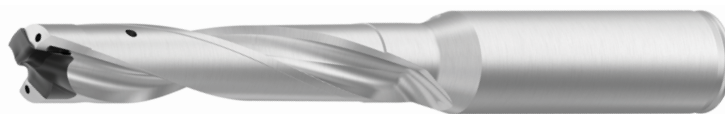


Modular Drills • Tool Selection Guide • KenTIP™ FS



	KenTIP FS						
	GTP	HPG	HPC	HPL	FEG	DAV	SPF
	NEW! 						
Page	12-14	15-19	23-25	20-22	27	26	26
Workpiece material							
Primary	P M K	P	K	M	P K	N C	C
Secondary	S	K	P	S	M	S	
Main operation							
Point angle	140°	143°	143°	140°	140°/180°	128°/155°	128°/90°
Cutting diameter [D1]	6,0-26,0mm (0.2362-1.0236")	6,0-26,0mm (0.2362-1.0236")	6,0-26,0mm (0.2362-1.0236")	6,0-26,0mm (0.2362-1.0236")	6,0-26,0mm (0.2362-1.0236")	6,35-12,7mm (0.2500-0.500")	6,35-12,7mm (0.2500-0.500")
Flutes and margin							
Corner chamfer							

Modular Drills • Tool Selection Guide • KSEM™

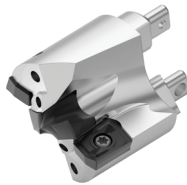


	KSEM						
	FEG	HP	HPG	HPCCL	HPL	SPL	PC
Page	H36*	H32*	H52*	H60*	H62*	H64*	H70*
Workpiece material							
Primary	P K	P	P	K	M	M S	P K
Secondary	M S	K	M K			P N	M
Main operation							
Point angle	150°/180°	140°	140°	140°	140°	140°	150°
Cutting diameter [D1]	12,5–40,0mm (0.4921–1.5748")	12,5–40,0mm (0.4921–1.5748")	12,5–40,0mm (0.4921–1.5748")	12,5–40,0mm (0.4921–1.5748")	12,5–40,0mm (0.4921–1.5748")	12,5–40,0mm (0.4921–1.5748")	12,5–40,0mm (0.4921–1.5748")
Flutes and margin							
Corner chamfer							

*See page in the Kennametal Master Catalog 2018 • Volume Two • Rotating Tools, A-16-05217.

Modular Drills • Tool Selection Guide • KSEM PLUS™ — A1 Heads

dia.: 1.10236–1.24996"
(28.00–31.74mm)



2 x DFR

dia.: 1.25000–2.79524"
(31.75–70.99mm)



2 x DFT

dia.: 2.79528–3.67516"
(71.00–93.34mm)



4 x DFT

dia.: 3.67520–4.00000"
(93.35–101.6mm)



6 x DFT



KSEM PLUS A1 Heads						
Drill head style						
Center insert	HPG			FEG		
Outboard insert	DFR-GD	DFR-MD	DFR-LD	DFT-HP	DFT-MD	DFT-DS
Page	H113*			H112–H113*		
Workpiece material						
Primary	P K S	P M	K N	P K S	P M	P M
Secondary	M N	K N S	P M S	M N	K N S	N S
Main operation						
Cutting diameter [D1]	28,0–31,75mm (1.1024–1.2500")			31,75–101,40mm (1.1875–4,0000")		
Flutes and margin						

*See page in the Kennametal Master Catalog 2018 • Volume Two • Rotating Tools, A-16-05217.

Modular Drills • Tool Selection Guide • KSEM PLUS™ — B1 Heads

dia.: 1.10236–1.24996"
(28.00–70.99mm)

dia.: 2.79528–3.67516"
(71.00–93.34mm)

dia.: 3.67520–4.00000"
(93.35–101.6mm)



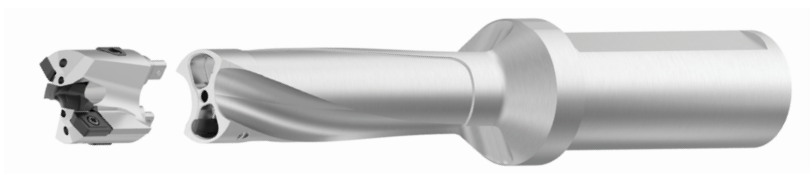
2 x DFC



4 x DFC



6 x DFC



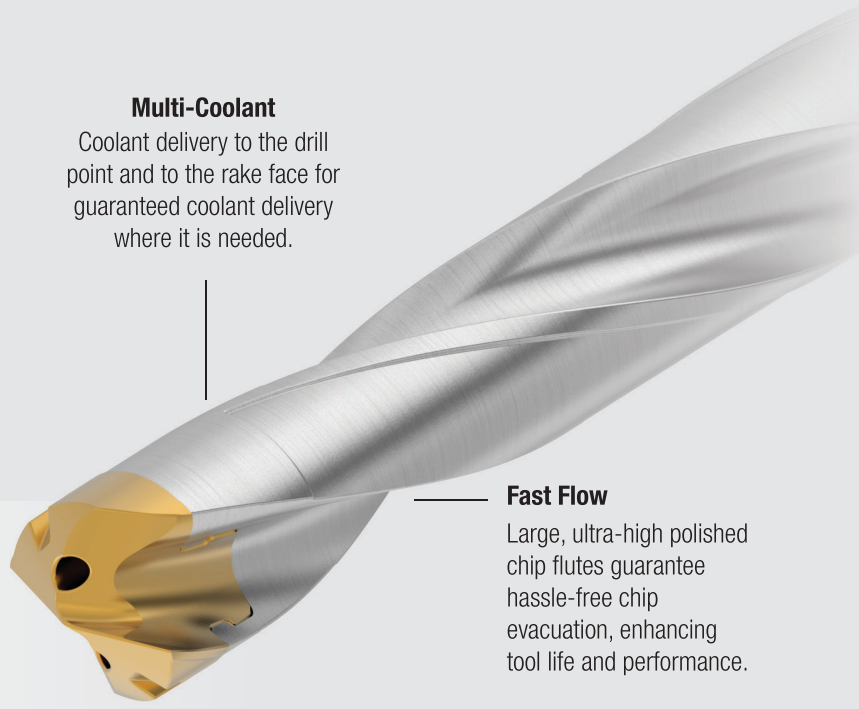
KSEM PLUS B1 Heads																																																					
Drill head style																																																					
Center insert	HPG		FEG																																																		
Outboard insert	DFC-HP	DFC-MD	DFC-DS	DFC-HPF																																																	
Page	H114*			44**																																																	
Workpiece material	<table border="1"> <tr> <td>P</td><td>K</td><td>S</td><td></td><td></td><td></td><td>P</td><td>M</td><td></td><td></td><td></td><td></td><td>P</td><td>M</td><td></td><td></td><td></td><td></td><td>P</td><td>S</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>M</td><td>N</td><td></td><td></td><td></td><td></td><td>K</td><td>N</td><td>S</td><td></td><td></td><td></td><td>N</td><td>S</td><td></td><td></td><td></td><td></td><td>M</td><td>K</td><td>N</td><td></td><td></td><td></td><td></td> </tr> </table>				P	K	S				P	M					P	M					P	S					M	N					K	N	S				N	S					M	K	N				
P	K	S				P	M					P	M					P	S																																		
M	N					K	N	S				N	S					M	K	N																																	
Main operation																																																					
Cutting diameter [D1]	28,0–101mm (1.1024–4.0000")																																																				
Flutes and margin																																																					

*See page in the Kennametal Master Catalog 2018 • Volume Two • Rotating Tools, A-16-05217.

**See page in the Kennametal Innovations 2020 • 02, A-19-06096.

KenTIP™ FS

Modular Drilling



Multi-Coolant

Coolant delivery to the drill point and to the rake face for guaranteed coolant delivery where it is needed.

Fast Flow

Large, ultra-high polished chip flutes guarantee hassle-free chip evacuation, enhancing tool life and performance.

Quick Release

Every drill body comes with a KenTIP smart wrench. Insert exchange in the machine becomes easy and saves idle time. And that saves money.

Materials



Applications



Counterboring



Countersinking/
Stroke Chamfering



Drilling



Drilling:
Inclined Entry



Drilling:
Stacked Plates



Drilling:
Flat Bottom



Drilling:
Inclined Exit



Drilling:
Cross Hole



Drilling:
Vibration Assisted

KenTIP FS covers more applications and provides better performance than any other modular system, delivering substantial cost savings and process simplifications on your shop floor.

KenTIP FS inserts cover the entire front part of the drill. The coupling is completely protected from chip flow and contact with the workpiece. Carbide where it matters.



NEW!

For static drilling applications.



NEW!

For combined drilling and countersinking applications.

NEW!

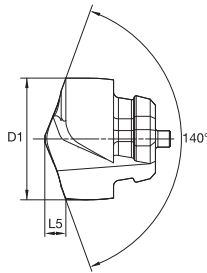
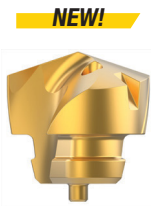


KenTIP™ FS GTP insert with the GDrill™ point design.

- GTP insert for universal applications.
- For steel, stainless steel, and cast iron.
- GDrill geometry with 140° point angle.
- Excellent centering capabilities and low axial forces.
- Through coolant.

KenTIP™ FS • Insert • GTP Geometry

- first choice
- alternate choice



P	●
M	●
K	●
N	●
S	○
H	●
C	●

order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KC7325
			mm	in	mm	in		
7001867	KTFST06000GTPM	KTFST06000GTPM	6,00	.236	0,95	.037	A	●
7001868	KTFST06350GTPM	KTFST02500GTP	6,35	.250	1,00	.039	B	●
7001869	KTFST06500GTPM	KTFST06500GTPM	6,50	.256	1,03	.041	B	●
7001870	KTFST06746GTPM	KTFST02656GTP	6,75	.266	1,07	.042	C	●
7002021	KTFST06800GTPM	KTFST06800GTPM	6,80	.268	1,08	.043	C	●
7002022	KTFST07000GTPM	KTFST07000GTPM	7,00	.276	1,11	.044	D	●
7002023	KTFST07500GTPM	KTFST07500GTPM	7,50	.295	1,19	.047	E	●
7002024	KTFST07938GTPM	KTFST03125GTP	7,94	.313	1,27	.050	E	●
7002025	KTFST08000GTPM	KTFST08000GTPM	8,00	.315	1,28	.050	F	●
7002026	KTFST08100GTPM	KTFST08100GTPM	8,10	.319	1,29	.051	F	●
7002027	KTFST08204GTPM	KTFST03230GTP	8,20	.323	1,31	.052	F	●
7002028	KTFST08300GTPM	KTFST08300GTPM	8,30	.327	1,33	.052	F	●
7002029	KTFST08334GTPM	KTFST03281GTP	8,33	.328	1,33	.052	F	●
7002030	KTFST08500GTPM	KTFST08500GTPM	8,50	.335	1,36	.054	G	●
7002051	KTFST08600GTPM	KTFST08600GTPM	8,60	.339	1,38	.054	G	●
7002052	KTFST08700GTPM	KTFST08700GTPM	8,70	.343	1,39	.055	G	●
7002053	KTFST08733GTPM	KTFST03438GTP	8,73	.344	1,40	.055	G	●
7002054	KTFST08800GTPM	KTFST08800GTPM	8,80	.347	1,41	.056	G	●
7002055	KTFST08900GTPM	KTFST08900GTPM	8,90	.350	1,43	.056	G	●
7002056	KTFST09000GTPM	KTFST09000GTPM	9,00	.354	1,44	.057	H	●
7002057	KTFST09100GTPM	KTFST09100GTPM	9,10	.358	1,46	.058	H	●
7002058	KTFST09300GTPM	KTFST09300GTPM	9,30	.366	1,49	.059	H	●
7002059	KTFST09347GTPM	KTFST03680GTP	9,35	.368	1,50	.059	H	●
7002060	KTFST09400GTPM	KTFST09400GTPM	9,40	.370	1,51	.059	H	●
7002071	KTFST09500GTPM	KTFST09500GTPM	9,50	.374	1,53	.060	I	●
7002072	KTFST09525GTPM	KTFST03750GTP	9,53	.375	1,53	.060	I	●
7002073	KTFST09558GTPM	KTFST03763GTP	9,56	.376	1,54	.061	I	●
7002074	KTFST09600GTPM	KTFST09600GTPM	9,60	.378	1,54	.061	I	●
7002075	KTFST09700GTPM	KTFST09700GTPM	9,70	.382	1,56	.061	I	●
7002076	KTFST09800GTPM	KTFST09800GTPM	9,80	.386	1,58	.062	I	●
7002077	KTFST09900GTPM	KTFST09900GTPM	9,90	.390	1,59	.063	I	●
7002078	KTFST09921GTPM	KTFST03906GTP	9,92	.391	1,60	.063	I	●
7002079	KTFST10000GTPM	KTFST10000GTPM	10,00	.394	1,61	.063	J	●
7002080	KTFST10100GTPM	KTFST10100GTPM	10,10	.398	1,63	.064	J	●
7002081	KTFST10200GTPM	KTFST10200GTPM	10,20	.402	1,64	.065	J	●
7002430	KTFST10300GTPM	KTFST10300GTPM	10,30	.406	1,66	.065	J	●
7002511	KTFST10320GTPM	KTFST04063GTP	10,32	.406	1,66	.065	J	●
7002512	KTFST10400GTPM	KTFST10400GTPM	10,40	.409	1,68	.066	J	●
7002513	KTFST10500GTPM	KTFST10500GTPM	10,50	.413	1,69	.067	K	●
7002514	KTFST10600GTPM	KTFST10600GTPM	10,60	.417	1,71	.067	K	●
7002515	KTFST10700GTPM	KTFST10700GTPM	10,70	.421	1,73	.068	K	●
7002516	KTFST10716GTPM	KTFST04219GTP	10,72	.422	1,73	.068	K	●
7002517	KTFST10800GTPM	KTFST10800GTPM	10,80	.425	1,74	.069	K	●
7002518	KTFST10900GTPM	KTFST10900GTPM	10,90	.429	1,76	.069	K	●
7002519	KTFST11000GTPM	KTFST11000GTPM	11,00	.433	1,78	.070	L	●
7002520	KTFST11100GTPM	KTFST11100GTPM	11,10	.437	1,79	.071	L	●
7002521	KTFST11113GTPM	KTFST04375GTP	11,11	.438	1,79	.071	L	●
7002522	KTFST11200GTPM	KTFST11200GTPM	11,20	.441	1,81	.071	L	●
7002523	KTFST11300GTPM	KTFST11300GTPM	11,30	.445	1,83	.072	L	●
7002524	KTFST11500GTPM	KTFST11500GTPM	11,50	.453	1,86	.073	M	●
7002525	KTFST11509GTPM	KTFST04531GTP	11,51	.453	1,86	.073	M	●
7002526	KTFST11600GTPM	KTFST11600GTPM	11,60	.457	1,88	.074	M	●
7002527	KTFST11700GTPM	KTFST11700GTPM	11,70	.461	1,89	.074	M	●
7002528	KTFST11800GTPM	KTFST11800GTPM	11,80	.465	1,91	.075	M	●
7002529	KTFST11900GTPM	KTFST11900GTPM	11,90	.469	1,93	.076	M	●
7002530	KTFST11908GTPM	KTFST04688GTP	11,91	.469	1,93	.076	M	●

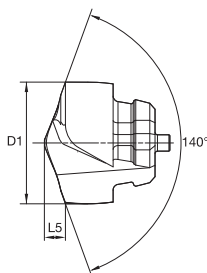
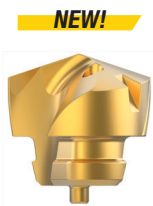
160-163	164	55-57	98, 168



KenTIP™ FS • Insert • GTP Geometry

(continued)

- first choice
- alternate choice



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order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KC7325
			mm	in	mm	in		
7002531	KTFST12000GTPM	KTFST12000GTPM	12,00	.472	1,94	.076	N	●
7002532	KTFST12100GTPM	KTFST12100GTPM	12,10	.476	1,96	.077	N	●
7002533	KTFST12200GTPM	KTFST12200GTPM	12,20	.480	1,98	.078	N	●
7002535	KTFST12304GTPM	KTFST04844GTP	12,30	.484	1,99	.078	N	●
7002536	KTFST12400GTPM	KTFST12400GTPM	12,40	.488	2,01	.079	N	●
7002538	KTFST12474GTPM	KTFST04911GTP	12,47	.491	2,02	.080	N	●
7002539	KTFST12500GTPM	KTFST12500GTPM	12,50	.492	2,03	.080	O	●
7002540	KTFST12600GTPM	KTFST12600GTPM	12,60	.496	2,04	.080	O	●
7002541	KTFST12700GTPM	KTFST05000GTP	12,70	.500	2,06	.081	O	●
7002542	KTFST12800GTPM	KTFST12800GTPM	12,80	.504	2,08	.082	O	●
7002543	KTFST12900GTPM	KTFST12900GTPM	12,90	.508	2,09	.082	O	●
7002544	KTFST13000GTPM	KTFST13000GTPM	13,00	.512	2,11	.083	P	●
7002545	KTFST13096GTPM	KTFST05156GTP	13,10	.516	2,13	.084	P	●
7002546	KTFST13200GTPM	KTFST13200GTPM	13,20	.520	2,14	.084	P	●
7005301	KTFST13300GTPM	KTFST13300GTPM	13,30	.524	2,16	.085	P	●
7005302	KTFST13400GTPM	KTFST13400GTPM	13,40	.528	2,18	.086	P	●
7005304	KTFST13492GTPM	KTFST05312GTP	13,49	.531	2,19	.086	P	●
7005305	KTFST13500GTPM	KTFST13500GTPM	13,50	.532	2,19	.086	Q	●
7005306	KTFST13600GTPM	KTFST13600GTPM	13,60	.535	2,21	.087	Q	●
7005307	KTFST13700GTPM	KTFST13700GTPM	13,70	.539	2,23	.088	Q	●
7005308	KTFST13800GTPM	KTFST13800GTPM	13,80	.543	2,24	.088	Q	●
7005309	KTFST13891GTPM	KTFST05469GTP	13,89	.547	2,26	.089	Q	●
7005310	KTFST13940GTPM	KTFST05488GTP	13,94	.549	2,27	.089	Q	●
7005311	KTFST14000GTPM	KTFST14000GTPM	14,00	.551	2,28	.090	R	●
7005312	KTFST14100GTPM	KTFST14100GTPM	14,10	.555	2,29	.090	R	●
7005313	KTFST14200GTPM	KTFST14200GTPM	14,20	.559	2,31	.091	R	●
7005314	KTFST14288GTPM	KTFST05625GTP	14,29	.563	2,32	.091	R	●
7005315	KTFST14300GTPM	KTFST14300GTPM	14,30	.563	2,33	.092	R	●
7005316	KTFST14400GTPM	KTFST14400GTPM	14,40	.567	2,34	.092	R	●
7005317	KTFST14500GTPM	KTFST14500GTPM	14,50	.571	2,36	.093	S	●
7005318	KTFST14600GTPM	KTFST14600GTPM	14,60	.575	2,38	.094	S	●
7005319	KTFST14684GTPM	KTFST05781GTP	14,68	.578	2,39	.094	S	●
7005320	KTFST14800GTPM	KTFST14800GTPM	14,80	.583	2,41	.095	S	●
7005321	KTFST15000GTPM	KTFST15000GTPM	15,00	.591	2,44	.096	T	●
7005322	KTFST15083GTPM	KTFST05938GTP	15,08	.594	2,46	.097	T	●
7005323	KTFST15100GTPM	KTFST15100GTPM	15,10	.595	2,46	.097	T	●
7005324	KTFST15200GTPM	KTFST15200GTPM	15,20	.598	2,48	.098	T	●
7005325	KTFST15300GTPM	KTFST15300GTPM	15,30	.602	2,49	.098	T	●
7005326	KTFST15479GTPM	KTFST06094GTP	15,48	.609	2,52	.099	T	●
7005327	KTFST15500GTPM	KTFST15500GTPM	15,50	.610	2,53	.100	T	●
7005328	KTFST15600GTPM	KTFST15600GTPM	15,60	.614	2,54	.100	T	●
7005329	KTFST15700GTPM	KTFST15700GTPM	15,70	.618	2,56	.101	T	●
7005330	KTFST15800GTPM	KTFST15800GTPM	15,80	.622	2,58	.102	T	●
7005331	KTFST15875GTPM	KTFST06250GTP	15,88	.625	2,59	.102	T	●
7005332	KTFST16000GTPM	KTFST16000GTPM	16,00	.630	2,61	.103	U	●
7005333	KTFST16100GTPM	KTFST16100GTPM	16,10	.634	2,63	.104	U	●
7005334	KTFST16200GTPM	KTFST16200GTPM	16,20	.638	2,65	.104	U	●
7005335	KTFST16300GTPM	KTFST16300GTPM	16,30	.642	2,66	.105	U	●
7005336	KTFST16400GTPM	KTFST16400GTPM	16,40	.646	2,68	.106	U	●
7004192	KTFST16500GTPM	KTFST16500GTPM	16,50	.650	2,70	.106	U	●
7004193	KTFST16600GTPM	KTFST16600GTPM	16,60	.654	2,71	.107	U	●
7004194	KTFST16670GTPM	KTFST06563GTP	16,67	.656	2,72	.107	U	●
7004195	KTFST16700GTPM	KTFST16700GTPM	16,70	.658	2,73	.108	U	●
7004196	KTFST16800GTPM	KTFST16800GTPM	16,80	.661	2,75	.108	U	●
7004197	KTFST16900GTPM	KTFST16900GTPM	16,90	.665	2,76	.109	U	●
7004198	KTFST17000GTPM	KTFST17000GTPM	17,00	.669	2,78	.109	V	●

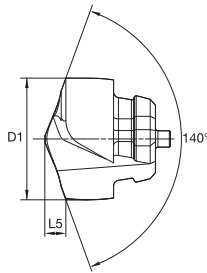
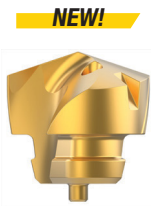
160-163	164	55-57	98, 168



KenTIP™ FS • Insert • GTP Geometry

(continued)

- first choice
- alternate choice

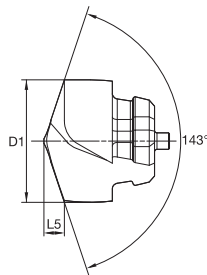


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order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KC7325
			mm	in	mm	in		
7004199	KTFST17066GTPM	KTFST06719GTP	17,07	.672	2,79	.110	V	●
7004200	KTFST17100GTPM	KTFST17100GTPM	17,10	.673	2,80	.110	V	●
7004221	KTFST17200GTPM	KTFST17200GTPM	17,20	.677	2,81	.111	V	●
7004222	KTFST17300GTPM	KTFST17300GTPM	17,30	.681	2,83	.111	V	●
7004223	KTFST17400GTPM	KTFST17400GTPM	17,40	.685	2,85	.112	V	●
7004224	KTFST17463GTPM	KTFST06875GTP	17,46	.688	2,86	.113	V	●
7004225	KTFST17500GTPM	KTFST17500GTPM	17,50	.689	2,86	.113	V	●
7004226	KTFST17600GTPM	KTFST17600GTPM	17,60	.693	2,88	.113	V	●
7004227	KTFST17700GTPM	KTFST17700GTPM	17,70	.697	2,90	.114	V	●
7004228	KTFST17800GTPM	KTFST17800GTPM	17,80	.701	2,91	.115	V	●
7004229	KTFST17859GTPM	KTFST07031GTP	17,86	.703	2,92	.115	V	●
7004230	KTFST17900GTPM	KTFST17900GTPM	17,90	.705	2,93	.115	V	●
7004231	KTFST18000GTPM	KTFST18000GTPM	18,00	.709	2,95	.116	W	●
7004232	KTFST18100GTPM	KTFST18100GTPM	18,10	.713	2,96	.117	W	●
7004233	KTFST18258GTPM	KTFST07188GTP	18,26	.719	2,99	.118	W	●
7004234	KTFST18300GTPM	KTFST18300GTPM	18,30	.721	3,00	.118	W	●
7004235	KTFST18400GTPM	KTFST18400GTPM	18,40	.724	3,01	.119	W	●
7004236	KTFST18500GTPM	KTFST18500GTPM	18,50	.728	3,03	.119	W	●
7004237	KTFST18600GTPM	KTFST18600GTPM	18,60	.732	3,05	.120	W	●
7004238	KTFST18700GTPM	KTFST18700GTPM	18,70	.736	3,07	.121	W	●
7004239	KTFST18800GTPM	KTFST18800GTPM	18,80	.740	3,08	.121	W	●
7004240	KTFST18900GTPM	KTFST18900GTPM	18,90	.744	3,10	.122	W	●
7004241	KTFST19000GTPM	KTFST19000GTPM	19,00	.748	3,12	.123	X	●
7004242	KTFST19050GTPM	KTFST07500GTP	19,05	.750	3,12	.123	X	●
7004243	KTFST19100GTPM	KTFST19100GTPM	19,10	.752	3,13	.123	X	●
7004244	KTFST19200GTPM	KTFST19200GTPM	19,20	.756	3,15	.124	X	●
7004245	KTFST19253GTPM	KTFST07580GTP	19,25	.758	3,16	.124	X	●
7004246	KTFST19279GTPM	KTFST07590GTP	19,28	.759	3,16	.124	X	●
7002302	KTFST19300GTPM	KTFST19300GTPM	19,30	.760	3,17	.125	X	●
7002303	KTFST19500GTPM	KTFST19500GTPM	19,50	.768	3,20	.126	X	●
7002304	KTFST19700GTPM	KTFST19700GTPM	19,70	.776	3,23	.127	X	●
7002305	KTFST19800GTPM	KTFST19800GTPM	19,80	.780	3,25	.128	X	●
7002306	KTFST19845GTPM	KTFST07813GTP	19,85	.781	3,26	.128	X	●
7002307	KTFST19900GTPM	KTFST19900GTPM	19,90	.784	3,27	.129	X	●
7002308	KTFST20000GTPM	KTFST20000GTPM	20,00	.787	3,28	.129	Y	●
7002309	KTFST20100GTPM	KTFST20100GTPM	20,10	.791	3,30	.130	Y	●
7002310	KTFST20200GTPM	KTFST20200GTPM	20,20	.795	3,32	.131	Y	●
7002451	KTFST20300GTPM	KTFST20300GTPM	20,30	.799	3,33	.131	Y	●
7002452	KTFST20500GTPM	KTFST20500GTPM	20,50	.807	3,37	.133	Y	●
7002453	KTFST20600GTPM	KTFST20600GTPM	20,60	.811	3,38	.133	Y	●
7002454	KTFST20638GTPM	KTFST08125GTP	20,64	.813	3,39	.134	Y	●
7002455	KTFST21000GTPM	KTFST21000GTPM	21,00	.827	3,45	.136	Z	●
7002456	KTFST21100GTPM	KTFST21100GTPM	21,10	.831	3,47	.137	Z	●
7002457	KTFST21200GTPM	KTFST21200GTPM	21,20	.835	3,49	.137	Z	●
7002458	KTFST21500GTPM	KTFST21500GTPM	21,50	.847	3,54	.139	Z	●
7002459	KTFST21800GTPM	KTFST21800GTPM	21,80	.858	3,59	.141	Z	●
7002460	KTFST22000GTPM	KTFST22000GTPM	22,00	.866	3,62	.143	ZA	●
7002461	KTFST22200GTPM	KTFST22200GTPM	22,20	.874	3,65	.144	ZA	●
7002462	KTFST22225GTPM	KTFST08750GTP	22,23	.875	3,66	.144	ZA	●
7002463	KTFST22500GTPM	KTFST22500GTPM	22,50	.886	3,70	.146	ZA	●
7002464	KTFST22800GTPM	KTFST22800GTPM	22,80	.898	3,75	.148	ZA	●
7002465	KTFST23000GTPM	KTFST23000GTPM	23,00	.906	3,79	.149	ZB	●
7002466	KTFST23200GTPM	KTFST23200GTPM	23,20	.913	3,82	.150	ZB	●
7002467	KTFST23500GTPM	KTFST23500GTPM	23,50	.925	3,87	.152	ZB	●
7002468	KTFST23813GTPM	KTFST09375GTP	23,81	.938	3,93	.155	ZB	●
7002469	KTFST24000GTPM	KTFST24000GTPM	24,00	.945	3,96	.156	ZC	●
7002470	KTFST24500GTPM	KTFST24500GTPM	24,50	.965	4,04	.159	ZC	●
7002471	KTFST24700GTPM	KTFST24700GTPM	24,70	.972	4,07	.160	ZC	●
7002472	KTFST25000GTPM	KTFST25000GTPM	25,00	.984	4,13	.163	ZD	●
7002473	KTFST25400GTPM	KTFST10000GTP	25,40	1.000	4,19	.165	ZD	●
7002474	KTFST25500GTPM	KTFST25500GTPM	25,50	1.004	4,21	.166	ZD	●
7002475	KTFST25679GTPM	KTFST10110GTP	25,68	1.011	4,24	.167	ZD	●
7002476	KTFST26000GTPM	KTFST26000GTPM	26,00	1.024	4,29	.169	ZD	●



KentIP™ FS • Insert • HPG Geometry



● first choice
○ alternate choice

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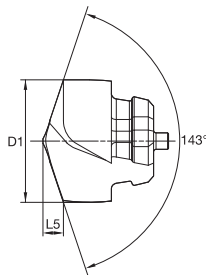
order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KCP15A
			mm	in	mm	in		
6388539	KTFSS06000HPGM	KTFSS06000HPGM	6,00	.236	1,37	.054	A	●
6388541	KTFSS06100HPGM	KTFSS06100HPGM	6,10	.240	1,38	.054	A	●
6388543	KTFSS06200HPGM	KTFSS06200HPGM	6,20	.244	1,40	.055	A	●
6388545	KTFSS06300HPGM	KTFSS06300HPGM	6,30	.248	1,44	.057	B	●
6388547	KTFSS06350HPGM	KTFSS02500HPG	6,35	.250	1,45	.057	B	●
6388551	KTFSS06500HPGM	KTFSS06500HPGM	6,50	.256	1,47	.058	B	●
6388553	KTFSS06530HPGM	KTFSS06530HPGM	6,53	.257	1,48	.058	B	●
6388555	KTFSS06600HPGM	KTFSS06600HPGM	6,60	.260	1,49	.059	C	●
6388559	KTFSS06700HPGM	KTFSS06700HPGM	6,70	.264	1,51	.059	C	●
6388561	KTFSS06746HPGM	KTFSS02656HPG	6,75	.266	1,52	.060	C	●
6388563	KTFSS06800HPGM	KTFSS06800HPGM	6,80	.268	1,53	.060	C	●
6388565	KTFSS06900HPGM	KTFSS06900HPGM	6,90	.272	1,54	.061	C	●
6388567	KTFSS06909HPGM	KTFSS02720HPG	6,91	.272	1,54	.061	C	●
6388569	KTFSS07000HPGM	KTFSS07000HPGM	7,00	.276	1,59	.063	D	●
6388571	KTFSS07100HPGM	KTFSS07100HPGM	7,10	.280	1,61	.063	D	●
6388573	KTFSS07145HPGM	KTFSS02813HPG	7,15	.281	1,61	.063	D	●
6388576	KTFSS07200HPGM	KTFSS07200HPGM	7,20	.284	1,62	.064	D	●
6388578	KTFSS07366HPGM	KTFSS02900HPG	7,37	.290	1,65	.065	D	●
6388580	KTFSS07400HPGM	KTFSS07400HPGM	7,40	.291	1,66	.065	D	●
6388582	KTFSS07500HPGM	KTFSS07500HPGM	7,50	.295	1,68	.066	E	●
6388584	KTFSS07541HPGM	KTFSS02969HPG	7,54	.297	1,69	.067	E	●
6388586	KTFSS07600HPGM	KTFSS07600HPGM	7,60	.299	1,70	.067	E	●
6388588	KTFSS07700HPGM	KTFSS07700HPGM	7,70	.303	1,71	.067	E	●
6388590	KTFSS07800HPGM	KTFSS07800HPGM	7,80	.307	1,73	.068	E	●
6388592	KTFSS07900HPGM	KTFSS07900HPGM	7,90	.311	1,75	.069	E	●
6388594	KTFSS07938HPGM	KTFSS03125HPG	7,94	.313	1,75	.069	E	●
6388596	KTFSS08000HPGM	KTFSS08000HPGM	8,00	.315	1,80	.071	F	●
6388598	KTFSS08100HPGM	KTFSS08100HPGM	8,10	.319	1,82	.072	F	●
6388599	KTFSS08164HPGM	KTFSS03214HPG	8,16	.321	1,83	.072	F	●
6388602	KTFSS08204HPGM	KTFSS03230HPG	8,20	.323	1,84	.072	F	●
6388604	KTFSS08300HPGM	KTFSS08300HPGM	8,30	.327	1,85	.073	F	●
6388606	KTFSS08334HPGM	KTFSS03281HPG	8,33	.328	1,86	.073	F	●
6388608	KTFSS08400HPGM	KTFSS08400HPGM	8,40	.331	1,87	.074	F	●
6388610	KTFSS08433HPGM	KTFSS03320HPG	8,43	.332	1,87	.074	F	●
6388611	KTFSS08500HPGM	KTFSS08500HPGM	8,50	.335	1,89	.074	G	●
6388613	KTFSS08600HPGM	KTFSS08600HPGM	8,60	.339	1,91	.075	G	●
6388615	KTFSS08611HPGM	KTFSS03390HPG	8,61	.339	1,91	.075	G	●
6388617	KTFSS08700HPGM	KTFSS08700HPGM	8,70	.343	1,92	.076	G	●
6388620	KTFSS08733HPGM	KTFSS03438HPG	8,73	.344	1,93	.076	G	●
6388622	KTFSS08800HPGM	KTFSS08800HPGM	8,80	.347	1,94	.076	G	●
6388624	KTFSS08839HPGM	KTFSS03480HPG	8,84	.348	1,95	.077	G	●
6388626	KTFSS08900HPGM	KTFSS08900HPGM	8,90	.350	1,96	.077	G	●
6388628	KTFSS09000HPGM	KTFSS09000HPGM	9,00	.354	2,01	.079	H	●
6388630	KTFSS09093HPGM	KTFSS03580HPG	9,09	.358	2,03	.080	H	●
6388642	KTFSS09100HPGM	KTFSS09100HPGM	9,10	.358	2,03	.080	H	●
6388644	KTFSS09129HPGM	KTFSS03594HPG	9,13	.359	2,03	.080	H	●
6388646	KTFSS09200HPGM	KTFSS09200HPGM	9,20	.362	2,04	.080	H	●
6388648	KTFSS09300HPGM	KTFSS09300HPGM	9,30	.366	2,06	.081	H	●
6388650	KTFSS09347HPGM	KTFSS03680HPG	9,35	.368	2,07	.082	H	●
6388652	KTFSS09400HPGM	KTFSS09400HPGM	9,40	.370	2,08	.082	H	●
6388654	KTFSS09500HPGM	KTFSS09500HPGM	9,50	.374	2,10	.083	I	●
6388656	KTFSS09525HPGM	KTFSS03750HPG	9,53	.375	2,11	.083	I	●
6388658	KTFSS09558HPGM	KTFSS03763HPG	9,56	.376	2,11	.083	I	●
6388660	KTFSS09600HPGM	KTFSS09600HPGM	9,60	.378	2,12	.084	I	●
6388662	KTFSS09700HPGM	KTFSS09700HPGM	9,70	.382	2,13	.084	I	●
6388664	KTFSS09800HPGM	KTFSS09800HPGM	9,80	.386	2,15	.085	I	●

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KenTIP™ FS • Insert • HPG Geometry

(continued)



- first choice
- alternate choice

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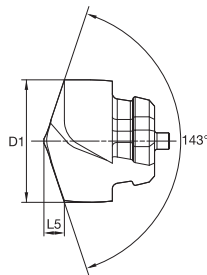
order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KCP15A
			mm	in	mm	in		
6388666	KTFSS09900HPGM	KTFSS09900HPGM	9,90	.390	2,17	.085	I	●
6388668	KTFSS09921HPGM	KTFSS03906HPG	9,92	.391	2,17	.085	I	●
6388670	KTFSS10000HPGM	KTFSS10000HPGM	10,00	.394	2,22	.087	J	●
6388672	KTFSS10023HPGM	KTFSS03946HPG	10,02	.395	2,22	.087	J	●
6388674	KTFSS10084HPGM	KTFSS03970HPG	10,08	.397	2,23	.088	J	●
6388676	KTFSS10100HPGM	KTFSS10100HPGM	10,10	.398	2,24	.088	J	●
6388678	KTFSS10200HPGM	KTFSS10200HPGM	10,20	.402	2,25	.089	J	●
6388680	KTFSS10262HPGM	KTFSS04040HPG	10,26	.404	2,26	.089	J	●
6388682	KTFSS10300HPGM	KTFSS10300HPGM	10,30	.406	2,27	.089	J	●
6388684	KTFSS10320HPGM	KTFSS04063HPG	10,32	.406	2,27	.089	J	●
6388686	KTFSS10400HPGM	KTFSS10400HPGM	10,40	.409	2,29	.090	J	●
6388688	KTFSS10490HPGM	KTFSS04130HPG	10,49	.413	2,30	.091	J	●
6388690	KTFSS10500HPGM	KTFSS10500HPGM	10,50	.413	2,31	.091	K	●
6388692	KTFSS10600HPGM	KTFSS10600HPGM	10,60	.417	2,33	.092	K	●
6388694	KTFSS10700HPGM	KTFSS10700HPGM	10,70	.421	2,34	.092	K	●
6388696	KTFSS10716HPGM	KTFSS04219HPG	10,72	.422	2,35	.093	K	●
6388698	KTFSS10800HPGM	KTFSS10800HPGM	10,80	.425	2,36	.093	K	●
6388700	KTFSS10900HPGM	KTFSS10900HPGM	10,90	.429	2,38	.094	K	●
6388702	KTFSS11000HPGM	KTFSS11000HPGM	11,00	.433	2,43	.096	L	●
6388704	KTFSS11100HPGM	KTFSS11100HPGM	11,10	.437	2,45	.097	L	●
6388706	KTFSS11113HPGM	KTFSS04375HPG	11,11	.438	2,45	.097	L	●
6388708	KTFSS11200HPGM	KTFSS11200HPGM	11,20	.441	2,46	.097	L	●
6388710	KTFSS11300HPGM	KTFSS11300HPGM	11,30	.445	2,48	.098	L	●
6388712	KTFSS11400HPGM	KTFSS11400HPGM	11,40	.449	2,50	.098	L	●
6388714	KTFSS11500HPGM	KTFSS11500HPGM	11,50	.453	2,52	.099	M	●
6388716	KTFSS11509HPGM	KTFSS04531HPG	11,51	.453	2,52	.099	M	●
6388718	KTFSS11600HPGM	KTFSS11600HPGM	11,60	.457	2,54	.100	M	●
6388720	KTFSS11700HPGM	KTFSS11700HPGM	11,70	.461	2,55	.100	M	●
6388722	KTFSS11800HPGM	KTFSS11800HPGM	11,80	.465	2,57	.101	M	●
6388724	KTFSS11900HPGM	KTFSS11900HPGM	11,90	.469	2,59	.102	M	●
6388726	KTFSS11908HPGM	KTFSS04688HPG	11,91	.469	2,59	.102	M	●
6388728	KTFSS12000HPGM	KTFSS12000HPGM	12,00	.472	2,64	.104	N	●
6388730	KTFSS12100HPGM	KTFSS12100HPGM	12,10	.476	2,65	.104	N	●
6388732	KTFSS12200HPGM	KTFSS12200HPGM	12,20	.480	2,67	.105	N	●
6388734	KTFSS12304HPGM	KTFSS04844HPG	12,30	.484	2,69	.106	N	●
6388736	KTFSS12400HPGM	KTFSS12400HPGM	12,40	.488	2,70	.106	N	●
6388738	KTFSS12474HPGM	KTFSS04911HPG	12,47	.491	2,72	.107	N	●
6388740	KTFSS12500HPGM	KTFSS12500HPGM	12,50	.492	2,73	.108	O	●
6388742	KTFSS12600HPGM	KTFSS12600HPGM	12,60	.496	2,74	.108	O	●
6388744	KTFSS12700HPGM	KTFSS05000HPG	12,70	.500	2,76	.109	O	●
6388746	KTFSS12800HPGM	KTFSS12800HPGM	12,80	.504	2,78	.109	O	●
6388749	KTFSS12900HPGM	KTFSS12900HPGM	12,90	.508	2,79	.110	O	●
6388751	KTFSS13000HPGM	KTFSS13000HPGM	13,00	.512	2,85	.112	P	●
6388753	KTFSS13096HPGM	KTFSS05156HPG	13,10	.516	2,86	.113	P	●
6388755	KTFSS13200HPGM	KTFSS13200HPGM	13,20	.520	2,88	.113	P	●
6388757	KTFSS13280HPGM	KTFSS13280HPGM	13,28	.523	2,89	.114	P	●
6388759	KTFSS13300HPGM	KTFSS13300HPGM	13,30	.524	2,90	.114	P	●
6388761	KTFSS13380HPGM	KTFSS13380HPGM	13,38	.527	2,91	.115	P	●
6388763	KTFSS13400HPGM	KTFSS13400HPGM	13,40	.528	2,91	.115	P	●
6388765	KTFSS13492HPGM	KTFSS05312HPG	13,49	.531	2,93	.115	P	●
6388767	KTFSS13500HPGM	KTFSS13500HPGM	13,50	.532	2,93	.115	Q	●
6388769	KTFSS13600HPGM	KTFSS13600HPGM	13,60	.535	2,95	.116	Q	●
6388771	KTFSS13700HPGM	KTFSS13700HPGM	13,70	.539	2,97	.117	Q	●
6388773	KTFSS13800HPGM	KTFSS13800HPGM	13,80	.543	2,98	.117	Q	●
6388775	KTFSS13891HPGM	KTFSS05469HPG	13,89	.547	3,00	.118	Q	●
6388777	KTFSS13896HPGM	KTFSS05471HPG	13,90	.547	3,00	.118	Q	●

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- first choice
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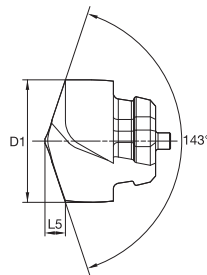
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			mm	in	mm	in		
6388779	KTFSS13940HPGM	KTFSS13940HPGM	13,94	.549	3,01	.119	Q	●
6388781	KTFSS14000HPGM	KTFSS14000HPGM	14,00	.551	3,05	.120	R	●
6388784	KTFSS14100HPGM	KTFSS14100HPGM	14,10	.555	3,07	.121	R	●
6388786	KTFSS14200HPGM	KTFSS14200HPGM	14,20	.559	3,09	.122	R	●
6388787	KTFSS14288HPGM	KTFSS05625HPG	14,29	.563	3,10	.122	R	●
6388789	KTFSS14300HPGM	KTFSS14300HPGM	14,30	.563	3,10	.122	R	●
6388791	KTFSS14400HPGM	KTFSS14400HPGM	14,40	.567	3,12	.123	R	●
6388792	KTFSS14500HPGM	KTFSS14500HPGM	14,50	.571	3,14	.124	S	●
6388793	KTFSS14600HPGM	KTFSS14600HPGM	14,60	.575	3,16	.124	S	●
6388794	KTFSS14666HPGM	KTFSS05774HPG	14,67	.577	3,17	.125	S	●
6388795	KTFSS14684HPGM	KTFSS05781HPG	14,68	.578	3,17	.125	S	●
6388796	KTFSS14700HPGM	KTFSS14700HPGM	14,70	.579	3,17	.125	S	●
6388798	KTFSS14800HPGM	KTFSS14800HPGM	14,80	.583	3,19	.126	S	●
6388799	KTFSS14900HPGM	KTFSS14900HPGM	14,90	.587	3,21	.126	S	●
6388800	KTFSS15000HPGM	KTFSS15000HPGM	15,00	.591	3,26	.128	T	●
6388821	KTFSS15083HPGM	KTFSS05938HPG	15,08	.594	3,27	.129	T	●
6388822	KTFSS15100HPGM	KTFSS15100HPGM	15,10	.595	3,28	.129	T	●
6388823	KTFSS15200HPGM	KTFSS15200HPGM	15,20	.598	3,29	.130	T	●
6388824	KTFSS15300HPGM	KTFSS15300HPGM	15,30	.602	3,31	.130	T	●
6388825	KTFSS15380HPGM	KTFSS15380HPGM	15,38	.606	3,32	.131	T	●
6388826	KTFSS15400HPGM	KTFSS15400HPGM	15,40	.606	3,33	.131	T	●
6388828	KTFSS15479HPGM	KTFSS06094HPG	15,48	.609	3,34	.132	T	●
6388829	KTFSS15500HPGM	KTFSS15500HPGM	15,50	.610	3,34	.132	T	●
6388830	KTFSS15600HPGM	KTFSS15600HPGM	15,60	.614	3,36	.132	T	●
6388831	KTFSS15700HPGM	KTFSS15700HPGM	15,70	.618	3,38	.133	T	●
6388832	KTFSS15800HPGM	KTFSS15800HPGM	15,80	.622	3,39	.134	T	●
6388833	KTFSS15875HPGM	KTFSS06250HPG	15,88	.625	3,41	.134	T	●
6388834	KTFSS15900HPGM	KTFSS15900HPGM	15,90	.626	3,41	.134	T	●
6388420	KTFSS16000HPGM	KTFSS16000HPGM	16,00	.630	3,48	.137	U	●
6388531	KTFSS16027HPGM	KTFSS06310HPG	16,03	.631	3,49	.137	U	●
6388532	KTFSS16080HPGM	KTFSS16080HPGM	16,08	.633	3,49	.137	U	●
6388533	KTFSS16104HPGM	KTFSS06340HPG	16,10	.634	3,50	.138	U	●
6388534	KTFSS16100HPGM	KTFSS16100HPGM	16,10	.634	3,50	.138	U	●
6388535	KTFSS16200HPGM	KTFSS16200HPGM	16,20	.638	3,51	.138	U	●
6388536	KTFSS16271HPGM	KTFSS06406HPG	16,27	.641	3,53	.139	U	●
6388537	KTFSS16300HPGM	KTFSS16300HPGM	16,30	.642	3,53	.139	U	●
6388538	KTFSS16400HPGM	KTFSS16400HPGM	16,40	.646	3,55	.140	U	●
6388540	KTFSS16500HPGM	KTFSS16500HPGM	16,50	.650	3,57	.141	U	●
6388542	KTFSS16600HPGM	KTFSS16600HPGM	16,60	.654	3,58	.141	U	●
6388544	KTFSS16670HPGM	KTFSS06563HPG	16,67	.656	3,59	.141	U	●
6388546	KTFSS16700HPGM	KTFSS16700HPGM	16,70	.658	3,60	.142	U	●
6388548	KTFSS16800HPGM	KTFSS16800HPGM	16,80	.661	3,62	.143	U	●
6388550	KTFSS16900HPGM	KTFSS16900HPGM	16,90	.665	3,63	.143	U	●
6388552	KTFSS17000HPGM	KTFSS17000HPGM	17,00	.669	3,66	.144	V	●
6388554	KTFSS17066HPGM	KTFSS06719HPG	17,07	.672	3,67	.145	V	●
6388556	KTFSS17100HPGM	KTFSS17100HPGM	17,10	.673	3,67	.145	V	●
6388558	KTFSS17200HPGM	KTFSS17200HPGM	17,20	.677	3,69	.145	V	●
6388560	KTFSS17300HPGM	KTFSS17300HPGM	17,30	.681	3,71	.146	V	●
6388562	KTFSS17400HPGM	KTFSS17400HPGM	17,40	.685	3,72	.147	V	●
6388564	KTFSS17463HPGM	KTFSS06875HPG	17,46	.688	3,74	.147	V	●
6388566	KTFSS17480HPGM	KTFSS17480HPGM	17,48	.688	3,74	.147	V	●
6388568	KTFSS17500HPGM	KTFSS17500HPGM	17,50	.689	3,74	.147	V	●
6388570	KTFSS17600HPGM	KTFSS17600HPGM	17,60	.693	3,76	.148	V	●
6388572	KTFSS17700HPGM	KTFSS17700HPGM	17,70	.697	3,77	.148	V	●
6388574	KTFSS17800HPGM	KTFSS17800HPGM	17,80	.701	3,79	.149	V	●
6388575	KTFSS17859HPGM	KTFSS07031HPG	17,86	.703	3,80	.150	V	●

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- first choice
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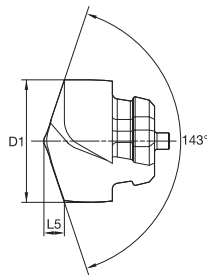
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			mm	in	mm	in		
6388577	KTFSS17900HPGM	KTFSS17900HPGM	17,90	.705	3,81	.150	V	●
6388579	KTFSS18000HPGM	KTFSS18000HPGM	18,00	.709	3,89	.153	W	●
6388581	KTFSS18100HPGM	KTFSS18100HPGM	18,10	.713	3,91	.154	W	●
6388583	KTFSS18200HPGM	KTFSS18200HPGM	18,20	.717	3,93	.155	W	●
6388585	KTFSS18258HPGM	KTFSS07188HPG	18,26	.719	3,94	.155	W	●
6388587	KTFSS18300HPGM	KTFSS18300HPGM	18,30	.721	3,94	.155	W	●
6388589	KTFSS18400HPGM	KTFSS18400HPGM	18,40	.724	3,96	.156	W	●
6388591	KTFSS18500HPGM	KTFSS18500HPGM	18,50	.728	3,98	.157	W	●
6388593	KTFSS18600HPGM	KTFSS18600HPGM	18,60	.732	3,99	.157	W	●
6388595	KTFSS18654HPGM	KTFSS07344HPG	18,65	.734	4,00	.158	W	●
6388597	KTFSS18700HPGM	KTFSS18700HPGM	18,70	.736	4,01	.158	W	●
6388600	KTFSS18800HPGM	KTFSS18800HPGM	18,80	.740	4,03	.159	W	●
6388601	KTFSS18900HPGM	KTFSS18900HPGM	18,90	.744	4,04	.159	W	●
6388603	KTFSS19000HPGM	KTFSS19000HPGM	19,00	.748	4,07	.160	X	●
6388605	KTFSS19050HPGM	KTFSS07500HPG	19,05	.750	4,08	.161	X	●
6388607	KTFSS19100HPGM	KTFSS19100HPGM	19,10	.752	4,09	.161	X	●
6388609	KTFSS19200HPGM	KTFSS19200HPGM	19,20	.756	4,10	.161	X	●
6388612	KTFSS19228HPGM	KTFSS07570HPG	19,23	.757	4,11	.162	X	●
6388614	KTFSS19253HPGM	KTFSS07580HPG	19,25	.758	4,11	.162	X	●
6388616	KTFSS19279HPGM	KTFSS07590HPG	19,28	.759	4,12	.162	X	●
6388618	KTFSS19300HPGM	KTFSS19300HPGM	19,30	.760	4,12	.162	X	●
6388619	KTFSS19355HPGM	KTFSS07620HPG	19,36	.762	4,13	.163	X	●
6388621	KTFSS19400HPGM	KTFSS19400HPGM	19,40	.764	4,14	.163	X	●
6388623	KTFSS19446HPGM	KTFSS07656HPG	19,45	.766	4,14	.163	X	●
6388625	KTFSS19460HPGM	KTFSS19460HPGM	19,46	.766	4,15	.163	X	●
6388627	KTFSS19500HPGM	KTFSS19500HPGM	19,50	.768	4,15	.163	X	●
6388629	KTFSS19600HPGM	KTFSS19600HPGM	19,60	.772	4,17	.164	X	●
6388641	KTFSS19700HPGM	KTFSS19700HPGM	19,70	.776	4,19	.165	X	●
6388643	KTFSS19800HPGM	KTFSS19800HPGM	19,80	.780	4,20	.165	X	●
6388645	KTFSS19845HPGM	KTFSS07813HPG	19,85	.781	4,21	.166	X	●
6388647	KTFSS19900HPGM	KTFSS19900HPGM	19,90	.784	4,22	.166	X	●
6388649	KTFSS20000HPGM	KTFSS20000HPGM	20,00	.787	4,31	.170	Y	●
6388651	KTFSS20100HPGM	KTFSS20100HPGM	20,10	.791	4,32	.170	Y	●
6388653	KTFSS20200HPGM	KTFSS20200HPGM	20,20	.795	4,34	.171	Y	●
6388655	KTFSS20241HPGM	KTFSS07969HPG	20,24	.797	4,35	.171	Y	●
6388657	KTFSS20300HPGM	KTFSS20300HPGM	20,30	.799	4,36	.172	Y	●
6388659	KTFSS20500HPGM	KTFSS20500HPGM	20,50	.807	4,39	.173	Y	●
6388661	KTFSS20600HPGM	KTFSS20600HPGM	20,60	.811	4,41	.174	Y	●
6388663	KTFSS20638HPGM	KTFSS08125HPG	20,64	.813	4,41	.174	Y	●
6388665	KTFSS20700HPGM	KTFSS20700HPGM	20,70	.815	4,42	.174	Y	●
6388667	KTFSS20800HPGM	KTFSS20800HPGM	20,80	.819	4,44	.175	Y	●
6388669	KTFSS20900HPGM	KTFSS20900HPGM	20,90	.823	4,46	.176	Y	●
6388671	KTFSS20990HPGM	KTFSS20990HPGM	20,99	.826	4,47	.176	Y	●
6388673	KTFSS21000HPGM	KTFSS21000HPGM	21,00	.827	4,48	.176	Z	●
6388675	KTFSS21100HPGM	KTFSS21100HPGM	21,10	.831	4,50	.177	Z	●
6388677	KTFSS21200HPGM	KTFSS21200HPGM	21,20	.835	4,51	.178	Z	●
6388679	KTFSS21300HPGM	KTFSS21300HPGM	21,30	.839	4,53	.178	Z	●
6388681	KTFSS21400HPGM	KTFSS21400HPGM	21,40	.843	4,55	.179	Z	●
6388683	KTFSS21433HPGM	KTFSS08438HPG	21,43	.844	4,55	.179	Z	●
6388685	KTFSS21500HPGM	KTFSS21500HPGM	21,50	.847	4,56	.180	Z	●
6388687	KTFSS21700HPGM	KTFSS21700HPGM	21,70	.854	4,60	.181	Z	●
6388689	KTFSS21800HPGM	KTFSS21800HPGM	21,80	.858	4,61	.182	Z	●
6388691	KTFSS21829HPGM	KTFSS08594HPG	21,83	.859	4,62	.182	Z	●
6388693	KTFSS21900HPGM	KTFSS21900HPGM	21,90	.862	4,63	.182	Z	●
6388695	KTFSS22000HPGM	KTFSS22000HPGM	22,00	.866	4,72	.186	ZA	●
6388697	KTFSS22100HPGM	KTFSS22100HPGM	22,10	.870	4,73	.186	ZA	●

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- first choice
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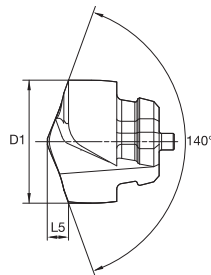
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order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KCP15A
			mm	in	mm	in		
6388699	KTFSS22200HPGM	KTFSS22200HPGM	22.20	.874	4.75	.187	ZA	●
6388701	KTFSS22225HPGM	KTFSS08750HPG	22.23	.875	4.75	.187	ZA	●
6388703	KTFSS22400HPGM	KTFSS22400HPGM	22.40	.882	4.78	.188	ZA	●
6388705	KTFSS22500HPGM	KTFSS22500HPGM	22.50	.886	4.80	.189	ZA	●
6388707	KTFSS22600HPGM	KTFSS22600HPGM	22.60	.890	4.82	.190	ZA	●
6388709	KTFSS22700HPGM	KTFSS22700HPGM	22.70	.894	4.83	.190	ZA	●
6388711	KTFSS22800HPGM	KTFSS22800HPGM	22.80	.898	4.85	.191	ZA	●
6388713	KTFSS22900HPGM	KTFSS22900HPGM	22.90	.902	4.87	.192	ZA	●
6388715	KTFSS23000HPGM	KTFSS23000HPGM	23.00	.906	4.89	.193	ZB	●
6388717	KTFSS23100HPGM	KTFSS23100HPGM	23.10	.909	4.91	.193	ZB	●
6388719	KTFSS23200HPGM	KTFSS23200HPGM	23.20	.913	4.92	.194	ZB	●
6388721	KTFSS23300HPGM	KTFSS23300HPGM	23.30	.917	4.94	.195	ZB	●
6388723	KTFSS23400HPGM	KTFSS23400HPGM	23.40	.921	4.96	.195	ZB	●
6388725	KTFSS23416HPGM	KTFSS09219HPG	23.42	.922	4.96	.195	ZB	●
6388727	KTFSS23500HPGM	KTFSS23500HPGM	23.50	.925	4.98	.196	ZB	●
6388729	KTFSS23600HPGM	KTFSS23600HPGM	23.60	.929	4.99	.197	ZB	●
6388731	KTFSS23700HPGM	KTFSS23700HPGM	23.70	.933	5.01	.197	ZB	●
6388733	KTFSS23800HPGM	KTFSS23800HPGM	23.80	.937	5.03	.198	ZB	●
6388735	KTFSS23813HPGM	KTFSS09375HPG	23.81	.938	5.03	.198	ZB	●
6388737	KTFSS23900HPGM	KTFSS23900HPGM	23.90	.941	5.04	.198	ZB	●
6388739	KTFSS24000HPGM	KTFSS24000HPGM	24.00	.945	5.13	.202	ZC	●
6388741	KTFSS24100HPGM	KTFSS24100HPGM	24.10	.949	5.14	.202	ZC	●
6388743	KTFSS24200HPGM	KTFSS24200HPGM	24.20	.953	5.16	.203	ZC	●
6388745	KTFSS24300HPGM	KTFSS24300HPGM	24.30	.957	5.18	.204	ZC	●
6388747	KTFSS24400HPGM	KTFSS24400HPGM	24.40	.961	5.19	.204	ZC	●
6388750	KTFSS24500HPGM	KTFSS24500HPGM	24.50	.965	5.21	.205	ZC	●
6388752	KTFSS24600HPGM	KTFSS24600HPGM	24.60	.969	5.23	.206	ZC	●
6388754	KTFSS24608HPGM	KTFSS09688HPG	24.61	.969	5.23	.206	ZC	●
6388756	KTFSS24700HPGM	KTFSS24700HPGM	24.70	.972	5.24	.206	ZC	●
6388758	KTFSS24800HPGM	KTFSS24800HPGM	24.80	.976	5.26	.207	ZC	●
6388760	KTFSS24900HPGM	KTFSS24900HPGM	24.90	.980	5.28	.208	ZC	●
6388762	KTFSS25000HPGM	KTFSS25000HPGM	25.00	.984	5.30	.209	ZD	●
6388764	KTFSS25100HPGM	KTFSS25100HPGM	25.10	.988	5.32	.209	ZD	●
6388766	KTFSS25200HPGM	KTFSS25200HPGM	25.20	.992	5.33	.210	ZD	●
6388768	KTFSS25250HPGM	KTFSS25250HPGM	25.25	.994	5.34	.210	ZD	●
6388770	KTFSS25300HPGM	KTFSS25300HPGM	25.30	.996	5.35	.211	ZD	●
6388772	KTFSS25400HPGM	KTFSS10000HPG	25.40	1.000	5.37	.211	ZD	●
6388774	KTFSS25500HPGM	KTFSS25500HPGM	25.50	1.004	5.38	.212	ZD	●
6388776	KTFSS25540HPGM	KTFSS25540HPGM	25.54	1.006	5.39	.212	ZD	●
6388778	KTFSS25600HPGM	KTFSS25600HPGM	25.60	1.008	5.40	.213	ZD	●
6388780	KTFSS25679HPGM	KTFSS10110HPG	25.68	1.011	5.41	.213	ZD	●
6388782	KTFSS25700HPGM	KTFSS25700HPGM	25.70	1.012	5.42	.213	ZD	●
6388783	KTFSS25800HPGM	KTFSS25800HPGM	25.80	1.016	5.44	.214	ZD	●
6388785	KTFSS25806HPGM	KTFSS10160HPG	25.81	1.016	5.44	.214	ZD	●
6388788	KTFSS25900HPGM	KTFSS25900HPGM	25.90	1.020	5.45	.215	ZD	●
6388790	KTFSS26000HPGM	KTFSS26000HPGM	26.00	1.024	5.47	.215	ZD	●

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KentIP™ FS • Insert • HPL Geometry



- first choice
- alternate choice

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S	■	○
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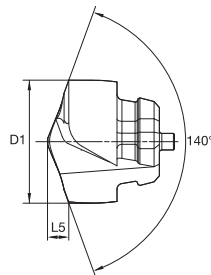
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			mm	in	mm	in		
6370956	KTFST06000HPLM	KTFST06000HPLM	6,00	.236	1,34	.053	A	●
6370971	KTFST06350HPLM	KTFST02500HPL	6,35	.250	1,40	.055	B	●
6370974	KTFST06500HPLM	KTFST06500HPLM	6,50	.256	1,43	.056	B	●
6370977	KTFST06629HPLM	KTFST02610HPL	6,63	.261	1,46	.058	C	●
6370980	KTFST06800HPLM	KTFST06800HPLM	6,80	.268	1,49	.059	C	●
6370983	KTFST07000HPLM	KTFST07000HPLM	7,00	.276	1,53	.060	D	●
6370986	KTFST07500HPLM	KTFST07500HPLM	7,50	.295	1,63	.064	E	●
6370987	KTFST07800HPLM	KTFST07800HPLM	7,80	.307	1,68	.066	E	●
6370990	KTFST07938HPLM	KTFST03125HPL	7,94	.313	1,71	.067	E	●
6370992	KTFST08000HPLM	KTFST08000HPLM	8,00	.315	1,72	.068	F	●
6370994	KTFST08100HPLM	KTFST08100HPLM	8,10	.319	1,74	.069	F	●
6370997	KTFST08204HPLM	KTFST03230HPL	8,20	.323	1,76	.069	F	●
6371000	KTFST08334HPLM	KTFST03281HPL	8,33	.328	1,79	.071	F	●
6371003	KTFST08400HPLM	KTFST08400HPLM	8,40	.331	1,80	.071	F	●
6371006	KTFST08500HPLM	KTFST08500HPLM	8,50	.335	1,82	.072	G	●
6371009	KTFST08600HPLM	KTFST08600HPLM	8,60	.339	1,84	.072	G	●
6371012	KTFST08700HPLM	KTFST08700HPLM	8,70	.343	1,86	.073	G	●
6371015	KTFST08800HPLM	KTFST08800HPLM	8,80	.347	1,88	.074	G	●
6371018	KTFST08900HPLM	KTFST08900HPLM	8,90	.350	1,90	.075	G	●
6371031	KTFST09000HPLM	KTFST09000HPLM	9,00	.354	1,93	.076	H	●
6371033	KTFST09100HPLM	KTFST09100HPLM	9,10	.358	1,95	.077	H	●
6371035	KTFST09200HPLM	KTFST09200HPLM	9,20	.362	1,97	.078	H	●
6371037	KTFST09400HPLM	KTFST09400HPLM	9,40	.370	2,00	.079	H	●
6371039	KTFST09500HPLM	KTFST09500HPLM	9,50	.374	2,03	.080	I	●
6371040	KTFST09558HPLM	KTFST03763HPL	9,56	.376	2,04	.080	I	●
6371041	KTFST09600HPLM	KTFST09600HPLM	9,60	.378	2,05	.081	I	●
6371042	KTFST09700HPLM	KTFST09700HPLM	9,70	.382	2,07	.082	I	●
6371043	KTFST09800HPLM	KTFST09800HPLM	9,80	.386	2,09	.082	I	●
6371044	KTFST09900HPLM	KTFST09900HPLM	9,90	.390	2,11	.083	I	●
6371045	KTFST10000HPLM	KTFST10000HPLM	10,00	.394	2,13	.084	J	●
6371046	KTFST10100HPLM	KTFST10100HPLM	10,10	.398	2,15	.085	J	●
6371047	KTFST10200HPLM	KTFST10200HPLM	10,20	.402	2,17	.085	J	●
6371048	KTFST10300HPLM	KTFST10300HPLM	10,30	.406	2,19	.086	J	●
6371049	KTFST10320HPLM	KTFST04063HPL	10,32	.406	2,19	.086	J	●
6371050	KTFST10400HPLM	KTFST10400HPLM	10,40	.409	2,21	.087	J	●
6371051	KTFST10500HPLM	KTFST10500HPLM	10,50	.413	2,23	.088	K	●
6371052	KTFST10600HPLM	KTFST10600HPLM	10,60	.417	2,25	.089	K	●
6371053	KTFST10700HPLM	KTFST10700HPLM	10,70	.421	2,27	.089	K	●
6371054	KTFST10800HPLM	KTFST10800HPLM	10,80	.425	2,29	.090	K	●
6371055	KTFST10900HPLM	KTFST10900HPLM	10,90	.429	2,31	.091	K	●
6371056	KTFST11000HPLM	KTFST11000HPLM	11,00	.433	2,34	.092	L	●
6371057	KTFST11100HPLM	KTFST11100HPLM	11,10	.437	2,35	.093	L	●
6371058	KTFST11113HPLM	KTFST04375HPL	11,11	.438	2,36	.093	L	●
6371059	KTFST11200HPLM	KTFST11200HPLM	11,20	.441	2,37	.093	L	●
6371060	KTFST11400HPLM	KTFST11400HPLM	11,40	.449	2,41	.095	L	●
6371061	KTFST11500HPLM	KTFST11500HPLM	11,50	.453	2,44	.096	M	●
6371062	KTFST11600HPLM	KTFST11600HPLM	11,60	.457	2,46	.097	M	●
6371063	KTFST11800HPLM	KTFST11800HPLM	11,80	.465	2,49	.098	M	●
6371064	KTFST11908HPLM	KTFST04688HPL	11,91	.469	2,52	.099	M	●
6371065	KTFST12000HPLM	KTFST12000HPLM	12,00	.472	2,54	.100	N	●
6371066	KTFST12200HPLM	KTFST12200HPLM	12,20	.480	2,58	.102	N	●
6371067	KTFST12304HPLM	KTFST04844HPL	12,30	.484	2,60	.102	N	●
6371068	KTFST12500HPLM	KTFST12500HPLM	12,50	.492	2,64	.104	O	●
6371069	KTFST12700HPLM	KTFST05000HPL	12,70	.500	2,68	.106	O	●
6371070	KTFST12800HPLM	KTFST12800HPLM	12,80	.504	2,70	.106	O	●
6371071	KTFST12900HPLM	KTFST12900HPLM	12,90	.508	2,72	.107	O	●

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KenTIP™ FS • Insert • HPL Geometry

(continued)



- first choice
- alternate choice

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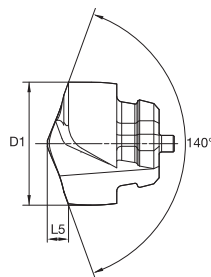
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			mm	in	mm	in		
6371072	KTFST13000HPLM	KTFST13000HPLM	13,00	.512	2,74	.108	P	●
6371073	KTFST13096HPLM	KTFST05156HPL	13,10	.516	2,76	.109	P	●
6371074	KTFST13200HPLM	KTFST13200HPLM	13,20	.520	2,78	.109	P	●
6371075	KTFST13492HPLM	KTFST05312HPL	13,49	.531	2,84	.112	P	●
6371076	KTFST13500HPLM	KTFST13500HPLM	13,50	.532	2,84	.112	Q	●
6371077	KTFST13800HPLM	KTFST13800HPLM	13,80	.543	2,90	.114	Q	●
6371078	KTFST13891HPLM	KTFST05469HPL	13,89	.547	2,92	.115	Q	●
6371079	KTFST13896HPLM	KTFST05471HPL	13,90	.547	2,92	.115	Q	●
6371080	KTFST14000HPLM	KTFST14000HPLM	14,00	.551	2,95	.116	R	●
6371081	KTFST14100HPLM	KTFST14100HPLM	14,10	.555	2,96	.117	R	●
6371082	KTFST14200HPLM	KTFST14200HPLM	14,20	.559	2,98	.117	R	●
6371083	KTFST14288HPLM	KTFST05625HPL	14,29	.563	3,00	.118	R	●
6371084	KTFST14300HPLM	KTFST14300HPLM	14,30	.563	3,00	.118	R	●
6371085	KTFST14400HPLM	KTFST14400HPLM	14,40	.567	3,02	.119	R	●
6371086	KTFST14500HPLM	KTFST14500HPLM	14,50	.571	3,05	.120	S	●
6371087	KTFST14684HPLM	KTFST05781HPL	14,68	.578	3,08	.121	S	●
6371088	KTFST14800HPLM	KTFST14800HPLM	14,80	.583	3,10	.122	S	●
6371089	KTFST15000HPLM	KTFST15000HPLM	15,00	.591	3,15	.124	T	●
6371090	KTFST15100HPLM	KTFST15100HPLM	15,10	.595	3,17	.125	T	●
6371111	KTFST15200HPLM	KTFST15200HPLM	15,20	.598	3,19	.126	T	●
6371112	KTFST15500HPLM	KTFST15500HPLM	15,50	.610	3,24	.128	T	●
6371113	KTFST15875HPLM	KTFST06250HPL	15,88	.625	3,31	.130	T	●
6370906	KTFST16000HPLM	KTFST16000HPLM	16,00	.630	3,35	.132	U	●
6370907	KTFST16104HPLM	KTFST06340HPL	16,10	.634	3,37	.133	U	●
6370911	KTFST16150HPLM	KTFST16150HPLM	16,15	.636	3,38	.133	U	●
6370913	KTFST16271HPLM	KTFST06406HPL	16,27	.641	3,40	.134	U	●
6370916	KTFST16500HPLM	KTFST16500HPLM	16,50	.650	3,45	.136	U	●
6370918	KTFST16670HPLM	KTFST06563HPL	16,67	.656	3,48	.137	U	●
6370920	KTFST17000HPLM	KTFST17000HPLM	17,00	.669	3,55	.140	V	●
6370922	KTFST17463HPLM	KTFST06875HPL	17,46	.688	3,64	.143	V	●
6370924	KTFST17480HPLM	KTFST17480HPLM	17,48	.688	3,64	.143	V	●
6370926	KTFST17500HPLM	KTFST17500HPLM	17,50	.689	3,65	.144	V	●
6370927	KTFST17700HPLM	KTFST17700HPLM	17,70	.697	3,69	.145	V	●
6370929	KTFST18000HPLM	KTFST18000HPLM	18,00	.709	3,76	.148	W	●
6370931	KTFST18258HPLM	KTFST07188HPL	18,26	.719	3,80	.150	W	●
6370933	KTFST18500HPLM	KTFST18500HPLM	18,50	.728	3,85	.152	W	●
6370935	KTFST18654HPLM	KTFST07344HPL	18,65	.734	3,88	.153	W	●
6370937	KTFST19000HPLM	KTFST19000HPLM	19,00	.748	3,96	.156	X	●
6370939	KTFST19050HPLM	KTFST07500HPL	19,05	.750	3,97	.156	X	●
6370941	KTFST19200HPLM	KTFST19200HPLM	19,20	.756	3,99	.157	X	●
6370942	KTFST19228HPLM	KTFST07570HPL	19,23	.757	4,00	.158	X	●
6370944	KTFST19253HPLM	KTFST07580HPL	19,25	.758	4,00	.158	X	●
6370947	KTFST19279HPLM	KTFST07590HPL	19,28	.759	4,01	.158	X	●
6370949	KTFST19355HPLM	KTFST07620HPL	19,36	.762	4,02	.158	X	●
6370951	KTFST19446HPLM	KTFST07656HPL	19,45	.766	4,04	.159	X	●
6370955	KTFST19500HPLM	KTFST19500HPLM	19,50	.768	4,05	.159	X	●
6370957	KTFST19845HPLM	KTFST07813HPL	19,85	.781	4,12	.162	X	●
6370972	KTFST20000HPLM	KTFST20000HPLM	20,00	.787	4,16	.164	Y	●
6370975	KTFST20500HPLM	KTFST20500HPLM	20,50	.807	4,25	.167	Y	●
6370978	KTFST20638HPLM	KTFST08125HPL	20,64	.813	4,28	.169	Y	●
6370981	KTFST21000HPLM	KTFST21000HPLM	21,00	.827	4,36	.172	Z	●
6370982	KTFST21150HPLM	KTFST21150HPLM	21,15	.833	4,39	.173	Z	●
6370985	KTFST21500HPLM	KTFST21500HPLM	21,50	.847	4,45	.175	Z	●
6370988	KTFST22000HPLM	KTFST22000HPLM	22,00	.866	4,56	.180	ZA	●
6370991	KTFST22225HPLM	KTFST08750HPL	22,23	.875	4,60	.181	ZA	●
6370993	KTFST22500HPLM	KTFST22500HPLM	22,50	.886	4,66	.184	ZA	●

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KenTIP™ FS • Insert • HPL Geometry

(continued)



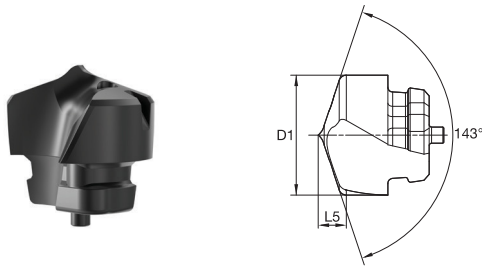
- first choice
- alternate choice

P	■	●
M	■	●
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order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KCMST5
			mm	in	mm	in		
6370996	KTFST23000HPLM	KTFST23000HPLM	23,00	.906	4,76	.187	ZB	●
6370999	KTFST23500HPLM	KTFST23500HPLM	23,50	.925	4,86	.191	ZB	●
6371002	KTFST23813HPLM	KTFST09375HPL	23,81	.938	4,92	.194	ZB	●
6371005	KTFST24000HPLM	KTFST24000HPLM	24,00	.945	4,96	.195	ZC	●
6371008	KTFST24500HPLM	KTFST24500HPLM	24,50	.965	5,06	.199	ZC	●
6371011	KTFST25000HPLM	KTFST25000HPLM	25,00	.984	5,17	.204	ZD	●
6371014	KTFST25400HPLM	KTFST10000HPL	25,40	1.000	5,24	.206	ZD	●
6371017	KTFST25500HPLM	KTFST25500HPLM	25,50	1.004	5,26	.207	ZD	●
6371020	KTFST25600HPLM	KTFST25600HPLM	25,60	1.008	5,28	.208	ZD	●
6371032	KTFST25650HPLM	KTFST25650HPLM	25,65	1.010	5,29	.208	ZD	●
6371034	KTFST25679HPLM	KTFST10110HPL	25,68	1.011	5,29	.208	ZD	●
6371036	KTFST25806HPLM	KTFST10160HPL	25,81	1.016	5,32	.209	ZD	●
6371038	KTFST26000HPLM	KTFST26000HPLM	26,00	1.024	5,37	.211	ZD	●

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KenTIP™ FS • Insert • HPC Geometry



● first choice
○ alternate choice

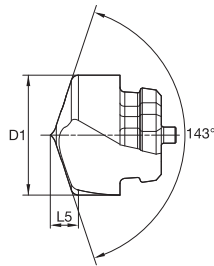
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order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KC7410
			mm	in	mm	in		
6370700	KTFST06000HPCM	KTFST06000HPCM	6,00	.236	1,38	.054	A	●
6370871	KTFST06200HPCM	KTFST06200HPCM	6,20	.244	1,41	.056	A	●
6370872	KTFST06350HPCM	KTFST02500HPC	6,35	.250	1,46	.058	B	●
6370873	KTFST06500HPCM	KTFST06500HPCM	6,50	.256	1,48	.058	B	●
6370874	KTFST06530HPCM	KTFST06530HPCM	6,53	.257	1,49	.059	B	●
6370876	KTFST06700HPCM	KTFST06700HPCM	6,70	.264	1,53	.060	C	●
6370875	KTFST06746HPCM	KTFST02656HPC	6,75	.266	1,54	.061	C	●
6370877	KTFST06800HPCM	KTFST06800HPCM	6,80	.268	1,55	.061	C	●
6370878	KTFST07000HPCM	KTFST07000HPCM	7,00	.276	1,62	.064	D	●
6370879	KTFST07145HPCM	KTFST02813HPC	7,15	.281	1,64	.065	D	●
6370880	KTFST07300HPCM	KTFST07300HPCM	7,30	.287	1,67	.066	D	●
6370881	KTFST07500HPCM	KTFST07500HPCM	7,50	.295	1,73	.068	E	●
6370882	KTFST07600HPCM	KTFST07600HPCM	7,60	.299	1,74	.069	E	●
6370883	KTFST07800HPCM	KTFST07800HPCM	7,80	.307	1,78	.070	E	●
6370884	KTFST07938HPCM	KTFST03125HPC	7,94	.313	1,80	.071	E	●
6370885	KTFST08000HPCM	KTFST08000HPCM	8,00	.315	1,85	.073	F	●
6370886	KTFST08100HPCM	KTFST08100HPCM	8,10	.319	1,87	.074	F	●
6370887	KTFST08204HPCM	KTFST03230HPC	8,20	.323	1,88	.074	F	●
6370888	KTFST08500HPCM	KTFST08500HPCM	8,50	.335	1,96	.077	G	●
6370889	KTFST08600HPCM	KTFST08600HPCM	8,60	.339	1,98	.078	G	●
6370890	KTFST08700HPCM	KTFST08700HPCM	8,70	.343	1,99	.078	G	●
6370891	KTFST08733HPCM	KTFST03438HPC	8,73	.344	2,00	.079	G	●
6370892	KTFST09000HPCM	KTFST09000HPCM	9,00	.354	2,08	.082	H	●
6370893	KTFST09100HPCM	KTFST09100HPCM	9,10	.358	2,10	.083	H	●
6370894	KTFST09500HPCM	KTFST09500HPCM	9,50	.374	2,19	.086	I	●
6370895	KTFST09525HPCM	KTFST03750HPC	9,53	.375	2,20	.087	I	●
6370896	KTFST09600HPCM	KTFST09600HPCM	9,60	.378	2,21	.087	I	●
6370897	KTFST09700HPCM	KTFST09700HPCM	9,70	.382	2,23	.088	I	●
6370898	KTFST09800HPCM	KTFST09800HPCM	9,80	.386	2,24	.088	I	●
6370899	KTFST09921HPCM	KTFST03906HPC	9,92	.391	2,27	.089	I	●
6370900	KTFST10000HPCM	KTFST10000HPCM	10,00	.394	2,32	.091	J	●
6370901	KTFST10023HPCM	KTFST03946HPC	10,02	.395	2,32	.091	J	●
6370902	KTFST10200HPCM	KTFST10200HPCM	10,20	.402	2,35	.093	J	●
6370903	KTFST10300HPCM	KTFST10300HPCM	10,30	.406	2,37	.093	J	●
6370904	KTFST10320HPCM	KTFST04063HPC	10,32	.406	2,27	.089	J	●
6370905	KTFST10500HPCM	KTFST10500HPCM	10,50	.413	2,43	.096	K	●
6370908	KTFST10600HPCM	KTFST10600HPCM	10,60	.417	2,45	.097	K	●
6370910	KTFST10700HPCM	KTFST10700HPCM	10,70	.421	2,46	.097	K	●
6370912	KTFST10716HPCM	KTFST04219HPC	10,72	.422	2,46	.097	K	●
6370914	KTFST10800HPCM	KTFST10800HPCM	10,80	.425	2,48	.098	K	●
6370915	KTFST11000HPCM	KTFST11000HPCM	11,00	.433	2,55	.100	L	●
6370917	KTFST11100HPCM	KTFST11100HPCM	11,10	.437	2,57	.101	L	●
6370919	KTFST11113HPCM	KTFST04375HPC	11,11	.438	2,57	.101	L	●
6370921	KTFST11400HPCM	KTFST11400HPCM	11,40	.449	2,62	.103	L	●
6370923	KTFST11500HPCM	KTFST11500HPCM	11,50	.453	2,66	.105	M	●
6370925	KTFST11800HPCM	KTFST11800HPCM	11,80	.465	2,71	.107	M	●
6370928	KTFST11908HPCM	KTFST04688HPC	11,91	.469	2,73	.108	M	●
6370930	KTFST12000HPCM	KTFST12000HPCM	12,00	.472	2,78	.109	N	●
6370932	KTFST12304HPCM	KTFST04844HPC	12,30	.484	2,84	.112	N	●
6370934	KTFST12500HPCM	KTFST12500HPCM	12,50	.492	2,90	.114	O	●
6370936	KTFST12700HPCM	KTFST05000HPC	12,70	.500	2,93	.115	O	●
6370938	KTFST13000HPCM	KTFST13000HPCM	13,00	.512	3,02	.119	P	●
6370940	KTFST13096HPCM	KTFST05156HPC	13,10	.516	3,03	.119	P	●
6370943	KTFST13200HPCM	KTFST13200HPCM	13,20	.520	3,05	.120	P	●
6370945	KTFST13300HPCM	KTFST13300HPCM	13,30	.524	3,07	.121	P	●
6370946	KTFST13492HPCM	KTFST05312HPC	13,49	.531	3,10	.122	P	●

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KenTIP™ FS • Insert • HPC Geometry

(continued)



- first choice
- alternate choice

P	●	○
M	●	○
K	●	○
N	●	○
S	●	○
H	●	○
C	●	○

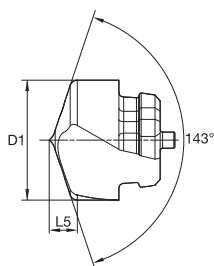
order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KC7410
			mm	in	mm	in		
6370948	KTFST13500HPCM	KTFST13500HPCM	13,50	.532	3,13	.123	Q	●
6370950	KTFST13600HPCM	KTFST13600HPCM	13,60	.535	3,15	.124	Q	●
6370952	KTFST13800HPCM	KTFST13800HPCM	13,80	.543	3,18	.125	Q	●
6370954	KTFST13891HPCM	KTFST05469HPC	13,89	.547	3,19	.126	Q	●
6370958	KTFST14000HPCM	KTFST14000HPCM	14,00	.551	3,25	.128	R	●
6370960	KTFST14100HPCM	KTFST14100HPCM	14,10	.555	3,27	.129	R	●
6370973	KTFST14288HPCM	KTFST05625HPC	14,29	.563	3,30	.130	R	●
6370976	KTFST14500HPCM	KTFST14500HPCM	14,50	.571	3,36	.132	S	●
6370979	KTFST14600HPCM	KTFST14600HPCM	14,60	.575	3,38	.133	S	●
6370984	KTFST14684HPCM	KTFST05781HPC	14,68	.578	3,39	.134	S	●
6370989	KTFST14800HPCM	KTFST14800HPCM	14,80	.583	3,41	.134	S	●
6370995	KTFST15000HPCM	KTFST15000HPCM	15,00	.591	3,49	.137	T	●
6370998	KTFST15083HPCM	KTFST05938HPC	15,08	.594	3,50	.138	T	●
6371001	KTFST15100HPCM	KTFST15100HPCM	15,10	.595	3,50	.138	T	●
6371004	KTFST15200HPCM	KTFST15200HPCM	15,20	.598	3,52	.139	T	●
6371007	KTFST15300HPCM	KTFST15300HPCM	15,30	.602	3,54	.139	T	●
6371010	KTFST15500HPCM	KTFST15500HPCM	15,50	.610	3,57	.141	T	●
6371013	KTFST15600HPCM	KTFST15600HPCM	15,60	.614	3,59	.141	T	●
6371016	KTFST15800HPCM	KTFST15800HPCM	15,80	.622	3,62	.143	T	●
6371019	KTFST15875HPCM	KTFST06250HPC	15,88	.625	3,63	.143	T	●
6370147	KTFST16000HPCM	KTFST16000HPCM	16,00	.630	3,73	.147	U	●
6370148	KTFST16104HPCM	KTFST06340HPC	16,10	.634	3,74	.147	U	●
6370149	KTFST16100HPCM	KTFST16100HPCM	16,10	.634	3,74	.147	U	●
6370150	KTFST16200HPCM	KTFST16200HPCM	16,20	.638	3,76	.148	U	●
6370351	KTFST16271HPCM	KTFST06406HPC	16,27	.641	3,80	.150	U	●
6370352	KTFST16300HPCM	KTFST16300HPCM	16,30	.642	3,78	.149	U	●
6370353	KTFST16500HPCM	KTFST16500HPCM	16,50	.650	3,81	.150	U	●
6370354	KTFST16550HPCM	KTFST16550HPCM	16,55	.652	3,82	.150	U	●
6370355	KTFST16600HPCM	KTFST16600HPCM	16,60	.654	3,83	.151	U	●
6370356	KTFST16670HPCM	KTFST06563HPC	16,67	.656	3,87	.152	U	●
6370357	KTFST17000HPCM	KTFST17000HPCM	17,00	.669	3,95	.156	V	●
6370358	KTFST17066HPCM	KTFST06719HPC	17,07	.672	4,00	.158	V	●
6370359	KTFST17100HPCM	KTFST17100HPCM	17,10	.673	3,96	.156	V	●
6370360	KTFST17200HPCM	KTFST17200HPCM	17,20	.677	3,98	.157	V	●
6370361	KTFST17300HPCM	KTFST17300HPCM	17,30	.681	4,00	.158	V	●
6370362	KTFST17463HPCM	KTFST06875HPC	17,46	.688	4,02	.158	V	●
6370363	KTFST17500HPCM	KTFST17500HPCM	17,50	.689	4,03	.159	V	●
6370364	KTFST17550HPCM	KTFST17550HPCM	17,55	.691	4,04	.159	V	●
6370365	KTFST17600HPCM	KTFST17600HPCM	17,60	.693	4,05	.159	V	●
6370366	KTFST17700HPCM	KTFST17700HPCM	17,70	.697	4,06	.160	V	●
6370367	KTFST17800HPCM	KTFST17800HPCM	17,80	.701	4,08	.161	V	●
6370368	KTFST18000HPCM	KTFST18000HPCM	18,00	.709	4,19	.165	W	●
6370369	KTFST18100HPCM	KTFST18100HPCM	18,10	.713	4,21	.166	W	●
6370370	KTFST18258HPCM	KTFST07188HPC	18,26	.719	4,24	.167	W	●
6370381	KTFST18500HPCM	KTFST18500HPCM	18,50	.728	4,28	.169	W	●
6370382	KTFST18600HPCM	KTFST18600HPCM	18,60	.732	4,29	.169	W	●
6370383	KTFST18700HPCM	KTFST18700HPCM	18,70	.736	4,31	.170	W	●
6370384	KTFST19000HPCM	KTFST19000HPCM	19,00	.748	4,41	.174	X	●
6370385	KTFST19050HPCM	KTFST07500HPC	19,05	.750	4,42	.174	X	●
6370386	KTFST19279HPCM	KTFST07590HPC	19,28	.759	4,46	.176	X	●
6370387	KTFST19446HPCM	KTFST07656HPC	19,45	.766	4,49	.177	X	●
6370388	KTFST19500HPCM	KTFST19500HPCM	19,50	.768	4,50	.177	X	●
6370389	KTFST19800HPCM	KTFST19800HPCM	19,80	.780	4,55	.179	X	●
6370390	KTFST20000HPCM	KTFST20000HPCM	20,00	.787	4,66	.184	Y	●
6370401	KTFST20241HPCM	KTFST07969HPC	20,24	.797	4,70	.185	Y	●
6370402	KTFST20300HPCM	KTFST20300HPCM	20,30	.799	4,71	.185	Y	●

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KenTIP™ FS • Insert • HPC Geometry

(continued)



- first choice
- alternate choice

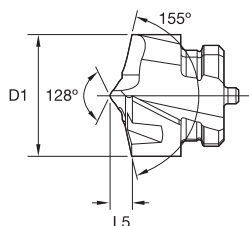
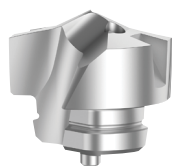
P	Blue	○
M	Yellow	○
K	Red	●
N	Green	○
S	Orange	○
H	Grey	○
C	Brown	○

order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KC7410
			mm	in	mm	in		
6370403	KTFST20500HPCM	KTFST20500HPCM	20,50	.807	4,74	.187	Y	●
6370404	KTFST20638HPCM	KTFST08125HPC	20,64	.813	4,77	.188	Y	●
6370405	KTFST21000HPCM	KTFST21000HPCM	21,00	.827	4,88	.192	Z	●
6370406	KTFST21433HPCM	KTFST08438HPC	21,43	.844	5,00	.197	Z	●
6370407	KTFST21500HPCM	KTFST21500HPCM	21,50	.847	4,97	.196	Z	●
6370408	KTFST22000HPCM	KTFST22000HPCM	22,00	.866	5,13	.202	ZA	●
6370409	KTFST22225HPCM	KTFST08750HPC	22,23	.875	5,20	.205	ZA	●
6370410	KTFST22440HPCM	KTFST22440HPCM	22,44	.884	5,20	.205	ZA	●
6370411	KTFST22500HPCM	KTFST22500HPCM	22,50	.886	5,21	.205	ZA	●
6370412	KTFST23000HPCM	KTFST23000HPCM	23,00	.906	5,35	.211	ZB	●
6370413	KTFST23416HPCM	KTFST09219HPC	23,42	.922	5,42	.213	ZB	●
6370414	KTFST23500HPCM	KTFST23500HPCM	23,50	.925	5,43	.214	ZB	●
6370415	KTFST23813HPCM	KTFST09375HPC	23,81	.938	5,49	.216	ZB	●
6370416	KTFST24000HPCM	KTFST24000HPCM	24,00	.945	5,63	.222	ZC	●
6370417	KTFST24500HPCM	KTFST24500HPCM	24,50	.965	5,72	.225	ZC	●
6370418	KTFST24608HPCM	KTFST09688HPC	24,61	.969	5,70	.224	ZC	●
6370419	KTFST25000HPCM	KTFST25000HPCM	25,00	.984	5,87	.231	ZD	●
6370420	KTFST25070HPCM	KTFST25070HPCM	25,07	.987	5,88	.232	ZD	●
6370421	KTFST25400HPCM	KTFST10000HPC	25,40	1.000	5,88	.232	ZD	●
6370422	KTFST25500HPCM	KTFST25500HPCM	25,50	1.004	5,95	.234	ZD	●
6370423	KTFST25679HPCM	KTFST10110HPC	25,68	1.011	5,93	.234	ZD	●
6370424	KTFST25806HPCM	KTFST10160HPC	25,81	1.016	5,95	.234	ZD	●
6370425	KTFST26000HPCM	KTFST26000HPCM	26,00	1.024	6,03	.237	ZD	●

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KenTIP™ FS • Insert • DAV Geometry

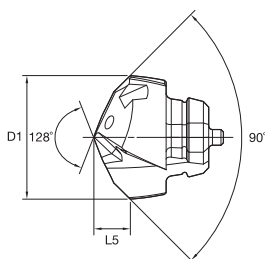


- first choice
- alternate choice

P	■
M	■
K	■
N	●
S	○
H	■
C	●

order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KNT5
			mm	in	mm	in		
6957701	KTFST06350DAVM	KTFST02500DAV	6,35	.250	1,12	.044	B	●
6957702	KTFST07938DAVM	KTFST03125DAV	7,94	.313	1,38	.054	E	●
6957703	KTFST09525DAVM	KTFST03750DAV	9,53	.375	1,69	.067	I	●
6957704	KTFST11113DAVM	KTFST04375DAV	11,11	.438	1,96	.077	L	●
6957705	KTFST12700DAVM	KTFST05000DAV	12,70	.500	2,24	.088	O	●

KenTIP FS • Insert • SPF Geometry



- first choice
- alternate choice

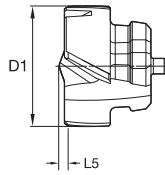
P	■
M	■
K	■
N	■
S	■
H	■
C	●

order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KCC10
			mm	in	mm	in		
6773154	KTFST06350SPFM	KTFST02500SPF	6,35	.250	1,54	.061	B	●
6773155	KTFST07938SPFM	KTFST03125SPF	7,94	.313	1,94	.076	E	●
6773160	KTFST09525SPFM	KTFST03750SPF	9,53	.375	2,38	.091	I	●
6773171	KTFST11113SPFM	KTFST04375SPF	11,11	.438	2,46	.097	L	●
6773172	KTFST12700SPFM	KTFST05000SPF	12,70	.500	3,10	.122	O	●

160-163	164	55-57	98, 168

KenTIP™ FS • Insert • FEG Geometry

- first choice
- alternate choice

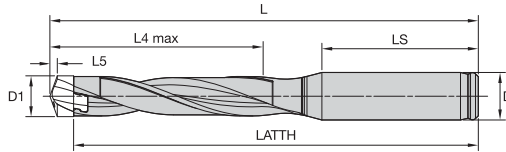


P	●
M	○
K	●
N	●
S	●
H	●
C	●

order number	ISO catalog number	ANSI catalog number	D1		L5		SSC	KCP15A
			mm	in	mm	in		
6771074	KTFSS06000FEGM	KTFSS06000FEGM	6,00	.236	0,53	.021	A	●
6771075	KTFSS06500FEGM	KTFSS06500FEGM	6,50	.256	0,56	.022	B	●
6771076	KTFSS06800FEGM	KTFSS06800FEGM	6,80	.268	0,58	.023	C	●
6771077	KTFSS07000FEGM	KTFSS07000FEGM	7,00	.276	0,60	.024	D	●
6771078	KTFSS07500FEGM	KTFSS07500FEGM	7,50	.295	0,64	.025	E	●
6771079	KTFSS07938FEGM	KTFSS03125FEG	7,94	.313	0,65	.026	E	●
6771080	KTFSS08000FEGM	KTFSS08000FEGM	8,00	.315	0,67	.026	F	●
6771111	KTFSS08500FEGM	KTFSS08500FEGM	8,50	.335	0,71	.028	G	●
6771112	KTFSS08520FEGM	KTFSS08520FEGM	8,52	.335	0,71	.028	G	●
6771113	KTFSS09000FEGM	KTFSS09000FEGM	9,00	.354	0,74	.029	H	●
6771114	KTFSS09500FEGM	KTFSS09500FEGM	9,50	.374	0,78	.031	I	●
6771115	KTFSS09525FEGM	KTFSS03750FEG	9,53	.375	0,78	.031	I	●
6771116	KTFSS10000FEGM	KTFSS10000FEGM	10,00	.394	0,81	.032	J	●
6771117	KTFSS10200FEGM	KTFSS10200FEGM	10,20	.402	0,82	.032	J	●
6771118	KTFSS10500FEGM	KTFSS10500FEGM	10,50	.413	0,84	.033	K	●
6771119	KTFSS10800FEGM	KTFSS10800FEGM	10,80	.425	0,85	.034	K	●
6771120	KTFSS11000FEGM	KTFSS11000FEGM	11,00	.433	0,88	.035	L	●
6771121	KTFSS11113FEGM	KTFSS04375FEG	11,11	.438	0,88	.035	L	●
6771122	KTFSS11500FEGM	KTFSS11500FEGM	11,50	.453	0,91	.036	M	●
6771123	KTFSS11800FEGM	KTFSS11800FEGM	11,80	.465	0,92	.036	M	●
6771124	KTFSS12000FEGM	KTFSS12000FEGM	12,00	.472	0,94	.037	N	●
6771125	KTFSS12304FEGM	KTFSS04844FEG	12,30	.484	0,95	.037	N	●
6771127	KTFSS12500FEGM	KTFSS12500FEGM	12,50	.492	0,98	.039	O	●
6771128	KTFSS12700FEGM	KTFSS05000FEG	12,70	.500	0,98	.039	O	●
6771129	KTFSS13000FEGM	KTFSS13000FEGM	13,00	.512	1,01	.040	P	●
6771130	KTFSS13500FEGM	KTFSS13500FEGM	13,50	.532	1,04	.041	Q	●
6771131	KTFSS14000FEGM	KTFSS14000FEGM	14,00	.551	1,07	.042	R	●
6771132	KTFSS14288FEGM	KTFSS05625FEG	14,29	.563	1,08	.043	R	●
6771133	KTFSS14500FEGM	KTFSS14500FEGM	14,50	.571	1,10	.043	S	●
6771134	KTFSS15000FEGM	KTFSS15000FEGM	15,00	.591	1,14	.045	T	●
6771135	KTFSS15300FEGM	KTFSS15300FEGM	15,30	.602	1,14	.045	T	●
6771136	KTFSS15500FEGM	KTFSS15500FEGM	15,50	.610	1,15	.045	T	●
6771137	KTFSS15875FEGM	KTFSS06250FEG	15,88	.625	1,15	.045	T	●
6771138	KTFSS16000FEGM	KTFSS16000FEGM	16,00	.630	1,20	.047	U	●
6771139	KTFSS16500FEGM	KTFSS16500FEGM	16,50	.650	1,21	.048	U	●
6771140	KTFSS16670FEGM	KTFSS06563FEG	16,67	.656	1,21	.048	U	●
6771151	KTFSS17000FEGM	KTFSS17000FEGM	17,00	.669	1,26	.050	V	●
6771152	KTFSS17463FEGM	KTFSS06875FEG	17,46	.688	1,27	.050	V	●
6771153	KTFSS17500FEGM	KTFSS17500FEGM	17,50	.689	1,27	.050	V	●
6771154	KTFSS17700FEGM	KTFSS17700FEGM	17,70	.697	1,27	.050	V	●
6771155	KTFSS18000FEGM	KTFSS18000FEGM	18,00	.709	1,32	.052	W	●
6771156	KTFSS18500FEGM	KTFSS18500FEGM	18,50	.728	1,33	.052	W	●
6771157	KTFSS19000FEGM	KTFSS19000FEGM	19,00	.748	1,38	.054	X	●
6771158	KTFSS19050FEGM	KTFSS07500FEG	19,05	.750	1,39	.055	X	●
6771159	KTFSS19200FEGM	KTFSS19200FEGM	19,20	.756	1,39	.055	X	●
6771160	KTFSS19500FEGM	KTFSS19500FEGM	19,50	.768	1,39	.055	X	●
6771161	KTFSS20000FEGM	KTFSS20000FEGM	20,00	.787	1,45	.057	Y	●
6771162	KTFSS20500FEGM	KTFSS20500FEGM	20,50	.807	1,45	.057	Y	●
6771163	KTFSS20638FEGM	KTFSS08125FEG	20,64	.813	1,46	.058	Y	●
6771164	KTFSS21000FEGM	KTFSS21000FEGM	21,00	.827	1,51	.059	Z	●
6771165	KTFSS21500FEGM	KTFSS21500FEGM	21,50	.847	1,51	.059	Z	●
6771166	KTFSS22000FEGM	KTFSS22000FEGM	22,00	.866	1,57	.062	ZA	●
6771167	KTFSS22225FEGM	KTFSS08750FEG	22,23	.875	1,57	.062	ZA	●
6771168	KTFSS22500FEGM	KTFSS22500FEGM	22,50	.886	1,57	.062	ZA	●
6771169	KTFSS23000FEGM	KTFSS23000FEGM	23,00	.906	1,63	.064	ZB	●
6771170	KTFSS23500FEGM	KTFSS23500FEGM	23,50	.925	1,63	.064	ZB	●
6771171	KTFSS24000FEGM	KTFSS24000FEGM	24,00	.945	1,69	.067	ZC	●
6771172	KTFSS24500FEGM	KTFSS24500FEGM	24,50	.965	1,69	.067	ZC	●
6771173	KTFSS25000FEGM	KTFSS25000FEGM	25,00	.984	1,74	.069	ZD	●
6771174	KTFSS25400FEGM	KTFSS10000FEG	25,40	1,000	1,75	.069	ZD	●
6771175	KTFSS26000FEGM	KTFSS26000FEGM	26,00	1,024	1,76	.069	ZD	●

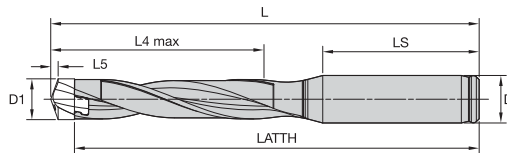


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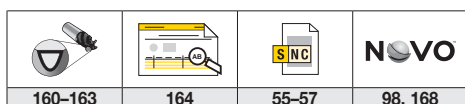


order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATTH		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389570	KTFS060R01SS08M	KTFS060R01SS08M	6,00	.236	6,299	.248	9,00	.354	57,00	2,244	53,50	2,106	37,00	1,457	8,00	.315	A
6389571	KTFS063R01SS08M	KTFS063R01SS08M	6,30	.248	6,599	.260	10,00	.394	58,00	2,284	54,30	2,138	37,00	1,457	8,00	.315	B
6389572	KTFS066R01SS08M	KTFS066R01SS08M	6,60	.260	6,999	.276	11,00	.433	60,00	2,362	56,20	2,213	37,00	1,457	8,00	.315	C
6389573	KTFS070R01SS08M	KTFS070R01SS08M	7,00	.276	7,499	.295	11,00	.433	60,00	2,362	55,90	2,201	37,00	1,457	8,00	.315	D
6389574	KTFS075R01SS08M	KTFS075R01SS08M	7,50	.295	7,999	.315	12,00	.472	61,00	2,402	56,60	2,228	37,00	1,457	8,00	.315	E
6389575	KTFS080R01SS10M	KTFS080R01SS10M	8,00	.315	8,499	.335	13,00	.512	68,00	2,677	63,40	2,496	41,00	1,614	10,00	.394	F
6389576	KTFS085R01SS10M	KTFS085R01SS10M	8,50	.335	8,999	.354	14,00	.551	69,00	2,717	64,10	2,524	41,00	1,614	10,00	.394	G
6389577	KTFS090R01SS10M	KTFS090R01SS10M	9,00	.354	9,499	.374	14,00	.551	69,00	2,717	63,80	2,512	41,00	1,614	10,00	.394	H
6389578	KTFS095R01SS10M	KTFS095R01SS10M	9,50	.374	9,999	.394	15,00	.591	70,00	2,756	64,50	2,539	41,00	1,614	10,00	.394	I
6389448	KTFS100R01SS12M	KTFS100R01SS12M	10,00	.394	10,499	.413	16,00	.630	78,00	3,071	72,20	2,843	46,00	1,811	12,00	.472	J
6389449	KTFS105R01SS12M	KTFS105R01SS12M	10,50	.413	10,999	.433	17,00	.669	79,00	3,110							

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order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATH		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389361	KTFS060R03SS08M	KTFS060R03SS08M	6,00	.236	6,299	.248	19,00	.748	67,00	2,638	63,50	2,500	37,00	1,457	8,00	.315	A
6389362	KTFS063R03SS08M	KTFS063R03SS08M	6,30	.248	6,599	.260	20,00	.787	68,00	2,677	64,30	2,532	37,00	1,457	8,00	.315	B
6389363	KTFS066R03SS08M	KTFS066R03SS08M	6,60	.260	6,999	.276	21,00	.827	70,00	2,756	66,20	2,606	37,00	1,457	8,00	.315	C
6389364	KTFS070R03SS08M	KTFS070R03SS08M	7,00	.276	7,499	.295	23,00	.906	72,00	2,835	67,90	2,673	37,00	1,457	8,00	.315	D
6389365	KTFS075R03SS08M	KTFS075R03SS08M	7,50	.295	7,999	.315	24,00	.945	73,00	2,874	68,60	2,701	37,00	1,457	8,00	.315	E
6389366	KTFS080R03SS10M	KTFS080R03SS10M	8,00	.315	8,499	.335	26,00	1,024	81,00	3,189	76,40	3,008	41,00	1,614	10,00	.394	F
6389367	KTFS085R03SS10M	KTFS085R03SS10M	8,50	.335	8,999	.354	27,00	1,063	82,00	3,228	77,10	3,035	41,00	1,614	10,00	.394	G
6389368	KTFS090R03SS10M	KTFS090R03SS10M	9,00	.354	9,499	.374	29,00	1,142	84,00	3,307	78,80	3,102	41,00	1,614	10,00	.394	H
6389369	KTFS095R03SS10M	KTFS095R03SS10M	9,50	.374	9,999	.394	30,00	1,181	85,00	3,347	79,50	3,130	41,00	1,614	10,00	.394	I
6371340	KTFS100R03SS12M	KTFS100R03SS12M	10,00	.394	10,499	.413	32,00	1,260	94,00	3,701	88,20	3,472	46,00	1,811	12,00	.472	J
6371961	KTFS105R03SS12M	KTFS105R03SS12M	10,50	.413	10,999	.433	33,00	1,299	95,00	3,740	88,90	3,500	46,00	1,811	12,00	.472	K
6371962	KTFS110R03SS12M	KTFS110R03SS12M	11,00	.433	11,499	.453	35,00	1,378	97,00	3,819	90,60	3,567	46,00	1,811	12,00	.472	L
6371963	KTFS115R03SS12M	KTFS115R03SS12M	11,50	.453	11,999	.472	36,00	1,417	98,00	3,858	91,30	3,595	46,00	1,811	12,00	.472	M
6371964	KTFS120R03SS14M	KTFS120R03SS14M	12,00	.473	12,499	.492	38,00	1,496	102,00	4,016	95,00	3,740	46,00	1,811	14,00	.551	N
6371965	KTFS125R03SS14M	KTFS125R03SS14M	12,50	.492	12,999	.512	39,00	1,535	103,00	4,055	95,80	3,772	46,00	1,811	14,00	.551	O
6371966	KTFS130R03SS14M	KTFS130R03SS14M	13,00	.512	13,499	.531	41,00	1,614	105,00	4,134	97,50	3,839	46,00	1,811	14,00	.551	P
6371967	KTFS135R03SS14M	KTFS135R03SS14M	13,50	.532	13,999	.551	42,00	1,654	106,00	4,173	98,20	3,866	46,00	1,811	14,00	.551	Q
6371968	KTFS140R03SS16M	KTFS140R03SS16M	14,00	.551	14,499	.571	44,00	1,732	112,00	4,409	103,90	4,091	49,00	1,929	16,00	.630	R
6371969	KTFS145R03SS16M	KTFS145R03SS16M	14,50	.571	14,999	.591	45,00	1,772	113,00	4,449	104,60	4,118	49,00	1,929	16,00	.630	S
6371970	KTFS150R03SS16M	KTFS150R03SS16M	15,00	.591	15,999	.630	48,00	1,890	116,00	4,567	107,30	4,224	49,00	1,929	16,00	.630	T
6371971	KTFS160R03SS16M	KTFS160R03SS16M	16,00	.630	16,999	.669	51,00	2,008	119,00	4,685	109,70	4,319	49,00	1,929	16,00	.630	U
6371972	KTFS170R03SS20M	KTFS170R03SS20M	17,00	.669	17,999	.709	54,00	2,126	127,00	5,000	117,10	4,610	51,00	2,008	20,00	.787	V
6389147	KTFS180R03SS20M	KTFS180R03SS20M	18,00	.709	18,999	.748	57,00	2,244	130,00	5,118	119,60	4,709	51,00	2,008	20,00	.787	W
6389148	KTFS190R03SS20M	KTFS190R03SS20M	19,00	.748	19,999	.787	60,00	2,362	133,00	5,236	122,00	4,803	51,00	2,008	20,00	.787	X



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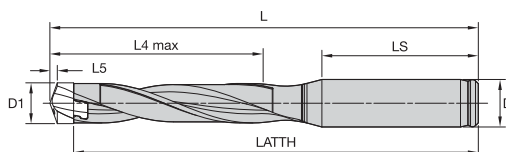
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55-57

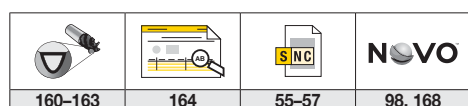
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KenTIP™ FS • Drill Body • 3 x D • SS Shank • Inch



order number	ANSI catalog number	D1	D1 max	L4 max	L	LATTH	LS	D	SSC
6389398	KTFS0237R03SS031	.236	.248	.748	2.717	2.579	1.520	.313	A
6389399	KTFS0249R03SS031	.248	.260	.787	2.756	2.610	1.520	.313	B
6389400	KTFS0260R03SS031	.260	.276	.827	2.795	2.646	1.520	.313	C
6389401	KTFS0276R03SS031	.276	.295	.906	2.874	2.713	1.520	.313	D
6389402	KTFS0296R03SS031	.295	.315	.945	3.001	2.828	1.520	.313	E
6389403	KTFS0315R03SS038	.315	.335	1.024	3.150	2.969	1.590	.375	F
6389404	KTFS0335R03SS038	.335	.354	1.063	3.189	2.996	1.590	.375	G
6389405	KTFS0355R03SS038	.354	.374	1.142	3.268	3.063	1.590	.375	H
6389406	KTFS0375R03SS038	.374	.394	1.181	3.307	3.091	1.590	.375	I
6372000	KTFS0394R03SS044	.394	.413	1.260	3.543	3.315	1.670	.438	J
6372011	KTFS0414R03SS044	.413	.433	1.299	3.583	3.343	1.670	.438	K
6372012	KTFS0434R03SS044	.433	.453	1.378	3.661	3.409	1.670	.438	L
6372013	KTFS0453R03SS050	.453	.472	1.417	3.858	3.595	1.790	.500	M
6372014	KTFS0473R03SS050	.473	.492	1.496	3.937	3.661	1.790	.500	N
6372015	KTFS0493R03SS050	.492	.512	1.535	3.976	3.693	1.790	.500	O
6372016	KTFS0512R03SS056	.512	.531	1.614	4.095	3.799	1.790	.563	P
6372017	KTFS0532R03SS056	.532	.551	1.654	4.134	3.827	1.790	.563	Q
6372018	KTFS0552R03SS056	.551	.571	1.732	4.213	3.894	1.790	.563	R
6372019	KTFS0571R03SS063	.571	.591	1.772	4.449	4.118	1.910	.625	S
6372020	KTFS0591R03SS063	.591	.630	1.890	4.567	4.224	1.910	.625	T
6372021	KTFS0630R03SS063	.630	.669	2.008	4.646	4.280	1.910	.625	U
6372022	KTFS0670R03SS075	.669	.709	2.126	4.961	4.571	2.000	.750	V
6389273	KTFS0709R03SS075	.709	.748	2.244	5.079	4.669	2.000	.750	W
6389274	KTFS0749R03SS075	.748	.787	2.362	5.197	4.764	2.000	.750	X



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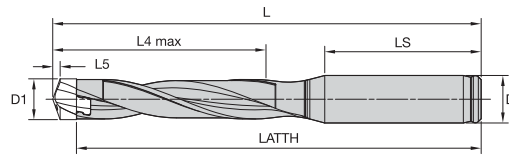
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55-57

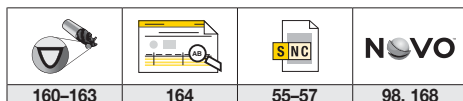
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order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATTH		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389370	KTFS060R05SS08M	KTFS060R05SS08M	6,00	.236	6,299	.248	32,00	1.260	80,00	3.150	76,50	3.012	37,00	1.457	8,00	.315	A
6389381	KTFS063R05SS08M	KTFS063R05SS08M	6,30	.248	6,599	.260	33,00	1.299	81,00	3.189	77,30	3.043	37,00	1.457	8,00	.315	B
6389382	KTFS066R05SS08M	KTFS066R05SS08M	6,60	.260	6,999	.276	35,00	1.378	84,00	3.307	80,20	3.158	37,00	1.457	8,00	.315	C
6389383	KTFS070R05SS08M	KTFS070R05SS08M	7,00	.276	7,499	.295	38,00	1.496	87,00	3.425	82,90	3.264	37,00	1.457	8,00	.315	D
6389384	KTFS075R05SS08M	KTFS075R05SS08M	7,50	.295	7,999	.315	40,00	1.575	89,00	3.504	84,60	3.331	37,00	1.457	8,00	.315	E
6389385	KTFS080R05SS10M	KTFS080R05SS10M	8,00	.315	8,499	.335	43,00	1.693	98,00	3.858	93,40	3.677	41,00	1.614	10,00	.394	F
6389386	KTFS085R05SS10M	KTFS085R05SS10M	8,50	.335	8,999	.354	45,00	1.772	100,00	3.937	95,10	3.744	41,00	1.614	10,00	.394	G
6389387	KTFS090R05SS10M	KTFS090R05SS10M	9,00	.354	9,499	.374	48,00	1.890	103,00	4.055	97,80	3.850	41,00	1.614	10,00	.394	H
6389388	KTFS095R05SS10M	KTFS095R05SS10M	9,50	.374	9,999	.394	50,00	1.969	105,00	4.134	99,50	3.917	41,00	1.614	10,00	.394	I
6371973	KTFS100R05SS12M	KTFS100R05SS12M	10,00	.394	10,499	.413	53,00	2.087	115,00	4.528	109,20	4.299	46,00	1.811	12,00	.472	J
6371974	KTFS105R05SS12M	KTFS105R05SS12M	10,50	.413	10,999	.433	55,00	2.165	117,00	4.606	110,90	4.366	46,00	1.811	12,00	.472	K
6371975	KTFS110R05SS12M	KTFS110R05SS12M	11,00	.433	11,499	.453	58,00	2.283	120,00	4.724	113,60	4.472	46,00	1.811	12,00	.472	L
6371976	KTFS115R05SS12M	KTFS115R05SS12M	11,50	.453	11,999	.472	60,00	2.362	122,00	4.803	115,30	4.539	46,00	1.811	12,00	.472	M
6371977	KTFS120R05SS14M	KTFS120R05SS14M	12,00	.473	12,499	.492	63,00	2.480	127,00	5.000	120,00	4.724	46,00	1.811	14,00	.551	N
6371978	KTFS125R05SS14M	KTFS125R05SS14M	12,50	.492	12,999	.512	65,00	2.559	129,00	5.079	121,80	4.795	46,00	1.811	14,00	.551	O
6371979	KTFS130R05SS14M	KTFS130R05SS14M	13,00	.512	13,499	.531	68,00	2.677	132,00	5.197	124,50	4.902	46,00	1.811	14,00	.551	P
6371980	KTFS135R05SS14M	KTFS135R05SS14M	13,50	.532	13,999	.551	70,00	2.756	134,00	5.276	126,20	4.969	46,00	1.811	14,00	.551	Q
6371981	KTFS140R05SS16M	KTFS140R05SS16M	14,00	.551	14,499	.571	73,00	2.874	141,00	5.551	132,90	5.232	49,00	1.929	16,00	.630	R
6371982	KTFS145R05SS16M	KTFS145R05SS16M	14,50	.571	14,999	.591	75,00	2.953	143,00	5.630	134,60	5.299	49,00	1.929	16,00	.630	S
6371983	KTFS150R05SS16M	KTFS150R05SS16M	15,00	.591	15,999	.630	80,00	3.150	148,00	5.827	139,30	5.484	49,00	1.929	16,00	.630	T
6371984	KTFS160R05SS16M	KTFS160R05SS16M	16,00	.630	16,999	.669	85,00	3.346	153,00	6.024	143,70	5.658	49,00	1.929	16,00	.630	U
6371985	KTFS170R05SS20M	KTFS170R05SS20M	17,00	.669	17,999	.709	90,00	3.543	163,00	6.417	153,10	6.028	51,00	2.008	20,00	.787	V
6389149	KTFS180R05SS20M	KTFS180R05SS20M	18,00	.709	18,999	.748	95,00	3.740	168,00	6.614	157,60	6.205	51,00	2.008	20,00	.787	W
6389150	KTFS190R05SS20M	KTFS190R05SS20M	19,00	.748	19,999	.787	100,00	3.937	173,00	6.811	162,00	6.378	51,00	2.008	20,00	.787	X



160-163

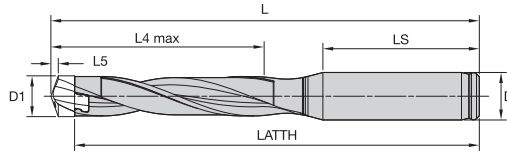
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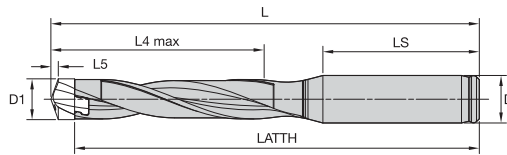


order number	ANSI catalog number	D1	D1 max	L4 max	L	LATTH	LS	D	SSC
6389407	KTFS0237R05SS031	.236	.248	1.260	3.228	3.091	1.520	.313	A
6389408	KTFS0249R05SS031	.248	.260	1.299	3.268	3.122	1.520	.313	B
6389409	KTFS0260R05SS031	.260	.276	1.378	3.347	3.197	1.520	.313	C
6389410	KTFS0276R05SS031	.276	.295	1.496	3.465	3.303	1.520	.313	D
6389421	KTFS0296R05SS031	.295	.315	1.575	3.631	3.458	1.520	.313	E
6389422	KTFS0315R05SS038	.315	.335	1.693	3.819	3.638	1.590	.375	F
6389423	KTFS0335R05SS038	.335	.354	1.772	3.898	3.705	1.590	.375	G
6389424	KTFS0355R05SS038	.354	.374	1.890	4.016	3.811	1.590	.375	H
6389425	KTFS0375R05SS038	.374	.394	1.969	4.095	3.878	1.590	.375	I
6372023	KTFS0394R05SS044	.394	.413	2.087	4.370	4.142	1.670	.438	J
6372024	KTFS0414R05SS044	.413	.433	2.165	4.449	4.209	1.670	.438	K
6372025	KTFS0434R05SS044	.433	.453	2.283	4.567	4.315	1.670	.438	L
6372026	KTFS0453R05SS050	.453	.472	2.362	4.803	4.539	1.790	.500	M
6372027	KTFS0473R05SS050	.473	.492	2.480	4.921	4.646	1.790	.500	N
6372028	KTFS0493R05SS050	.492	.512	2.559	5.000	4.717	1.790	.500	O
6372029	KTFS0512R05SS056	.512	.531	2.677	5.158	4.862	1.790	.563	P
6372030	KTFS0532R05SS056	.532	.551	2.756	5.236	4.929	1.790	.563	Q
6372051	KTFS0552R05SS056	.551	.571	2.874	5.354	5.035	1.790	.563	R
6372052	KTFS0571R05SS063	.571	.591	2.953	5.630	5.299	1.910	.625	S
6372053	KTFS0591R05SS063	.591	.630	3.150	5.827	5.484	1.910	.625	T
6372054	KTFS0630R05SS063	.630	.669	3.346	5.984	5.618	1.910	.625	U
6372055	KTFS0670R05SS075	.669	.709	3.543	6.378	5.988	2.000	.750	V
6389275	KTFS0709R05SS075	.709	.748	3.740	6.575	6.165	2.000	.750	W
6389276	KTFS0749R05SS075	.748	.787	3.937	6.772	6.339	2.000	.750	X

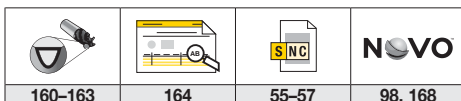
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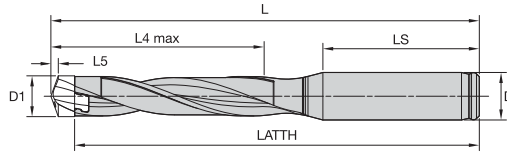
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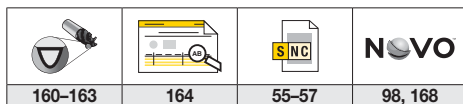
order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		L ATTH		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389389	KTFS060R08SS08M	KTFS060R08SS08M	6,00	.236	6,299	.248	50,00	1.969	98,00	3.858	94,50	3.721	37,00	1.457	8,00	.315	A
6389390	KTFS063R08SS08M	KTFS063R08SS08M	6,30	.248	6,599	.260	53,00	2.087	101,00	3.976	97,30	3.831	37,00	1.457	8,00	.315	B
6389391	KTFS066R08SS08M	KTFS066R08SS08M	6,60	.260	6,999	.276	56,00	2.205	105,00	4.134	101,20	3.984	37,00	1.457	8,00	.315	C
6389392	KTFS070R08SS08M	KTFS070R08SS08M	7,00	.276	7,499	.295	60,00	2.362	109,00	4.291	104,90	4.130	37,00	1.457	8,00	.315	D
6389393	KTFS075R08SS08M	KTFS075R08SS08M	7,50	.295	7,999	.315	64,00	2.520	113,00	4.449	108,60	4.276	37,00	1.457	8,00	.315	E
6389394	KTFS080R08SS10M	KTFS080R08SS10M	8,00	.315	8,499	.335	68,00	2.677	123,00	4.843	118,40	4.661	41,00	1.614	10,00	.394	F
6389395	KTFS085R08SS10M	KTFS085R08SS10M	8,50	.335	8,999	.354	72,00	2.835	127,00	5.000	122,10	4.807	41,00	1.614	10,00	.394	G
6389396	KTFS090R08SS10M	KTFS090R08SS10M	9,00	.354	9,499	.374	76,00	2.992	131,00	5.158	125,80	4.953	41,00	1.614	10,00	.394	H
6389397	KTFS095R08SS10M	KTFS095R08SS10M	9,50	.374	9,999	.394	80,00	3.150	135,00	5.315	129,50	5.098	41,00	1.614	10,00	.394	I
6371986	KTFS100R08SS12M	KTFS100R08SS12M	10,00	.394	10,499	.413	84,00	3.307	146,00	5.748	140,20	5.520	46,00	1.811	12,00	.472	J
6371987	KTFS105R08SS12M	KTFS105R08SS12M	10,50	.413	10,999	.433	88,00	3.465	150,00	5.906	143,90	5.665	46,00	1.811	12,00	.472	K
6371988	KTFS110R08SS12M	KTFS110R08SS12M	11,00	.433	11,499	.453	92,00	3.622	154,00	6.063	147,60	5.811	46,00	1.811	12,00	.472	L
6371989	KTFS115R08SS12M	KTFS115R08SS12M	11,50	.453	11,999	.472	96,00	3.780	158,00	6.221	151,30	5.957	46,00	1.811	12,00	.472	M
6371990	KTFS120R08SS14M	KTFS120R08SS14M	12,00	.473	12,499	.492	100,00	3.937	164,00	6.457	157,00	6.181	46,00	1.811	14,00	.551	N
6371991	KTFS125R08SS14M	KTFS125R08SS14M	12,50	.492	12,999	.512	104,00	4.094	168,00	6.614	160,80	6.331	46,00	1.811	14,00	.551	O
6371992	KTFS130R08SS14M	KTFS130R08SS14M	13,00	.512	13,499	.531	108,00	4.252	172,00	6.772	164,50	6.476	46,00	1.811	14,00	.551	P
6371993	KTFS135R08SS14M	KTFS135R08SS14M	13,50	.532	13,999	.551	112,00	4.409	176,00	6.929	168,20	6.622	46,00	1.811	14,00	.551	Q
6371994	KTFS140R08SS16M	KTFS140R08SS16M	14,00	.551	14,499	.571	116,00	4.567	184,00	7.244	175,90	6.925	49,00	1.929	16,00	.630	R
6371995	KTFS145R08SS16M	KTFS145R08SS16M	14,50	.571	14,999	.591	120,00	4.724	188,00	7.402	179,60	7.071	49,00	1.929	16,00	.630	S
6371996	KTFS150R08SS16M	KTFS150R08SS16M	15,00	.591	15,999	.630	128,00	5.039	196,00	7.717	187,30	7.374	49,00	1.929	16,00	.630	T
6371997	KTFS160R08SS16M	KTFS160R08SS16M	16,00	.630	16,999	.669	136,00	5.354	204,00	8.032	194,70	7.665	49,00	1.929	16,00	.630	U
6371999	KTFS170R08SS20M	KTFS170R08SS20M	17,00	.669	17,999	.709	144,00	5.669	217,00	8.543	207,10	8.154	51,00	2.008	20,00	.787	V
6389271	KTFS180R08SS20M	KTFS180R08SS20M	18,00	.709	18,999	.748	152,00	5.984	225,00	8.858	214,60	8.449	51,00	2.008	20,00	.787	W
6389272	KTFS190R08SS20M	KTFS190R08SS20M	19,00	.748	19,999	.787	160,00	6.299	233,00	9.173	222,00	8.740	51,00	2.008	20,00	.787	X



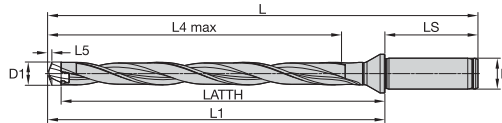
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order number	ANSI catalog number	D1	D1 max	L4 max	L	LATTH	LS	D	SSC
6389426	KTFS0237R08SS031	.236	.248	1.969	3.937	3.799	1.520	.313	A
6389427	KTFS0249R08SS031	.248	.260	2.087	4.055	3.909	1.520	.313	B
6389428	KTFS0260R08SS031	.260	.276	2.205	4.173	4.024	1.520	.313	C
6389429	KTFS0276R08SS031	.276	.295	2.362	4.331	4.169	1.520	.313	D
6389430	KTFS0296R08SS031	.295	.315	2.520	4.576	4.402	1.520	.313	E
6389431	KTFS0315R08SS038	.315	.335	2.677	4.803	4.622	1.590	.375	F
6389432	KTFS0335R08SS038	.335	.354	2.835	4.961	4.768	1.590	.375	G
6389433	KTFS0355R08SS038	.354	.374	2.992	5.118	4.913	1.590	.375	H
6389434	KTFS0375R08SS038	.374	.394	3.150	5.276	5.059	1.590	.375	I
6372056	KTFS0394R08SS044	.394	.413	3.307	5.591	5.362	1.670	.438	J
6372057	KTFS0414R08SS044	.413	.433	3.465	5.748	5.508	1.670	.438	K
6372058	KTFS0434R08SS044	.433	.453	3.622	5.906	5.654	1.670	.438	L
6372059	KTFS0453R08SS050	.453	.472	3.780	6.221	5.957	1.790	.500	M
6372060	KTFS0473R08SS050	.473	.492	3.937	6.378	6.102	1.790	.500	N
6372062	KTFS0493R08SS050	.492	.512	4.094	6.535	6.252	1.790	.500	O
6372063	KTFS0512R08SS056	.512	.531	4.252	6.732	6.437	1.790	.563	P
6372064	KTFS0532R08SS056	.532	.551	4.409	6.890	6.583	1.790	.563	Q
6372065	KTFS0552R08SS056	.551	.571	4.567	7.047	6.728	1.790	.563	R
6372066	KTFS0571R08SS063	.571	.591	4.724	7.402	7.071	1.910	.625	S
6372067	KTFS0591R08SS063	.591	.630	5.039	7.717	7.374	1.910	.625	T
6372068	KTFS0630R08SS063	.630	.669	5.354	7.992	7.626	1.910	.625	U
6372069	KTFS0670R08SS075	.669	.709	5.669	8.504	8.114	2.000	.750	V
6389277	KTFS0709R08SS075	.709	.748	5.984	8.819	8.409	2.000	.750	W
6389278	KTFS0749R08SS075	.748	.787	6.299	9.134	8.701	2.000	.750	X



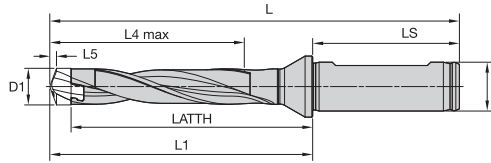
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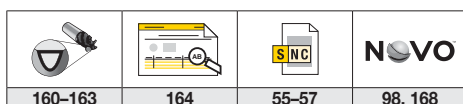
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order number	catalog number	catalog number	catalog number	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389579	KTFS060R12SF12M	KTFS060R12SF12M	KTFS060R12SF12M	6,00	.236	6,299	.248	76,00	2,992	141,00	5,551	92,50	3,642	96,00	3,780	45,00	1,772	12,00	.472	A
6389580	KTFS063R12SF12M	KTFS063R12SF12M	KTFS063R12SF12M	6,30	.248	6,599	.260	79,00	3,110	144,00	5,669	95,30	3,752	99,00	3,898	45,00	1,772	12,00	.472	B
6389581	KTFS066R12SF12M	KTFS066R12SF12M	KTFS066R12SF12M	6,60	.260	6,999	.276	84,00	3,307	150,00	5,906	101,20	3,984	105,00	4,134	45,00	1,772	12,00	.472	C
6389582	KTFS070R12SF12M	KTFS070R12SF12M	KTFS070R12SF12M	7,00	.276	7,499	.295	90,00	3,543	156,00	6,142	106,90	4,209	111,00	4,370	45,00	1,772	12,00	.472	D
6389583	KTFS075R12SF12M	KTFS075R12SF12M	KTFS075R12SF12M	7,50	.295	7,999	.315	96,00	3,780	162,00	6,378	112,60	4,433	117,00	4,606	45,00	1,772	12,00	.472	E
6389584	KTFS080R12SF12M	KTFS080R12SF12M	KTFS080R12SF12M	8,00	.315	8,499	.335	102,00	4,016	168,00	6,614	118,40	4,661	123,00	4,843	45,00	1,772	12,00	.472	F
6389585	KTFS085R12SF12M	KTFS085R12SF12M	KTFS085R12SF12M	8,50	.335	8,999	.354	108,00	4,252	174,00	6,850	124,10	4,886	129,00	5,079	45,00	1,772	12,00	.472	G
6389586	KTFS090R12SF12M	KTFS090R12SF12M	KTFS090R12SF12M	9,00	.354	9,499	.374	114,00	4,488	180,00	7,087	129,80	5,110	135,00	5,315	45,00	1,772	12,00	.472	H
6389587	KTFS095R12SF12M	KTFS095R12SF12M	KTFS095R12SF12M	9,50	.374	9,999	.394	120,00	4,724	186,00	7,323	135,50	5,335	141,00	5,551	45,00	1,772	12,00	.472	I
6389481	KTFS100R12SF16M	KTFS100R12SF16M	KTFS100R12SF16M	10,00	.394	10,499	.413	126,00	4,961	198,00	7,795	144,20	5,677	150,00	5,906	48,00	1,890	16,00	.630	J
6389482	KTFS105R12SF16M	KTFS105R12SF16M	KTFS105R12SF16M	10,50	.413	10,999	.433	132,00	5,197	204,00	8,032	149,90	5,902	156,00	6,142	48,00	1,890	16,00	.630	K
6389483	KTFS110R12SF16M	KTFS110R12SF16M	KTFS110R12SF16M	11,00	.433	11,499	.453	138,00	5,433	210,00	8,268	155,60	6,126	162,00	6,378	48,00	1,890	16,00	.630	L
6389484	KTFS115R12SF16M	KTFS115R12SF16M	KTFS115R12SF16M	11,50	.453	11,999	.472	144,00	5,669	216,00	8,504	161,30	6,350	168,00	6,614	48,00	1,890	16,00	.630	M
6389485	KTFS120R12SF16M	KTFS120R12SF16M	KTFS120R12SF16M	12,00	.473	12,499	.492	150,00	5,906	222,00	8,740	167,00	6,575	174,00	6,850	48,00	1,890	16,00	.630	N
6389486	KTFS125R12SF16M	KTFS125R12SF16M	KTFS125R12SF16M	12,50	.492	12,999	.512	156,00	6,142	228,00	8,976	172,80	6,803	180,00	7,087	48,00	1,890	16,00	.630	O
6389487	KTFS130R12SF16M	KTFS130R12SF16M	KTFS130R12SF16M	13,00	.512	13,499	.531	162,00	6,378	234,00	9,213	178,50	7,028	186,00	7,323	48,00	1,890	16,00	.630	P
6389488	KTFS135R12SF16M	KTFS135R12SF16M	KTFS135R12SF16M	13,50	.532	13,999	.551	168,00	6,614	240,00	9,449	184,20	7,252	192,00	7,559	48,00	1,890	16,00	.630	Q
6389489	KTFS140R12SF16M	KTFS140R12SF16M	KTFS140R12SF16M	14,00	.551	14,499	.571	174,00	6,850	246,00	9,685	189,90	7,476	198,00	7,795	48,00	1,890	16,00	.630	R
6389490	KTFS145R12SF16M	KTFS145R12SF16M	KTFS145R12SF16M	14,50	.571	14,999	.591	180,00	7,087	252,00	9,921	195,60	7,701	204,00	8,032	48,00	1,890	16,00	.630	S
6389501	KTFS150R12SF20M	KTFS150R12SF20M	KTFS150R12SF20M	15,00	.591	15,999	.630	192,00	7,559	269,00	10,591	210,30	8,280	219,00	8,622	50,00	1,969	20,00	.787	T
6389502	KTFS160R12SF20M	KTFS160R12SF20M	KTFS160R12SF20M	16,00	.630	16,999	.669	204,00	8,031	281,00	11,063	221,70	8,728	231,00	9,095	50,00	1,969	20,00	.787	U
6389503	KTFS170R12SF20M	KTFS170R12SF20M	KTFS170R12SF20M	17,00	.669	17,999	.709	216,00	8,504	293,00	11,535	233,10	9,177	243,00	9,567	50,00	1,969	20,00	.787	V
6389568	KTFS180R12SF25M	KTFS180R12SF25M	KTFS180R12SF25M	18,00	.709	18,999	.748	228,00	8,976	314,00	12,362	247,60	9,748	258,00	10,158	56,00	2,205	25,00	.984	W
6389569	KTFS190R12SF25M	KTFS190R12SF25M	KTFS190R12SF25M	19,00	.748	19,999	.787	240,00	9,449	326,00	12,835	259,00	10,197	270,00	10,630	56,00	2,205	25,00	.984	X

160-163	164	55-57	98, 168

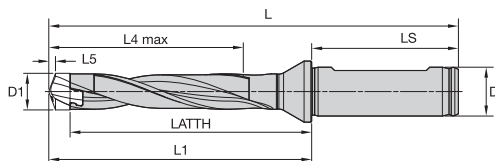
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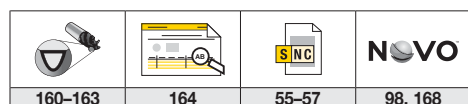
order number	ISO		ANSI		D1		D1 max		L4 max		L		LATTH		L1		LS		D		SSC
	catalog number	catalog number	catalog number	catalog number	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389504	KTFS200R01SCF25M	KTFS200R01SCF25M	KTFS200R01SCF25M	KTFS200R01SCF25M	20,00	.787	20,999	.827	32,00	1.260	118,00	4.646	50,40	1.984	62,00	2.441	56,00	2.205	25,00	.984	Y
6389505	KTFS210R01SCF25M	KTFS210R01SCF25M	KTFS210R01SCF25M	KTFS210R01SCF25M	21,00	.827	21,999	.866	33,00	1.299	119,00	4.685	50,80	2.000	63,00	2.480	56,00	2.205	25,00	.984	Z
6389506	KTFS220R01SCF25M	KTFS220R01SCF25M	KTFS220R01SCF25M	KTFS220R01SCF25M	22,00	.866	22,999	.905	35,00	1.378	121,00	4.764	52,20	2.055	65,00	2.559	56,00	2.205	25,00	.984	ZA
6389507	KTFS230R01SCF25M	KTFS230R01SCF25M	KTFS230R01SCF25M	KTFS230R01SCF25M	23,00	.906	23,999	.945	36,00	1.417	122,00	4.803	52,70	2.075	66,00	2.598	56,00	2.205	25,00	.984	ZB
6389508	KTFS240R01SCF25M	KTFS240R01SCF25M	KTFS240R01SCF25M	KTFS240R01SCF25M	24,00	.945	24,999	.984	38,00	1.496	124,00	4.882	54,10	2.130	68,00	2.677	56,00	2.205	25,00	.984	ZC
6389509	KTFS250R01SCF25M	KTFS250R01SCF25M	KTFS250R01SCF25M	KTFS250R01SCF25M	25,00	.984	26,000	1.024	39,00	1.535	125,00	4.921	54,50	2.146	69,00	2.717	56,00	2.205	25,00	.984	ZD



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order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATH		L1		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389436	KTFS080R03SCF12M	KTFS080R03SCF12M	8,00	.315	8,499	.335	26,00	1.024	92,00	3.622	42,40	1.669	47,00	1.850	45,00	1.772	12,00	.472	F
6389437	KTFS085R03SCF12M	KTFS085R03SCF12M	8,50	.335	8,999	.354	27,00	1.063	93,00	3.661	43,10	1.697	48,00	1.890	45,00	1.772	12,00	.472	G
6389438	KTFS090R03SCF12M	KTFS090R03SCF12M	9,00	.354	9,499	.374	29,00	1.142	95,00	3.740	44,80	1.764	50,00	1.969	45,00	1.772	12,00	.472	H
6389439	KTFS095R03SCF12M	KTFS095R03SCF12M	9,50	.374	9,999	.394	30,00	1.181	96,00	3.780	45,50	1.791	51,00	2.008	45,00	1.772	12,00	.472	I
6372514	KTFS100R03SCF16M	KTFS100R03SCF16M	10,00	.394	10,499	.413	32,00	1.260	104,00	4.095	50,20	1.976	56,00	2.205	48,00	1.890	16,00	.630	J
6372515	KTFS105R03SCF16M	KTFS105R03SCF16M	10,50	.413	10,999	.433	33,00	1.299	105,00	4.134	50,90	2.004	57,00	2.244	48,00	1.890	16,00	.630	K
6372516	KTFS110R03SCF16M	KTFS110R03SCF16M	11,00	.433	11,499	.453	35,00	1.378	107,00	4.213	52,60	2.071	59,00	2.323	48,00	1.890	16,00	.630	L
6372517	KTFS115R03SCF16M	KTFS115R03SCF16M	11,50	.453	11,999	.472	36,00	1.417	108,00	4.252	53,30	2.098	60,00	2.362	48,00	1.890	16,00	.630	M
6372518	KTFS120R03SCF16M	KTFS120R03SCF16M	12,00	.473	12,499	.492	38,00	1.496	110,00	4.331	55,00	2.165	62,00	2.441	48,00	1.890	16,00	.630	N
6372519	KTFS125R03SCF16M	KTFS125R03SCF16M	12,50	.492	12,999	.512	39,00	1.535	111,00	4.370	55,80	2.197	63,00	2.480	48,00	1.890	16,00	.630	O
6372520	KTFS130R03SCF16M	KTFS130R03SCF16M	13,00	.512	13,499	.531	41,00	1.614	113,00	4.449	57,50	2.264	65,00	2.559	48,00	1.890	16,00	.630	P
6372591	KTFS135R03SCF16M	KTFS135R03SCF16M	13,50	.532	13,999	.551	42,00	1.654	114,00	4.488	58,20	2.291	66,00	2.598	48,00	1.890	16,00	.630	Q
6372592	KTFS140R03SCF16M	KTFS140R03SCF16M	14,00	.551	14,499	.571	44,00	1.732	116,00	4.567	59,90	2.358	68,00	2.677	48,00	1.890	16,00	.630	R
6372593	KTFS145R03SCF16M	KTFS145R03SCF16M	14,50	.571	14,999	.591	45,00	1.772	117,00	4.606	60,60	2.386	69,00	2.717	48,00	1.890	16,00	.630	S
6372594	KTFS150R03SCF20M	KTFS150R03SCF20M	15,00	.591	15,999	.630	48,00	1.890	125,00	4.921	66,30	2.610	75,00	2.953	50,00	1.969	20,00	.787	T
6372595	KTFS160R03SCF20M	KTFS160R03SCF20M	16,00	.630	16,999	.669	51,00	2.008	128,00	5.039	68,70	2.705	78,00	3.071	50,00	1.969	20,00	.787	U
6372596	KTFS170R03SCF20M	KTFS170R03SCF20M	17,00	.669	17,999	.709	54,00	2.126	131,00	5.158	71,10	2.799	81,00	3.189	50,00	1.969	20,00	.787	V
6389279	KTFS180R03SCF25M	KTFS180R03SCF25M	18,00	.709	18,999	.748	57,00	2.244	143,00	5.630	76,60	3.016	87,00	3.425	56,00	2.205	25,00	.984	W
6389280	KTFS190R03SCF25M	KTFS190R03SCF25M	19,00	.748	19,999	.787	60,00	2.362	146,00	5.748	79,00	3.110	90,00	3.543	56,00	2.205	25,00	.984	X
6389281	KTFS200R03SCF25M	KTFS200R03SCF25M	20,00	.787	20,999	.827	63,00	2.480	149,00	5.866	81,40	3.205	93,00	3.661	56,00	2.205	25,00	.984	Y
6389282	KTFS210R03SCF25M	KTFS210R03SCF25M	21,00	.827	21,999	.866	66,00	2.598	152,00	5.984	83,80	3.299	96,00	3.780	56,00	2.205	25,00	.984	Z
6389283	KTFS220R03SCF25M	KTFS220R03SCF25M	22,00	.866	22,999	.905	69,00	2.717	155,00	6.102	86,20	3.394	99,00	3.898	56,00	2.205	25,00	.984	ZA
6389284	KTFS230R03SCF25M	KTFS230R03SCF25M	23,00	.906	23,999	.945	72,00	2.835	158,00	6.221	88,70	3.492	102,00	4.016	56,00	2.205	25,00	.984	ZB
6389285	KTFS240R03SCF25M	KTFS240R03SCF25M	24,00	.945	24,999	.984	75,00	2.953	161,00	6.339	91,10	3.587	105,00	4.134	56,00	2.205	25,00	.984	ZC
6389286	KTFS250R03SCF25M	KTFS250R03SCF25M	25,00	.984	26,000	1.024	78,00	3.071	164,00	6.457	93,50	3.681	108,00	4.252	56,00	2.205	25,00	.984	ZD



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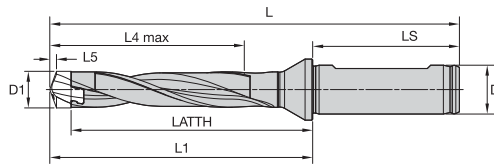
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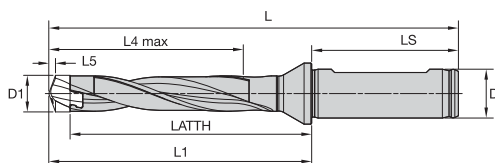


order number	ANSI catalog number	D1	D1 max	L4 max	L	LATTH	L1	LS	D	SSC
6688250	KTFS0315R03SCF050	.315	.335	1.024	3.622	1.669	1.850	1.772	.500	F
6688271	KTFS0335R03SCF050	.335	.354	1.063	3.661	1.697	1.890	1.772	.500	G
6688272	KTFS0355R03SCF050	.354	.374	1.142	3.740	1.764	1.969	1.772	.500	H
6688273	KTFS0375R03SCF050	.374	.394	1.181	3.780	1.791	2.008	1.772	.500	I
6688274	KTFS0394R03SCF063	.394	.413	1.260	4.095	1.976	2.205	1.890	.625	J
6688275	KTFS0414R03SCF063	.413	.433	1.299	4.134	2.004	2.244	1.890	.625	K
6688276	KTFS0434R03SCF063	.433	.453	1.378	4.213	2.071	2.323	1.890	.625	L
6688277	KTFS0453R03SCF063	.453	.472	1.417	4.252	2.098	2.362	1.890	.625	M
6688278	KTFS0473R03SCF063	.473	.492	1.496	4.331	2.165	2.441	1.890	.625	N
6688279	KTFS0493R03SCF063	.492	.512	1.535	4.370	2.197	2.480	1.890	.625	O
6688280	KTFS0512R03SCF063	.512	.531	1.614	4.449	2.264	2.559	1.890	.625	P
6688291	KTFS0532R03SCF063	.532	.551	1.654	4.488	2.291	2.598	1.890	.625	Q
6688292	KTFS0552R03SCF063	.551	.571	1.732	4.567	2.358	2.677	1.890	.625	R
6688293	KTFS0571R03SCF063	.571	.591	1.772	4.606	2.386	2.717	1.890	.625	S
6688294	KTFS0591R03SCF075	.591	.630	1.890	4.921	2.610	2.953	1.969	.750	T
6688295	KTFS0630R03SCF075	.630	.669	2.008	5.039	2.705	3.071	1.969	.750	U
6688296	KTFS0670R03SCF075	.669	.709	2.126	5.158	2.799	3.189	1.969	.750	V
6688297	KTFS0709R03SCF100	.709	.748	2.244	5.630	3.016	3.425	2.205	1.000	W
6688298	KTFS0749R03SCF100	.748	.787	2.362	5.748	3.110	3.543	2.205	1.000	X
6389333	KTFS0788R03SCF100	.787	.827	2.480	5.866	3.205	3.661	2.205	1.000	Y
6389334	KTFS0827R03SCF100	.827	.866	2.598	5.984	3.299	3.780	2.205	1.000	Z
6389335	KTFS0867R03SCF100	.866	.905	2.717	6.102	3.394	3.898	2.205	1.000	ZA
6389336	KTFS0906R03SCF100	.906	.945	2.835	6.221	3.492	4.016	2.205	1.000	ZB
6389337	KTFS0945R03SCF100	.945	.984	2.953	6.339	3.587	4.134	2.205	1.000	ZC
6389338	KTFS0985R03SCF100	.984	1.024	3.071	6.457	3.681	4.252	2.205	1.000	ZD

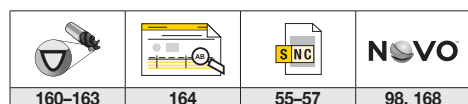
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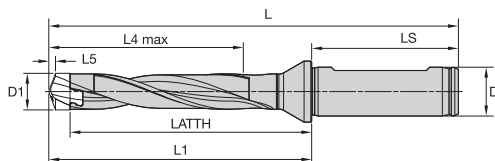
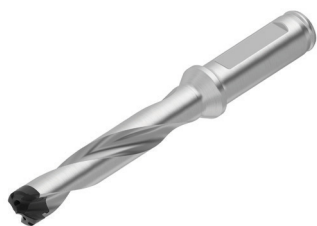
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order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATH		L1		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389440	KTFS080R05SCF12M	KTFS080R05SCF12M	8,00	.315	8,499	.335	43,00	1.693	109,00	4.291	59,40	2.339	64,00	2.520	45,00	1.772	12,00	.472	F
6389441	KTFS085R05SCF12M	KTFS085R05SCF12M	8,50	.335	8,999	.354	45,00	1.772	111,00	4.370	61,10	2.406	66,00	2.598	45,00	1.772	12,00	.472	G
6389442	KTFS090R05SCF12M	KTFS090R05SCF12M	9,00	.354	9,499	.374	48,00	1.890	114,00	4.488	63,80	2.512	69,00	2.717	45,00	1.772	12,00	.472	H
6389443	KTFS095R05SCF12M	KTFS095R05SCF12M	9,50	.374	9,999	.394	50,00	1.969	116,00	4.567	65,50	2.579	71,00	2.795	45,00	1.772	12,00	.472	I
6372597	KTFS100R05SCF16M	KTFS100R05SCF16M	10,00	.394	10,499	.413	53,00	2.087	125,00	4.921	71,20	2.803	77,00	3.032	48,00	1.890	16,00	.630	J
6372598	KTFS105R05SCF16M	KTFS105R05SCF16M	10,50	.413	10,999	.433	55,00	2.165	127,00	5.000	72,90	2.870	79,00	3.110	48,00	1.890	16,00	.630	K
6372599	KTFS110R05SCF16M	KTFS110R05SCF16M	11,00	.433	11,499	.453	58,00	2.283	130,00	5.118	75,60	2.976	82,00	3.228	48,00	1.890	16,00	.630	L
6372600	KTFS115R05SCF16M	KTFS115R05SCF16M	11,50	.453	11,999	.472	60,00	2.362	132,00	5.197	77,30	3.043	84,00	3.307	48,00	1.890	16,00	.630	M
6372601	KTFS120R05SCF16M	KTFS120R05SCF16M	12,00	.473	12,499	.492	63,00	2.480	135,00	5.315	80,00	3.150	87,00	3.425	48,00	1.890	16,00	.630	N
6372602	KTFS125R05SCF16M	KTFS125R05SCF16M	12,50	.492	12,999	.512	65,00	2.559	137,00	5.394	81,80	3.221	89,00	3.504	48,00	1.890	16,00	.630	O
6372603	KTFS130R05SCF16M	KTFS130R05SCF16M	13,00	.512	13,499	.531	68,00	2.677	140,00	5.512	84,50	3.327	92,00	3.622	48,00	1.890	16,00	.630	P
6372604	KTFS135R05SCF16M	KTFS135R05SCF16M	13,50	.532	13,999	.551	70,00	2.756	142,00	5.591	86,20	3.394	94,00	3.701	48,00	1.890	16,00	.630	Q
6372605	KTFS140R05SCF16M	KTFS140R05SCF16M	14,00	.551	14,499	.571	73,00	2.874	145,00	5.709	88,90	3.500	97,00	3.819	48,00	1.890	16,00	.630	R
6372606	KTFS145R05SCF16M	KTFS145R05SCF16M	14,50	.571	14,999	.591	75,00	2.953	147,00	5.787	90,60	3.567	99,00	3.898	48,00	1.890	16,00	.630	S
6372607	KTFS150R05SCF20M	KTFS150R05SCF20M	15,00	.591	15,999	.630	80,00	3.150	157,00	6.181	98,30	3.870	107,00	4.213	50,00	1.969	20,00	.787	T
6372608	KTFS160R05SCF20M	KTFS160R05SCF20M	16,00	.630	16,999	.669	85,00	3.346	162,00	6.378	102,70	4.043	112,00	4.409	50,00	1.969	20,00	.787	U
6372609	KTFS170R05SCF20M	KTFS170R05SCF20M	17,00	.669	17,999	.709	90,00	3.543	167,00	6.575	107,10	4.217	117,00	4.606	50,00	1.969	20,00	.787	V
6389287	KTFS180R05SCF25M	KTFS180R05SCF25M	18,00	.709	18,999	.748	95,00	3.740	181,00	7.126	114,60	4.512	125,00	4.921	56,00	2.205	25,00	.984	W
6389288	KTFS190R05SCF25M	KTFS190R05SCF25M	19,00	.748	19,999	.787	100,00	3.937	186,00	7.323	119,00	4.685	130,00	5.118	56,00	2.205	25,00	.984	X
6389289	KTFS200R05SCF25M	KTFS200R05SCF25M	20,00	.787	20,999	.827	105,00	4.134	191,00	7.520	123,40	4.858	135,00	5.315	56,00	2.205	25,00	.984	Y
6389290	KTFS210R05SCF25M	KTFS210R05SCF25M	21,00	.827	21,999	.866	110,00	4.331	196,00	7.717	127,80	5.032	140,00	5.512	56,00	2.205	25,00	.984	Z
6389311	KTFS220R05SCF25M	KTFS220R05SCF25M	22,00	.866	22,999	.905	115,00	4.528	201,00	7.913	132,20	5.205	145,00	5.709	56,00	2.205	25,00	.984	ZA
6389312	KTFS230R05SCF25M	KTFS230R05SCF25M	23,00	.906	23,999	.945	120,00	4.724	206,00	8.110	136,70	5.382	150,00	5.906	56,00	2.205	25,00	.984	ZB
6389313	KTFS240R05SCF25M	KTFS240R05SCF25M	24,00	.945	24,999	.984	125,00	4.921	211,00	8.307	141,10	5.555	155,00	6.102	56,00	2.205	25,00	.984	ZC
6389314	KTFS250R05SCF25M	KTFS250R05SCF25M	25,00	.984	26,000	1.024	130,00	5.118	216,00	8.504	145,50	5.728	160,00	6.299	56,00	2.205	25,00	.984	ZD



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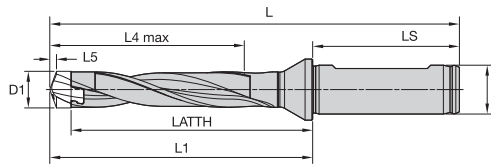


order number	ANSI catalog number	D1	D1 max	L4 max	L	LATTH	L1	LS	D	SSC
6688300	KTFS0315R05SCF050	.315	.335	1.693	4.291	2.339	2.520	1.772	.500	F
6688301	KTFS0335R05SCF050	.335	.354	1.772	4.370	2.406	2.598	1.772	.500	G
6688302	KTFS0355R05SCF050	.354	.374	1.890	4.488	2.512	2.717	1.772	.500	H
6688303	KTFS0375R05SCF050	.374	.394	1.969	4.567	2.579	2.795	1.772	.500	I
6688304	KTFS0394R05SCF063	.394	.413	2.087	4.921	2.803	3.032	1.890	.625	J
6688305	KTFS0414R05SCF063	.413	.433	2.165	5.000	2.870	3.110	1.890	.625	K
6688306	KTFS0434R05SCF063	.433	.453	2.284	5.118	2.976	3.228	1.890	.625	L
6688307	KTFS0453R05SCF063	.453	.472	2.362	5.197	3.043	3.307	1.890	.625	M
6688308	KTFS0473R05SCF063	.473	.492	2.480	5.315	3.150	3.425	1.890	.625	N
6688309	KTFS0493R05SCF063	.492	.512	2.559	5.394	3.221	3.504	1.890	.625	O
6688310	KTFS0512R05SCF063	.512	.531	2.677	5.512	3.327	3.622	1.890	.625	P
6688311	KTFS0532R05SCF063	.532	.551	2.756	5.591	3.394	3.701	1.890	.625	Q
6688312	KTFS0552R05SCF063	.551	.571	2.874	5.709	3.500	3.819	1.890	.625	R
6688313	KTFS0571R05SCF063	.571	.591	2.953	5.787	3.567	3.898	1.890	.625	S
6688314	KTFS0591R05SCF075	.591	.630	3.150	6.181	3.870	4.213	1.969	.750	T
6688315	KTFS0630R05SCF075	.630	.669	3.347	6.378	4.043	4.409	1.969	.750	U
6688316	KTFS0670R05SCF075	.669	.709	3.543	6.575	4.217	4.606	1.969	.750	V
6688317	KTFS0709R05SCF100	.709	.748	3.740	7.126	4.512	4.921	2.205	1.000	W
6688318	KTFS0749R05SCF100	.748	.787	3.937	7.323	4.685	5.118	2.205	1.000	X
6389339	KTFS0788R05SCF100	.787	.827	4.134	7.520	4.858	5.315	2.205	1.000	Y
6389340	KTFS0827R05SCF100	.827	.866	4.331	7.717	5.032	5.512	2.205	1.000	Z
6389341	KTFS0867R05SCF100	.866	.905	4.528	7.913	5.205	5.709	2.205	1.000	ZA
6389342	KTFS0906R05SCF100	.906	.945	4.724	8.110	5.382	5.906	2.205	1.000	ZB
6389343	KTFS0945R05SCF100	.945	.984	4.921	8.307	5.555	6.102	2.205	1.000	ZC
6389344	KTFS0985R05SCF100	.984	1.024	5.118	8.504	5.728	6.299	2.205	1.000	ZD





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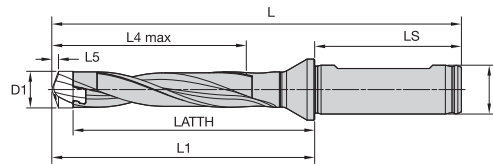
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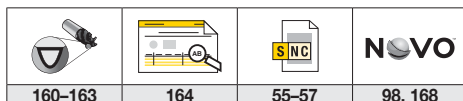
order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATTH		L1		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389444	KTFS080R08SCF12M	KTFS080R08SCF12M	8,00	.315	8,499	.335	68,00	2,677	134,00	5,276	84,40	3,323	89,00	3,504	45,00	1,772	12,00	.472	F
6389445	KTFS085R08SCF12M	KTFS085R08SCF12M	8,50	.335	8,999	.354	72,00	2,835	138,00	5,433	88,10	3,469	93,00	3,661	45,00	1,772	12,00	.472	G
6389446	KTFS090R08SCF12M	KTFS090R08SCF12M	9,00	.354	9,499	.374	76,00	2,992	142,00	5,591	91,80	3,614	97,00	3,819	45,00	1,772	12,00	.472	H
6389447	KTFS095R08SCF12M	KTFS095R08SCF12M	9,50	.374	9,999	.394	80,00	3,150	146,00	5,748	95,50	3,760	101,00	3,976	45,00	1,772	12,00	.472	I
6372610	KTFS100R08SCF16M	KTFS100R08SCF16M	10,00	.394	10,499	.413	84,00	3,307	156,00	6,142	102,20	4,024	108,00	4,252	48,00	1,890	16,00	.630	J
6372611	KTFS105R08SCF16M	KTFS105R08SCF16M	10,50	.413	10,999	.433	88,00	3,465	160,00	6,299	105,90	4,169	112,00	4,409	48,00	1,890	16,00	.630	K
6372612	KTFS110R08SCF16M	KTFS110R08SCF16M	11,00	.433	11,499	.453	92,00	3,622	164,00	6,457	109,60	4,315	116,00	4,567	48,00	1,890	16,00	.630	L
6372613	KTFS115R08SCF16M	KTFS115R08SCF16M	11,50	.453	11,999	.472	96,00	3,780	168,00	6,614	113,30	4,461	120,00	4,724	48,00	1,890	16,00	.630	M
6372614	KTFS120R08SCF16M	KTFS120R08SCF16M	12,00	.473	12,499	.492	100,00	3,937	172,00	6,772	117,00	4,606	124,00	4,882	48,00	1,890	16,00	.630	N
6372615	KTFS125R08SCF16M	KTFS125R08SCF16M	12,50	.492	12,999	.512	104,00	4,094	176,00	6,929	120,80	4,756	128,00	5,039	48,00	1,890	16,00	.630	O
6372616	KTFS130R08SCF16M	KTFS130R08SCF16M	13,00	.512	13,499	.531	108,00	4,252	180,00	7,087	124,50	4,902	132,00	5,197	48,00	1,890	16,00	.630	P
6372617	KTFS135R08SCF16M	KTFS135R08SCF16M	13,50	.532	13,999	.551	112,00	4,409	184,00	7,244	128,20	5,047	136,00	5,354	48,00	1,890	16,00	.630	Q
6372618	KTFS140R08SCF16M	KTFS140R08SCF16M	14,00	.551	14,499	.571	116,00	4,567	188,00	7,402	131,90	5,193	140,00	5,512	48,00	1,890	16,00	.630	R
6372619	KTFS145R08SCF16M	KTFS145R08SCF16M	14,50	.571	14,999	.591	120,00	4,724	192,00	7,559	135,60	5,339	144,00	5,669	48,00	1,890	16,00	.630	S
6372620	KTFS150R08SCF20M	KTFS150R08SCF20M	15,00	.591	15,999	.630	128,00	5,039	205,00	8,071	146,30	5,760	155,00	6,102	50,00	1,969	20,00	.787	T
6372621	KTFS160R08SCF20M	KTFS160R08SCF20M	16,00	.630	16,999	.669	136,00	5,354	213,00	8,386	153,70	6,051	163,00	6,417	50,00	1,969	20,00	.787	U
6372622	KTFS170R08SCF20M	KTFS170R08SCF20M	17,00	.669	17,999	.709	144,00	5,669	221,00	8,701	161,10	6,343	171,00	6,732	50,00	1,969	20,00	.787	V
6389315	KTFS180R08SCF25M	KTFS180R08SCF25M	18,00	.709	18,999	.748	152,00	5,984	238,00	9,370	171,60	6,756	182,00	7,165	56,00	2,205	25,00	.984	W
6389316	KTFS190R08SCF25M	KTFS190R08SCF25M	19,00	.748	19,999	.787	160,00	6,299	246,00	9,685	179,00	7,047	190,00	7,480	56,00	2,205	25,00	.984	X
6389317	KTFS200R08SCF25M	KTFS200R08SCF25M	20,00	.787	20,999	.827	168,00	6,614	254,00	10,000	186,40	7,339	198,00	7,795	56,00	2,205	25,00	.984	Y
6389318	KTFS210R08SCF25M	KTFS210R08SCF25M	21,00	.827	21,999	.866	176,00	6,929	262,00	10,315	193,80	7,630	206,00	8,110	56,00	2,205	25,00	.984	Z
6389319	KTFS220R08SCF25M	KTFS220R08SCF25M	22,00	.866	22,999	.905	184,00	7,244	270,00	10,630	201,20	7,921	214,00	8,425	56,00	2,205	25,00	.984	ZA
6389320	KTFS230R08SCF25M	KTFS230R08SCF25M	23,00	.906	23,999	.945	192,00	7,559	278,00	10,945	208,70	8,217	222,00	8,740	56,00	2,205	25,00	.984	ZB
6389331	KTFS240R08SCF25M	KTFS240R08SCF25M	24,00	.945	24,999	.984	200,00	7,874	286,00	11,260	216,10	8,508	230,00	9,055	56,00	2,205	25,00	.984	ZC
6389332	KTFS250R08SCF25M	KTFS250R08SCF25M	25,00	.984	26,000	1,024	208,00	8,189	294,00	11,575	223,50	8,799	238,00	9,370	56,00	2,205	25,00	.984	ZD

			
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KentIP™ FS • Drill Body • 8 x D • SCF Shank • Inch



order number	ANSI catalog number	D1	D1 max	L4 max	L	LATH	L1	LS	D	SSC
6688319	KTFS0315R08SCF050	.315	.335	2.677	5.276	3.323	3.504	1.772	.500	F
6688320	KTFS0335R08SCF050	.335	.354	2.835	5.433	3.469	3.661	1.772	.500	G
6688331	KTFS0355R08SCF050	.354	.374	2.992	5.591	3.614	3.819	1.772	.500	H
6688332	KTFS0375R08SCF050	.374	.394	3.150	5.748	3.760	3.976	1.772	.500	I
6688333	KTFS0394R08SCF063	.394	.413	3.307	6.142	4.024	4.252	1.890	.625	J
6688334	KTFS0414R08SCF063	.413	.433	3.465	6.299	4.169	4.409	1.890	.625	K
6688335	KTFS0434R08SCF063	.433	.453	3.622	6.457	4.315	4.567	1.890	.625	L
6688336	KTFS0453R08SCF063	.453	.472	3.780	6.614	4.461	4.724	1.890	.625	M
6688337	KTFS0473R08SCF063	.473	.492	3.937	6.772	4.606	4.882	1.890	.625	N
6688338	KTFS0493R08SCF063	.492	.512	4.095	6.929	4.756	5.039	1.890	.625	O
6688339	KTFS0512R08SCF063	.512	.531	4.252	7.087	4.902	5.197	1.890	.625	P
6688340	KTFS0532R08SCF063	.532	.551	4.409	7.244	5.047	5.354	1.890	.625	Q
6688341	KTFS0552R08SCF063	.551	.571	4.567	7.402	5.193	5.512	1.890	.625	R
6688342	KTFS0571R08SCF063	.571	.591	4.724	7.559	5.339	5.669	1.890	.625	S
6688343	KTFS0591R08SCF075	.591	.630	5.039	8.071	5.760	6.102	1.969	.750	T
6688344	KTFS0630R08SCF075	.630	.669	5.354	8.386	6.051	6.417	1.969	.750	U
6688345	KTFS0670R08SCF075	.669	.709	5.669	8.701	6.343	6.732	1.969	.750	V
6688346	KTFS0709R08SCF100	.709	.748	5.984	9.370	6.756	7.165	2.205	1.000	W
6688347	KTFS0749R08SCF100	.748	.787	6.299	9.685	7.047	7.480	2.205	1.000	X
6389345	KTFS0788R08SCF100	.787	.827	6.614	10.000	7.339	7.795	2.205	1.000	Y
6389346	KTFS0827R08SCF100	.827	.866	6.929	10.315	7.630	8.110	2.205	1.000	Z
6389347	KTFS0867R08SCF100	.866	.905	7.244	10.630	7.921	8.425	2.205	1.000	ZA
6389348	KTFS0906R08SCF100	.906	.945	7.559	10.945	8.217	8.740	2.205	1.000	ZB
6389349	KTFS0945R08SCF100	.945	.984	7.874	11.260	8.508	9.055	2.205	1.000	ZC
6389350	KTFS0985R08SCF100	.984	1.024	8.189	11.575	8.799	9.370	2.205	1.000	ZD



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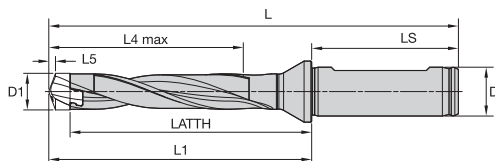
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


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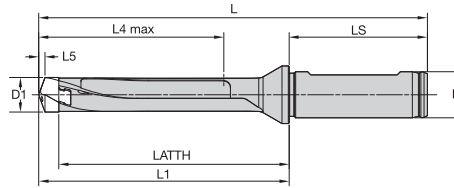


order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATTH		L1		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6389510	KTFS200R12SCF25M	KTFS200R12SCF25M	20,00	.787	20,999	.827	252,00	9.921	338,00	13.307	270,40	10.646	282,00	11.102	56,00	2.205	25,00	.984	Y
6389561	KTFS210R12SCF25M	KTFS210R12SCF25M	21,00	.827	21,999	.866	264,00	10.394	350,00	13.780	281,80	11.095	294,00	11.575	56,00	2.205	25,00	.984	Z
6389562	KTFS220R12SCF25M	KTFS220R12SCF25M	22,00	.866	22,999	.905	276,00	10.866	362,00	14.252	293,20	11.543	306,00	12.047	56,00	2.205	25,00	.984	ZA
6389563	KTFS230R12SCF25M	KTFS230R12SCF25M	23,00	.906	23,999	.945	288,00	11.339	374,00	14.724	304,70	11.996	318,00	12.520	56,00	2.205	25,00	.984	ZB
6389564	KTFS240R12SCF25M	KTFS240R12SCF25M	24,00	.945	24,999	.984	300,00	11.811	386,00	15.197	316,10	12.445	330,00	12.992	56,00	2.205	25,00	.984	ZC
6389565	KTFS250R12SCF25M	KTFS250R12SCF25M	25,00	.984	26,000	1.024	312,00	12.283	398,00	15.669	327,50	12.894	342,00	13.465	56,00	2.205	25,00	.984	ZD

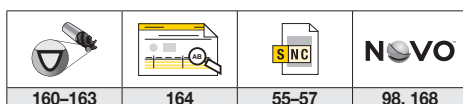
			
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NEW!



order number	ISO catalog number	ANSI catalog number	D1		D1 max		L4 max		L		LATH		L1		LS		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6953931	KTFS080S05SCF12M	KTFS080S05SCF12M	8,00	.315	8,499	.335	43,00	1.693	109,00	4.291	64,00	2.520	64,00	2.520	45,00	1.772	12,00	.472	F
6953932	KTFS085S05SCF12M	KTFS085S05SCF12M	8,50	.335	8,999	.354	45,00	1.772	111,00	4.370	66,00	2.598	66,00	2.598	45,00	1.772	12,00	.472	G
6953933	KTFS090S05SCF12M	KTFS090S05SCF12M	9,00	.354	9,499	.374	48,00	1.890	114,00	4.488	69,00	2.717	69,00	2.717	45,00	1.772	12,00	.472	H
6953934	KTFS095S05SCF12M	KTFS095S05SCF12M	9,50	.374	9,999	.394	50,00	1.969	116,00	4.567	71,00	2.795	71,00	2.795	45,00	1.772	12,00	.472	I
6953935	KTFS100S05SCF16M	KTFS100S05SCF16M	10,00	.394	10,499	.413	53,00	2.087	125,00	4.921	77,00	3.032	77,00	3.032	48,00	1.890	16,00	.630	J
6953936	KTFS105S05SCF16M	KTFS105S05SCF16M	10,50	.413	10,999	.433	55,00	2.165	127,00	5.000	79,00	3.110	79,00	3.110	48,00	1.890	16,00	.630	K
6953937	KTFS110S05SCF16M	KTFS110S05SCF16M	11,00	.433	11,499	.453	58,00	2.283	130,00	5.118	82,00	3.228	82,00	3.228	48,00	1.890	16,00	.630	L
6953938	KTFS115S05SCF16M	KTFS115S05SCF16M	11,50	.453	11,999	.472	60,00	2.362	132,00	5.197	84,00	3.307	84,00	3.307	48,00	1.890	16,00	.630	M
6953939	KTFS120S05SCF16M	KTFS120S05SCF16M	12,00	.472	12,499	.492	63,00	2.480	135,00	5.315	87,00	3.425	87,00	3.425	48,00	1.890	16,00	.630	N
6953940	KTFS125S05SCF16M	KTFS125S05SCF16M	12,50	.492	12,999	.512	65,00	2.559	137,00	5.394	89,00	3.504	89,00	3.504	48,00	1.890	16,00	.630	O
6953941	KTFS130S05SCF16M	KTFS130S05SCF16M	13,00	.512	13,499	.531	68,00	2.677	140,00	5.512	92,00	3.622	92,00	3.622	48,00	1.890	16,00	.630	P
6953942	KTFS135S05SCF16M	KTFS135S05SCF16M	13,50	.532	13,999	.551	70,00	2.756	142,00	5.591	94,00	3.701	94,00	3.701	48,00	1.890	16,00	.630	Q
6953943	KTFS140S05SCF16M	KTFS140S05SCF16M	14,00	.551	14,499	.571	73,00	2.874	145,00	5.709	97,00	3.819	97,00	3.819	48,00	1.890	16,00	.630	R
6953944	KTFS145S05SCF16M	KTFS145S05SCF16M	14,50	.571	14,999	.591	75,00	2.953	147,00	5.787	99,00	3.898	99,00	3.898	48,00	1.890	16,00	.630	S
6953945	KTFS150S05SCF20M	KTFS150S05SCF20M	15,00	.591	15,999	.630	80,00	3.150	157,00	6.181	107,00	4.213	107,00	4.213	50,00	1.969	20,00	.787	T
6953946	KTFS160S05SCF20M	KTFS160S05SCF20M	16,00	.630	16,999	.669	85,00	3.346	162,00	6.378	112,00	4.409	112,00	4.409	50,00	1.969	20,00	.787	U
6953947	KTFS170S05SCF20M	KTFS170S05SCF20M	17,00	.669	17,999	.709	90,00	3.543	167,00	6.575	117,00	4.606	117,00	4.606	50,00	1.969	20,00	.787	V
6953948	KTFS180S05SCF25M	KTFS180S05SCF25M	18,00	.709	18,999	.748	95,00	3.740	181,00	7.126	125,00	4.921	125,00	4.921	56,00	2.205	25,00	.984	W
6953949	KTFS190S05SCF25M	KTFS190S05SCF25M	19,00	.748	19,999	.787	100,00	3.937	186,00	7.323	130,00	5.118	130,00	5.118	56,00	2.205	25,00	.984	X
6953950	KTFS200S05SCF25M	KTFS200S05SCF25M	20,00	.787	20,999	.827	105,00	4.134	191,00	7.520	135,00	5.315	135,00	5.315	56,00	2.205	25,00	.984	Y
6953951	KTFS210S05SCF25M	KTFS210S05SCF25M	21,00	.827	21,999	.866	110,00	4.331	196,00	7.717	140,00	5.512	140,00	5.512	56,00	2.205	25,00	.984	Z
6953952	KTFS220S05SCF25M	KTFS220S05SCF25M	22,00	.866	22,999	.905	115,00	4.528	201,00	7.913	145,00	5.709	145,00	5.709	56,00	2.205	25,00	.984	ZA
6953953	KTFS230S05SCF25M	KTFS230S05SCF25M	23,00	.906	23,999	.945	120,00	4.724	206,00	8.110	150,00	5.906	150,00	5.906	56,00	2.205	25,00	.984	ZB
6953954	KTFS240S05SCF25M	KTFS240S05SCF25M	24,00	.945	24,999	.984	125,00	4.921	211,00	8.307	155,00	6.102	155,00	6.102	56,00	2.205	25,00	.984	ZC
6953955	KTFS250S05SCF25M	KTFS250S05SCF25M	25,00	.984	25,999	1.024	130,00	5.118	216,00	8.504	160,00	6.299	160,00	6.299	56,00	2.205	25,00	.984	ZD



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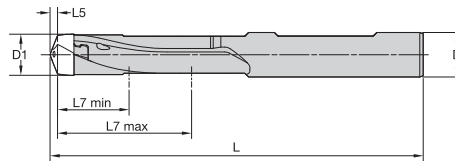
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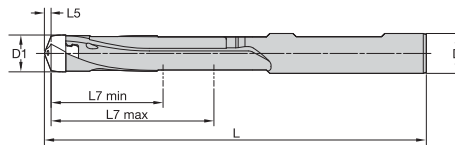
NEW!



order number	ISO catalog number	ANSI catalog number	D1		D1 max		L7 min		L7 max		L		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6953861	KTFS080S03BF08M	KTFS080S03BF08M	8,00	.315	8,499	.335	11,50	.453	25,50	1.004	81,00	3.189	8,00	.315	F
6953862	KTFS085S03BF09M	KTFS085S03BF09M	8,50	.335	8,999	.354	12,50	.492	27,00	1.063	82,00	3.228	9,00	.354	G
6953863	KTFS090S03BF10M	KTFS090S03BF10M	9,00	.354	9,499	.374	13,50	.532	28,50	1.122	91,00	3.583	10,00	.394	H
6953864	KTFS095S03BF10M	KTFS095S03BF10M	9,50	.374	9,999	.394	15,00	.591	30,00	1.181	93,00	3.661	10,00	.394	I
6953865	KTFS100S03BF10M	KTFS100S03BF10M	10,00	.394	10,499	.413	16,00	.630	31,50	1.240	94,00	3.701	10,00	.394	J
6953866	KTFS100S03BF11M	KTFS100S03BF11M	10,00	.394	10,499	.413	16,00	.630	31,50	1.240	94,00	3.701	11,00	.433	J
6953867	KTFS105S03BF11M	KTFS105S03BF11M	10,50	.413	10,999	.433	17,00	.669	33,00	1.299	95,00	3.740	11,00	.433	K
6953868	KTFS110S03BF12M	KTFS110S03BF12M	11,00	.433	11,499	.453	18,50	.728	34,50	1.358	107,00	4.213	12,00	.472	L
6953869	KTFS115S03BF12M	KTFS115S03BF12M	11,50	.453	11,999	.472	19,50	.768	36,00	1.417	108,00	4.252	12,00	.472	M
6953870	KTFS120S03BF12M	KTFS120S03BF12M	12,00	.472	12,499	.492	20,50	.807	37,50	1.476	109,00	4.291	12,00	.472	N
6953871	KTFS120S03BF13M	KTFS120S03BF13M	12,00	.472	12,499	.492	20,50	.807	37,50	1.476	109,00	4.291	13,00	.512	N
6953872	KTFS125S03BF13M	KTFS125S03BF13M	12,50	.492	12,999	.512	22,00	.866	39,00	1.535	110,00	4.331	13,00	.512	O
6953873	KTFS130S03BF14M	KTFS130S03BF14M	13,00	.512	13,499	.532	23,00	.906	40,50	1.595	112,00	4.409	14,00	.551	P
6953874	KTFS135S03BF14M	KTFS135S03BF14M	13,50	.532	13,999	.551	24,50	.965	42,00	1.654	113,00	4.449	14,00	.551	Q
6953875	KTFS140S03BF14M	KTFS140S03BF14M	14,00	.551	14,499	.571	25,50	1.004	43,50	1.713	114,00	4.488	14,00	.551	R
6953876	KTFS140S03BF15M	KTFS140S03BF15M	14,00	.551	14,499	.571	25,50	1.004	43,50	1.713	118,00	4.646	15,00	.591	R
6953877	KTFS145S03BF15M	KTFS145S03BF15M	14,50	.571	14,999	.591	26,50	1.043	45,00	1.772	119,00	4.685	15,00	.591	S
6953878	KTFS150S03BF15M	KTFS150S03BF15M	15,00	.591	15,999	.630	29,00	1.142	48,00	1.890	121,00	4.764	15,00	.591	T
6953879	KTFS150S03BF16M	KTFS150S03BF16M	15,00	.591	15,999	.630	29,00	1.142	48,00	1.890	122,00	4.803	16,00	.630	T
6953880	KTFS160S03BF16M	KTFS160S03BF16M	16,00	.630	16,999	.669	31,50	1.240	51,00	2.008	124,00	4.882	16,00	.630	U
6953891	KTFS170S03BF18M	KTFS170S03BF18M	17,00	.669	17,999	.709	34,00	1.339	54,00	2.126	127,00	5.000	18,00	.709	V
6953892	KTFS180S03BF18M	KTFS180S03BF18M	18,00	.709	18,999	.748	36,50	1.437	57,00	2.244	129,00	5.079	18,00	.709	W

KenTIP FS • Drill Body • 4 x D • Straight Fluted • BF Shank • Metric

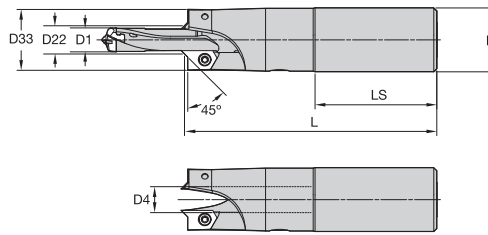
NEW!



order number	ISO catalog number	ANSI catalog number	D1		D1 max		L7 min		L7 max		L		D		SSC
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6953893	KTFS080S04BF08M	KTFS080S04BF08M	8,00	.315	8,499	.335	24,00	.945	38,00	1.496	93,50	3.681	8,00	.315	F
6953894	KTFS085S04BF09M	KTFS085S04BF09M	8,50	.335	8,999	.354	25,50	1.004	40,00	1.575	95,00	3.740	9,00	.354	G
6953895	KTFS090S04BF10M	KTFS090S04BF10M	9,00	.354	9,499	.374	27,00	1.063	42,00	1.654	104,50	4.114	10,00	.394	H
6953896	KTFS095S04BF10M	KTFS095S04BF10M	9,50	.374	9,999	.394	28,50	1.122	43,50	1.713	106,50	4.193	10,00	.394	I
6953897	KTFS100S04BF11M	KTFS100S04BF11M	10,00	.394	10,499	.413	30,00	1.181	45,50	1.791	108,00	4.252	11,00	.433	J
6953898	KTFS105S04BF11M	KTFS105S04BF11M	10,50	.413	10,999	.433	31,50	1.240	47,50	1.870	109,50	4.311	11,00	.433	K
6953899	KTFS110S04BF12M	KTFS110S04BF12M	11,00	.433	11,499	.453	33,00	1.299	49,00	1.929	121,50	4.784	12,00	.472	L
6953900	KTFS115S04BF12M	KTFS115S04BF12M	11,50	.453	11,999	.472	34,50	1.358	51,00	2.008	123,00	4.843	12,00	.472	M
6953921	KTFS120S04BF13M	KTFS120S04BF13M	12,00	.472	12,499	.492	36,00	1.417	53,00	2.087	124,50	4.902	13,00	.512	N
6953922	KTFS125S04BF13M	KTFS125S04BF13M	12,50	.492	12,999	.512	37,50	1.476	54,50	2.146	125,50	4.941	13,00	.512	O
6953923	KTFS130S04BF14M	KTFS130S04BF14M	13,00	.512	13,499	.532	39,00	1.535	56,50	2.224	128,00	5.039	14,00	.551	P
6953924	KTFS135S04BF14M	KTFS135S04BF14M	13,50	.532	13,999	.551	40,50	1.595	58,00	2.284	129,00	5.079	14,00	.551	Q
6953925	KTFS140S04BF15M	KTFS140S04BF15M	14,00	.551	14,499	.571	42,00	1.654	60,00	2.362	134,50	5.295	15,00	.591	R
6953926	KTFS145S04BF15M	KTFS145S04BF15M	14,50	.571	14,999	.591	43,50	1.713	62,00	2.441	136,00	5.354	15,00	.591	S
6953927	KTFS150S04BF16M	KTFS150S04BF16M	15,00	.591	15,999	.630	46,50	1.831	65,50	2.579	139,50	5.492	16,00	.630	T
6953928	KTFS160S04BF16M	KTFS160S04BF16M	16,00	.630	16,999	.669	49,50	1.949	69,00	2.717	142,00	5.591	16,00	.630	U
6953929	KTFS170S04BF18M	KTFS170S04BF18M	17,00	.669	17,999	.709	52,50	2.067	72,50	2.854	145,50	5.728	18,00	.709	V
6953930	KTFS180S04BF18M	KTFS180S04BF18M	18,00	.709	18,999	.748	55,50	2.185	76,00	2.992	148,00	5.827	18,00	.709	W

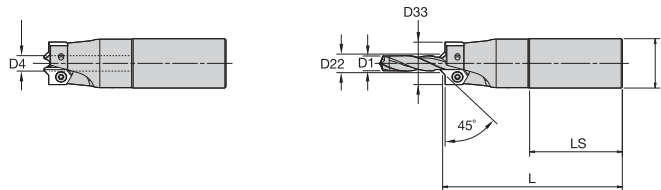
160-163	164	55-57	98, 168

BF Combination Tool • Toolholder • SS Shank • Metric

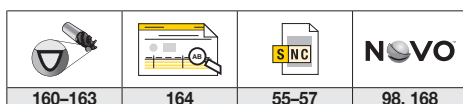


order number	ISO catalog number	D33	D22	D1	D1 max	D4	L	LS	D
1245716	3.37042R320	14,90	9,00	3,40	4,00	4,00	87,50	50,00	20,00
1245718	3.37051R320	15,40	9,50	4,10	4,50	5,00	87,50	50,00	20,00
1191046	3.37052R320	15,90	10,00	4,60	5,00	5,00	87,50	50,00	20,00
1191048	3.37061R320	16,40	10,50	5,10	5,50	6,00	87,50	50,00	20,00
1245720	3.37062R320	16,90	11,00	5,55	6,00	6,00	87,50	50,00	20,00
1191050	3.37071R320	17,40	11,50	6,10	7,00	7,00	97,30	50,00	20,00
1245722	3.37081R320	18,40	12,60	7,30	8,00	8,00	97,30	50,00	20,00
1191052	3.37091R320	19,40	13,60	8,10	9,00	9,00	97,30	50,00	20,00
1245724	3.37101R332	27,90	14,70	9,10	10,00	10,00	117,40	60,00	32,00
1191056	3.37111R332	28,90	15,70	10,10	11,00	11,00	117,40	60,00	32,00
1245725	3.37121R332	29,90	16,70	11,10	12,00	12,00	127,40	60,00	32,00
1191060	3.37131R332	31,00	17,70	12,20	13,00	13,00	127,40	60,00	32,00
1245727	3.37141R332	31,50	18,20	13,10	14,00	14,00	127,10	60,00	32,00
1191063	3.37151R332	32,50	19,30	14,10	15,00	15,00	127,40	60,00	32,00
1245729	3.37161R332	33,50	20,30	15,50	16,00	16,00	127,10	60,00	32,00
1245731	3.37171R332	34,50	21,30	16,50	17,00	17,00	127,10	60,00	32,00
1245733	3.37181R332	35,50	22,30	17,50	18,00	18,00	127,10	60,00	32,00

BF Combination Tool • Toolholder • SS Shank • Inch

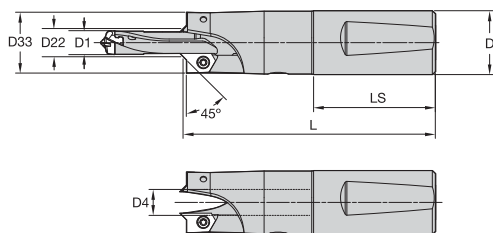


order number	ANSI catalog number	D4	D22	D1	D1 max	D33	L	LS	D
1246688	KBF14	4,000	.360	.125	.156	.585	3,44	1,97	.75
1246691	KBF15B	5,000	.400	.182	.188	.624	3,44	1,97	.75
1246696	KBF16B	6,000	.440	.213	.230	.664	3,44	1,97	.75
1246700	KBF17	7,000	.460	.250	.266	.684	3,83	1,97	.75
1246703	KBF18	8,000	.500	.281	.313	.724	3,83	1,97	.75
1246704	KBF19	9,000	.540	.328	.344	.764	4,31	2,20	1,00
1246707	KBF10	10,000	.581	.359	.391	1,099	4,62	2,20	1,00
1246708	KBF11	11,000	.620	.406	.430	1,138	4,62	2,20	1,00
1246710	KBF12	12,000	.660	.438	.469	1,177	5,02	2,20	1,00
1246714	KBF13	13,000	.699	.484	.510	1,221	5,02	2,20	1,00
1770928	KBF14	14,000	.720	.516	.550	1,240	5,00	2,40	1,25
1246716	KBF15	15,000	.759	.563	.590	1,280	5,00	2,36	1,25
1246718	KBF16	16,000	.799	.625	.630	1,319	5,14	2,36	1,25
1770929	KBF17	17,000	.839	.656	.670	1,358	5,00	2,40	1,25
1246720	KBF18	18,000	.880	.688	.700	1,398	5,00	2,36	1,25







BF Combination Tool • Toolholder • WN Shank • Metric

NEW!



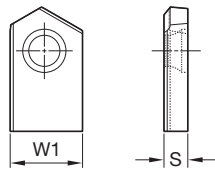
order number	ISO catalog number	D33	D22	D1	D1 max	D4	L	LS	D
1245717	3.37042R820	14,90	9,00	3,40	4,00	4,00	87,50	50,00	20,00
1245719	3.37051R820	15,40	9,50	4,10	4,50	5,00	87,50	50,00	20,00
1191047	3.37052R820	15,90	10,00	4,60	5,00	5,00	87,50	50,00	20,00
1191049	3.37061R820	16,40	10,50	5,10	5,50	6,00	87,50	50,00	20,00
1245721	3.37062R820	16,90	11,00	5,55	6,00	6,00	87,50	50,00	20,00
1191051	3.37071R820	17,40	11,50	6,10	7,00	7,00	97,30	50,00	20,00
1245723	3.37081R820	18,40	12,60	7,30	8,00	8,00	97,30	50,00	20,00
1191053	3.37091R820	19,40	13,60	8,10	9,00	9,00	97,30	50,00	20,00
2951632	3.37092R820	19,40	13,70	8,10	9,00	9,00	97,30	50,00	20,00
1191055	3.37101R832	27,90	14,70	9,10	10,00	10,00	117,40	60,00	32,00
1191057	3.37111R832	28,90	15,70	10,10	11,00	11,00	117,40	60,00	32,00
1191059	3.37121R832	29,90	16,70	11,10	12,00	12,00	127,40	60,00	32,00
1245726	3.37131R832	31,00	17,70	12,20	13,00	13,00	127,40	60,00	32,00
1191062	3.37141R832	31,50	18,20	13,10	14,00	14,00	127,40	60,00	32,00
1245728	3.37151R832	32,50	19,30	14,10	15,00	15,00	127,10	60,00	32,00
1245730	3.37161R832	33,50	20,30	15,50	16,00	16,00	127,10	60,00	32,00
1245732	3.37171R832	34,50	21,30	16,50	17,00	17,00	127,10	60,00	32,00
1245734	3.37181R832	35,50	22,30	17,50	18,00	18,00	127,10	60,00	32,00

			
160-163	164	55-57	98, 168

BF Combination Tool • Insert Blank • R900



NEW!



- first choice
- alternate choice

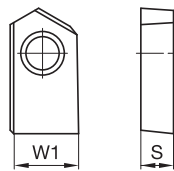
P	■	■	●
M	■	■	●
K	■	○	●
N	■	■	●
S	■	■	●
H	■	■	■

order number	ISO catalog number	ANSI catalog number	S		W1		KMF	KMF1
			mm	in	mm	in		
1208627	3.41020R900	3.41020R900	3,00	.118	6,10	.240	●	—
1208648	3.41220R900	3.41220R900	3,50	.138	10,10	.398	●	—
1208679	3.41299R900	3.41299R900	3,50	.138	11,30	.445	—	●

BF Combination Tool • Insert • R900SF



NEW!



- first choice
- alternate choice

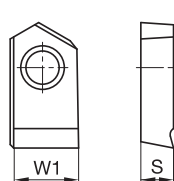
P	■	■	■
M	■	■	■
K	■	○	■
N	■	■	●
S	■	■	■
H	■	■	■

order number	ISO catalog number	ANSI catalog number	S		W1		KMF
			mm	in	mm	in	
1801129	3.41220R900SF	3.41220R900SF	3,50	.138	10,10	.398	●

BF Combination Tool • Insert • R900STF



NEW!



- first choice
- alternate choice

P	■	■	■
M	■	■	■
K	■	○	■
N	■	■	■
S	■	■	■
H	■	■	■

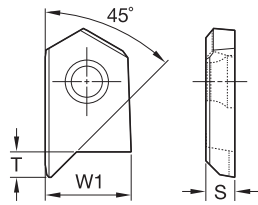
order number	ISO catalog number	ANSI catalog number	S		W1		CS5
			mm	in	mm	in	
1801125	3.41020R900STF	3.41020R900STF	3,00	.118	6,10	.240	●
1801126	3.41220R900STF	3.41220R900STF	3,50	.138	10,10	.398	●

160-163	164	55-57	98, 168

BF Combination Tool • Insert • R901



NEW!



- first choice
- alternate choice

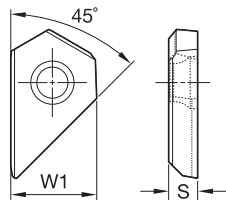
P	●	●
M	●	●
K	●	●
N	●	●
S	●	●
H	●	●

order number	ISO catalog number	ANSI catalog number	S		W1		T		CS5	KC7315
			mm	in	mm	in	mm	in		
1208579	3.41020R901	3.41020R901	3,00	.118	6,10	.240	2,90	.114	●	●
2613791	3.41020R901	3.41020R901	3,00	.118	6,10	.240	2,90	.114	○	●
1208601	3.41220R901	3.41220R901	3,50	.138	10,10	.398	3,05	.120	●	●
2615045	3.41220R901	3.41220R901	3,50	.138	10,10	.398	3,05	.120	○	●

BF Combination Tool • Insert • R902



NEW!



- first choice
- alternate choice

P	●	●
M	●	●
K	●	●
N	●	●
S	●	●
H	●	●

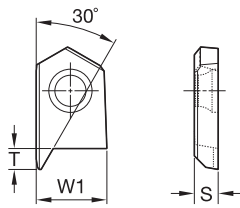
order number	ISO catalog number	ANSI catalog number	S		W1		CS5	KC7315
			mm	in	mm	in		
1208588	3.41020R902	3.41020R902	3,00	.118	6,10	.240	●	●
2613792	3.41020R902	3.41020R902	3,00	.118	6,10	.240	○	●
1208606	3.41220R902	3.41220R902	3,50	.138	10,10	.398	●	●
2615046	3.41220R902	3.41220R902	3,50	.138	10,10	.398	○	●

160-163	164	55-57	98, 168

BF Combination Tool • Insert • R903



NEW!



- first choice
- alternate choice

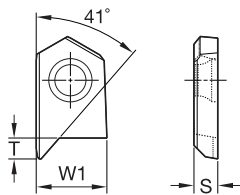
P	●	●
M	●	●
K	●	●
N	●	●
S	●	●
H	●	●

order number	ISO catalog number	ANSI catalog number	S		W1		T		CS5	KC7315
			mm	in	mm	in	mm	in		
1208594	3.41020R903	3.41020R903	3,00	.118	6,10	.240	2,90	.114	●	—
2615043	3.41020R903	3.41020R903	3,00	.118	6,10	.240	2,90	.114	—	●
1208615	3.41220R903	3.41220R903	3,50	.138	10,10	.398	3,05	.120	●	—
2615047	3.41220R903	3.41220R903	3,50	.138	10,10	.398	3,05	.120	—	●

BF Combination Tool • Insert • R904



NEW!



- first choice
- alternate choice

P	●	●
M	●	●
K	●	●
N	●	●
S	●	●
H	●	●

order number	ISO catalog number	ANSI catalog number	S		W1		T		KC7315
			mm	in	mm	in	mm	in	
2613790	3.41020R904	3.41020R904	3,00	.118	6,10	.240	2,90	.114	●
2615044	3.41220R904	3.41220R904	3,50	.138	10,10	.398	3,05	.120	●

160-163	164	55-57	98, 168

KenTIP™ FS • GTP & FEG • Tolerances

Tolerance • Metric		Tolerance • Inch	
D1 metric	tolerance S8	D1 inch	tolerance S8
6	0,019/+0,037	0.2362	0.0007/+0.0015
>6-10	0,023/+0,045	>0.2362-0.3937	0.0009/+0.0018
>10-18	0,028/+0,055	>0.3937-0.7087	0.0011/+0.0022
>18-26	0,035/+0,068	>0.7087-1.0236	0.0014/+0.0027

KenTIP FS • Tolerances

Tolerance • Metric		Tolerance • Inch	
D1 metric	tolerance k8	D1 inch	tolerance k8
6	0,000/+0,018	0.2362	0.0000/+0.0007
>6-10	0,000/+0,022	>0.2362-0.3937	0.0000/+0.0009
>10-18	0,000/+0,027	>0.3937-0.7087	0.0000/+0.0011
>18-26	0,000/+0,033	>0.7087-1.0236	0.0000/+0.0013

KenTIP FS • GTP • Application Data

Material Group	Cutting Speed – vc			Metric									
	Range – m/min			Recommended Feed Rate per Rev									
	min	Starting Value	max		6,0	8,0	10,0	12,0	16,0	20,0	24,0	26,0	
P	0	70	125	175	mm/r	0,09-0,18	0,10-0,21	0,12-0,24	0,14-0,30	0,18-0,36	0,23-0,42	0,27-0,48	0,28-0,50
	1	70	120	170	mm/r	0,09-0,18	0,10-0,22	0,12-0,24	0,14-0,30	0,18-0,36	0,23-0,42	0,27-0,48	0,28-0,50
	2	90	135	180	mm/r	0,09-0,18	0,10-0,25	0,12-0,27	0,14-0,33	0,18-0,39	0,23-0,45	0,27-0,51	0,28-0,50
	3	60	95	130	mm/r	0,09-0,16	0,10-0,28	0,11-0,29	0,13-0,33	0,17-0,37	0,22-0,41	0,28-0,45	0,30-0,46
	4	50	90	130	mm/r	0,09-0,16	0,10-0,28	0,11-0,29	0,13-0,33	0,17-0,37	0,22-0,41	0,24-0,45	0,25-0,46
	5	30	65	100	mm/r	0,09-0,15	0,10-0,18	0,10-0,22	0,11-0,27	0,15-0,32	0,19-0,37	0,23-0,42	0,24-0,43
M	6	40	60	80	mm/r	0,09-0,15	0,09-0,18	0,10-0,22	0,10-0,27	0,15-0,32	0,19-0,37	0,23-0,42	0,24-0,43
	1	20	55	90	mm/r	0,07-0,12	0,08-0,13	0,08-0,14	0,10-0,18	0,12-0,22	0,15-0,26	0,18-0,27	0,19-0,28
	2	30	60	90	mm/r	0,07-0,12	0,08-0,13	0,08-0,16	0,10-0,18	0,12-0,22	0,15-0,26	0,18-0,27	0,19-0,28
K	3	20	40	60	mm/r	0,07-0,12	0,08-0,12	0,08-0,14	0,10-0,16	0,12-0,22	0,15-0,26	0,18-0,27	0,19-0,28
	1	80	140	200	mm/r	0,11-0,26	0,13-0,32	0,15-0,44	0,18-0,49	0,25-0,58	0,29-0,64	0,35-0,70	0,36-0,75
	2	80	130	180	mm/r	0,11-0,26	0,13-0,31	0,15-0,36	0,18-0,40	0,25-0,48	0,29-0,60	0,35-0,70	0,36-0,75
S	3	70	95	120	mm/r	0,10-0,22	0,12-0,25	0,15-0,35	0,16-0,40	0,20-0,48	0,26-0,60	0,30-0,63	0,32-0,65
	1	10	20	30	mm/r	0,05-0,09	0,06-0,10	0,07-0,12	0,08-0,13	0,10-0,15	0,11-0,17	0,12-0,19	0,13-0,21
	2	10	20	30	mm/r	0,05-0,09	0,06-0,10	0,07-0,12	0,08-0,13	0,10-0,15	0,11-0,17	0,12-0,19	0,13-0,21
	3	15	25	35	mm/r	0,05-0,09	0,06-0,10	0,07-0,12	0,08-0,13	0,10-0,15	0,11-0,17	0,12-0,19	0,13-0,21
4	20	30	40	mm/r	0,04-0,07	0,05-0,09	0,05-0,10	0,07-0,12	0,08-0,13	0,08-0,13	0,09-0,15	0,10-0,17	

Material Group	Cutting Speed – vc			Inch									
	Range – SFM			Recommended Feed Rate per Rev									
	min	Starting Value	max		.236	.315	.394	.472	.630	.787	.945	1.023	
P	0	230	410	570	IPR	.004-.007	.004-.008	.005-.009	.006-.012	.007-.014	.009-.016	.011-.019	.011-.020
	1	230	390	560	IPR	.004-.007	.004-.009	.005-.009	.006-.012	.007-.014	.009-.016	.011-.019	.011-.020
	2	300	440	590	IPR	.004-.007	.004-.010	.005-.011	.006-.013	.007-.015	.009-.018	.011-.020	.011-.020
	3	200	310	430	IPR	.004-.006	.004-.011	.004-.011	.005-.013	.007-.015	.009-.016	.011-.018	.012-.018
	4	160	300	430	IPR	.004-.006	.004-.011	.004-.011	.005-.013	.007-.015	.009-.016	.009-.018	.010-.018
	5	100	210	330	IPR	.004-.006	.004-.007	.004-.009	.004-.011	.006-.013	.008-.015	.009-.016	.009-.017
M	6	130	200	260	IPR	.004-.006	.004-.007	.004-.009	.004-.011	.006-.013	.008-.015	.009-.016	.009-.017
	1	70	180	300	IPR	.003-.005	.003-.005	.003-.006	.004-.007	.005-.009	.006-.010	.007-.011	.008-.011
	2	100	200	300	IPR	.003-.005	.003-.005	.003-.006	.004-.007	.005-.009	.006-.010	.007-.011	.008-.011
K	3	70	130	200	IPR	.003-.005	.003-.005	.003-.006	.004-.006	.005-.009	.006-.010	.007-.011	.008-.011
	1	260	460	660	IPR	.004-.010	.005-.013	.006-.017	.007-.019	.010-.023	.011-.025	.014-.028	.014-.030
	2	260	430	590	IPR	.004-.010	.005-.012	.006-.014	.007-.016	.010-.019	.011-.024	.014-.028	.014-.030
S	3	230	310	390	IPR	.004-.009	.005-.010	.006-.014	.006-.016	.008-.019	.010-.024	.012-.025	.013-.026
	1	30	70	100	IPR	.002-.004	.002-.004	.003-.005	.003-.005	.004-.006	.004-.007	.005-.008	.005-.008
	2	30	70	100	IPR	.002-.004	.002-.004	.003-.005	.003-.005	.004-.006	.004-.007	.005-.008	.005-.008
	3	50	80	110	IPR	.002-.004	.002-.004	.003-.005	.003-.005	.004-.006	.004-.007	.005-.008	.005-.008
4	70	100	130	IPR	.002-.003	.002-.004	.002-.004	.003-.005	.003-.005	.003-.005	.004-.006	.004-.007	



KenTIP™ FS • HPG • Application Data

Material Group		Cutting Speed – vc			Metric									
		Range – m/min			Recommended Feed Rate per Rev									
		min	Starting Value	max		6,0	8,0	10,0	12,0	14,0	16,0	20,0	24,0	26,0
P	0	95	125	175	mm/r	0,10–0,19	0,11–0,22	0,13–0,30	0,15–0,37	0,17–0,41	0,19–0,45	0,24–0,52	0,28–0,60	0,29–0,62
	1	90	130	170	mm/r	0,10–0,19	0,11–0,22	0,13–0,30	0,15–0,37	0,17–0,41	0,19–0,45	0,24–0,52	0,28–0,60	0,29–0,62
	2	100	140	180	mm/r	0,10–0,19	0,11–0,26	0,13–0,34	0,15–0,41	0,17–0,45	0,19–0,49	0,24–0,56	0,28–0,64	0,29–0,62
	3	60	100	130	mm/r	0,10–0,17	0,11–0,31	0,12–0,36	0,14–0,41	0,16–0,44	0,18–0,46	0,23–0,51	0,30–0,56	0,31–0,58
	4	60	100	130	mm/r	0,10–0,17	0,11–0,31	0,12–0,36	0,14–0,41	0,16–0,44	0,18–0,46	0,23–0,51	0,25–0,56	0,26–0,58
	5	60	80	100	mm/r	0,09–0,16	0,10–0,22	0,11–0,28	0,12–0,34	0,14–0,37	0,16–0,40	0,20–0,46	0,24–0,52	0,25–0,54
K	6	60	70	80	mm/r	0,09–0,16	0,10–0,22	0,11–0,28	0,12–0,34	0,14–0,37	0,16–0,40	0,20–0,46	0,24–0,52	0,25–0,54
	1	80	120	170	mm/r	0,12–0,21	0,14–0,34	0,16–0,39	0,19–0,45	0,23–0,50	0,26–0,58	0,30–0,64	0,36–0,76	0,37–0,79
	2	80	110	120	mm/r	0,12–0,21	0,14–0,34	0,16–0,39	0,19–0,45	0,23–0,50	0,26–0,58	0,30–0,64	0,36–0,76	0,37–0,79
	3	50	80	100	mm/r	0,11–0,19	0,13–0,27	0,15–0,33	0,17–0,37	0,19–0,42	0,21–0,46	0,28–0,54	0,32–0,63	0,33–0,66

Material Group		Cutting Speed – vc			Inch									
		Range – SFM			Recommended Feed Rate per Rev									
		min	Starting Value	max		.236	.315	.394	.472	.551	.630	.787	.945	1.023
P	0	315	415	575	IPR	.004–.007	.004–.009	.005–.012	.006–.015	.007–.016	.007–.018	.009–.020	.011–.023	.011–.024
	1	300	430	560	IPR	.004–.007	.004–.009	.005–.012	.006–.015	.007–.016	.007–.018	.009–.020	.011–.023	.011–.024
	2	330	460	590	IPR	.004–.009	.004–.010	.005–.013	.006–.016	.007–.018	.007–.019	.009–.022	.011–.025	.011–.026
	3	200	330	430	IPR	.004–.011	.004–.012	.005–.014	.006–.016	.006–.017	.007–.018	.009–.020	.012–.022	.012–.023
	4	200	330	430	IPR	.004–.011	.004–.012	.005–.014	.006–.016	.006–.017	.007–.018	.009–.020	.010–.022	.010–.023
	5	200	260	330	IPR	.004–.007	.004–.009	.004–.011	.005–.013	.006–.015	.006–.016	.008–.018	.009–.020	.010–.021
K	6	200	230	260	IPR	.004–.007	.004–.009	.004–.011	.005–.013	.006–.015	.006–.016	.008–.018	.009–.020	.010–.021
	1	260	400	560	IPR	.005–.011	.005–.013	.006–.015	.007–.017	.009–.019	.010–.022	.012–.025	.014–.030	.015–.031
	2	260	360	390	IPR	.005–.011	.005–.013	.006–.015	.007–.017	.009–.019	.010–.022	.012–.025	.014–.030	.015–.031
	3	160	260	330	IPR	.004–.009	.005–.010	.005–.013	.006–.014	.007–.016	.008–.018	.011–.021	.013–.025	.013–.026

KenTIP FS • HPL • Application Data

Material Group		Cutting Speed – vc			Metric									
		Range – m/min			Recommended Feed Rate per Rev									
		min	Starting Value	max		6,0	8,0	10,0	12,0	14,0	16,0	20,0	24,0	26,0
M	1	50	60	90	mm/r	0,07–0,13	0,08–0,15	0,09–0,18	0,11–0,20	0,12–0,22	0,13–0,24	0,16–0,28	0,19–0,32	0,20–0,33
	2	30	60	90	mm/r	0,07–0,13	0,08–0,15	0,09–0,18	0,11–0,20	0,12–0,22	0,13–0,24	0,16–0,28	0,19–0,32	0,20–0,33
	3	20	50	60	mm/r	0,07–0,13	0,08–0,15	0,09–0,18	0,11–0,20	0,12–0,22	0,13–0,24	0,16–0,28	0,19–0,32	0,20–0,33

Material Group		Cutting Speed – vc			Inch									
		Range – SFM			Recommended Feed Rate per Rev									
		min	Starting Value	max		.236	.315	.394	.472	.551	.630	.787	.945	1.023
M	1	160	200	300	IPR	.003–.005	.003–.006	.004–.007	.004–.008	.005–.009	.005–.009	.006–.011	.007–.013	.008–.013
	2	100	200	300	IPR	.003–.005	.003–.006	.004–.007	.004–.008	.005–.009	.005–.009	.006–.011	.007–.013	.008–.013
	3	70	160	200	IPR	.003–.005	.003–.006	.004–.007	.004–.008	.005–.009	.005–.009	.006–.011	.007–.013	.008–.013



KenTIP™ FS • HPC • Application Data

Material Group		Cutting Speed – vc			Metric									
		Range – m/min			Recommended Feed Rate per Rev									
		min	Starting Value	max		6,0	8,0	10,0	12,0	14,0	16,0	20,0	24,0	26,0
K	1	100	175	200	mm/r	0,12–0,29	0,14–0,34	0,16–0,39	0,19–0,45	0,23–0,50	0,26–0,58	0,30–0,64	0,36–0,76	0,37–0,79
	2	100	160	180	mm/r	0,12–0,29	0,14–0,34	0,16–0,39	0,19–0,45	0,23–0,50	0,26–0,58	0,30–0,64	0,36–0,76	0,37–0,79
	3	70	85	120	mm/r	0,11–0,23	0,13–0,27	0,15–0,33	0,17–0,37	0,19–0,42	0,21–0,46	0,28–0,54	0,32–0,63	0,33–0,66

Material Group		Cutting Speed – vc			Inch									
		Range – SFM			Recommended Feed Rate per Rev									
		min	Starting Value	max		.236	.315	.394	.472	.551	.630	.787	.945	1.023
K	1	330	570	660	IPR	.005–.011	.005–.013	.006–.015	.007–.017	.009–.019	.010–.022	.012–.025	.014–.030	.015–.031
	2	330	520	590	IPR	.005–.011	.005–.013	.006–.015	.007–.017	.009–.019	.010–.022	.012–.025	.014–.030	.015–.031
	3	230	280	390	IPR	.004–.009	.005–.010	.005–.013	.006–.014	.007–.016	.008–.018	.011–.021	.013–.025	.013–.026

KenTIP FS • DAV • Application Data

Material Group		Cutting Speed – vc			Metric								
		Range – m/min			Recommended Feed Rate per Rev								
		min	Starting Value	max		6,0	8,0	10,0	12,0	16,0	20,0		
S	4	10	13	20	mm/r	0,02–0,08	0,03–0,10	0,04–0,12	0,05–0,16	0,05–0,18	0,06–0,20		
N	1	100	230	270	mm/r	0,13–0,22	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,48		
	2	100	220	270	mm/r	0,14–0,23	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,40	0,32–0,52		
	3	90	180	230	mm/r	0,13–0,22	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,48		
	4	90	130	200	mm/r	0,10–0,18	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,40	0,32–0,52		
C	2	70	110	140	mm/r	0,03–0,10	0,04–0,12	0,05–0,15	0,05–0,18	0,06–0,21	0,07–0,23		
	3	10	13	20	mm/r	0,02–0,08	0,03–0,10	0,04–0,12	0,05–0,16	0,05–0,18	0,06–0,20		
	4	10	20	40	mm/r	0,02–0,08	0,03–0,10	0,04–0,12	0,05–0,16	0,05–0,18	0,06–0,20		

Material Group		Cutting Speed – vc			Inch						
		Range – SFM			Recommended Feed Rate per Rev						
		min	Starting Value	max		1/4 .250	5/16 .313	3/8 .375	1/2 .500	5/8 .625	3/4 .750
S	4	30	40	70	IPR	.001–.003	.001–.004	.002–.005	.002–.006	.002–.007	.002–.008
N	1	330	750	890	IPR	.005–.009	.006–.009	.008–.011	.009–.013	.011–.016	.013–.019
	2	330	720	890	IPR	.006–.009	.006–.011	.008–.013	.009–.014	.011–.017	.013–.021
	3	300	590	750	IPR	.005–.009	.006–.009	.008–.011	.009–.013	.011–.016	.013–.019
	4	300	430	660	IPR	.004–.007	.006–.011	.008–.013	.009–.014	.011–.016	.013–.019
C	2	230	360	460	IPR	.001–.004	.002–.005	.002–.006	.002–.007	.002–.008	.003–.009
	3	30	40	70	IPR	.001–.003	.001–.004	.002–.005	.002–.006	.002–.007	.002–.008
	4	30	70	130	IPR	.001–.003	.001–.004	.002–.005	.002–.006	.002–.007	.002–.008



KenTIP™ FS • SPF • Application Data

Material Group	Cutting Speed – vc			Metric							
	Range – m/min			Recommended Feed Rate per Rev							
	min	Starting Value	max		6,0	8,0	10,0	12,0	16,0	20,0	
C 1	80	100	150	mm/r	0,05–0,20	0,05–0,20	0,05–0,20	0,05–0,20	0,05–0,20	0,05–0,20	0,05–0,20

Material Group	Cutting Speed – vc			Inch							
	Range – SFM			Recommended Feed Rate per Rev							
	min	Starting Value	max		1/4	5/16	3/8	1/2	5/8	3/4	
C 1	260	330	490	IPR	.002–.008	.002–.008	.002–.008	.002–.008	.002–.008	.002–.008	.002–.008

KenTIP FS • FEG • Application Data

Material Group	Cutting Speed – vc			Metric										
	Range – m/min			Recommended Feed Rate per Rev										
	min	Starting Value	max		6,0	8,0	10,0	12,0	14,0	16,0	20,0	24,0	26,0	
P	0	110	140	170	mm/r	0,10–0,19	0,11–0,22	0,13–0,24	0,15–0,26	0,17–0,29	0,19–0,31	0,21–0,34	0,23–0,38	0,24–0,40
	1	110	140	170	mm/r	0,10–0,19	0,11–0,22	0,13–0,24	0,15–0,26	0,17–0,29	0,19–0,31	0,21–0,34	0,23–0,38	0,24–0,40
	2	100	120	140	mm/r	0,10–0,19	0,11–0,22	0,13–0,24	0,15–0,26	0,17–0,29	0,19–0,31	0,21–0,34	0,23–0,38	0,24–0,40
	3	80	100	120	mm/r	0,10–0,17	0,11–0,20	0,12–0,22	0,14–0,24	0,16–0,26	0,18–0,28	0,20–0,31	0,21–0,35	0,22–0,36
	4	70	90	110	mm/r	0,10–0,17	0,11–0,20	0,12–0,22	0,14–0,24	0,16–0,26	0,18–0,28	0,20–0,31	0,21–0,35	0,22–0,36
	5	60	80	100	mm/r	0,09–0,16	0,10–0,18	0,11–0,20	0,13–0,22	0,15–0,24	0,16–0,26	0,18–0,29	0,19–0,33	0,20–0,34
M	6	60	80	100	mm/r	0,09–0,16	0,10–0,18	0,11–0,20	0,13–0,22	0,15–0,24	0,16–0,26	0,18–0,29	0,19–0,33	0,20–0,34
	1	40	60	80	mm/r	0,07–0,12	0,08–0,14	0,09–0,16	0,11–0,18	0,12–0,20	0,13–0,22	0,14–0,24	0,15–0,26	0,16–0,27
K	2	35	55	70	mm/r	0,07–0,12	0,08–0,14	0,09–0,16	0,11–0,18	0,12–0,20	0,13–0,22	0,14–0,24	0,15–0,26	0,16–0,27
	1	90	120	175	mm/r	0,12–0,21	0,14–0,24	0,16–0,28	0,18–0,32	0,20–0,36	0,22–0,40	0,25–0,44	0,28–0,48	0,29–0,50
	2	80	110	140	mm/r	0,12–0,21	0,14–0,24	0,16–0,28	0,18–0,32	0,20–0,36	0,22–0,40	0,25–0,44	0,28–0,48	0,29–0,50
	3	70	80	100	mm/r	0,11–0,19	0,13–0,22	0,14–0,25	0,16–0,28	0,18–0,32	0,21–0,36	0,23–0,40	0,26–0,44	0,27–0,46

Material Group	Cutting Speed – vc			Inch										
	Range – SFM			Recommended Feed Rate per Rev										
	min	Starting Value	max		.236	.315	.394	.472	.551	.630	.787	.945	1.023	
P	0	360	460	560	IPR	0,004–0,007	0,004–0,009	0,005–0,009	0,006–0,010	0,007–0,011	0,007–0,012	0,008–0,013	0,009–0,015	0,009–0,016
	1	360	460	560	IPR	0,004–0,007	0,004–0,009	0,005–0,009	0,006–0,010	0,007–0,011	0,007–0,012	0,008–0,013	0,009–0,015	0,009–0,016
	2	330	400	460	IPR	0,004–0,007	0,004–0,009	0,005–0,009	0,006–0,010	0,007–0,011	0,007–0,012	0,008–0,013	0,009–0,015	0,009–0,016
	3	260	330	400	IPR	0,004–0,007	0,004–0,008	0,005–0,009	0,006–0,009	0,006–0,010	0,007–0,011	0,008–0,012	0,008–0,014	0,009–0,014
	4	230	330	360	IPR	0,004–0,007	0,004–0,008	0,005–0,009	0,006–0,009	0,006–0,010	0,007–0,011	0,008–0,012	0,008–0,014	0,009–0,014
	5	200	260	330	IPR	0,004–0,006	0,004–0,007	0,004–0,008	0,005–0,009	0,006–0,009	0,006–0,010	0,007–0,011	0,007–0,013	0,008–0,013
M	6	200	260	330	IPR	0,004–0,006	0,004–0,007	0,004–0,008	0,005–0,009	0,006–0,009	0,006–0,010	0,007–0,011	0,007–0,013	0,008–0,013
	1	130	200	260	IPR	0,003–0,005	0,003–0,006	0,004–0,006	0,004–0,007	0,005–0,008	0,005–0,009	0,006–0,009	0,006–0,010	0,006–0,011
K	2	120	180	230	IPR	0,003–0,005	0,003–0,006	0,004–0,006	0,004–0,007	0,005–0,008	0,005–0,009	0,006–0,009	0,006–0,010	0,006–0,011
	1	300	400	580	IPR	0,005–0,008	0,006–0,009	0,006–0,011	0,007–0,013	0,008–0,014	0,009–0,016	0,010–0,017	0,011–0,019	0,011–0,020
	2	260	360	460	IPR	0,005–0,008	0,006–0,009	0,006–0,011	0,007–0,013	0,008–0,014	0,009–0,016	0,010–0,017	0,011–0,019	0,011–0,020
	3	230	260	330	IPR	0,004–0,007	0,005–0,009	0,006–0,010	0,006–0,011	0,007–0,013	0,008–0,014	0,009–0,016	0,010–0,017	0,011–0,018



KenTIP™ FS and KSEM™ • Bodies • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

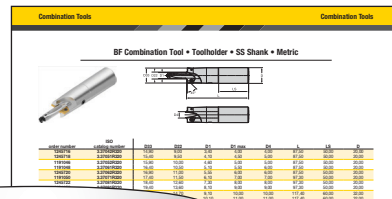
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0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125	0.125
0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875	0.1875
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.3125	0.3125	0.3125	0.3125	0.3125	0.3125	0.3125	0.3125	0.3125
0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
0.4375	0.4375	0.4375	0.4375	0.4375	0.4375	0.4375	0.4375	0.4375
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
0.5625	0.5625	0.5625	0.5625	0.5625	0.5625	0.5625	0.5625	0.5625
0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625	0.625
0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875	0.6875
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
0.8125	0.8125	0.8125	0.8125	0.8125	0.8125	0.8125	0.8125	0.8125
0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875
0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375	0.9375
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125
1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
1.625	1.625	1.625	1.625	1.625	1.625	1.625	1.625	1.625
1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875
2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2.125	2.125	2.125	2.125	2.125	2.125	2.125	2.125	2.125
2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
2.375	2.375	2.375	2.375	2.375	2.375	2.375	2.375	2.375
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
2.625	2.625	2.625	2.625	2.625	2.625	2.625	2.625	2.625
2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
2.875	2.875	2.875	2.875	2.875	2.875	2.875	2.875	2.875
3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125	3.125
3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375
3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
3.625	3.625	3.625	3.625	3.625	3.625	3.625	3.625	3.625
3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
3.875	3.875	3.875	3.875	3.875	3.875	3.875	3.875	3.875
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
4.125	4.125	4.125	4.125	4.125	4.125	4.125	4.125	4.125
4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
4.375	4.375	4.375	4.375	4.375	4.375	4.375	4.375	4.375
4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
4.625	4.625	4.625	4.625	4.625	4.625	4.625	4.625	4.625
4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
4.875	4.875	4.875	4.875	4.875	4.875	4.875	4.875	4.875
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

KTFS2000R05SS2000M

KTFS	2000	R	05	SS	2000	M
Series	Cutting Diameter D1	Flute Style	Length to Diameter Ratio	Shank Style	Shank Diameter	Unit of Dimensions
<p>KTFS</p>	<p>Metric = D1 in mm Inch = D1 in decimal inch</p>	<p>R = Right spiral S = Straight</p>	<p>05 = 5 x D</p>	<p>SS = Straight shank SF = Straight shank with flange SCF = Side lock shank with flange BF = With side lock for BF adapter</p>	<p>Metric = D in mm Inch = D in decimal inch</p>	<p>M = Metric Blank = Inch</p>
<p>KSEM</p>	<p>Metric = D1 in mm Inch = D1 in decimal inch</p>	<p>R = Right spiral</p>	<p>05 = 5 x D</p>	<p>WN = Whistle Notch shank WD = Whistle Notch with flange</p>	<p>Metric = D in mm Inch = D in decimal inch</p>	<p>M = Metric Blank = Inch</p>

KSEM PLUS™ • Heads • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

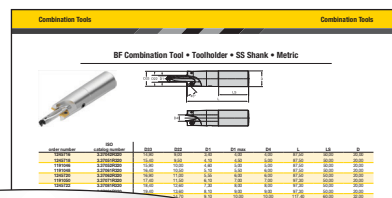


KSEMP2000FDS28A1M

KSEMP	2000	FDS28	A1	M
Series	Cutting Diameter D1	Connection Style Machine Side – CSMS	Head Style	Unit of Dimensions
KSEMP	Metric = D1 in mm Inch = D1 in decimal inch	FDS28 = Connection size 28	A1 = Modular drill head for lowest cost per hole B1 = Modular drill head for challenging conditions like stacked plates, cross holes, and inclined exits	M = Metric Blank = Inch

KSEM PLUS • Bodies • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

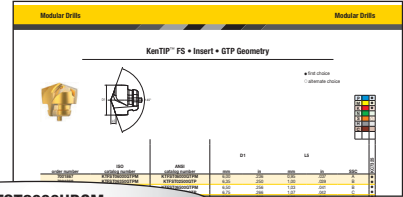


WD32FDS28190M

WD	32	FDS28	190	M
Shank Style	Shank Diameter	Connection Style Workpiece Side – CSWS	Drill Body Length L1	Unit of Dimensions
WD = Drill body with Whistle Notch shank SSF = Drill body with flanged shank with flat	Metric = D in mm Inch = D in decimal inch	FDS28 = Connection size 28	Metric = L1 in mm Inch = L1 in decimal inch	M = Metric Blank = Inch

KenTIP™ FS • Inserts • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

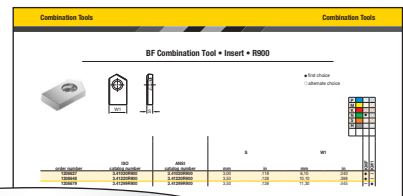


KTFST2000HPGM

KTFS	T	2000	HPG	M
Series	Coolant Type	Cutting Diameter D1	Point Geometry	Unit of Dimensions
<p>KTFS = KenTIP FS</p>	<p>T = Through coolant S = No through coolant</p>	<p>Metric = D1 in mm Inch = D1 in decimal inch</p>	<p>HPG = Steel HPL = Stainless steel HPC = Cast iron FEG = Flat bottom SPF = CFRP DAV = Vibration assisted applications in stacks, titanium, aluminum DAL = Stacks, titanium, aluminum</p>	<p>M = Metric Blank = Inch</p>

KSEM™ • Inserts • Catalog Numbering System

























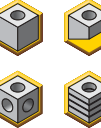





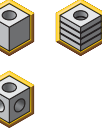
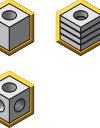





















Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KSEM2000HPGM

KSEM	2000	HPG	M
Series	Cutting Diameter D1	Point Geometry	Unit of Dimensions
<p>KSEM KSEMP = KSEM PLUS</p>	<p>Metric = D1 in mm Inch = D1 in decimal inch</p>	<p>HP = Long chipping steels HPG = Steel HPL = Stainless steel HPCLL = Cast iron FEG = Flat bottom PC = Piloting in all materials SPL = High-temperature alloys, non-ferrous materials</p>	<p>M = Metric Blank = Inch</p>

Tool Selection Guide • Material-Specific Drills

	HPR Drills	HPX Drills	HPX Drills	SGL Drills	HPS Drills	Y-TECH™ Drills	KMH Drills	KMH Drills
								
								
Series	B254_HPR B255_HPR B256_HPR	B221_HPX B222_HPX	B224_HPX B225_HPX B226_HPX	B210_SGL B211_SGL B212_SGL	B284_HPS B285_HPS B286_HPS	B291_YPL B292_YPL	B941A	B951A
Page	11***	11, 14**	16, 18, 21**	G38*	G88*	G94*	G126*	G127*
Workpiece material								
Primary	K	P	P	M S	N	M S	H	H
Secondary		K		P		P	P K	P K
Hole tolerance	IT9-IT10	IT9-IT10	IT9-IT10	IT9-IT10	IT9-IT10	IT9-IT10	IT9-IT10	IT9-IT10
Standard range								
Cutting diameter [D1]	3,0-20,0mm (0.1181-0.7874")	3,0-20,0mm (0.1181-0.7874")	3,0-20,0mm (0.1181-0.7874")	2,5-20,0mm (0.0984-0.7874")	3,0-20,0mm (0.1181-0.7874")	3,0-20,0mm (0.1181-0.7874")	2,5-14,0mm (0.0984-0.5512")	3,0-16,0mm (0.1181-0.6299")
Drill length [L4 max]	14,0-160,0mm (0.55-6.30")	14,0-85,0mm (0.55-3.03")	14,0-160,0mm (0.55-6.30")	12,0-160,0mm (0.47-6.30")	14,0-124,0mm (0.55-4.88")	14,0-77,0mm (0.55-3.03")	14,0-43,0mm (0.55-1.69")	14,0-45,0mm (0.55-1.77")
Drilling depth L/D1	3-8 x D	3-5 x D	3-8 x D	3-8 x D	3-8 x D	3-5 x D	3 x D	3 x D
Point angle	143°	140°	140°	140°	135°	140°	142°	140°
Flute angle	30°	30°	30°	30°	30°	30°	15°	30°
Coolant								
Operations								
Flutes and margin								
Corner chamfer								
Shank								













































* See page in the Kennametal Master Catalog 2018 • Volume Two • Rotating Tools, A-16-05217.

**See page in the Kennametal Innovations 2021 • 01, A-20-06200.

***See page in the Kennametal Innovations 2021 • 02, A-20-06262.

- Primary
- Secondary

Tool Selection Guide • Versatile Drills

	GOdrill™	GOdrill	Kenna Universal™ Drills	Kenna Universal Drills	Kenna Universal Step Drills
				B979A • NEW! 	NEW! 
					
Series	B041A_CPG B042A_CPG	B051A_CPG B052A_CPG B053A_CPG	B966A B967A	B976A B977A B978A B979A	B731A B732A
Page	G8*	G14*	62–65	66–79	80–81
Workpiece material					
Primary	P M K N S	P M K N S	P K	P K	P K
Secondary	H	H	M N S	M N S	M N S
Hole tolerance	IT9–IT10	IT9–IT10	IT9–IT10	IT9–IT10	IT9–IT10
Standard range					
Cutting diameter [D1]	1,0–20,0mm (0.0394–0.7874")	1,0–20,0mm (0.0394–0.7874")	3,0–20,0mm (0.1181–0.7874")	2,4–20,0mm (0.0938–0.7874")	3,0–20,0mm (0.1181–0.7874")
Drill length [L4 max]	5,0–77,0mm (0.55–0.20")	5,0–124,0mm (0.55–4.88")	14,0–85,0mm (0.55–3.03")	12,0–124,0mm (0.47–4.88")	—
Drilling depth L/D1	3–5 x D	3–8 x D	3–5 x D	3–12 x D	—
Point angle	140°	140°	140°	140°/132°	140°
Flute angle	30°	30°	30°	30°	30°
Coolant			 	 	 
Operations			   	   	   
Flutes and margin					
Corner chamfer					
Shank	 	 	 	 	

* See page in the Kennametal Master Catalog 2018 • Volume Two • Rotating Tools, A-16-05217.

- Primary
- Secondary

Kenna Universal™

High-Performance
Solid Carbide Drill



Materials



Applications



Countersinking/
Stroke Chamfering



Drilling



Drilling:
Stacked Plates



Drilling:
Inclined Exit



Drilling:
Cross Hole

Versatile solid carbide drill generates excellent hole quality in multiple materials.

The Kenna Universal drill series covers a diameter range from 2,383–21 mm (0.0938–0.8268") and provides 12 x D drilling capability.

Applicable in many materials for cross hole drilling, inclined exit drilling, deep hole drilling, and chamfer hole drilling. The Kenna Universal drill series offers long tool life, fewer tool changes, and requires less tool inventory, making it an excellent alternative to other high-performance, material-specific drills.

The cone point design is ideal for piloting applications.

B979



NEW!

12 x D drilling without a pilot drill in multiple materials.

Four-margin land design for stability, hole straightness, and high productivity.

Ultra-high polished flutes provides minimum friction, improving chip evacuation and tool life.

B731/B732



NEW!

Combines two applications in one process step, reducing machining time and cost.

Excellent hole quality, roundness, ovality, and position accuracy.

B96/B97



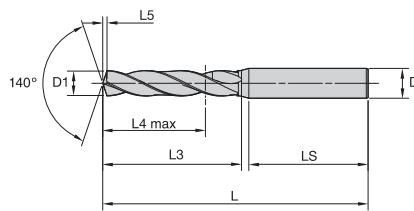
NEW!

KCU15 grade provides longer tool life.
Cost-effective alternative to other high-performance, material-specific solid carbide drills.

Applicable as pilot drill for deep hole drilling applications.

- A four-margin land design provides hole straightness and roundness, even when drilling cross holes.
- The low-thrust drill point design has excellent centering capabilities, ideal for less stable machining conditions.
- Easy to recondition, delivering extended tool life.
- MQL-ready! All shanks fulfill the DIN 6535 and 69090-03 requirements for minimum quantity lubrication.

Kenna Universal™ • B966 • 3 x D • Straight Shank



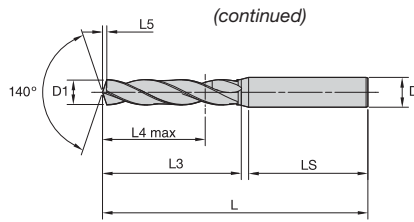
- first choice
- alternate choice

P	●
M	○
K	●
N	○
S	○
H	○

		D1										D	●	KCU15
order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS				
1913052	B966A03000	3,00	.1181	—	—	62	20	14	0,5	36	6	●		
2273318	B966A03100	3,10	.1220	—	—	62	20	14	0,5	36	6	●		
1961108	B966A03200	3,20	.1260	—	—	62	20	14	0,5	36	6	●		
2213696	B966A03300	3,30	.1299	—	—	62	20	14	0,5	36	6	●		
2408266	B966A03400	3,40	.1339	—	—	62	20	14	0,6	36	6	●		
1913458	B966A03500	3,50	.1378	—	—	62	20	14	0,6	36	6	●		
2425117	B966A03600	3,60	.1417	—	—	62	20	14	0,6	36	6	●		
1913459	B966A03700	3,70	.1457	—	—	62	20	14	0,6	36	6	●		
1913460	B966A03800	3,80	.1496	—	—	66	24	17	0,6	36	6	●		
2040682	B966A03900	3,90	.1535	—	—	66	24	17	0,6	36	6	●		
2266804	B966A03960	3,96	.1559	—	—	66	24	17	0,7	36	6	●		
1913461	B966A04000	4,00	.1575	—	—	66	24	17	0,7	36	6	●		
2425113	B966A04100	4,10	.1614	—	—	66	24	17	0,7	36	6	●		
1913462	B966A04200	4,20	.1654	—	—	66	24	17	0,7	36	6	●		
2213700	B966A04300	4,30	.1693	—	—	66	24	17	0,7	36	6	●		
2213701	B966A04400	4,40	.1732	—	—	66	24	17	0,7	36	6	●		
1913473	B966A04500	4,50	.1772	—	—	66	24	17	0,7	36	6	●		
1913474	B966A04600	4,60	.1811	—	—	66	24	17	0,8	36	6	●		
2256916	B966A04700	4,70	.1850	—	13	66	24	17	0,8	36	6	●		
1913475	B966A04800	4,80	.1890	—	12	66	28	20	0,8	36	6	●		
2425114	B966A04900	4,90	.1929	—	—	66	28	20	0,8	36	6	●		
1913476	B966A05000	5,00	.1969	—	—	66	28	20	0,8	36	6	●		
2391925	B966A05040	5,04	.1984	—	—	66	28	20	0,8	36	6	●		
1995000	B966A05100	5,10	.2008	—	—	66	28	20	0,8	36	6	●		
2250824	B966A05200	5,20	.2047	—	—	66	28	20	0,9	36	6	●		
2045222	B966A05300	5,30	.2087	—	—	66	28	20	0,9	36	6	●		
2425115	B966A05400	5,40	.2126	—	—	66	28	20	0,9	36	6	●		
1913477	B966A05500	5,50	.2165	—	—	66	28	20	0,9	36	6	●		
2242390	B966A05600	5,60	.2205	—	—	66	28	20	0,9	36	6	●		
1913478	B966A05700	5,70	.2244	—	—	66	28	20	1,0	36	6	●		
1913479	B966A05800	5,80	.2283	—	—	66	28	20	1,0	36	6	●		
1957789	B966A05900	5,90	.2323	—	—	66	28	20	1,0	36	6	●		
1913480	B966A06000	6,00	.2362	—	—	66	28	20	1,0	36	6	●		
2038613	B966A06050	6,05	.2382	—	—	79	34	24	1,0	36	8	●		
2220855	B966A06100	6,10	.2402	—	—	79	34	24	1,0	36	8	●		
1982397	B966A06200	6,20	.2441	—	—	79	34	24	1,0	36	8	●		
2404438	B966A06300	6,30	.2480	—	—	79	34	24	1,1	36	8	●		
2391902	B966A06350	6,35	.2500	1/4	E	79	34	24	1,1	36	8	●		
2037058	B966A06400	6,40	.2520	—	—	79	34	24	1,1	36	8	●		
1913481	B966A06500	6,50	.2559	—	—	79	34	24	1,1	36	8	●		
2220856	B966A06600	6,60	.2598	—	—	79	34	24	1,1	36	8	●		
1985037	B966A06700	6,70	.2638	—	—	79	34	24	1,1	36	8	●		
1913482	B966A06800	6,80	.2677	—	—	79	34	24	1,1	36	8	●		
1988099	B966A06900	6,90	.2717	—	—	79	34	24	1,2	36	8	●		
1913483	B966A07000	7,00	.2756	—	—	79	34	24	1,2	36	8	●		
2425118	B966A07100	7,10	.2795	—	—	79	41	29	1,2	36	8	●		
2231579	B966A07200	7,20	.2835	—	—	79	41	29	1,2	36	8	●		
2425119	B966A07300	7,30	.2874	—	—	79	41	29	1,2	36	8	●		
1913484	B966A07400	7,40	.2913	—	—	79	41	29	1,3	36	8	●		
1913485	B966A07500	7,50	.2953	—	—	79	41	29	1,3	36	8	●		
2425120	B966A07600	7,60	.2992	—	—	79	41	29	1,3	36	8	●		
2217005	B966A07700	7,70	.3031	—	—	79	41	29	1,3	36	8	●		
1913486	B966A07800	7,80	.3071	—	—	79	41	29	1,3	36	8	●		
1988100	B966A07900	7,90	.3110	—	—	79	41	29	1,3	36	8	●		
1913487	B966A08000	8,00	.3150	—	—	79	41	29	1,4	36	8	●		
1997389	B966A08100	8,10	.3189	—	—	89	47	35	1,4	40	10	●		
1985038	B966A08200	8,20	.3228	—	—	89	47	35	1,4	40	10	●		
2403807	B966A08300	8,30	.3268	—	—	89	47	35	1,4	40	10	●		
2203486	B966A08400	8,40	.3307	—	—	89	47	35	1,4	40	10	●		
1913488	B966A08500	8,50	.3346	—	—	89	47	35	1,4	40	10	●		

160-163	164	86-87	98, 168

Kenna Universal™ • B966 • 3 x D • Straight Shank



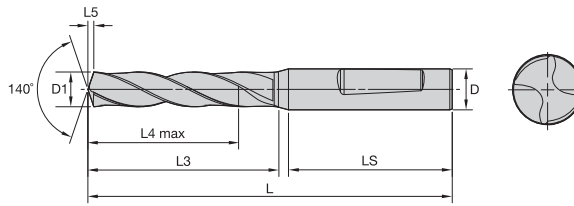
- first choice
- alternate choice

P	●
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K	●
N	○
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		D1										D	●	KCU15
order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS				
1995002	B966A08600	8,60	.3386	—	—	89	47	35	1,5	40	10	●		
2425143	B966A08700	8,70	.3425	—	—	89	47	35	1,5	40	10	●		
1913489	B966A08800	8,80	.3465	—	—	89	47	35	1,5	40	10	●		
2425145	B966A08900	8,90	.3504	—	—	89	47	35	1,5	40	10	●		
1913490	B966A09000	9,00	.3543	—	—	89	47	35	1,5	40	10	●		
2425146	B966A09100	9,10	.3583	—	—	89	47	35	1,5	40	10	●		
2273321	B966A09200	9,20	.3622	—	—	89	47	35	1,6	40	10	●		
1913491	B966A09300	9,30	.3661	—	—	89	47	35	1,6	40	10	●		
1995073	B966A09400	9,40	.3701	—	—	89	47	35	1,6	40	10	●		
1913492	B966A09500	9,50	.3740	—	—	89	47	35	1,6	40	10	●		
1998947	B966A09600	9,60	.3780	—	—	89	47	35	1,6	40	10	●		
2425149	B966A09700	9,70	.3819	—	—	89	47	35	1,7	40	10	●		
1913493	B966A09800	9,80	.3858	—	—	89	47	35	1,7	40	10	●		
2256252	B966A09900	9,90	.3898	—	—	89	47	35	1,7	40	10	●		
1913494	B966A10000	10,00	.3937	—	—	89	47	35	1,7	40	10	●		
1995074	B966A10100	10,10	.3976	—	—	102	55	40	1,7	45	12	●		
1913495	B966A10200	10,20	.4016	—	—	102	55	40	1,7	45	12	●		
2227338	B966A10300	10,30	.4055	—	—	102	55	40	1,8	45	12	●		
1992232	B966A10400	10,40	.4094	—	—	102	55	40	1,8	45	12	●		
1913496	B966A10500	10,50	.4134	—	—	102	55	40	1,8	45	12	●		
2043136	B966A10600	10,60	.4173	—	—	102	55	40	1,8	45	12	●		
1913497	B966A10700	10,70	.4213	—	—	102	55	40	1,8	45	12	●		
2229055	B966A10800	10,80	.4252	—	—	102	55	40	1,8	45	12	●		
2425151	B966A10900	10,90	.4291	—	—	102	55	40	1,9	45	12	●		
1913498	B966A11000	11,00	.4331	—	—	102	55	40	1,9	45	12	●		
2425173	B966A11100	11,10	.4370	—	—	102	55	40	1,9	45	12	●		
1913499	B966A11200	11,20	.4409	—	—	102	55	40	1,9	45	12	●		
2214926	B966A11300	11,30	.4449	—	—	102	55	40	1,9	45	12	●		
1995075	B966A11400	11,40	.4488	—	—	102	55	40	2,0	45	12	●		
1913500	B966A11500	11,50	.4528	—	—	102	55	40	2,0	45	12	●		
2043137	B966A11600	11,60	.4567	—	—	102	55	40	2,0	45	12	●		
1913501	B966A11700	11,70	.4606	—	—	102	55	40	2,0	45	12	●		
1997391	B966A11800	11,80	.4646	—	—	102	55	40	2,0	45	12	●		
2425176	B966A11900	11,90	.4685	—	—	102	55	40	2,0	45	12	●		
1913502	B966A12000	12,00	.4724	—	—	102	55	40	2,1	45	12	●		
1995076	B966A12100	12,10	.4764	—	—	107	60	43	2,1	45	14	●		
2425178	B966A12200	12,20	.4803	—	—	107	60	43	2,1	45	14	●		
2231830	B966A12300	12,30	.4843	—	—	107	60	43	2,1	45	14	●		
2425203	B966A12400	12,40	.4882	—	—	107	60	43	2,1	45	14	●		
1913503	B966A12500	12,50	.4921	—	—	107	60	43	2,1	45	14	●		
1991229	B966A12600	12,60	.4961	—	—	107	60	43	2,2	45	14	●		
1913504	B966A12700	12,70	.5000	1/2	—	107	60	43	2,2	45	14	●		
2425205	B966A12800	12,80	.5039	—	—	107	60	43	2,2	45	14	●		
2425206	B966A12900	12,90	.5079	—	—	107	60	43	2,2	45	14	●		
1913505	B966A13000	13,00	.5118	—	—	107	60	43	2,2	45	14	●		
3024745	B966A13100	13,10	.5157	—	—	107	60	43	2,3	45	14	●		
1972376	B966A13200	13,20	.5197	—	—	107	60	43	2,3	45	14	●		
2204116	B966A13300	13,30	.5236	—	—	107	60	43	2,3	45	14	●		
3757726	B966A13400	13,40	.5276	—	—	107	60	43	2,3	45	14	●		
1913506	B966A13500	13,50	.5315	—	—	107	60	43	2,3	45	14	●		
1913507	B966A13700	13,70	.5394	—	—	107	60	43	2,4	45	14	●		
1913508	B966A14000	14,00	.5512	—	—	107	60	43	2,4	45	14	●		
2425233	B966A14200	14,20	.5591	—	—	115	65	45	2,5	48	16	●		
2248306	B966A14300	14,30	.5630	—	—	115	65	45	2,5	48	16	●		
1913509	B966A14500	14,50	.5709	—	—	115	65	45	2,5	48	16	●		
1913510	B966A14700	14,70	.5787	—	—	115	65	45	2,5	48	16	●		
2220857	B966A14800	14,80	.5827	—	—	115	65	45	2,6	48	16	●		
1913511	B966A15000	15,00	.5906	—	—	115	65	45	2,6	48	16	●		
1913512	B966A15500	15,50	.6102	—	—	115	65	45	2,7	48	16	●		
1913513	B966A15700	15,70	.6181	—	—	115	65	45	2,7	48	16	●		
1913514	B966A16000	16,00	.6299	—	—	115	65	45	2,8	48	16	●		
2641904	B966A16500	16,50	.6496	—	—	123	73	51	2,9	48	18	●		
4003520	B966A17000	17,00	.6693	—	—	123	73	51	2,9	48	18	●		
4003521	B966A17500	17,50	.6890	—	—	123	73	51	3,0	48	18	●		
4003522	B966A18000	18,00	.7087	—	—	123	73	51	3,1	48	18	●		
3505952	B966A20000	20,00	.7874	—	—	131	79	55	3,5	50	20	●		



Kenna Universal™ • B966 • 3 x D • Whistle Notch™ Shank



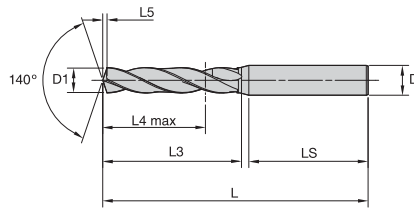
- first choice
- alternate choice

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		D1									D	KCU15
order number	catalog number	mm	in	fraction	L	L3	L4 max	L5	LS			
1913652	B966F03000	3,00	.1181	—	62	20	14	0,5	36	6	●	
2428793	B966F03300	3,30	.1299	—	62	20	14	0,5	36	6	●	
2264867	B966F03400	3,40	.1339	—	62	20	14	0,6	36	6	●	
1913653	B966F03500	3,50	.1378	—	62	20	14	0,6	36	6	●	
2264869	B966F03600	3,60	.1417	—	62	20	14	0,6	36	6	●	
1913656	B966F04000	4,00	.1575	—	66	24	17	0,7	36	6	●	
1913657	B966F04200	4,20	.1654	—	66	24	17	0,7	36	6	●	
1913661	B966F05000	5,00	.1969	—	66	28	20	0,8	36	6	●	
2264973	B966F05100	5,10	.2008	—	66	28	20	0,8	36	6	●	
2251799	B966F05300	5,30	.2087	—	66	28	20	0,9	36	6	●	
1913662	B966F05500	5,50	.2165	—	66	28	20	0,9	36	6	●	
2265006	B966F05600	5,60	.2205	—	66	28	20	0,9	36	6	●	
1913665	B966F06000	6,00	.2362	—	66	28	20	1,0	36	6	●	
2265002	B966F06300	6,30	.2480	—	79	34	24	1,1	36	8	●	
1969942	B966F06400	6,40	.2520	—	79	34	24	1,1	36	8	●	
1913666	B966F06500	6,50	.2559	—	79	34	24	1,1	36	8	●	
2264990	B966F06700	6,70	.2638	—	79	34	24	1,1	36	8	●	
1913667	B966F06800	6,80	.2677	—	79	34	24	1,1	36	8	●	
1913668	B966F07000	7,00	.2756	—	79	34	24	1,2	36	8	●	
2265022	B966F07100	7,10	.2795	—	79	41	29	1,2	36	8	●	
2265003	B966F07300	7,30	.2874	—	79	41	29	1,2	36	8	●	
1913669	B966F07400	7,40	.2913	—	79	41	29	1,3	36	8	●	
2265023	B966F07600	7,60	.2992	—	79	41	29	1,3	36	8	●	
1913672	B966F08000	8,00	.3150	—	79	41	29	1,4	36	8	●	
2251802	B966F08200	8,20	.3228	—	89	47	35	1,4	40	10	●	
1970003	B966F08400	8,40	.3307	—	89	47	35	1,4	40	10	●	
1913673	B966F08500	8,50	.3346	—	89	47	35	1,4	40	10	●	
1913675	B966F09000	9,00	.3543	—	89	47	35	1,5	40	10	●	
2264958	B966F09100	9,10	.3583	—	89	47	35	1,5	40	10	●	
1913677	B966F09500	9,50	.3740	—	89	47	35	1,6	40	10	●	
1913679	B966F10000	10,00	.3937	—	89	47	35	1,7	40	10	●	
1913680	B966F10200	10,20	.4016	—	102	55	40	1,7	45	12	●	
2264985	B966F10400	10,40	.4094	—	102	55	40	1,8	45	12	●	
1913681	B966F10500	10,50	.4134	—	102	55	40	1,8	45	12	●	
2264986	B966F10600	10,60	.4173	—	102	55	40	1,8	45	12	●	
1913682	B966F10700	10,70	.4213	—	102	55	40	1,8	45	12	●	
2264936	B966F10800	10,80	.4252	—	102	55	40	1,8	45	12	●	
1913683	B966F11000	11,00	.4331	—	102	55	40	1,9	45	12	●	
2264988	B966F11800	11,80	.4646	—	102	55	40	2,0	45	12	●	
1913687	B966F12000	12,00	.4724	—	102	55	40	2,1	45	12	●	
2428802	B966F12100	12,10	.4764	—	107	60	43	2,1	45	14	●	
2428856	B966F12200	12,20	.4803	—	107	60	43	2,1	45	14	●	
1913688	B966F12500	12,50	.4921	—	107	60	43	2,1	45	14	●	
1913689	B966F12700	12,70	.5000	1/2	107	60	43	2,2	45	14	●	
1913690	B966F13000	13,00	.5118	—	107	60	43	2,2	45	14	●	
1913691	B966F13500	13,50	.5315	—	107	60	43	2,3	45	14	●	
1913693	B966F14000	14,00	.5512	—	107	60	43	2,4	45	14	●	
1913694	B966F14500	14,50	.5709	—	115	65	45	2,5	48	16	●	
1913696	B966F15000	15,00	.5906	—	115	65	45	2,6	48	16	●	
1913699	B966F16000	16,00	.6299	—	115	65	45	2,8	48	16	●	
2264918	B966F16500	16,50	.6496	—	123	73	51	2,9	48	18	●	
2264892	B966F17000	17,00	.6693	—	123	73	51	2,9	48	18	●	
2264920	B966F17500	17,50	.6890	—	123	73	51	3,0	48	18	●	
2264893	B966F18000	18,00	.7087	—	123	73	51	3,1	48	18	●	

160-163	164	86-87	98, 168

Kenna Universal™ • B967 • 5 x D • Straight Shank



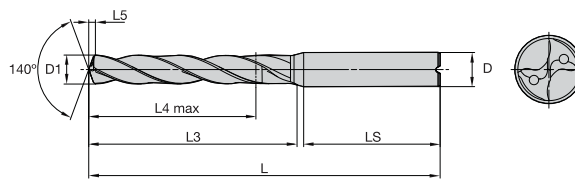
- first choice
- alternate choice

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		D1										D	KCU15
order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS			
6172513	B967A03000	3,00	.1181	—	—	66	28	23	0,5	36	6	●	
6172514	B967A03100	3,10	.1220	—	—	66	28	23	0,5	36	6	●	
6172515	B967A03200	3,20	.1260	—	—	66	28	23	0,5	36	6	●	
6172516	B967A03300	3,30	.1299	—	—	66	28	23	0,5	36	6	●	
6172517	B967A03500	3,50	.1378	—	—	66	28	23	0,6	36	6	●	
6172518	B967A03800	3,80	.1496	—	—	74	36	29	0,6	36	6	●	
6172519	B967A04000	4,00	.1575	—	—	74	36	29	0,7	36	6	●	
6172520	B967A04200	4,20	.1654	—	—	74	36	29	0,7	36	6	●	
6172531	B967A04300	4,30	.1693	—	—	74	36	29	0,7	36	6	●	
6172532	B967A04500	4,50	.1772	—	—	74	36	29	0,7	36	6	●	
6172533	B967A04800	4,80	.1890	—	12	82	44	35	0,8	36	6	●	
3773323	B967A05000	5,00	.1969	—	—	82	44	35	0,8	36	6	●	
6172534	B967A05100	5,10	.2008	—	—	82	44	35	0,8	36	6	●	
6172535	B967A05200	5,20	.2047	—	—	82	44	35	0,9	36	6	●	
6172536	B967A05500	5,50	.2165	—	—	82	44	35	0,9	36	6	●	
6172537	B967A05800	5,80	.2283	—	—	82	44	35	1,0	36	6	●	
3956013	B967A06000	6,00	.2362	—	—	82	44	35	1,0	36	6	●	
6172538	B967A06100	6,10	.2402	—	—	91	53	43	1,0	36	8	●	
3598188	B967A06500	6,50	.2559	—	—	91	53	43	1,1	36	8	●	
6172539	B967A06600	6,60	.2598	—	—	91	53	43	1,1	36	8	●	
3956018	B967A06700	6,70	.2638	—	—	91	53	43	1,1	36	8	●	
6172540	B967A06800	6,80	.2677	—	—	91	53	43	1,1	36	8	●	
3956014	B967A07000	7,00	.2756	—	—	91	53	43	1,2	36	8	●	
3956017	B967A07400	7,40	.2913	—	—	91	53	43	1,3	36	8	●	
3890197	B967A07500	7,50	.2953	—	—	91	53	43	1,3	36	8	●	
6172541	B967A07800	7,80	.3071	—	—	91	53	43	1,3	36	8	●	
2435131	B967A08000	8,00	.3150	—	—	91	53	43	1,4	36	8	●	
6172542	B967A08100	8,10	.3189	—	—	103	61	49	1,4	40	10	●	
2425073	B967A08500	8,50	.3346	—	—	103	61	49	1,4	40	10	●	
6172543	B967A08600	8,60	.3386	—	—	103	61	49	1,5	40	10	●	
3876021	B967A08700	8,70	.3425	—	—	103	61	49	1,5	40	10	●	
6172544	B967A08800	8,80	.3465	—	—	103	61	49	1,5	40	10	●	
2425000	B967A09000	9,00	.3543	—	—	103	61	49	1,5	40	10	●	
5548378	B967A09300	9,30	.3661	—	—	103	61	49	1,6	40	10	●	
3117503	B967A09500	9,50	.3740	—	—	103	61	49	1,6	40	10	●	
4114696	B967A09800	9,80	.3858	—	—	103	61	49	1,7	40	10	●	
2037059	B967A10000	10,00	.3937	—	—	103	61	49	1,7	40	10	●	
4080356	B967A10200	10,20	.4016	—	—	118	71	56	1,7	45	12	●	
2649486	B967A10500	10,50	.4134	—	—	118	71	56	1,8	45	12	●	
2658075	B967A10700	10,70	.4213	—	—	118	71	56	1,8	45	12	●	
2425052	B967A10800	10,80	.4252	—	—	118	71	56	1,9	45	12	●	
3005898	B967A11000	11,00	.4331	—	—	118	71	56	1,9	45	12	●	
4089831	B967A11300	11,30	.4449	—	—	118	71	56	1,9	45	12	●	
3877827	B967A11500	11,50	.4528	—	—	118	71	56	2,0	45	12	●	
4114713	B967A11800	11,80	.4646	—	—	118	71	56	2,0	45	12	●	
2627240	B967A12000	12,00	.4724	—	—	118	71	56	2,1	45	12	●	
4080362	B967A12300	12,30	.4843	—	—	124	77	60	2,1	45	14	●	
2424997	B967A12500	12,50	.4921	—	—	124	77	60	2,1	45	14	●	
3955980	B967A12700	12,70	.5000	1/2	—	124	77	60	2,2	45	14	●	
4080393	B967A12800	12,80	.5039	—	—	124	77	60	2,2	45	14	●	
4071037	B967A13000	13,00	.5118	—	—	124	77	60	2,2	45	14	●	
3005899	B967A13500	13,50	.5315	—	—	124	77	60	2,3	45	14	●	
2613858	B967A14000	14,00	.5512	—	—	124	77	60	2,4	45	14	●	
3559794	B967A14500	14,50	.5709	—	—	133	83	63	2,5	48	16	●	
4080395	B967A15000	15,00	.5906	—	—	133	83	63	2,6	48	16	●	
4078132	B967A15300	15,30	.6024	—	—	133	83	63	2,6	48	16	●	
3848433	B967A15500	15,50	.6102	—	—	133	83	63	2,7	48	16	●	
2658685	B967A16000	16,00	.6299	—	—	133	83	63	2,8	48	16	●	
5897007	B967A16500	16,50	.6496	—	—	143	93	71	2,9	48	18	●	

160-163	164	86-87	98, 168

Kenna Universal™ • B976 • 3 x D • Internal Coolant • Straight Shank



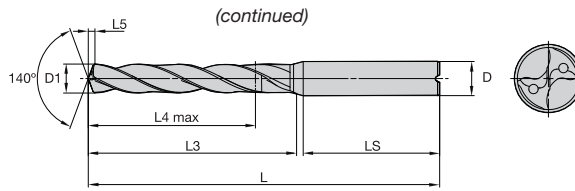
- first choice
- alternate choice

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S	○
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order number	catalog number	D1				L	L3	L4 max	L5	LS	D	KCU15
		mm	in	fraction	wire size							
4042538	B976Z02383	2,38	.0938	3/32	—	50	16	11	0,4	28	3	●
4042539	B976Z02400	2,40	.0945	—	—	50	16	11	0,4	28	3	●
4042540	B976Z02439	2,44	.0960	—	41	50	16	11	0,4	28	3	●
4042541	B976Z02489	2,49	.0980	—	40	50	16	11	0,4	28	3	●
4042542	B976Z02500	2,50	.0984	—	—	50	16	11	0,4	28	3	●
4042543	B976Z02578	2,58	.1015	—	38	50	16	11	0,4	28	3	●
4042544	B976Z02600	2,60	.1024	—	—	50	16	11	0,4	28	3	●
4042545	B976Z02642	2,64	.1040	—	37	50	16	11	0,4	28	3	●
4042546	B976Z02705	2,71	.1065	—	36	50	16	11	0,4	28	3	●
4042547	B976Z02779	2,78	.1094	7/64	—	50	16	11	0,4	28	3	●
4042548	B976Z02800	2,80	.1102	—	—	50	16	11	0,5	28	3	●
4042549	B976Z02820	2,82	.1110	—	34	50	16	11	0,5	28	3	●
4042550	B976Z02870	2,87	.1130	—	33	50	16	11	0,5	28	3	●
4042551	B976Z02900	2,90	.1142	—	—	50	16	11	0,5	28	3	●
4042552	B976Z02947	2,95	.1160	—	32	50	16	11	0,5	28	3	●
2878592	B976A03000	3,00	.1181	—	—	62	20	14	0,5	36	6	●
3005956	B976A03100	3,10	.1220	—	—	62	20	14	0,5	36	6	●
4054494	B976A03175	3,18	.1250	1/8	—	62	20	14	0,5	36	6	●
3528124	B976A03180	3,18	.1252	—	—	62	20	14	0,5	36	6	●
3110522	B976A03200	3,20	.1260	—	—	62	20	14	0,5	36	6	●
2878591	B976A03300	3,30	.1299	—	—	62	20	14	0,5	36	6	●
4054495	B976A03454	3,45	.1360	—	29	62	20	14	0,6	36	6	●
3528125	B976A03500	3,50	.1378	—	—	62	20	14	0,6	36	6	●
3110544	B976A03600	3,60	.1417	—	—	62	20	14	0,6	36	6	●
2890223	B976A03700	3,70	.1457	—	—	62	20	14	0,6	36	6	●
4054496	B976A03734	3,73	.1470	—	26	62	20	14	0,6	36	6	●
4054497	B976A03797	3,80	.1495	—	25	66	24	17	0,6	36	6	●
2392360	B976A03800	3,80	.1496	—	—	66	24	17	0,6	36	6	●
2392361	B976A03900	3,90	.1535	—	—	66	24	17	0,6	36	6	●
2649363	B976A03970	3,97	.1563	5/32	—	66	24	17	0,7	36	6	●
1913515	B976A04000	4,00	.1575	—	—	66	24	17	0,7	36	6	●
4054498	B976A04039	4,04	.1590	—	21	66	24	17	0,7	36	6	●
2599887	B976A04100	4,10	.1614	—	—	66	24	17	0,7	36	6	●
1913516	B976A04200	4,20	.1654	—	—	66	24	17	0,7	36	6	●
2276088	B976A04300	4,30	.1693	—	—	66	24	17	0,7	36	6	●
4054499	B976A04366	4,37	.1719	11/64	—	66	24	17	0,7	36	6	●
4054500	B976A04496	4,50	.1770	—	16	66	24	17	0,7	36	6	●
1913517	B976A04500	4,50	.1772	—	—	66	24	17	0,7	36	6	●
1913518	B976A04600	4,60	.1811	—	—	66	24	17	0,8	36	6	●
3528126	B976A04620	4,62	.1819	—	—	66	24	17	0,8	36	6	●
4054501	B976A04700	4,70	.1850	—	13	66	24	17	0,8	36	6	●
2649364	B976A04763	4,76	.1875	3/16	—	66	28	20	0,8	36	6	●
1913519	B976A04800	4,80	.1890	—	12	66	28	20	0,8	36	6	●
2397687	B976A04900	4,90	.1929	—	—	66	28	20	0,8	36	6	●
1913520	B976A05000	5,00	.1969	—	—	66	28	20	0,8	36	6	●
2385356	B976A05100	5,10	.2008	—	—	66	28	20	0,9	36	6	●
4054502	B976A05106	5,11	.2010	—	7	66	28	20	0,8	36	6	●
1984183	B976A05200	5,20	.2047	—	—	66	28	20	0,9	36	6	●
3528127	B976A05250	5,25	.2067	—	—	66	28	20	0,9	36	6	●
1988932	B976A05300	5,30	.2087	—	—	66	28	20	0,9	36	6	●
2264538	B976A05400	5,40	.2126	—	—	66	28	20	0,9	36	6	●
4054503	B976A05410	5,41	.2130	—	3	66	28	20	0,9	36	6	●
1913521	B976A05500	5,50	.2165	—	—	66	28	20	0,9	36	6	●
2541535	B976A05530	5,53	.2177	—	—	66	28	20	0,9	36	6	●
4086429	B976A05558	5,56	.2188	7/32	—	66	28	20	0,9	36	6	●
2649365	B976A05575	5,58	.2195	—	—	66	28	20	0,9	36	6	●
2224587	B976A05600	5,60	.2205	—	—	66	28	20	0,9	36	6	●
6962060	B976A05650	5,65	.2224	—	—	66	28	20	0,9	36	6	●
1913522	B976A05700	5,70	.2244	—	—	66	28	20	1,0	36	6	●
4054504	B976A05791	5,79	.2280	—	1	66	28	20	1,0	36	6	●

160-163	164	86-87	98, 168

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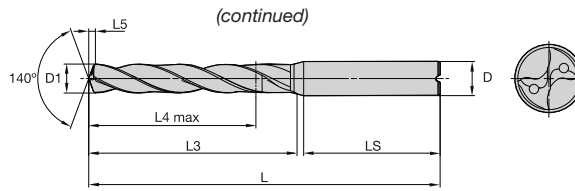
- first choice
- alternate choice

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M	○
K	●
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S	○
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		D1										D	●	KCU15
order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS				
1913523	B976A05800	5,80	.2283	—	—	66	28	20	1,0	36	6	●		
4054505	B976A05944	5,94	.2340	—	A	66	28	20	1,0	36	6	●		
1913524	B976A06000	6,00	.2362	—	—	66	28	20	1,0	36	6	●		
2455054	B976A06100	6,10	.2402	—	—	79	34	24	1,0	36	8	●		
1986773	B976A06200	6,20	.2441	—	—	79	34	24	1,0	36	8	●		
2649366	B976A06350	6,35	.2500	1/4	E	79	34	24	1,1	36	8	●		
1913525	B976A06500	6,50	.2559	—	—	79	34	24	1,1	36	8	●		
4054506	B976A06528	6,53	.2570	—	F	79	34	24	1,1	36	8	●		
3528128	B976A06530	6,53	.2571	—	—	79	34	24	1,1	36	8	●		
2231776	B976A06600	6,60	.2598	—	—	79	34	24	1,1	36	8	●		
3121287	B976A06700	6,70	.2638	—	—	79	34	24	1,1	36	8	●		
2649367	B976A06746	6,75	.2656	17/64	—	79	34	24	1,1	36	8	●		
3528129	B976A06750	6,75	.2657	—	—	79	34	24	1,1	36	8	●		
1913526	B976A06800	6,80	.2677	—	—	79	34	24	1,1	36	8	●		
2579622	B976A06900	6,90	.2717	—	—	79	34	24	1,2	36	8	●		
4054507	B976A06909	6,91	.2720	—	I	79	34	24	1,2	36	8	●		
1913527	B976A07000	7,00	.2756	—	—	79	34	24	1,2	36	8	●		
2614817	B976A07100	7,10	.2795	—	—	79	41	29	1,2	36	8	●		
2649368	B976A07145	7,15	.2813	9/32	—	79	41	29	1,2	36	8	●		
3110545	B976A07200	7,20	.2835	—	—	79	41	29	1,2	36	8	●		
2455056	B976A07300	7,30	.2874	—	—	79	41	29	1,2	36	8	●		
4054508	B976A07366	7,37	.2900	—	L	79	41	29	1,2	36	8	●		
1913528	B976A07400	7,40	.2913	—	—	79	41	29	1,3	36	8	●		
1913529	B976A07500	7,50	.2953	—	—	79	41	29	1,3	36	8	●		
2649369	B976A07541	7,54	.2969	19/64	—	79	41	29	1,3	36	8	●		
3553503	B976A07600	7,60	.2992	—	—	79	41	29	1,3	36	8	●		
2455057	B976A07700	7,70	.3031	—	—	79	41	29	1,3	36	8	●		
1913530	B976A07800	7,80	.3071	—	—	79	41	29	1,3	36	8	●		
2397689	B976A07900	7,90	.3110	—	—	79	41	29	1,3	36	8	●		
2649370	B976A07938	7,94	.3125	5/16	—	79	41	29	1,3	36	8	●		
1913531	B976A08000	8,00	.3150	—	—	79	41	29	1,4	36	8	●		
3830321	B976A08020	8,02	.3157	—	—	89	47	35	1,4	40	10	●		
2036154	B976A08100	8,10	.3189	—	—	89	47	35	1,4	40	10	●		
2390961	B976A08200	8,20	.3228	—	—	89	47	35	1,4	40	10	●		
2231777	B976A08300	8,30	.3268	—	—	89	47	35	1,4	40	10	●		
2649371	B976A08334	8,33	.3281	21/64	—	89	47	35	1,4	40	10	●		
6962061	B976A08400	8,40	.3307	—	—	89	47	35	1,4	40	10	●		
3528131	B976A08430	8,43	.3319	—	—	89	47	35	1,4	40	10	●		
4054509	B976A08433	8,43	.3320	—	Q	89	47	35	1,4	40	10	●		
1913532	B976A08500	8,50	.3346	—	—	89	47	35	1,4	40	10	●		
2222651	B976A08600	8,60	.3386	—	—	89	47	35	1,5	40	10	●		
1988983	B976A08700	8,70	.3425	—	—	89	47	35	1,5	40	10	●		
2649372	B976A08733	8,73	.3438	11/32	—	89	47	35	1,5	40	10	●		
1913533	B976A08800	8,80	.3465	—	—	89	47	35	1,5	40	10	●		
4054510	B976A08839	8,84	.3480	—	S	89	47	35	1,5	40	10	●		
1913534	B976A09000	9,00	.3543	—	—	89	47	35	1,5	40	10	●		
4054511	B976A09093	9,09	.3580	—	T	89	47	35	1,5	40	10	●		
2224588	B976A09100	9,10	.3583	—	—	89	47	35	1,5	40	10	●		
2649373	B976A09129	9,13	.3594	23/64	—	89	47	35	1,6	40	10	●		
2408308	B976A09200	9,20	.3622	—	—	89	47	35	1,6	40	10	●		
1913535	B976A09300	9,30	.3661	—	—	89	47	35	1,6	40	10	●		
3615883	B976A09400	9,40	.3701	—	—	89	47	35	1,6	40	10	●		
1913536	B976A09500	9,50	.3740	—	—	89	47	35	1,6	40	10	●		
2649374	B976A09525	9,53	.3750	3/8	—	89	47	35	1,6	40	10	●		
2231778	B976A09600	9,60	.3780	—	—	89	47	35	1,6	40	10	●		
1961106	B976A09700	9,70	.3819	—	—	89	47	35	1,7	40	10	●		
3528132	B976A09750	9,75	.3839	—	—	89	47	35	1,7	40	10	●		
1913537	B976A09800	9,80	.3858	—	—	89	47	35	1,7	40	10	●		
2649375	B976A09921	9,92	.3906	25/64	—	89	47	35	1,7	40	10	●		
1913538	B976A10000	10,00	.3937	—	—	89	47	35	1,7	40	10	●		

160-163	164	86-87	98, 168

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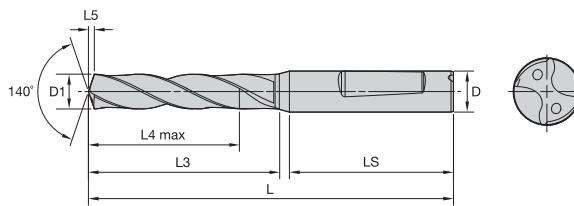
- first choice
- alternate choice

P	●
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		D1										D	KCU15
order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS			
1913539	B976A10200	10,20	.4016	—	—	102	55	40	1,7	45	12	●	
4054512	B976A10262	10,26	.4040	—	Y	102	55	40	1,8	45	12	●	
3119977	B976A10300	10,30	.4055	—	—	102	55	40	1,8	45	12	●	
2649376	B976A10320	10,32	.4063	13/32	—	102	55	40	1,8	45	12	●	
2884170	B976A10400	10,40	.4094	—	—	102	55	40	1,8	45	12	●	
1913540	B976A10500	10,50	.4134	—	—	102	55	40	1,8	45	12	●	
5057900	B976A10600	10,60	.4173	—	—	102	55	40	1,8	45	12	●	
1913541	B976A10700	10,70	.4213	—	—	102	55	40	1,8	45	12	●	
2649377	B976A10716	10,72	.4219	27/64	—	102	55	40	1,8	45	12	●	
2388784	B976A10800	10,80	.4252	—	—	102	55	40	1,8	45	12	●	
1913542	B976A11000	11,00	.4331	—	—	102	55	40	1,9	45	12	●	
2649378	B976A11113	11,11	.4375	7/16	—	102	55	40	1,9	45	12	●	
1913543	B976A11200	11,20	.4409	—	—	102	55	40	1,9	45	12	●	
2490989	B976A11300	11,30	.4449	—	—	102	55	40	1,9	45	12	●	
1913544	B976A11500	11,50	.4528	—	—	102	55	40	2,0	45	12	●	
2649379	B976A11509	11,51	.4531	29/64	—	102	55	40	2,0	45	12	●	
3791545	B976A11600	11,60	.4567	—	—	102	55	40	2,0	45	12	●	
1913545	B976A11700	11,70	.4606	—	—	102	55	40	2,0	45	12	●	
3873028	B976A11800	11,80	.4646	—	—	102	55	40	2,0	45	12	●	
2649380	B976A11908	11,91	.4688	15/32	—	102	55	40	2,0	45	12	●	
1913546	B976A12000	12,00	.4724	—	—	102	55	40	2,1	45	12	●	
2419790	B976A12300	12,30	.4843	—	—	107	60	43	2,1	45	14	●	
2649381	B976A12304	12,30	.4844	31/64	—	107	60	43	2,1	45	14	●	
1913547	B976A12500	12,50	.4921	—	—	107	60	43	2,1	45	14	●	
1913548	B976A12700	12,70	.5000	1/2	—	107	60	43	2,2	45	14	●	
2227984	B976A12800	12,80	.5039	—	—	107	60	43	2,2	45	14	●	
1913549	B976A13000	13,00	.5118	—	—	107	60	43	2,2	45	14	●	
2217898	B976A13300	13,30	.5236	—	—	107	60	43	2,3	45	14	●	
4054513	B976A13495	13,50	.5313	17/32	—	107	60	43	2,3	45	14	●	
1913550	B976A13500	13,50	.5315	—	—	107	60	43	2,3	45	14	●	
1913551	B976A13700	13,70	.5394	—	—	107	60	43	2,4	45	14	●	
1913552	B976A14000	14,00	.5512	—	—	107	60	43	2,4	45	14	●	
2226630	B976A14100	14,10	.5551	—	—	115	65	45	2,4	48	16	●	
2404108	B976A14200	14,20	.5591	—	—	115	65	45	2,5	48	16	●	
2649382	B976A14288	14,29	.5625	9/16	—	115	65	45	2,5	48	16	●	
1913553	B976A14500	14,50	.5709	—	—	115	65	45	2,5	48	16	●	
1913554	B976A14700	14,70	.5787	—	—	115	65	45	2,5	48	16	●	
1913555	B976A15000	15,00	.5906	—	—	115	65	45	2,6	48	16	●	
1913556	B976A15500	15,50	.6102	—	—	115	65	45	2,7	48	16	●	
2649383	B976A15875	15,88	.6250	5/8	—	115	65	45	2,7	48	16	●	
1913558	B976A16000	16,00	.6299	—	—	115	65	45	2,8	48	16	●	
2882164	B976A16200	16,20	.6378	—	—	123	73	51	2,8	48	18	●	
1913559	B976A16500	16,50	.6496	—	—	123	73	51	2,9	48	18	●	
4054514	B976A16670	16,67	.6563	21/32	—	123	73	51	2,9	48	18	●	
2045867	B976A16800	16,80	.6614	—	—	123	73	51	2,9	48	18	●	
1913560	B976A17000	17,00	.6693	—	—	123	73	51	2,9	48	18	●	
2397289	B976A17100	17,10	.6732	—	—	123	73	51	3,0	48	18	●	
2649384	B976A17463	17,46	.6875	11/16	—	123	73	51	3,0	48	18	●	
1913561	B976A17500	17,50	.6890	—	—	123	73	51	3,0	48	18	●	
1913562	B976A18000	18,00	.7087	—	—	123	73	51	3,1	48	18	●	
1913563	B976A18500	18,50	.7283	—	—	131	79	55	3,2	50	20	●	
1913564	B976A19000	19,00	.7480	—	—	131	79	55	3,3	50	20	●	
2649385	B976A19050	19,05	.7500	3/4	—	131	79	55	3,3	50	20	●	
1913565	B976A19500	19,50	.7677	—	—	131	79	55	3,4	50	20	●	
2044834	B976A19700	19,70	.7756	—	—	131	79	55	3,4	50	20	●	
4006503	B976A19840	19,84	.7811	—	—	131	79	55	3,5	50	20	●	
1913566	B976A20000	20,00	.7874	—	—	131	79	55	3,5	50	20	●	

160-163	164	86-87	98, 168

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- first choice
- alternate choice

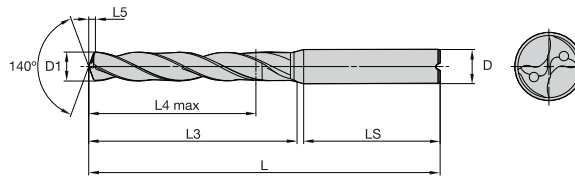
P	●
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		D1										KCU15
order number	catalog number	mm	in	fraction	L	L3	L4 max	L5	LS	D		
4006482	B976F03000	3,00	.1181	—	62	20	14	0,5	36	6	●	
3681262	B976F03900	3,90	.1535	—	66	24	17	0,6	36	6	●	
1913701	B976F04200	4,20	.1654	—	66	24	17	0,7	36	6	●	
1913702	B976F04500	4,50	.1772	—	66	24	17	0,7	36	6	●	
1913703	B976F04600	4,60	.1811	—	66	24	17	0,8	36	6	●	
1913705	B976F05000	5,00	.1969	—	66	28	20	0,8	36	6	●	
2209877	B976F05100	5,10	.2008	—	66	28	20	0,8	36	6	●	
2215328	B976F05200	5,20	.2047	—	66	28	20	0,9	36	6	●	
1913706	B976F05500	5,50	.2165	—	66	28	20	0,9	36	6	●	
2264996	B976F05600	5,60	.2205	—	66	28	20	0,9	36	6	●	
1913708	B976F05800	5,80	.2283	—	66	28	20	1,0	36	6	●	
1913709	B976F06000	6,00	.2362	—	66	28	20	1,0	36	6	●	
2264976	B976F06300	6,30	.2480	—	79	34	24	1,1	36	8	●	
2264977	B976F06400	6,40	.2520	—	79	34	24	1,1	36	8	●	
1913711	B976F06800	6,80	.2677	—	79	34	24	1,1	36	8	●	
1913712	B976F07000	7,00	.2756	—	79	34	24	1,2	36	8	●	
2264978	B976F07100	7,10	.2795	—	79	41	29	1,2	36	8	●	
1913715	B976F07800	7,80	.3071	—	79	41	29	1,3	36	8	●	
1913716	B976F08000	8,00	.3150	—	79	41	29	1,4	36	8	●	
2264941	B976F08300	8,30	.3268	—	89	47	35	1,4	40	10	●	
1913717	B976F08500	8,50	.3346	—	89	47	35	1,4	40	10	●	
2264897	B976F08600	8,60	.3386	—	89	47	35	1,5	40	10	●	
2264898	B976F08700	8,70	.3425	—	89	47	35	1,5	40	10	●	
1913718	B976F08800	8,80	.3465	—	89	47	35	1,5	40	10	●	
1913719	B976F09000	9,00	.3543	—	89	47	35	1,5	40	10	●	
1913723	B976F10000	10,00	.3937	—	89	47	35	1,7	40	10	●	
1913724	B976F10200	10,20	.4016	—	102	55	40	1,7	45	12	●	
1913725	B976F10500	10,50	.4134	—	102	55	40	1,8	45	12	●	
1913726	B976F10700	10,70	.4213	—	102	55	40	1,8	45	12	●	
2264912	B976F10800	10,80	.4252	—	102	55	40	1,8	45	12	●	
1913727	B976F11000	11,00	.4331	—	102	55	40	1,9	45	12	●	
1913730	B976F11700	11,70	.4606	—	102	55	40	2,0	45	12	●	
1913731	B976F12000	12,00	.4724	—	102	55	40	2,1	45	12	●	
1913732	B976F12500	12,50	.4921	—	107	60	43	2,1	45	14	●	
1913733	B976F12700	12,70	.5000	1/2	107	60	43	2,2	45	14	●	
1913734	B976F13000	13,00	.5118	—	107	60	43	2,2	45	14	●	
1913735	B976F13500	13,50	.5315	—	107	60	43	2,3	45	14	●	
1913736	B976F13700	13,70	.5394	—	107	60	43	2,4	45	14	●	
1913737	B976F14000	14,00	.5512	—	107	60	43	2,4	45	14	●	
1913738	B976F14500	14,50	.5709	—	115	65	45	2,5	48	16	●	
1913740	B976F15000	15,00	.5906	—	115	65	45	2,6	48	16	●	
6133107	B976F15400	15,40	.6063	—	115	65	45	2,7	48	16	●	
1913743	B976F16000	16,00	.6299	—	115	65	45	2,8	48	16	●	
1913744	B976F16500	16,50	.6496	—	123	73	51	2,9	48	18	●	
1913745	B976F17000	17,00	.6693	—	123	73	51	2,9	48	18	●	
5118592	B976F17500	17,50	.6890	—	123	73	51	3,0	48	18	●	
1913747	B976F18000	18,00	.7087	—	123	73	51	3,1	48	18	●	
1913748	B976F18500	18,50	.7283	—	131	79	55	3,2	50	20	●	

160-163	164	86-87	98, 168



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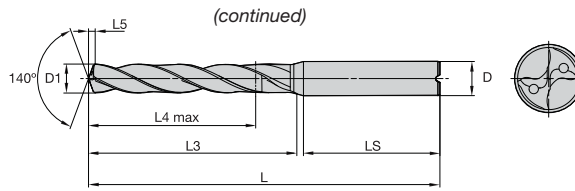
P	●
M	○
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N	○
S	○
H	○

order number	catalog number	D1				L	L3	L4 max	L5	LS	D	KCU15
		mm	in	fraction	wire size							
2425285	B977A03000	3,00	.1181	—	—	66	28	23	0,5	36	6	●
2425288	B977A03100	3,10	.1220	—	—	66	28	23	0,5	36	6	●
4054515	B977A03175	3,18	.1250	1/8	—	66	28	23	0,5	36	6	●
2425290	B977A03200	3,20	.1260	—	—	66	28	23	0,5	36	6	●
3480435	B977A03250	3,25	.1280	—	—	66	28	23	0,5	36	6	●
1959665	B977A03300	3,30	.1299	—	—	66	28	23	0,5	36	6	●
2425292	B977A03400	3,40	.1339	—	—	66	28	23	0,6	36	6	●
4086430	B977A03454	3,45	.1360	—	29	66	28	23	0,6	36	6	●
2425303	B977A03500	3,50	.1378	—	—	66	28	23	0,6	36	6	●
2425304	B977A03600	3,60	.1417	—	—	66	28	23	0,6	36	6	●
2425305	B977A03700	3,70	.1457	—	—	66	28	23	0,6	36	6	●
4054516	B977A03734	3,73	.1470	—	26	66	28	23	0,6	36	6	●
4054517	B977A03797	3,80	.1495	—	25	74	36	29	0,6	36	6	●
2425306	B977A03800	3,80	.1496	—	—	74	36	29	0,6	36	6	●
2203489	B977A03900	3,90	.1535	—	—	74	36	29	0,6	36	6	●
2649386	B977A03970	3,97	.1563	5/32	—	74	36	29	0,7	36	6	●
1913567	B977A04000	4,00	.1575	—	—	74	36	29	0,7	36	6	●
4054518	B977A04039	4,04	.1590	—	21	74	36	29	0,7	36	6	●
2416279	B977A04100	4,10	.1614	—	—	74	36	29	0,7	36	6	●
1913568	B977A04200	4,20	.1654	—	—	74	36	29	0,7	36	6	●
2040680	B977A04300	4,30	.1693	—	—	74	36	29	0,7	36	6	●
4054519	B977A04366	4,37	.1719	11/64	—	74	36	29	0,7	36	6	●
2425309	B977A04400	4,40	.1732	—	—	74	36	29	0,7	36	6	●
4054520	B977A04496	4,50	.1770	—	16	74	36	29	0,7	36	6	●
1913569	B977A04500	4,50	.1772	—	—	74	36	29	0,7	36	6	●
2649387	B977A04580	4,58	.1803	—	15	74	36	29	0,8	36	6	●
1913570	B977A04600	4,60	.1811	—	—	74	36	29	0,8	36	6	●
2649388	B977A04623	4,62	.1820	—	14	74	36	29	0,8	36	6	●
2965409	B977A04650	4,65	.1831	—	—	74	36	29	0,8	36	6	●
2425310	B977A04700	4,70	.1850	—	13	74	36	29	0,8	36	6	●
2649389	B977A04763	4,76	.1875	3/16	—	82	44	35	0,8	36	6	●
1913571	B977A04800	4,80	.1890	—	12	82	44	35	0,8	36	6	●
2396971	B977A04900	4,90	.1929	—	—	82	44	35	0,8	36	6	●
1913572	B977A05000	5,00	.1969	—	—	82	44	35	0,8	36	6	●
2049487	B977A05100	5,10	.2008	—	—	82	44	35	0,8	36	6	●
4054521	B977A05106	5,11	.2010	—	7	82	44	35	0,8	36	6	●
1975006	B977A05200	5,20	.2047	—	—	82	44	35	0,9	36	6	●
2202510	B977A05300	5,30	.2087	—	—	82	44	35	0,9	36	6	●
2425311	B977A05400	5,40	.2126	—	—	82	44	35	0,9	36	6	●
2649390	B977A05410	5,41	.2130	—	3	82	44	35	0,9	36	6	●
1913573	B977A05500	5,50	.2165	—	—	82	44	35	0,9	36	6	●
2649391	B977A05558	5,56	.2188	7/32	—	82	44	35	0,9	36	6	●
1959664	B977A05600	5,60	.2205	—	—	82	44	35	0,9	36	6	●
1988931	B977A05700	5,70	.2244	—	—	82	44	35	1,0	36	6	●
4054522	B977A05791	5,79	.2280	—	1	82	44	35	1,0	36	6	●
1913574	B977A05800	5,80	.2283	—	—	82	44	35	1,0	36	6	●
2228362	B977A05900	5,90	.2323	—	—	82	44	35	1,0	36	6	●
4054523	B977A05944	5,94	.2340	—	A	82	44	35	1,0	36	6	●
1913575	B977A06000	6,00	.2362	—	—	82	44	35	1,0	36	6	●
2043779	B977A06100	6,10	.2402	—	—	91	53	43	1,0	36	8	●
4132877	B977A06150	6,15	.2421	—	—	91	53	43	1,0	36	8	●
2425323	B977A06200	6,20	.2441	—	—	91	53	43	1,0	36	8	●
2425324	B977A06300	6,30	.2480	—	—	91	53	43	1,1	36	8	●
2383552	B977A06350	6,35	.2500	1/4	E	91	53	43	1,1	36	8	●
2383778	B977A06400	6,40	.2520	—	—	91	53	43	1,1	36	8	●
1913576	B977A06500	6,50	.2559	—	—	91	53	43	1,1	36	8	●
2658213	B977A06528	6,53	.2570	—	F	91	53	43	1,1	36	8	●
2425325	B977A06600	6,60	.2598	—	—	91	53	43	1,1	36	8	●
2230539	B977A06700	6,70	.2638	—	—	91	53	43	1,1	36	8	●
1913577	B977A06800	6,80	.2677	—	—	91	53	43	1,1	36	8	●

160-163	164	86-87	98, 168



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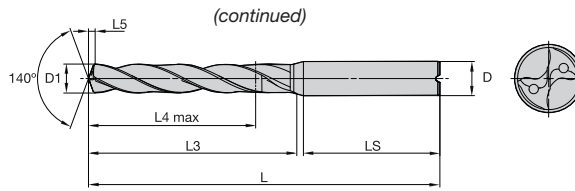
P	●
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order number	catalog number	D1					L	L3	L4 max	L5	LS	D	KCUT5
		mm	in	fraction	wire size								
1959666	B977A06900	6,90	.2717	—	—	91	53	43	1,2	36	8	●	
2658215	B977A06909	6,91	.2720	—	I	91	53	43	1,2	36	8	●	
1913578	B977A07000	7,00	.2756	—	—	91	53	43	1,2	36	8	●	
2203579	B977A07100	7,10	.2795	—	—	91	53	43	1,2	36	8	●	
2658216	B977A07145	7,15	.2813	9/32	—	91	53	43	1,2	36	8	●	
2264019	B977A07200	7,20	.2835	—	—	91	53	43	1,2	36	8	●	
2425326	B977A07300	7,30	.2874	—	—	91	53	43	1,2	36	8	●	
4054524	B977A07366	7,37	.2900	—	L	91	53	43	1,2	36	8	●	
1913579	B977A07400	7,40	.2913	—	—	91	53	43	1,3	36	8	●	
1913580	B977A07500	7,50	.2953	—	—	91	53	43	1,3	36	8	●	
2658217	B977A07541	7,54	.2969	19/64	—	91	53	43	1,3	36	8	●	
2425330	B977A07600	7,60	.2992	—	—	91	53	43	1,3	36	8	●	
1992230	B977A07700	7,70	.3031	—	—	91	53	43	1,3	36	8	●	
1913581	B977A07800	7,80	.3071	—	—	91	53	43	1,3	36	8	●	
2425328	B977A07900	7,90	.3110	—	—	91	53	43	1,3	36	8	●	
2658218	B977A07938	7,94	.3125	5/16	—	91	53	43	1,3	36	8	●	
1913582	B977A08000	8,00	.3150	—	—	91	53	43	1,4	36	8	●	
3102669	B977A08020	8,02	.3157	—	—	103	61	49	1,4	40	10	●	
2244229	B977A08100	8,10	.3189	—	—	103	61	49	1,4	40	10	●	
1986652	B977A08200	8,20	.3228	—	—	103	61	49	1,4	40	10	●	
2390123	B977A08300	8,30	.3268	—	—	103	61	49	1,4	40	10	●	
2658219	B977A08334	8,33	.3281	21/64	—	103	61	49	1,4	40	10	●	
2236065	B977A08400	8,40	.3307	—	—	103	61	49	1,4	40	10	●	
2658220	B977A08433	8,43	.3320	—	Q	103	61	49	1,4	40	10	●	
1913583	B977A08500	8,50	.3346	—	—	103	61	49	1,4	40	10	●	
2425331	B977A08600	8,60	.3386	—	—	103	61	49	1,5	40	10	●	
2203834	B977A08700	8,70	.3425	—	—	103	61	49	1,5	40	10	●	
2658221	B977A08733	8,73	.3438	11/32	—	103	61	49	1,5	40	10	●	
1913584	B977A08800	8,80	.3465	—	—	103	61	49	1,5	40	10	●	
4054525	B977A08839	8,84	.3480	—	S	103	61	49	1,5	40	10	●	
1971763	B977A08900	8,90	.3504	—	—	103	61	49	1,5	40	10	●	
1913585	B977A09000	9,00	.3543	—	—	103	61	49	1,5	40	10	●	
4054526	B977A09093	9,09	.3580	—	T	103	61	49	1,5	40	10	●	
2425332	B977A09100	9,10	.3583	—	—	103	61	49	1,5	40	10	●	
2658222	B977A09129	9,13	.3594	23/64	—	103	61	49	1,6	40	10	●	
2218492	B977A09200	9,20	.3622	—	—	103	61	49	1,6	40	10	●	
1913586	B977A09300	9,30	.3661	—	—	103	61	49	1,6	40	10	●	
2658223	B977A09347	9,35	.3680	—	U	103	61	49	1,6	40	10	●	
2408209	B977A09400	9,40	.3701	—	—	103	61	49	1,6	40	10	●	
1913587	B977A09500	9,50	.3740	—	—	103	61	49	1,6	40	10	●	
2658224	B977A09525	9,53	.3750	3/8	—	103	61	49	1,6	40	10	●	
2425344	B977A09600	9,60	.3780	—	—	103	61	49	1,6	40	10	●	
1939528	B977A09700	9,70	.3819	—	—	103	61	49	1,7	40	10	●	
2658214	B977A09746	9,75	.3837	—	—	103	61	49	1,7	40	10	●	
1913588	B977A09800	9,80	.3858	—	—	103	61	49	1,7	40	10	●	
2245191	B977A09900	9,90	.3898	—	—	103	61	49	1,7	40	10	●	
2658226	B977A09921	9,92	.3906	25/64	—	103	61	49	1,7	40	10	●	
1913589	B977A10000	10,00	.3937	—	—	103	61	49	1,7	40	10	●	
2407294	B977A10100	10,10	.3976	—	—	118	71	56	1,7	45	12	●	
1913590	B977A10200	10,20	.4016	—	—	118	71	56	1,7	45	12	●	
4054527	B977A10262	10,26	.4040	—	Y	118	71	56	1,8	45	12	●	
2240351	B977A10300	10,30	.4055	—	—	118	71	56	1,8	45	12	●	
2658227	B977A10320	10,32	.4063	13/32	—	118	71	56	1,8	45	12	●	
2425455	B977A10400	10,40	.4094	—	—	118	71	56	1,8	45	12	●	
1913591	B977A10500	10,50	.4134	—	—	118	71	56	1,8	45	12	●	
2043417	B977A10600	10,60	.4173	—	—	118	71	56	1,8	45	12	●	
1913592	B977A10700	10,70	.4213	—	—	118	71	56	1,8	45	12	●	
2658228	B977A10716	10,72	.4219	27/64	—	118	71	56	1,8	45	12	●	
2256918	B977A10800	10,80	.4252	—	—	118	71	56	1,8	45	12	●	
2425457	B977A10900	10,90	.4291	—	—	118	71	56	1,9	45	12	●	

160-163	164	86-87	98, 168



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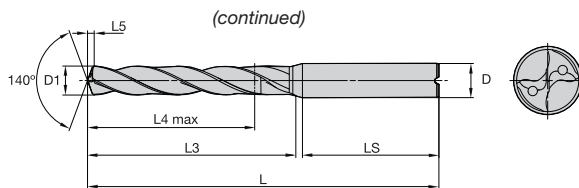
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order number	catalog number	D1				L	L3	L4 max	L5	LS	D	KCUT5
		mm	in	fraction	wire size							
1913593	B977A11000	11,00	.4331	—	—	118	71	56	1,9	45	12	●
2264020	B977A11100	11,10	.4370	—	—	118	71	56	1,9	45	12	●
2658229	B977A11113	11,11	.4375	7/16	—	118	71	56	1,9	45	12	●
1913594	B977A11200	11,20	.4409	—	—	118	71	56	1,9	45	12	●
2425456	B977A11300	11,30	.4449	—	—	118	71	56	1,9	45	12	●
2425381	B977A11400	11,40	.4488	—	—	118	71	56	2,0	45	12	●
1913595	B977A11500	11,50	.4528	—	—	118	71	56	2,0	45	12	●
2658230	B977A11509	11,51	.4531	29/64	—	118	71	56	2,0	45	12	●
2045822	B977A11600	11,60	.4567	—	—	118	71	56	2,0	45	12	●
1913596	B977A11700	11,70	.4606	—	—	118	71	56	2,0	45	12	●
2049488	B977A11800	11,80	.4646	—	—	118	71	56	2,0	45	12	●
2272493	B977A11900	11,90	.4685	—	—	118	71	56	2,0	45	12	●
2658231	B977A11908	11,91	.4688	15/32	—	118	71	56	2,0	45	12	●
1913597	B977A12000	12,00	.4724	—	—	118	71	56	2,1	45	12	●
2384430	B977A12100	12,10	.4764	—	—	124	77	60	2,1	45	14	●
2049489	B977A12200	12,20	.4803	—	—	124	77	60	2,1	45	14	●
2045820	B977A12300	12,30	.4843	—	—	124	77	60	2,1	45	14	●
2658232	B977A12304	12,30	.4844	31/64	—	124	77	60	2,1	45	14	●
2425380	B977A12400	12,40	.4882	—	—	124	77	60	2,1	45	14	●
1913598	B977A12500	12,50	.4921	—	—	124	77	60	2,2	45	14	●
2203577	B977A12600	12,60	.4961	—	—	124	77	60	2,2	45	14	●
1913599	B977A12700	12,70	.5000	1/2	—	124	77	60	2,2	45	14	●
1941189	B977A12800	12,80	.5039	—	—	124	77	60	2,2	45	14	●
2226662	B977A12900	12,90	.5079	—	—	124	77	60	2,2	45	14	●
1913600	B977A13000	13,00	.5118	—	—	124	77	60	2,2	45	14	●
2658234	B977A13096	13,10	.5156	33/64	—	124	77	60	2,3	45	14	●
2401853	B977A13100	13,10	.5157	—	—	124	77	60	2,3	45	14	●
2655215	B977A13200	13,20	.5197	—	—	124	77	60	2,3	45	14	●
2229138	B977A13300	13,30	.5236	—	—	124	77	60	2,3	45	14	●
4054528	B977A13495	13,50	.5313	17/32	—	124	77	60	2,3	45	14	●
1913601	B977A13500	13,50	.5315	—	—	124	77	60	2,3	45	14	●
1913602	B977A13700	13,70	.5394	—	—	124	77	60	2,4	45	14	●
2251639	B977A13800	13,80	.5433	—	—	124	77	60	2,4	45	14	●
1913603	B977A14000	14,00	.5512	—	—	124	77	60	2,4	45	14	●
3180571	B977A14100	14,10	.5551	—	—	133	83	63	2,4	48	16	●
2230406	B977A14200	14,20	.5591	—	—	133	83	63	2,5	48	16	●
2658235	B977A14288	14,29	.5625	9/16	—	133	83	63	2,5	48	16	●
1913604	B977A14500	14,50	.5709	—	—	133	83	63	2,5	48	16	●
2043418	B977A14600	14,60	.5748	—	—	133	83	63	2,5	48	16	●
1913605	B977A14700	14,70	.5787	—	—	133	83	63	2,5	48	16	●
2606867	B977A14800	14,80	.5827	—	—	133	83	63	2,6	48	16	●
1960078	B977A14900	14,90	.5866	—	—	133	83	63	2,6	48	16	●
1913606	B977A15000	15,00	.5906	—	—	133	83	63	2,6	48	16	●
1960079	B977A15100	15,10	.5945	—	—	133	83	63	2,6	48	16	●
2506705	B977A15200	15,20	.5984	—	—	133	83	63	2,6	48	16	●
2635436	B977A15300	15,30	.6024	—	—	133	83	63	2,6	48	16	●
1913607	B977A15500	15,50	.6102	—	—	133	83	63	2,7	48	16	●
1913608	B977A15700	15,70	.6181	—	—	133	83	63	2,7	48	16	●
1941190	B977A15800	15,80	.6220	—	—	133	83	63	2,7	48	16	●
2658236	B977A15875	15,88	.6250	5/8	—	133	83	63	2,7	48	16	●
2245263	B977A15900	15,90	.6260	—	—	133	83	63	2,8	48	16	●
1913609	B977A16000	16,00	.6299	—	—	133	83	63	2,8	48	16	●
2658237	B977A16078	16,08	.6330	—	—	143	93	71	2,8	48	18	●
2203787	B977A16200	16,20	.6378	—	—	143	93	71	2,8	48	18	●
5309298	B977A16300	16,30	.6417	—	—	143	93	71	2,8	48	18	●
2416198	B977A16400	16,40	.6457	—	—	143	93	71	2,8	48	18	●
1913610	B977A16500	16,50	.6496	—	—	143	93	71	2,9	48	18	●
2233364	B977A16600	16,60	.6535	—	—	143	93	71	2,9	48	18	●
4086431	B977A16670	16,67	.6563	21/32	—	143	93	71	2,9	48	18	●
2264017	B977A16700	16,70	.6575	—	—	143	93	71	2,9	48	18	●

160-163	164	86-87	98, 168



Kenna Universal™ • B977 • 5 x D • Internal Coolant • Straight Shank



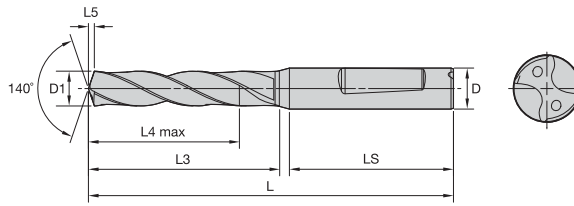
- first choice
- alternate choice

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K	●
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S	○
H	○

order number	catalog number	D1		fraction	wire size	L	L3	L4 max	L5	LS	D	KCU15
		mm	in									
1913611	B977A17000	17,00	.6693	—	—	143	93	71	2,9	48	18	●
2658239	B977A17463	17,46	.6875	11/16	—	143	93	71	3,0	48	18	●
1913612	B977A17500	17,50	.6890	—	—	143	93	71	3,0	48	18	●
2391872	B977A17700	17,70	.6969	—	—	143	93	71	3,1	48	18	●
1913613	B977A18000	18,00	.7087	—	—	143	93	71	3,1	48	18	●
2276090	B977A18400	18,40	.7244	—	—	153	101	77	3,2	50	20	●
1913614	B977A18500	18,50	.7283	—	—	153	101	77	3,2	50	20	●
2276698	B977A18600	18,60	.7323	—	—	153	101	77	3,2	50	20	●
2244276	B977A18800	18,80	.7402	—	—	153	101	77	3,3	50	20	●
1913615	B977A19000	19,00	.7480	—	—	153	101	77	3,3	50	20	●
2658240	B977A19050	19,05	.7500	3/4	—	153	101	77	3,3	50	20	●
2229054	B977A19200	19,20	.7559	—	—	153	101	77	3,3	50	20	●
2658241	B977A19253	19,25	.7580	—	—	153	101	77	3,3	50	20	●
2658242	B977A19446	19,45	.7656	49/64	—	153	101	77	3,4	50	20	●
1913616	B977A19500	19,50	.7677	—	—	153	101	77	3,4	50	20	●
2386665	B977A19700	19,70	.7756	—	—	153	101	77	3,4	50	20	●
4006504	B977A19840	19,84	.7811	—	—	153	101	77	3,5	50	20	●
1913617	B977A20000	20,00	.7874	—	—	153	101	77	3,5	50	20	●
2818063	B977A21000	21,00	.8268	—	—	167	112	85	3,7	50	20	●

160-163	164	86-87	98, 168

Kenna Universal™ • B977 • 5 x D • Internal Coolant • Whistle Notch™ Shank



● first choice
○ alternate choice

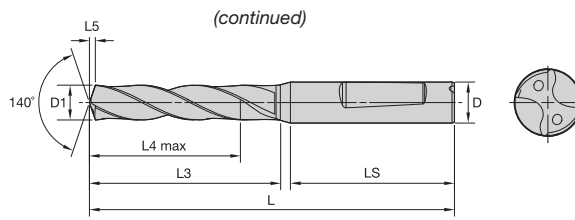
P	●
M	○
K	●
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H	○

order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS	D	KCU15
2605709	B977F03000	3,00	.1181	—	—	66	28	23	0,5	36	6	●
3861272	B977F03100	3,10	.1220	—	—	66	28	23	0,5	36	6	●
3043177	B977F03200	3,20	.1260	—	—	66	28	23	0,5	36	6	●
1962706	B977F03300	3,30	.1299	—	—	66	28	23	0,5	36	6	●
2643468	B977F03400	3,40	.1339	—	—	66	28	23	0,6	36	6	●
2544251	B977F03500	3,50	.1378	—	—	66	28	23	0,6	36	6	●
3594438	B977F03600	3,60	.1417	—	—	66	28	23	0,6	36	6	●
2041877	B977F03700	3,70	.1457	—	—	66	28	23	0,6	36	6	●
2499960	B977F03800	3,80	.1496	—	—	74	36	29	0,6	36	6	●
2647585	B977F03900	3,90	.1535	—	—	74	36	29	0,6	36	6	●
1913752	B977F04000	4,00	.1575	—	—	74	36	29	0,7	36	6	●
2264981	B977F04100	4,10	.1614	—	—	74	36	29	0,7	36	6	●
1913753	B977F04200	4,20	.1654	—	—	74	36	29	0,7	36	6	●
2264903	B977F04300	4,30	.1693	—	—	74	36	29	0,7	36	6	●
1913754	B977F04500	4,50	.1772	—	—	74	36	29	0,7	36	6	●
3594435	B977F04550	4,55	.1791	—	—	74	36	29	0,8	36	6	●
1913755	B977F04600	4,60	.1811	—	—	74	36	29	0,8	36	6	●
2543238	B977F04650	4,65	.1831	—	—	74	36	29	0,8	36	6	●
2264931	B977F04700	4,70	.1850	—	13	74	36	29	0,8	36	6	●
1913756	B977F04800	4,80	.1890	—	12	82	44	35	0,8	36	6	●
2264885	B977F04900	4,90	.1929	—	—	82	44	35	0,8	36	6	●
1913757	B977F05000	5,00	.1969	—	—	82	44	35	0,8	36	6	●
1970761	B977F05100	5,10	.2008	—	—	82	44	35	0,8	36	6	●
2264921	B977F05200	5,20	.2047	—	—	82	44	35	0,9	36	6	●
2213726	B977F05300	5,30	.2087	—	—	82	44	35	0,9	36	6	●
2264932	B977F05400	5,40	.2126	—	—	82	44	35	0,9	36	6	●
1913758	B977F05500	5,50	.2165	—	—	82	44	35	0,9	36	6	●
2049505	B977F05550	5,55	.2185	—	—	82	44	35	0,9	36	6	●
3496233	B977F05558	5,56	.2188	7/32	—	82	44	35	0,9	36	6	●
1962705	B977F05600	5,60	.2205	—	—	82	44	35	0,9	36	6	●
2264983	B977F05700	5,70	.2244	—	—	82	44	35	1,0	36	6	●
1913759	B977F05800	5,80	.2283	—	—	82	44	35	1,0	36	6	●
2264952	B977F05900	5,90	.2323	—	—	82	44	35	1,0	36	6	●
1913760	B977F06000	6,00	.2362	—	—	82	44	35	1,0	36	6	●
2001853	B977F06100	6,10	.2402	—	—	91	53	43	1,0	36	8	●
2001854	B977F06300	6,30	.2480	—	—	91	53	43	1,1	36	8	●
2265008	B977F06400	6,40	.2520	—	—	91	53	43	1,1	36	8	●
1913761	B977F06500	6,50	.2559	—	—	91	53	43	1,1	36	8	●
2263756	B977F06600	6,60	.2598	—	—	91	53	43	1,1	36	8	●
2204114	B977F06700	6,70	.2638	—	—	91	53	43	1,1	36	8	●
1913762	B977F06800	6,80	.2677	—	—	91	53	43	1,1	36	8	●
1962704	B977F06900	6,90	.2717	—	—	91	53	43	1,2	36	8	●
1913763	B977F07000	7,00	.2756	—	—	91	53	43	1,2	36	8	●
5175059	B977F07100	7,10	.2795	—	—	91	53	43	1,2	36	8	●
1913764	B977F07400	7,40	.2913	—	—	91	53	43	1,3	36	8	●
1913765	B977F07500	7,50	.2953	—	—	91	53	43	1,3	36	8	●
1913766	B977F07800	7,80	.3071	—	—	91	53	43	1,3	36	8	●
1913767	B977F08000	8,00	.3150	—	—	91	53	43	1,4	36	8	●
1988291	B977F08100	8,10	.3189	—	—	103	61	49	1,4	40	10	●
2227264	B977F08200	8,20	.3228	—	—	103	61	49	1,4	40	10	●
1913768	B977F08500	8,50	.3346	—	—	103	61	49	1,4	40	10	●
2047751	B977F08600	8,60	.3386	—	—	103	61	49	1,5	40	10	●
2260660	B977F08700	8,70	.3425	—	—	103	61	49	1,5	40	10	●
1913769	B977F08800	8,80	.3465	—	—	103	61	49	1,5	40	10	●
1913770	B977F09000	9,00	.3543	—	—	103	61	49	1,5	40	10	●
2251337	B977F09100	9,10	.3583	—	—	103	61	49	1,5	40	10	●
1913771	B977F09300	9,30	.3661	—	—	103	61	49	1,6	40	10	●
1913772	B977F09500	9,50	.3740	—	—	103	61	49	1,6	40	10	●
1913773	B977F09800	9,80	.3858	—	—	103	61	49	1,7	40	10	●
2264915	B977F09900	9,90	.3898	—	—	103	61	49	1,7	40	10	●

160-163	164	86-87	98, 168



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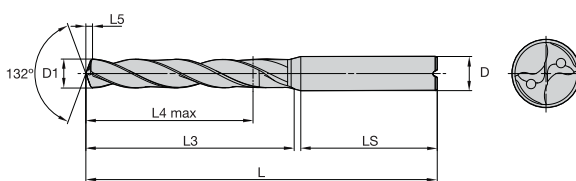
- first choice
- alternate choice

P	●
M	○
K	●
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order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS	D	KCU15
1913774	B977F10000	10,00	.3937	—	—	103	61	49	1,7	40	10	●
2251340	B977F10100	10,10	.3976	—	—	118	71	56	1,7	45	12	●
1913775	B977F10200	10,20	.4016	—	—	118	71	56	1,7	45	12	●
2264876	B977F10300	10,30	.4055	—	—	118	71	56	1,8	45	12	●
2264905	B977F10400	10,40	.4094	—	—	118	71	56	1,8	45	12	●
1913776	B977F10500	10,50	.4134	—	—	118	71	56	1,8	45	12	●
1913777	B977F10700	10,70	.4213	—	—	118	71	56	1,8	45	12	●
1989874	B977F10800	10,80	.4252	—	—	118	71	56	1,8	45	12	●
1913778	B977F11000	11,00	.4331	—	—	118	71	56	1,9	45	12	●
1913779	B977F11200	11,20	.4409	—	—	118	71	56	1,9	45	12	●
1913780	B977F11500	11,50	.4528	—	—	118	71	56	2,0	45	12	●
1913781	B977F11700	11,70	.4606	—	—	118	71	56	2,0	45	12	●
1959586	B977F11800	11,80	.4646	—	—	118	71	56	2,0	45	12	●
1913782	B977F12000	12,00	.4724	—	—	118	71	56	2,1	45	12	●
2428859	B977F12300	12,30	.4843	—	—	124	77	60	2,1	45	14	●
1913783	B977F12500	12,50	.4921	—	—	124	77	60	2,1	45	14	●
1913784	B977F12700	12,70	.5000	1/2	—	124	77	60	2,2	45	14	●
1913785	B977F13000	13,00	.5118	—	—	124	77	60	2,2	45	14	●
1913786	B977F13500	13,50	.5315	—	—	124	77	60	2,3	45	14	●
2264881	B977F13800	13,80	.5433	—	—	124	77	60	2,4	45	14	●
1913788	B977F14000	14,00	.5512	—	—	124	77	60	2,4	45	14	●
2046287	B977F14200	14,20	.5591	—	—	133	83	63	2,5	48	16	●
1913789	B977F14500	14,50	.5709	—	—	133	83	63	2,5	48	16	●
1913791	B977F15000	15,00	.5906	—	—	133	83	63	2,6	48	16	●
2038795	B977F15200	15,20	.5984	—	—	133	83	63	2,6	48	16	●
1913792	B977F15500	15,50	.6102	—	—	133	83	63	2,7	48	16	●
1913793	B977F15700	15,70	.6181	—	—	133	83	63	2,7	48	16	●
2264864	B977F15800	15,80	.6220	—	—	133	83	63	2,7	48	16	●
1913794	B977F16000	16,00	.6299	—	—	133	83	63	2,8	48	16	●
1913795	B977F16500	16,50	.6496	—	—	143	93	71	2,9	48	18	●
1913796	B977F17000	17,00	.6693	—	—	143	93	71	2,9	48	18	●
1913797	B977F17500	17,50	.6890	—	—	143	93	71	3,0	48	18	●
1913798	B977F18000	18,00	.7087	—	—	143	93	71	3,1	48	18	●
1913799	B977F18500	18,50	.7283	—	—	153	101	77	3,2	50	20	●
1913800	B977F19000	19,00	.7480	—	—	153	101	77	3,3	50	20	●
1913801	B977F19500	19,50	.7677	—	—	153	101	77	3,4	50	20	●
1913802	B977F20000	20,00	.7874	—	—	153	101	77	3,5	50	20	●
2204113	B977F21000	21,00	.8268	—	—	167	112	85	3,7	50	20	●

160-163	164	86-87	98, 168

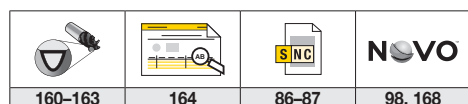
Kenna Universal™ • B978 • 8 x D • Internal Coolant • Straight Shank



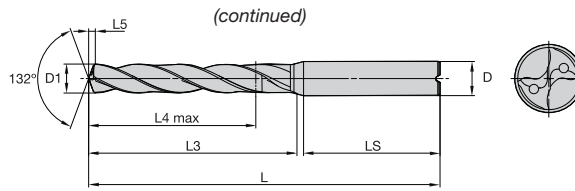
● first choice
○ alternate choice

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order number	catalog number	D1				L	L3	L4 max	L5	LS	D	KCU15
		mm	in	fraction	wire size							
3782458	B978A03000	3,00	.1181	—	—	78	40	33	0,6	36	6	●
3903498	B978A03300	3,30	.1299	—	—	78	40	33	0,7	36	6	●
5059278	B978A03400	3,40	.1339	—	—	78	40	33	0,7	36	6	●
5132051	B978A03600	3,60	.1417	—	—	78	40	33	0,7	36	6	●
3057117	B978A03700	3,70	.1457	—	—	78	40	33	0,8	36	6	●
5006833	B978A03800	3,80	.1496	—	—	87	49	41	0,8	36	6	●
2658393	B978A03970	3,97	.1563	5/32	—	87	49	41	0,8	36	6	●
2888306	B978A04000	4,00	.1575	—	—	87	49	41	0,8	36	6	●
3858210	B978A04200	4,20	.1654	—	—	87	49	41	0,9	36	6	●
3593089	B978A04500	4,50	.1772	—	—	87	49	41	0,9	36	6	●
2620169	B978A04600	4,60	.1811	—	—	87	49	41	1,0	36	6	●
2658394	B978A04763	4,76	.1875	3/16	—	94	56	48	1,0	36	6	●
4025911	B978A04800	4,80	.1890	—	12	94	56	48	1,0	36	6	●
1913618	B978A05000	5,00	.1969	—	—	94	56	48	1,0	36	6	●
2264933	B978A05100	5,10	.2008	—	—	94	56	48	1,1	36	6	●
2264934	B978A05200	5,20	.2047	—	—	94	56	48	1,1	36	6	●
2264889	B978A05300	5,30	.2087	—	—	94	56	48	1,1	36	6	●
1913619	B978A05500	5,50	.2165	—	—	94	56	48	1,1	36	6	●
2658395	B978A05558	5,56	.2188	7/32	—	94	56	48	1,2	36	6	●
3592190	B978A05600	5,60	.2205	—	—	94	56	48	1,2	36	6	●
2043415	B978A05700	5,70	.2244	—	—	94	56	48	1,2	36	6	●
2875584	B978A05800	5,80	.2283	—	—	94	56	48	1,2	36	6	●
2979048	B978A05900	5,90	.2323	—	—	94	56	48	1,2	36	6	●
1913620	B978A06000	6,00	.2362	—	—	94	56	48	1,3	36	6	●
2261701	B978A06100	6,10	.2402	—	—	105	67	57	1,3	36	8	●
2264928	B978A06200	6,20	.2441	—	—	105	67	57	1,3	36	8	●
2264970	B978A06300	6,30	.2480	—	—	105	67	57	1,3	36	8	●
2658396	B978A06350	6,35	.2500	1/4	E	105	67	57	1,3	36	8	●
2264971	B978A06400	6,40	.2520	—	—	105	67	57	1,3	36	8	●
1913621	B978A06500	6,50	.2559	—	—	105	67	57	1,4	36	8	●
2242780	B978A06600	6,60	.2598	—	—	105	67	57	1,4	36	8	●
2264972	B978A06700	6,70	.2638	—	—	105	67	57	1,4	36	8	●
2658397	B978A06746	6,75	.2656	17/64	—	105	67	57	1,4	36	8	●
1913622	B978A06800	6,80	.2677	—	—	105	67	57	1,4	36	8	●
1913623	B978A07000	7,00	.2756	—	—	105	67	57	1,5	36	8	●
2658398	B978A07145	7,15	.2813	9/32	—	113	74	64	1,5	36	8	●
3057121	B978A07400	7,40	.2913	—	—	113	74	64	1,6	36	8	●
1913624	B978A07500	7,50	.2953	—	—	113	74	64	1,6	36	8	●
2658399	B978A07541	7,54	.2969	19/64	—	113	74	64	1,6	36	8	●
2407297	B978A07700	7,70	.3031	—	—	113	74	64	1,6	36	8	●
1913625	B978A07800	7,80	.3071	—	—	113	74	64	1,6	36	8	●
2647029	B978A07900	7,90	.3110	—	—	113	74	64	1,7	36	8	●
2658400	B978A07938	7,94	.3125	5/16	—	113	74	64	1,7	36	8	●
1913626	B978A08000	8,00	.3150	—	—	113	74	64	1,7	36	8	●
2264953	B978A08100	8,10	.3189	—	—	135	92	80	1,7	40	10	●
2940518	B978A08200	8,20	.3228	—	—	135	92	80	1,7	40	10	●
2658401	B978A08334	8,33	.3281	21/64	—	135	92	80	1,8	40	10	●
6962062	B978A08400	8,40	.3307	—	—	135	92	80	1,8	40	10	●
1913627	B978A08500	8,50	.3346	—	—	135	92	80	1,8	40	10	●
2264954	B978A08600	8,60	.3386	—	—	135	92	80	1,8	40	10	●
2264955	B978A08700	8,70	.3425	—	—	135	92	80	1,8	40	10	●
2658402	B978A08733	8,73	.3438	11/32	—	135	92	80	1,8	40	10	●
2255896	B978A08800	8,80	.3465	—	—	135	92	80	1,9	40	10	●
1913628	B978A09000	9,00	.3543	—	—	135	92	80	1,9	40	10	●
2442642	B978A09100	9,10	.3583	—	—	135	92	80	1,9	40	10	●
2658403	B978A09129	9,13	.3594	23/64	—	135	92	80	1,9	40	10	●
3057122	B978A09300	9,30	.3661	—	—	135	92	80	2,0	40	10	●
1913629	B978A09500	9,50	.3740	—	—	135	92	80	2,0	40	10	●
2658404	B978A09525	9,53	.3750	3/8	—	135	92	80	2,0	40	10	●
2249180	B978A09700	9,70	.3819	—	—	135	92	80	2,1	40	10	●



Kenna Universal™ • B978 • 8 x D • Internal Coolant • Straight Shank



- first choice
- alternate choice

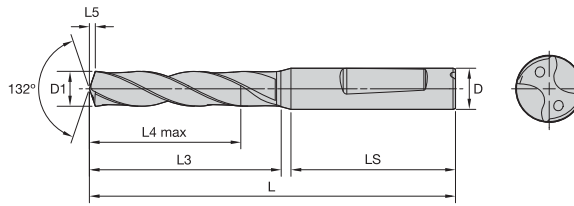
P	●
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S	○
H	○

order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS	D	KCU15
1971584	B978A09750	9,75	.3839	—	—	135	92	80	2,1	40	10	●
2050230	B978A09800	9,80	.3858	—	—	135	92	80	2,1	40	10	●
2264956	B978A09900	9,90	.3898	—	—	135	92	80	2,1	40	10	●
2658405	B978A09921	9,92	.3906	25/64	—	135	92	80	2,1	40	10	●
1913630	B978A10000	10,00	.3937	—	—	135	92	80	2,1	40	10	●
2264938	B978A10100	10,10	.3976	—	—	158	110	96	2,1	45	12	●
1913631	B978A10200	10,20	.4016	—	—	158	110	96	2,2	45	12	●
2264939	B978A10300	10,30	.4055	—	—	158	110	96	2,2	45	12	●
2658406	B978A10320	10,32	.4063	13/32	—	158	110	96	2,2	45	12	●
1913632	B978A10500	10,50	.4134	—	—	158	110	96	2,2	45	12	●
2658407	B978A10716	10,72	.4219	27/64	—	158	110	96	2,3	45	12	●
1985985	B978A10800	10,80	.4252	—	—	141	94	79	2,3	45	12	●
1913633	B978A11000	11,00	.4331	—	—	158	110	96	2,3	45	12	●
2658408	B978A11113	11,11	.4375	7/16	—	158	110	96	2,4	45	12	●
1984545	B978A11200	11,20	.4409	—	—	158	110	96	2,4	45	12	●
2436719	B978A11300	11,30	.4449	—	—	158	110	96	2,4	45	12	●
2045616	B978A11400	11,40	.4488	—	—	158	110	96	2,4	45	12	●
1913634	B978A11500	11,50	.4528	—	—	158	110	96	2,4	45	12	●
2658409	B978A11509	11,51	.4531	29/64	—	158	110	96	2,4	45	12	●
2404433	B978A11700	11,70	.4606	—	—	158	110	96	2,5	45	12	●
2044606	B978A11800	11,80	.4646	—	—	158	110	96	2,5	45	12	●
2658410	B978A11908	11,91	.4688	15/32	—	158	110	96	2,5	45	12	●
1913635	B978A12000	12,00	.4724	—	—	158	110	96	2,6	45	12	●
2658411	B978A12304	12,30	.4844	31/64	—	176	128	112	2,6	45	14	●
1913636	B978A12500	12,50	.4921	—	—	176	128	112	2,7	45	14	●
2658412	B978A12700	12,70	.5000	1/2	—	176	128	112	2,7	45	14	●
1942450	B978A12800	12,80	.5039	—	—	176	128	112	2,7	45	14	●
1913637	B978A13000	13,00	.5118	—	—	176	128	112	2,8	45	14	●
3491692	B978A13100	13,10	.5157	—	—	176	128	112	2,8	45	14	●
1913638	B978A13500	13,50	.5315	—	—	176	128	112	2,9	45	14	●
1913639	B978A14000	14,00	.5512	—	—	176	128	112	3,0	45	14	●
2658413	B978A14288	14,29	.5625	9/16	—	197	146	128	3,1	48	16	●
1913640	B978A14500	14,50	.5709	—	—	197	146	128	3,1	48	16	●
1913641	B978A15000	15,00	.5906	—	—	197	146	128	3,2	48	16	●
2263727	B978A15100	15,10	.5945	—	—	197	146	128	3,2	48	16	●
2214237	B978A15200	15,20	.5984	—	—	197	146	128	3,2	48	16	●
2428744	B978A15300	15,30	.6024	—	—	197	146	128	3,3	48	16	●
1913642	B978A15500	15,50	.6102	—	—	197	146	128	3,3	48	16	●
2264901	B978A15800	15,80	.6220	—	—	197	146	128	3,4	48	16	●
2658414	B978A15875	15,88	.6250	5/8	—	197	146	128	3,4	48	16	●
1913643	B978A16000	16,00	.6299	—	—	197	146	128	3,4	48	16	●
2658415	B978A16078	16,08	.6330	—	—	214	163	144	3,4	48	18	●
2436798	B978A16200	16,20	.6378	—	—	214	163	144	3,5	48	18	●
1913644	B978A16500	16,50	.6496	—	—	214	163	144	3,5	48	18	●
1913645	B978A17000	17,00	.6693	—	—	214	163	144	3,6	48	18	●
2658416	B978A17463	17,46	.6875	11/16	—	214	163	144	3,7	48	18	●
1913646	B978A17500	17,50	.6890	—	—	214	163	144	3,8	48	18	●
1913647	B978A18000	18,00	.7087	—	—	214	163	144	3,9	48	18	●
1913648	B978A18500	18,50	.7283	—	—	234	181	160	4,0	50	20	●
1913649	B978A19000	19,00	.7480	—	—	234	181	160	4,1	50	20	●
2658417	B978A19050	19,05	.7500	3/4	—	234	181	160	4,1	50	20	●
2658418	B978A19253	19,25	.7580	—	—	234	181	160	4,1	50	20	●
1913650	B978A19500	19,50	.7677	—	—	234	181	160	4,2	50	20	●
2275452	B978A19800	19,80	.7795	—	—	234	181	160	4,3	50	20	●
2235124	B978A19840	19,84	.7811	—	—	234	181	160	4,3	50	20	●
1913651	B978A20000	20,00	.7874	—	—	234	181	160	4,3	50	20	●

160-163	164	86-87	98, 168



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● first choice
○ alternate choice

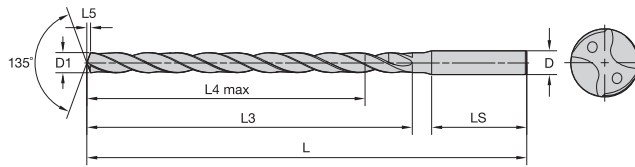
P	●
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order number	catalog number	mm	in	wire size	L	L3	L4 max	L5	LS	D	KCU15
3855740	B978F03000	3,00	.1181	—	78	40	33	0,6	36	6	●
6594089	B978F03300	3,30	.1299	—	78	40	33	0,7	36	6	●
3636818	B978F03600	3,60	.1417	—	78	40	33	0,7	36	6	●
5686551	B978F04000	4,00	.1575	—	87	49	41	0,8	36	6	●
6594090	B978F04200	4,20	.1654	—	87	49	41	0,9	36	6	●
5686555	B978F04500	4,50	.1772	—	87	49	41	0,9	36	6	●
3398461	B978F04700	4,70	.1850	13	87	49	41	1,0	36	6	●
3364974	B978F05000	5,00	.1969	—	94	56	48	1,0	36	6	●
5419957	B978F05100	5,10	.2008	—	94	56	48	1,1	36	6	●
6184978	B978F05200	5,20	.2047	—	94	56	48	1,1	36	6	●
6594101	B978F05300	5,30	.2087	—	94	56	48	1,1	36	6	●
6236092	B978F05500	5,50	.2165	—	94	56	48	1,1	36	6	●
6594102	B978F05700	5,70	.2244	—	94	56	48	1,2	36	6	●
3658546	B978F06000	6,00	.2362	—	94	56	48	1,3	36	6	●
5409793	B978F06100	6,10	.2402	—	105	67	57	1,3	36	8	●
6594103	B978F06200	6,20	.2441	—	105	67	57	1,3	36	8	●
3394029	B978F06500	6,50	.2559	—	105	67	57	1,4	36	8	●
6098864	B978F06600	6,60	.2598	—	105	67	57	1,4	36	8	●
1950974	B978F06800	6,80	.2677	—	105	67	57	1,4	36	8	●
3398487	B978F07000	7,00	.2756	—	105	67	57	1,5	36	8	●
3127866	B978F07400	7,40	.2913	—	113	74	64	1,6	36	8	●
3398489	B978F07500	7,50	.2953	—	113	74	64	1,6	36	8	●
6594104	B978F07700	7,70	.3031	—	113	74	64	1,6	36	8	●
2392134	B978F08000	8,00	.3150	—	113	74	64	1,7	36	8	●
2656831	B978F08500	8,50	.3346	—	135	92	80	1,8	40	10	●
3690693	B978F08800	8,80	.3465	—	135	92	80	1,9	40	10	●
5589965	B978F09000	9,00	.3543	—	135	92	80	1,9	40	10	●
3398457	B978F09500	9,50	.3740	—	135	92	80	2,0	40	10	●
3398458	B978F09700	9,70	.3819	—	135	92	80	2,1	40	10	●
5583078	B978F09800	9,80	.3858	—	135	92	80	2,1	40	10	●
5325630	B978F10000	10,00	.3937	—	135	92	80	2,1	40	10	●
1950975	B978F10200	10,20	.4016	—	158	110	96	2,2	45	12	●
3365518	B978F10300	10,30	.4055	—	158	110	96	2,2	45	12	●
6594105	B978F10500	10,50	.4134	—	158	110	96	2,2	45	12	●
5617574	B978F11000	11,00	.4331	—	158	110	96	2,3	45	12	●
6236911	B978F11300	11,30	.4449	—	158	110	96	2,4	45	12	●
2463308	B978F11500	11,50	.4528	—	158	110	96	2,4	45	12	●
6594106	B978F11700	11,70	.4606	—	158	110	96	2,5	45	12	●
2230052	B978F12000	12,00	.4724	—	158	110	96	2,6	45	12	●
5996610	B978F12500	12,50	.4921	—	176	128	112	2,7	45	14	●
3040265	B978F13000	13,00	.5118	—	176	128	112	2,8	45	14	●
3061071	B978F14000	14,00	.5512	—	176	128	112	3,0	45	14	●
5161475	B978F14500	14,50	.5709	—	197	146	128	3,1	48	16	●
2047587	B978F15000	15,00	.5906	—	197	146	128	3,2	48	16	●
6594107	B978F15500	15,50	.6102	—	197	146	128	3,3	48	16	●
5178669	B978F16000	16,00	.6299	—	197	146	128	3,4	48	16	●
5622502	B978F16500	16,50	.6496	—	214	163	144	3,5	48	18	●
6165212	B978F17000	17,00	.6693	—	214	163	144	3,6	48	18	●
6098863	B978F17500	17,50	.6890	—	214	163	144	3,8	48	18	●
3795311	B978F18000	18,00	.7087	—	214	163	144	3,9	48	18	●
6165214	B978F20000	20,00	.7874	—	234	181	160	4,3	50	20	●

160-163	164	86-87	98, 168

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P	●
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S	○
H	○

order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS	D	KCU15A
7038955	B979A02400	2,400	.0945	—	—	75	42	35	0,5	28	4	●
7038956	B979A02500	2,500	.0984	—	—	75	42	35	0,5	28	4	●
7038958	B979A02800	2,800	.1102	—	—	75	43	36	0,6	28	4	●
7038959	B979A02900	2,900	.1142	—	—	75	43	36	0,6	28	4	●
7038960	B979A03000	3,000	.1181	—	—	93	52	44	0,6	36	6	●
7038971	B979A03175	3,175	.1250	1/8	—	93	52	44	0,7	36	6	●
7038972	B979A03264	3,264	.1285	—	30	93	53	44	0,7	36	6	●
7038974	B979A03500	3,500	.1378	—	—	93	53	44	0,7	36	6	●
7038975	B979A03970	3,970	.1563	1/6	—	107	66	56	0,8	36	6	●
7038976	B979A04000	4,000	.1575	—	—	107	66	56	0,8	36	6	●
7038979	B979A04500	4,500	.1772	—	—	107	67	56	0,9	36	6	●
7038980	B979A04600	4,600	.1811	—	—	107	68	57	1,0	36	6	●
7038983	B979A04800	4,800	.1890	—	—	125	82	69	1,0	36	6	●
7038984	B979A05000	5,000	.1969	—	—	125	83	70	1,1	36	6	●
7038985	B979A05100	5,100	.2008	—	—	125	83	70	1,1	36	6	●
7038986	B979A05200	5,200	.2047	—	—	125	83	70	1,1	36	6	●
7038987	B979A05300	5,300	.2087	—	—	125	84	71	1,1	36	6	●
7038989	B979A05500	5,500	.2165	—	—	125	84	71	1,2	36	6	●
7038990	B979A05558	5,558	.2188	—	—	125	84	71	1,2	36	6	●
7038991	B979A05600	5,600	.2205	—	—	125	85	72	1,2	36	6	●
7038992	B979A05700	5,700	.2244	—	—	85	72	1,2	—	—	—	●
7038993	B979A05800	5,800	.2283	—	—	125	85	71	1,2	36	6	●
7038994	B979A06000	6,000	.2362	—	—	125	86	72	1,3	36	6	●
7038995	B979A06200	6,200	.2441	—	—	139	97	82	1,3	36	8	●
7038996	B979A06350	6,350	.2500	1/4	E	139	98	83	1,3	36	8	●
7038997	B979A06500	6,500	.2559	—	—	139	98	83	1,4	36	8	●
7038998	B979A06600	6,600	.2598	—	—	139	99	84	1,4	36	8	●
7039000	B979A06800	6,800	.2677	—	—	139	99	83	1,4	36	8	●
7039002	B979A07000	7,000	.2756	—	—	139	100	84	1,5	36	8	●
7039003	B979A07145	7,145	.2813	2/7	—	153	111	94	1,5	36	8	●
7039004	B979A07500	7,500	.2953	—	—	153	112	95	1,6	36	8	●
7039005	B979A07800	7,800	.3071	—	—	153	113	95	1,7	36	8	●
7039006	B979A07938	7,938	.3125	1/3	—	153	114	96	1,7	36	8	●
7039007	B979A08000	8,000	.3150	—	—	153	114	96	1,7	36	8	●
7039008	B979A08100	8,100	.3189	—	—	185	136	116	1,7	40	10	●
7039010	B979A08500	8,500	.3346	—	—	185	137	117	1,8	40	10	●
7039011	B979A08700	8,700	.3425	—	—	185	138	118	1,9	40	10	●
7039012	B979A08733	8,733	.3438	—	—	185	138	117	1,9	40	10	●
7039013	B979A09000	9,000	.3543	—	—	185	139	118	1,9	40	10	●
7039014	B979A09500	9,500	.3740	—	—	185	140	119	2,0	40	10	●
7039015	B979A09525	9,525	.3750	3/8	—	185	140	119	2,0	40	10	●
7039017	B979A10000	10,000	.3937	—	—	185	142	120	2,1	40	10	●
7039018	B979A10200	10,200	.4016	—	—	218	164	140	2,2	45	12	●
7039019	B979A10500	10,500	.4134	—	—	218	165	141	2,2	45	12	●
7039020	B979A11000	11,000	.4331	—	—	218	167	142	2,4	45	12	●
7039021	B979A11113	11,113	.4375	4/9	—	218	167	142	2,4	45	12	●
7039022	B979A11500	11,500	.4528	—	—	218	168	143	2,5	45	12	●
7039023	B979A11800	11,800	.4646	—	—	218	169	143	2,5	45	12	●
7039025	B979A12000	12,000	.4724	—	—	218	170	144	2,6	45	12	●
7039026	B979A12500	12,500	.4921	—	—	246	193	165	2,7	45	14	●
7039027	B979A12700	12,700	.5000	1/2	—	246	194	166	2,7	45	14	●
7039029	B979A13000	13,000	.5118	—	—	246	195	166	2,8	45	14	●
7039030	B979A13500	13,500	.5315	—	—	246	196	167	2,9	45	14	●
7039031	B979A14000	14,000	.5512	—	—	246	198	168	3,0	45	14	●
7039033	B979A15000	15,000	.5906	—	—	277	223	190	3,2	48	16	●
7039035	B979A16000	16,000	.6299	—	—	277	226	192	3,4	48	16	●
7039038	B979A18000	18,000	.7087	—	—	305	253	216	3,9	48	18	●

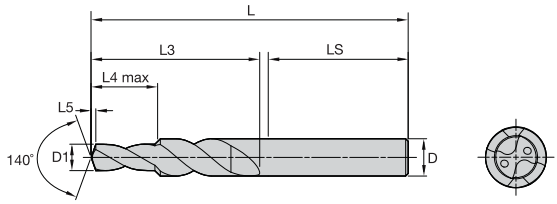
160-163	164	86-87	98, 168



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NEW!



- first choice
- alternate choice

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S	○
H	○

		D1										D	KCU15
order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS			
7039044	B731A03300KMG	3,30	.1299	—	—	66	21	10	0,5	36	6	●	
7039046	B731A03734KMG	3,73	.1470	—	26	66	21	11	0,6	36	6	●	
7039047	B731A04200KMG	4,20	.1654	—	—	66	26	13	0,7	36	6	●	
7039048	B731A04496KMG	4,50	.1770	—	16	79	28	15	0,7	36	8	●	
7039049	B731A05000KMG	5,00	.1969	—	—	79	28	15	0,8	36	8	●	
7039050	B731A05106KMG	5,11	.2010	—	—	79	29	16	0,9	36	8	●	
7039051	B731A05410KMG	5,41	.2130	—	3	79	30	17	0,9	36	8	●	
7039052	B731A06528KMG	6,53	.2570	—	F	89	34	19	1,1	40	10	●	
7039053	B731A06800KMG	6,80	.2677	—	—	89	38	18	1,1	40	10	●	
7039054	B731A06909KMG	6,91	.2720	—	I	89	38	20	1,2	40	10	●	
7039055	B731A07938KMG	7,94	.3125	1/3	—	89	38	21	1,3	45	12	●	
7039056	B731A08433KMG	8,43	.3320	—	Q	102	40	22	1,4	45	12	●	
7039057	B731A08500KMG	8,50	.3346	—	—	102	45	21	1,4	45	12	●	
7039058	B731A09921KMG	9,92	.3906	2/5	—	107	45	26	1,7	45	14	●	
7039059	B731A10200KMG	10,20	.4016	—	—	107	52	25	1,7	45	14	●	
7039060	B731A10500KMG	10,50	.4134	—	—	107	52	25	1,8	45	14	●	
7039061	B731A10716KMG	10,72	.4219	—	—	107	54	29	1,8	45	14	●	
7039062	B731A12000KMG	12,00	.4724	—	—	115	54	30	2,1	48	16	●	
7039063	B731A12304KMG	12,30	.4844	1/2	—	115	55	31	2,1	48	16	●	
7039064	B731A12500KMG	12,50	.4921	—	—	115	61	30	2,2	48	16	●	
7039065	B731A13096KMG	13,10	.5156	1/2	—	115	62	34	2,3	48	16	●	
7039066	B731A13495KMG	13,50	.5313	1/2	—	123	62	35	2,3	48	18	●	
7039067	B731A14000KMG	14,00	.5512	—	—	123	66	33	2,4	48	18	●	
7039068	B731A17463KMG	17,46	.6875	—	—	131	72	44	3,0	50	20	●	

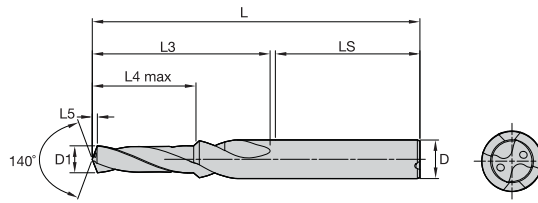
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Kenna Universal™ • B732 • Long • Internal Coolant • Straight Shank



NEW!



- first choice
- alternate choice

P	●
M	○
K	●
N	○
S	○
H	○
	○

order number	catalog number	mm	in	fraction	wire size	L	L3	L4 max	L5	LS	D	KCU15
7039095	B732A03000KMG	3,00	.1181	—	—	66	27	16	0,5	36	6	●
7039069	B732A03300KMG	3,30	.1299	—	—	66	27	17	0,5	36	6	●
7039070	B732A03734KMG	3,73	.1470	—	26	66	28	18	0,6	36	6	●
7039096	B732A04000KMG	4,00	.1575	—	—	66	28	18	0,7	36	6	●
7039071	B732A04200KMG	4,20	.1654	—	—	66	28	18	0,7	36	6	●
7039072	B732A04496KMG	4,50	.1770	—	16	79	32	19	0,7	36	8	●
7039073	B732A05000KMG	5,00	.1969	—	—	79	34	21	0,8	36	8	●
7039074	B732A05106KMG	5,11	.2010	—	—	79	34	21	0,9	36	8	●
7039075	B732A05410KMG	5,41	.2130	—	3	79	36	23	0,9	36	8	●
7039098	B732A06000KMG	6,00	.2362	—	—	79	36	23	1,0	36	8	●
7039076	B732A06528KMG	6,53	.2570	—	F	89	41	26	1,1	40	10	●
7039077	B732A06800KMG	6,80	.2677	—	—	89	42	27	1,1	40	10	●
7039078	B732A06909KMG	6,91	.2720	—	I	89	42	27	1,2	40	10	●
7039099	B732A07000KMG	7,00	.2756	—	—	89	44	28	1,2	40	10	●
7039079	B732A07938KMG	7,94	.3125	1/3	—	102	47	30	1,3	45	12	●
7039100	B732A08000KMG	8,00	.3150	—	—	102	48	30	1,4	45	12	●
7039080	B732A08433KMG	8,43	.3320	—	Q	102	49	32	1,4	45	12	●
7039081	B732A08500KMG	8,50	.3346	—	—	102	55	32	1,4	45	12	●
7039101	B732A09000KMG	9,00	.3543	—	—	102	55	34	1,5	45	12	●
7039082	B732A09921KMG	9,92	.3906	2/5	—	107	56	36	1,7	45	14	●
7039102	B732A10000KMG	10,00	.3937	—	—	107	57	37	1,7	45	14	●
7039084	B732A10200KMG	10,20	.4016	—	—	107	60	38	1,7	45	14	●
7039085	B732A10500KMG	10,50	.4134	—	—	107	60	38	1,8	45	14	●
7039086	B732A10716KMG	10,72	.4219	—	—	107	61	40	1,8	45	14	●
7039087	B732A12000KMG	12,00	.4724	—	—	115	65	43	2,1	48	16	●
7039089	B732A12304KMG	12,30	.4844	1/2	—	115	65	44	2,1	48	16	●
7039090	B732A12500KMG	12,50	.4921	—	—	115	65	43	2,2	48	16	●
7039091	B732A13096KMG	13,10	.5156	1/2	—	123	71	47	2,3	48	16	●
7039092	B732A13495KMG	13,50	.5313	1/2	—	123	72	48	2,3	48	18	●
7039093	B732A14000KMG	14,00	.5512	—	—	123	74	50	2,4	48	18	●
7039094	B732A17463KMG	17,46	.6875	—	—	153	86	58	3,0	50	20	●

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Kenna Universal™ Drill • B966, B967 Series • Application Data • Metric

Material Group	Cutting Speed – vc			Metric									
	Range – m/min			Recommended Feed Rate per Rev									
	min	Starting Value	max		3,0	4,0	6,0	8,0	10,0	12,0	16,0	20,0	
P	0	70	90	115	mm/r	0,05–0,11	0,08–0,14	0,09–0,19	0,11–0,22	0,13–0,26	0,15–0,30	0,19–0,36	0,24–0,46
	1	60	70	100	mm/r	0,06–0,13	0,09–0,16	0,11–0,22	0,13–0,26	0,15–0,31	0,18–0,35	0,22–0,42	0,28–0,54
	2	80	90	100	mm/r	0,06–0,13	0,08–0,16	0,12–0,22	0,14–0,26	0,17–0,31	0,20–0,35	0,24–0,42	0,31–0,53
	3	50	70	90	mm/r	0,07–0,15	0,09–0,17	0,13–0,23	0,15–0,28	0,19–0,33	0,22–0,38	0,26–0,47	0,34–0,59
	4	50	70	100	mm/r	0,06–0,15	0,08–0,17	0,12–0,23	0,14–0,28	0,17–0,33	0,19–0,38	0,23–0,47	0,29–0,59
	5	40	50	70	mm/r	0,06–0,12	0,08–0,14	0,10–0,18	0,12–0,22	0,16–0,26	0,18–0,28	0,22–0,36	0,26–0,42
6	30	40	60	mm/r	0,05–0,07	0,06–0,10	0,08–0,14	0,10–0,18	0,12–0,22	0,14–0,24	0,18–0,32	0,23–0,41	
M	1	30	40	50	mm/r	0,04–0,07	0,05–0,09	0,08–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20
	2	40	50	60	mm/r	0,04–0,08	0,06–0,10	0,08–0,12	0,09–0,14	0,10–0,16	0,12–0,18	0,14–0,20	0,16–0,22
	3	30	40	50	mm/r	0,04–0,07	0,06–0,09	0,08–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20
K	1	80	120	160	mm/r	0,11–0,22	0,12–0,24	0,16–0,31	0,20–0,38	0,23–0,44	0,25–0,49	0,31–0,60	0,38–0,74
	2	80	100	130	mm/r	0,10–0,17	0,12–0,19	0,16–0,25	0,20–0,31	0,23–0,36	0,25–0,40	0,31–0,48	0,38–0,60
	3	70	80	100	mm/r	0,07–0,15	0,09–0,19	0,12–0,25	0,14–0,30	0,17–0,35	0,19–0,40	0,25–0,48	0,30–0,60
N	1	90	230	270	mm/r	0,08–0,14	0,10–0,16	0,12–0,20	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,48
	2	90	220	270	mm/r	0,08–0,16	0,10–0,20	0,12–0,24	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,44	0,32–0,52
	3	90	180	225	mm/r	0,12–0,14	0,13–0,16	0,14–0,20	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,44
	4	90	130	270	mm/r	0,08–0,16	0,10–0,20	0,12–0,24	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,40	0,32–0,48
S	1	10	20	30	mm/r	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	2	10	20	30	mm/r	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	3	15	25	35	mm/r	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	4	20	30	40	mm/r	0,03–0,05	0,03–0,05	0,04–0,08	0,05–0,09	0,05–0,11	0,07–0,12	0,08–0,13	0,09–0,14

Kenna Universal Drill • B966, B967 Series • Application Data • Inch

Material Group	Cutting Speed – vc			Inch									
	Range – SFM			Recommended Feed Rate per Rev									
	min	Starting Value	max		1/8 .125	3/16 .188	1/4 .250	5/16 .313	3/8 .375	1/2 .500	5/8 .625	3/4 .750	
P	0	230	300	380	IPR	.002–.004	.003–.005	.004–.007	.004–.009	.005–.010	.006–.012	.007–.014	.009–.018
	1	200	230	330	IPR	.002–.005	.004–.006	.004–.009	.005–.010	.006–.012	.007–.014	.009–.017	.011–.021
	2	260	300	330	IPR	.002–.005	.003–.006	.005–.009	.006–.010	.007–.012	.008–.014	.009–.017	.012–.021
	3	160	230	300	IPR	.003–.006	.004–.007	.005–.009	.006–.011	.008–.013	.009–.015	.010–.019	.013–.023
	4	160	230	330	IPR	.002–.006	.003–.007	.005–.009	.006–.011	.007–.013	.008–.015	.009–.019	.011–.023
	5	130	160	230	IPR	.002–.005	.003–.006	.004–.007	.005–.009	.006–.010	.007–.011	.009–.014	.010–.017
6	100	130	200	IPR	.002–.003	.002–.004	.003–.006	.004–.007	.005–.009	.006–.009	.007–.013	.009–.016	
M	1	100	130	160	IPR	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008
	2	130	160	200	IPR	.002–.003	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008	.006–.009
	3	100	130	160	IPR	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008
K	1	260	390	520	IPR	.004–.009	.005–.009	.006–.012	.008–.015	.009–.017	.010–.019	.012–.024	.015–.029
	2	260	330	430	IPR	.004–.007	.005–.008	.006–.010	.008–.012	.009–.014	.010–.016	.012–.019	.015–.024
	3	230	260	330	IPR	.003–.006	.004–.008	.005–.010	.006–.012	.007–.014	.008–.016	.010–.019	.012–.024
N	1	300	750	890	IPR	.003–.006	.004–.006	.005–.008	.006–.009	.008–.011	.009–.013	.011–.016	.013–.019
	2	300	720	890	IPR	.003–.006	.004–.008	.005–.009	.006–.011	.008–.013	.009–.014	.011–.017	.013–.021
	3	300	590	740	IPR	.005–.006	.005–.006	.006–.008	.006–.009	.008–.011	.009–.013	.011–.016	.013–.017
	4	300	430	890	IPR	.003–.006	.004–.008	.005–.009	.006–.011	.008–.013	.009–.014	.011–.016	.013–.019
S	1	30	70	100	IPR	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	2	30	70	100	IPR	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	3	50	80	110	IPR	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	4	70	100	130	IPR	.001–.002	.001–.002	.002–.003	.002–.004	.002–.004	.003–.005	.003–.005	.004–.006



Kenna Universal™ Drill • B97*/B73* Series • Application Data • Metric

Material Group	Cutting Speed – vc			Metric										
	Range – m/min			Recommended Feed Rate per Rev										
	min	Starting Value	max		2,0	3,0	4,0	6,0	8,0	10,0	12,0	16,0	20,0	
P	0	80	120	160	mm/r	0,04–0,10	0,06–0,12	0,07–0,14	0,09–0,19	0,11–0,22	0,13–0,26	0,15–0,30	0,19–0,36	0,24–0,46
	1	70	100	140	mm/r	0,05–0,12	0,07–0,14	0,08–0,16	0,11–0,22	0,13–0,26	0,15–0,31	0,18–0,35	0,22–0,42	0,28–0,54
	2	90	120	140	mm/r	0,05–0,12	0,07–0,14	0,08–0,16	0,12–0,22	0,14–0,26	0,17–0,31	0,20–0,35	0,24–0,42	0,31–0,53
	3	60	80	100	mm/r	0,06–0,13	0,08–0,15	0,09–0,17	0,13–0,23	0,15–0,28	0,19–0,33	0,22–0,38	0,26–0,47	0,34–0,59
	4	50	80	100	mm/r	0,06–0,13	0,07–0,15	0,08–0,17	0,12–0,23	0,14–0,28	0,17–0,33	0,19–0,38	0,23–0,47	0,29–0,59
	5	50	60	80	mm/r	0,06–0,12	0,08–0,13	0,10–0,15	0,12–0,19	0,16–0,24	0,20–0,27	0,24–0,30	0,28–0,38	0,32–0,44
6	40	50	70	mm/r	0,04–0,06	0,05–0,08	0,06–0,10	0,08–0,14	0,10–0,18	0,13–0,22	0,14–0,24	0,18–0,32	0,23–0,41	
M	1	30	40	50	mm/r	0,03–0,06	0,04–0,07	0,05–0,09	0,08–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20
	2	40	50	60	mm/r	0,03–0,07	0,04–0,08	0,06–0,10	0,08–0,12	0,09–0,14	0,10–0,16	0,12–0,18	0,14–0,20	0,16–0,22
	3	30	40	50	mm/r	0,03–0,06	0,04–0,07	0,05–0,09	0,08–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20
K	1	90	130	170	mm/r	0,09–0,17	0,11–0,22	0,12–0,24	0,16–0,31	0,20–0,38	0,23–0,44	0,25–0,49	0,31–0,60	0,38–0,74
	2	80	120	150	mm/r	0,11–0,15	0,12–0,16	0,13–0,19	0,16–0,25	0,20–0,31	0,23–0,36	0,25–0,40	0,31–0,48	0,38–0,60
	3	70	90	110	mm/r	0,07–0,15	0,08–0,17	0,09–0,19	0,12–0,25	0,14–0,30	0,17–0,35	0,19–0,40	0,24–0,48	0,30–0,60
N	1	90	230	315	mm/r	0,06–0,13	0,08–0,14	0,10–0,16	0,12–0,20	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,48
	2	90	225	270	mm/r	0,06–0,12	0,08–0,16	0,10–0,20	0,12–0,24	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,44	0,32–0,52
	3	90	180	270	mm/r	0,11–0,14	0,12–0,14	0,13–0,16	0,14–0,20	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,44
	4	90	135	180	mm/r	0,06–0,12	0,08–0,16	0,01–0,20	0,12–0,24	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,40	0,32–0,48
S	1	10	20	30	mm/r	0,02–0,07	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	2	10	20	30	mm/r	0,02–0,07	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	3	15	25	35	mm/r	0,02–0,07	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	4	20	30	40	mm/r	0,02–0,04	0,03–0,05	0,03–0,05	0,04–0,08	0,05–0,09	0,05–0,11	0,07–0,12	0,08–0,13	0,09–0,14

Kenna Universal Drill • B97*/B73* Series • Application Data • Inch

Material Group	Cutting Speed – vc			Inch										
	Range – SFM			Recommended Feed Rate per Rev										
	min	Starting Value	max		5/64 .078	1/8 .125	3/16 .188	1/4 .250	5/16 .313	3/8 .375	1/2 .500	5/8 .625	3/4 .750	
P	0	260	390	520	IPR	.002–.004	.002–.005	.003–.005	.004–.007	.004–.009	.005–.010	.006–.012	.007–.014	.009–.018
	1	230	330	460	IPR	.002–.005	.003–.006	.003–.006	.004–.009	.005–.010	.006–.012	.007–.014	.009–.017	.011–.021
	2	300	390	460	IPR	.002–.005	.003–.006	.003–.006	.005–.009	.006–.010	.007–.012	.008–.014	.009–.017	.012–.021
	3	200	260	330	IPR	.002–.005	.003–.006	.004–.007	.005–.009	.006–.011	.008–.013	.009–.015	.010–.019	.013–.023
	4	160	260	330	IPR	.002–.005	.003–.006	.003–.007	.005–.009	.006–.011	.007–.013	.008–.015	.009–.019	.011–.023
	5	160	200	260	IPR	.002–.005	.003–.005	.004–.006	.005–.008	.006–.009	.008–.011	.009–.012	.011–.015	.013–.017
6	130	160	230	IPR	.002–.002	.002–.003	.002–.004	.003–.006	.004–.007	.005–.009	.006–.009	.007–.013	.009–.016	
M	1	100	130	160	IPR	.001–.002	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008
	2	130	160	200	IPR	.001–.003	.002–.003	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008	.006–.009
	3	100	130	160	IPR	.001–.002	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008
K	1	300	430	560	IPR	.004–.007	.004–.009	.005–.009	.006–.012	.008–.015	.009–.017	.010–.019	.012–.024	.015–.029
	2	260	390	490	IPR	.004–.006	.005–.006	.005–.008	.006–.010	.008–.012	.009–.014	.010–.016	.012–.019	.015–.024
	3	230	300	360	IPR	.003–.006	.003–.007	.004–.008	.005–.010	.006–.012	.007–.014	.008–.016	.009–.019	.012–.024
N	1	300	750	1030	IPR	.002–.005	.003–.006	.004–.006	.005–.008	.006–.009	.008–.011	.009–.013	.011–.016	.013–.019
	2	300	740	890	IPR	.002–.005	.003–.006	.004–.008	.005–.009	.006–.011	.008–.013	.009–.014	.011–.017	.013–.021
	3	300	590	890	IPR	.004–.006	.005–.006	.005–.006	.006–.008	.006–.009	.008–.011	.009–.013	.011–.016	.013–.017
	4	300	440	590	IPR	.002–.005	.003–.006	.000–.008	.005–.009	.006–.011	.008–.013	.009–.014	.011–.016	.013–.019
S	1	30	70	100	IPR	.001–.003	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	2	30	70	100	IPR	.001–.003	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	3	50	80	110	IPR	.001–.003	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	4	70	100	130	IPR	.001–.002	.001–.002	.001–.002	.002–.003	.002–.004	.002–.004	.003–.005	.003–.005	.004–.006



Kenna Universal™ Drill • B979 Series • Application Data • Metric

Material Group		Cutting Speed – vc			Metric								
		Range – m/min			Recommended Feed Rate per Rev								
		min	Starting Value	max		3,0	4,0	6,0	8,0	10,0	12,0	16,0	20,0
P	0	80	110	140	mm/r	0,06–0,12	0,07–0,14	0,09–0,19	0,11–0,22	0,13–0,26	0,15–0,30	0,15–0,30	0,24–0,46
	1	70	100	130	mm/r	0,07–0,14	0,08–0,16	0,11–0,22	0,13–0,26	0,15–0,31	0,18–0,35	0,18–0,35	0,28–0,54
	2	70	100	110	mm/r	0,07–0,14	0,08–0,16	0,12–0,22	0,14–0,26	0,17–0,31	0,20–0,35	0,20–0,35	0,31–0,53
	3	60	80	100	mm/r	0,08–0,15	0,09–0,17	0,13–0,23	0,15–0,28	0,19–0,33	0,22–0,38	0,22–0,38	0,34–0,59
	4	50	60	70	mm/r	0,07–0,14	0,08–0,17	0,12–0,23	0,14–0,28	0,17–0,33	0,19–0,38	0,19–0,38	0,29–0,59
	5	50	60	70	mm/r	0,03–0,11	0,04–0,11	0,05–0,11	0,05–0,14	0,08–0,18	0,11–0,21	0,14–0,24	0,16–0,26
M	6	40	50	60	mm/r	0,03–0,08	0,04–0,10	0,05–0,11	0,05–0,14	0,08–0,18	0,11–0,21	0,14–0,24	0,16–0,26
	1	30	40	50	mm/r	0,04–0,07	0,05–0,09	0,07–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20
	2	40	50	60	mm/r	0,04–0,07	0,06–0,10	0,07–0,11	0,09–0,12	0,10–0,14	0,12–0,16	0,14–0,18	0,16–0,20
K	3	30	40	50	mm/r	0,03–0,07	0,05–0,09	0,06–0,11	0,08–0,12	0,09–0,13	0,11–0,15	0,13–0,17	0,15–0,19
	1	80	120	160	mm/r	0,10–0,15	0,12–0,20	0,16–0,28	0,20–0,34	0,23–0,40	0,25–0,44	0,31–0,54	0,38–0,68
	2	70	110	140	mm/r	0,10–0,14	0,12–0,19	0,16–0,25	0,20–0,31	0,23–0,36	0,25–0,40	0,31–0,48	0,38–0,60
N	3	60	80	100	mm/r	0,07–0,15	0,09–0,17	0,12–0,23	0,14–0,24	0,17–0,34	0,19–0,38	0,24–0,44	0,30–0,56
	1	90	200	300	mm/r	0,08–0,14	0,10–0,16	0,12–0,20	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,48
	2	90	180	270	mm/r	0,08–0,16	0,10–0,20	0,12–0,24	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,44	0,32–0,52
	3	90	160	230	mm/r	0,12–0,14	0,13–0,16	0,14–0,20	0,16–0,24	0,20–0,28	0,24–0,32	0,28–0,40	0,32–0,44
S	4	80	120	160	mm/r	0,08–0,16	0,10–0,20	0,12–0,24	0,16–0,28	0,20–0,32	0,24–0,36	0,28–0,40	0,32–0,48
	1	10	20	30	mm/r	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	2	10	20	30	mm/r	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	3	15	25	35	mm/r	0,03–0,08	0,04–0,09	0,06–0,11	0,07–0,12	0,09–0,14	0,10–0,15	0,12–0,17	0,14–0,19
	4	20	30	40	mm/r	0,03–0,05	0,03–0,05	0,04–0,08	0,05–0,09	0,05–0,11	0,07–0,12	0,08–0,13	0,09–0,14

Kenna Universal Drill • B979 Series • Application Data • Inch

Material Group		Cutting Speed – vc			Inch								
		Range – SFM			Recommended Feed Rate per Rev								
		min	Starting Value	max		1/8 .125	3/16 .188	1/4 .250	5/16 .313	3/8 .375	1/2 .500	5/8 .625	3/4 .750
P	0	260	360	460	IPR	.002–.005	.003–.006	.004–.008	.004–.009	.005–.010	.006–.012	.006–.012	.009–.018
	1	230	330	430	IPR	.003–.006	.003–.006	.004–.009	.005–.010	.006–.012	.007–.014	.007–.014	.011–.021
	2	230	330	360	IPR	.003–.006	.003–.006	.005–.009	.006–.010	.007–.012	.008–.014	.008–.014	.012–.021
	3	200	260	330	IPR	.003–.006	.004–.007	.005–.009	.006–.011	.008–.013	.009–.015	.009–.015	.013–.023
	4	160	200	230	IPR	.003–.006	.003–.007	.005–.009	.006–.011	.007–.013	.008–.015	.008–.015	.011–.023
	5	160	200	230	IPR	.001–.004	.002–.004	.002–.004	.002–.006	.003–.007	.004–.008	.006–.009	.006–.010
M	6	130	160	200	IPR	.001–.003	.002–.004	.002–.004	.002–.006	.003–.007	.004–.008	.006–.009	.006–.010
	1	100	130	160	IPR	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008
	2	130	160	200	IPR	.002–.003	.002–.004	.003–.004	.004–.005	.004–.006	.005–.006	.006–.007	.006–.008
K	3	100	130	160	IPR	.001–.003	.002–.004	.002–.004	.003–.005	.004–.005	.004–.006	.005–.007	.006–.008
	1	260	390	520	IPR	.004–.006	.005–.008	.006–.011	.008–.013	.009–.016	.010–.017	.012–.021	.015–.027
	2	230	360	460	IPR	.004–.006	.005–.008	.006–.010	.008–.012	.009–.014	.010–.016	.012–.019	.015–.024
N	3	200	260	330	IPR	.003–.006	.004–.007	.005–.009	.006–.011	.007–.013	.008–.015	.009–.017	.012–.022
	1	300	660	980	IPR	.003–.006	.004–.006	.005–.008	.006–.009	.008–.011	.009–.013	.011–.016	.013–.019
	2	300	590	890	IPR	.003–.006	.004–.008	.005–.009	.006–.011	.008–.013	.009–.014	.011–.017	.013–.021
	3	300	520	750	IPR	.005–.006	.005–.006	.006–.008	.006–.009	.008–.011	.009–.013	.011–.016	.013–.017
S	4	260	390	520	IPR	.003–.006	.004–.008	.005–.009	.006–.011	.008–.013	.009–.014	.011–.016	.013–.019
	1	30	70	100	IPR	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	2	30	70	100	IPR	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	3	50	80	110	IPR	.001–.003	.002–.004	.002–.004	.003–.005	.004–.006	.004–.006	.005–.007	.006–.008
	4	70	100	130	IPR	.001–.002	.001–.002	.002–.003	.002–.004	.002–.004	.003–.005	.003–.005	.004–.006



Kenna Universal™ Drill • B97 Series • Application Data • Metric

	Cutting Speed – vc				Metric									
	Range – m/min				Recommended Feed Rate per Rev									
	min	Starting Value	max		2,0	3,0	4,0	6,0	8,0	10,0	12,0	16,0	20,0	
P	0	80	120	160	mm/r	0,04-0,10	0,06-0,12	0,07-0,14	0,09-0,19	0,11-0,22	0,13-0,26	0,15-0,30	0,19-0,36	0,24-0,46
	1	70	100	140	mm/r	0,05-0,12	0,07-0,14	0,08-0,16	0,11-0,22	0,13-0,26	0,15-0,31	0,18-0,35	0,22-0,42	0,28-0,54
	2	90	120	140	mm/r	0,05-0,12	0,07-0,14	0,08-0,16	0,12-0,22	0,14-0,26	0,17-0,31	0,20-0,35	0,24-0,42	0,31-0,53
	3	60	80	100	mm/r	0,06-0,13	0,08-0,15	0,09-0,17	0,13-0,23	0,15-0,28	0,19-0,33	0,22-0,38	0,26-0,47	0,34-0,59
	4	50	80	100	mm/r	0,06-0,13	0,07-0,15	0,08-0,17	0,12-0,23	0,14-0,28	0,17-0,33	0,19-0,38	0,23-0,47	0,29-0,59
	5	50	60	80	mm/r	0,06-0,12	0,08-0,13	0,10-0,15	0,12-0,19	0,16-0,24	0,20-0,27	0,24-0,30	0,28-0,38	0,32-0,44
M	6	40	50	70	mm/r	0,04-0,06	0,05-0,08	0,06-0,10	0,08-0,14	0,10-0,18	0,13-0,22	0,14-0,24	0,18-0,32	0,23-0,41
	1	30	40	50	mm/r	0,03-0,06	0,04-0,07	0,05-0,09	0,08-0,11	0,09-0,12	0,10-0,14	0,12-0,16	0,14-0,18	0,16-0,20
	2	40	50	60	mm/r	0,03-0,07	0,04-0,08	0,06-0,10	0,08-0,12	0,09-0,14	0,10-0,16	0,12-0,18	0,14-0,20	0,16-0,22
K	3	30	40	50	mm/r	0,03-0,06	0,04-0,07	0,05-0,09	0,08-0,11	0,09-0,12	0,10-0,14	0,12-0,16	0,14-0,18	0,16-0,20
	1	90	130	170	mm/r	0,09-0,17	0,11-0,22	0,12-0,24	0,16-0,31	0,20-0,38	0,23-0,44	0,25-0,49	0,31-0,60	0,38-0,74
	2	80	120	150	mm/r	0,11-0,15	0,12-0,16	0,13-0,19	0,16-0,25	0,20-0,31	0,23-0,36	0,25-0,40	0,31-0,48	0,38-0,60
N	3	70	90	110	mm/r	0,07-0,15	0,08-0,17	0,09-0,19	0,12-0,25	0,14-0,30	0,17-0,35	0,19-0,40	0,24-0,48	0,30-0,60
	1	90	230	315	mm/r	0,06-0,13	0,08-0,14	0,10-0,16	0,12-0,20	0,16-0,24	0,20-0,28	0,24-0,32	0,28-0,40	0,32-0,48
	2	90	225	270	mm/r	0,06-0,12	0,08-0,16	0,10-0,20	0,12-0,24	0,16-0,28	0,20-0,32	0,24-0,36	0,28-0,44	0,32-0,52
	3	90	180	270	mm/r	0,11-0,14	0,12-0,14	0,13-0,16	0,14-0,20	0,16-0,24	0,20-0,28	0,24-0,32	0,28-0,40	0,32-0,44
S	4	90	135	180	mm/r	0,06-0,12	0,08-0,16	0,10-0,20	0,12-0,24	0,16-0,28	0,20-0,32	0,24-0,36	0,28-0,40	0,32-0,48
	1	10	20	30	mm/r	0,02-0,07	0,03-0,08	0,04-0,09	0,06-0,11	0,07-0,12	0,09-0,14	0,10-0,15	0,12-0,17	0,14-0,19
	2	10	20	30	mm/r	0,02-0,07	0,03-0,08	0,04-0,09	0,06-0,11	0,07-0,12	0,09-0,14	0,10-0,15	0,12-0,17	0,14-0,19
	3	15	25	35	mm/r	0,02-0,07	0,03-0,08	0,04-0,09	0,06-0,11	0,07-0,12	0,09-0,14	0,10-0,15	0,12-0,17	0,14-0,19
	4	20	30	40	mm/r	0,02-0,04	0,03-0,05	0,03-0,05	0,04-0,08	0,05-0,09	0,05-0,11	0,07-0,12	0,08-0,13	0,09-0,14

Kenna Universal Drill • B97 Series • Application Data • Inch

Material Group	Cutting Speed – vc				Inch									
	Range – SFM				Recommended Feed Rate per Rev									
	min	Starting Value	max		5/64 .078	1/8 .125	3/16 .188	1/4 .250	5/16 .313	3/8 .375	1/2 .500	5/8 .625	3/4 .750	
P	0	260	390	520	IPR	.002-.004	.002-.005	.003-.005	.004-.007	.004-.009	.005-.010	.006-.012	.007-.014	.009-.018
	1	230	330	460	IPR	.002-.005	.003-.006	.003-.006	.004-.009	.005-.010	.006-.012	.007-.014	.009-.017	.011-.021
	2	300	390	460	IPR	.002-.005	.003-.006	.003-.006	.005-.009	.006-.010	.007-.012	.008-.014	.009-.017	.012-.021
	3	200	260	330	IPR	.002-.005	.003-.006	.004-.007	.005-.009	.006-.011	.008-.013	.009-.015	.010-.019	.013-.023
	4	160	260	330	IPR	.002-.005	.003-.006	.003-.007	.005-.009	.006-.011	.007-.013	.008-.015	.009-.019	.011-.023
	5	160	200	260	IPR	.002-.005	.003-.005	.004-.006	.005-.008	.006-.009	.007-.013	.008-.015	.011-.015	.013-.017
M	6	130	160	230	IPR	.002-.002	.002-.003	.002-.004	.003-.006	.004-.007	.005-.009	.006-.009	.007-.013	.009-.016
	1	100	130	160	IPR	.001-.002	.002-.003	.002-.004	.003-.004	.004-.005	.004-.006	.005-.006	.006-.007	.006-.008
	2	130	160	200	IPR	.001-.003	.002-.003	.002-.004	.003-.005	.004-.006	.004-.006	.005-.007	.006-.008	.006-.009
K	3	100	130	160	IPR	.001-.002	.002-.003	.002-.004	.003-.004	.004-.005	.004-.006	.005-.006	.006-.007	.006-.008
	1	300	430	560	IPR	.004-.007	.004-.009	.005-.009	.006-.012	.008-.015	.009-.017	.010-.019	.012-.024	.015-.029
	2	260	390	490	IPR	.004-.006	.005-.006	.005-.008	.006-.010	.008-.012	.009-.014	.010-.016	.012-.019	.015-.024
N	3	230	300	360	IPR	.003-.006	.003-.007	.004-.008	.005-.010	.006-.012	.007-.014	.008-.016	.009-.019	.012-.024
	1	300	750	1030	IPR	.002-.005	.003-.006	.004-.006	.005-.008	.006-.009	.008-.011	.009-.013	.011-.016	.013-.019
	2	300	740	890	IPR	.002-.005	.003-.006	.004-.008	.005-.009	.006-.011	.008-.013	.009-.014	.011-.017	.013-.021
	3	300	590	890	IPR	.004-.006	.005-.006	.005-.006	.006-.008	.006-.009	.008-.011	.009-.013	.011-.016	.013-.017
S	4	300	440	590	IPR	.002-.005	.003-.006	.000-.008	.005-.009	.006-.011	.008-.013	.009-.014	.011-.016	.013-.019
	1	30	70	100	IPR	.001-.003	.001-.003	.002-.004	.002-.004	.003-.005	.004-.006	.004-.006	.005-.007	.006-.008
	2	30	70	100	IPR	.001-.003	.001-.003	.002-.004	.002-.004	.003-.005	.004-.006	.004-.006	.005-.007	.006-.008
	3	50	80	110	IPR	.001-.003	.001-.003	.002-.004	.002-.004	.003-.005	.004-.006	.004-.006	.005-.007	.006-.008
	4	70	100	130	IPR	.001-.002	.001-.002	.001-.002	.002-.003	.002-.004	.002-.004	.003-.005	.003-.005	.004-.006

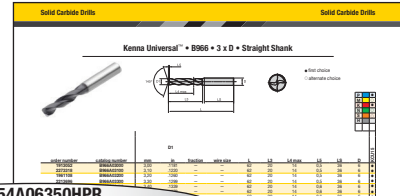
Tolerances • Kenna Universal Drills

nominal size range	Tolerance • Metric		nominal size range	Tolerance • Inch	
	D1 tolerance m7	D tolerance h6		D1 tolerance m7	D tolerance h6
>3-6	0,004/0,016	0,000/-0,008	>.1181 to .2362	.0002/.0006	.0000/-0,0003
>6-10	0,006/0,021	0,000/-0,009	>.2362 to .3937	.0002/.0008	.0000/-0,0004
>10-18	0,007/0,025	0,000/-0,011	>.3937 to .7087	.0003/.0010	.0000/-0,0004
>18-25,4	0,008/0,029	0,000/-0,013	>.7087 to 1.0000	.0003/.0011	.0000/-0,0005



Solid Carbide Drills • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



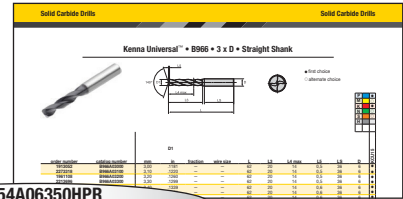
B254A06350HPR
K254A02500HPR

B	25	4	A
K	25	4	A
Tool Type	Series	Length to Diameter Ratio	Shank Style
<p>B = Metric (metric shank with 2mm steps)</p> <p>K = Inch (inch shank)</p>	<p>04 = GOdrill™</p> <p>05 = GOdrill Internal Coolant</p> <hr/> <p>06 = Microdrills Internal Coolant</p> <hr/> <p>10 = TF Drill</p> <hr/> <p>21 = HP Drill Internal Coolant for stainless steel</p> <hr/> <p>22 = HP Drill for steel</p> <hr/> <p>25 = HP Drill Internal Coolant for cast iron</p> <hr/> <p>26 = HP Drill Internal Coolant</p> <p>07 = Micro Deep-Hole Drills Internal Coolant</p> <p>27 = Deep-Hole Drill Internal Coolant</p> <hr/> <p>28 = HP Drill Internal Coolant for non-ferrous materials</p> <hr/> <p>29 = Y-TECH™ Drill Internal Coolant for difficult-to-machine materials</p> <p>34 = BF Drill Internal Coolant</p> <p>41 = TX Drill Internal Coolant</p> <p>42 = TX Light Drill Internal Coolant</p> <hr/> <p>50 = Non-Coolant Spotdrill</p> <p>51 = SPF PCD Drill Internal Coolant</p> <p>53 = SPF Drill</p> <p>55 = DAL Drill</p> <p>56 = DAL PCD Drill Internal Coolant</p> <p>70 = Flat Bottom Drill Internal Coolant</p> <p>72 = Step Drill</p> <p>73 = Step Drill Internal Coolant</p> <hr/> <p>94 = Hard Drill</p> <p>95 = Hard Drill Internal Coolant</p> <hr/> <p>96 = Kenna Universal™ Drill</p> <p>97 = Kenna Universal Drill Internal Coolant</p>	<p>1 = 3 x D</p> <p>2 = 5 x D</p> <p>3 = 8 x D</p> <hr/> <p>8 = 2 x D</p> <hr/> <p>5 = 5 x D</p> <hr/> <p>0 = 3 x D</p> <p>1 = 5 x D</p> <p>2 = 8 x D</p> <hr/> <p>1 = 3 x D</p> <p>2 = 5 x D</p> <p>4 = 3 x D Internal Coolant</p> <p>5 = 5 x D Internal Coolant</p> <p>6 = 8 x D Internal Coolant</p> <hr/> <p>4 = 3 x D</p> <p>5 = 5 x D</p> <p>6 = 8 x D</p> <hr/> <p>9 = 12 x D</p> <hr/> <p>0 = 7 x D</p> <p>1 = 15 x D</p> <p>2 = 20 x D</p> <p>3 = 25 x D</p> <p>4 = 30 x D</p> <p>5 = 40 x D</p> <p>6 = 50 x D</p> <hr/> <p>4 = 3 x D</p> <p>5 = 5 x D</p> <p>6 = 8 x D</p> <hr/> <p>1 = 3 x D</p> <p>2 = 5 x D</p> <p>3 = Medium Length</p> <hr/> <p>1 = 5 x D</p> <p>1 = 120°</p> <p>5 = 90°</p> <hr/> <p>1 = 3 x D</p> <p>2 = 5 x D</p> <p>6 = 3 x D Internal Coolant</p> <p>7 = 5 x D Internal Coolant</p> <hr/> <p>7 = 3 x D</p> <hr/> <p>1 = Short</p> <p>2 = Long</p> <hr/> <p>1 = 3 x D</p> <p>2 = 5 x D</p> <hr/> <p>6 = 3 x D</p> <p>7 = 5 x D</p> <p>8 = 8 x D</p> <p>9 = 12 x D</p>	<p>A = Straight Shank</p> <p>F = Whistle Notch™ Shank</p> <hr/> <p>Z = Straight Shank (1mm steps)</p> <hr/> <p>S = Straight Shank (1mm steps)</p> <p>H = Extended Shank for HIPACS</p>



Solid Carbide Drills • Catalog Numbering System







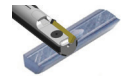












(continued)





B254A06350HPR
K254A02500HPR

06350	HP	R	
02500	HP	R	
Cutting Diameter D1	Point Style	Corner Style	Other Features
<p>Metric = D1 in mm Inch = D1 in decimal inch</p>	<p>CP = Cone Point SG = Smooth Gashing HP = Highly Positive YP = Uneven Flute Design SP = Split Point DA / DAL = Double Angle KM = Kenna Universal™ Cone Point</p>	<p>G = General Purpose L = Light Hone X = Next Generation for Steel C = Corner Chamfer R = Corner Radius S = Sharp F = Fiber H = Curved Cutting Edge Shape</p>	<p>P = Body with Flat Surface for HIPACS Insert</p>

Tool Selection Guide • Reamers




























	Solid & Brazed Reamers		Brazed Reamers, PCD		Expandable Reamers		Indexable Reamers	
	KenReam™ S	KenReam MS	KenReam Q	KenReam MQ	KenReam E	KenReam ME	KenReam X	
								
Series	RMS / KRS / RMR / RMB	RHR / RHM	R215 / R225	R420	RMB-E	RHM-E	RIR	RIQ
Page	kennametal.com	kennametal.com	kennametal.com	kennametal.com	kennametal.com	kennametal.com	kennametal.com	kennametal.com
Tool type	Solid & Brazed Reamers	Modular Reamers	Brazed Reamers, PCD	Modular Reamers, PCD	Expandable Reamers, Brazed	Expandable Reamers, Modular	Indexable Reamers	Indexable Reamers
Main operations								
Workpiece material								
Primary	P M K N	P M K	N	N	P M K	P M K	P M K N S	P M K N S
Secondary	S	S			S	S	H	H
Cutting diameter D1	5–20mm (.196–.787")	14–42mm (.551–1.65")	6–20mm (.236–.709")	20–42mm (.787–1.654")	14–20mm (.551–.787")	14–42mm (.551–1.65")	6–300mm+ (.236–11.8+")	16–300mm+ (.630–11.8+")
Accuracy	IT7	IT7	IT6	IT6	IT6	IT6	IT5	IT5
Cylindricity 	7µm (.0003")	7µm (.0003")	5µm (.0002")	5µm (.0002")	7µm (.0003")	7µm (.0003")	4µm (.0002")	4µm (.0002")
Position 	10µm (.0004")	10µm (.0004")	7µm (.0003")	7µm (.0003")	10µm (.0004")	10µm (.0004")	10µm (.0004")	10µm (.0004")
Surface roughness (Ra)	0,5–1,5µm (20–60 µ-in)	0,5–1,5µm (20–60 µ-in)	0,1–0,8µm (4–32 µ-in)	0,1–0,8µm (4–32 µ-in)	0,5–1,5µm (20–60 µ-in)	0,5–1,5µm (20–60 µ-in)	0,1–1,8µm (4–72 µ-in)	0,1–1,8µm (4–72 µ-in)
Cost / Part	low	low	extremely low	extremely low	low	low	low	low
Cycle time	low	low	extremely low	extremely low	low	low	moderate	moderate
Number of flutes [ZU]	4–8	6–8	2–4	4–6	6	6–8	1	1 or more
Coolant								

 **Cylindricity**
NOTE: Process and application-dependent.
 Highly depending on the premachine hole accuracy.
 Use of high-performance drilling/premachining tools mandatory to reach values.


 **Position**
NOTE: Process and application-dependent.
 Highly depending on the premachine hole accuracy.
 Use of high-performance drilling/premachining tools mandatory to reach values.


Ra **Surface roughness**
NOTE: Surface roughness values are guidelines and depend on the application, workpiece material, coolant situation, machine, and cutting data applied.

Tool Selection Guide • KenReam™ S

Solid Carbide Reamers						
KenReam S						
	NEW! 	NEW! 	NEW! 	NEW! 		
Series	KRS102	KRS103	KRS104	KRS105	RMS SF	RMS HF
Page	92	92	93	93	*K8	*K9
Main operations	 	 	 	 	 	 
Workpiece material						
Primary	P M	P M	K	K	P M K N	P M K
Secondary	K S	K S	P M	P M	S	S
Cutting diameter D1	5–14mm (.196–.551")				5–14mm (.196–.551")	
Accuracy	IT7				IT7	
Cylindricity 	7µm (.0003")				7µm (.0003")	
Position 	10µm (.0004")				10µm (.0004")	
Surface roughness (Ra)	0,5–1,5µm (20–60 µ-in)				0,5–1,5µm (20–60 µ-in)	
Cost / Part	low				low	
Cycle time	low				low	
Number of flutes [ZU]	4–6	6–8	4–6	6–8	4–6	4–6
Coolant 						

* See page in the Kennametal Master Catalog 2018 • Volume Two • Rotating Tools, A-16-05217.

 **Cylindricity**
NOTE: Process and application-dependent.
 Highly depending on the premachine hole accuracy.
 Use of high-performance drilling/premachining tools mandatory to reach values.

 **Position**
NOTE: Process and application-dependent.
 Highly depending on the premachine hole accuracy.
 Use of high-performance drilling/premachining tools mandatory to reach values.

Ra **Surface roughness**
NOTE: Surface roughness values are guidelines and depend on the application, workpiece material, coolant situation, machine, and cutting data applied.



KenReam™ S

High-Performance
Solid Carbide Reamer



Materials



Applications



Reaming:
Blind Hole



Reaming:
Through &
Cross Holes



Reaming:
Through Hole



Reaming:
Blind & Cross Holes

Solid carbide reamers for highest feed rates, maximum chip control, and best surface quality in steels and cast iron.

The KenReam S solid carbide reamer series is designed for long tool life and highest metal removal rates in blind hole and through hole applications up to 5 x D.

Unique design features deliver excellent process reliability and consistent hole quality of IT7 at lowest cost per part.



NEW!

KenReam™ S102

Proprietary chip former and right-hand helical flutes for excellent chip control and chip evacuation in blind hole applications.

Increased flute length separates chips and avoids chip tangling.



NEW!

KenReam S103 & KenReam S105

Unique front gash design with increased number of teeth for excellent chip forming and hassle-free chip evacuation to the front.



NEW!

KenReam S104

Double lead for high speed and feeds plus best surface quality.

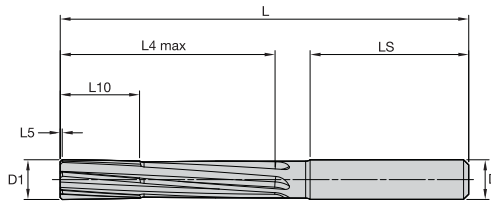
Through hole reamers with proprietary front gash design deliver highest feed rate capability and productivity for any steel or cast iron parts.

The right-hand helical fluted blind hole reamers deliver maximum chip control and reliability.

Advanced substrate and coating for superior tool life and productivity.

KenReam™ S102 • Helical Fluted • 5 x D • Internal Coolant • Straight Shank

NEW!



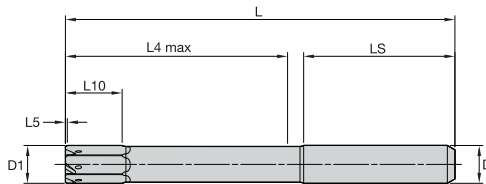
- first choice
- alternate choice

P	●
M	●
K	○
N	○
S	○
H	○

order number	catalog number	D1		L5		L10		L4 max		L		LS		D		Z	KCU05A
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		
7029804	KRS102A050000H7	5,00	.197	0,40	.016	12,00	.472	30,00	1.181	74,00	2.913	36,00	1.417	6,00	.236	4	●
7029805	KRS102A055000H7	5,50	.217	0,40	.016	12,00	.472	30,00	1.181	74,00	2.913	36,00	1.417	6,00	.236	4	●
7029806	KRS102A060000H7	6,00	.237	0,40	.016	12,00	.472	30,00	1.181	74,00	2.913	36,00	1.417	6,00	.262	4	●
7029807	KRS102A065000H7	6,50	.256	0,40	.016	16,00	.630	45,00	1.772	91,00	3.583	36,00	1.417	8,00	.315	4	●
7029808	KRS102A070000H7	7,00	.276	0,40	.016	16,00	.630	45,00	1.772	91,00	3.583	36,00	1.417	8,00	.315	4	●
7029809	KRS102A080000H7	8,00	.315	0,40	.016	16,00	.630	45,00	1.772	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029810	KRS102A090000H7	9,00	.355	0,50	.020	20,00	.787	53,00	2.087	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029831	KRS102A100000H7	10,00	.394	0,50	.020	20,00	.787	53,00	2.087	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029832	KRS102A110000H7	11,00	.434	0,60	.024	20,00	.787	63,00	2.480	118,00	4.646	45,00	1.772	12,00	.472	6	●
7029833	KRS102A120000H7	12,00	.473	0,60	.024	20,00	.787	63,00	2.480	118,00	4.646	45,00	1.772	12,00	.472	6	●
7029834	KRS102A130000H7	13,00	.512	0,60	.024	25,00	.984	77,00	3.031	132,00	5.197	45,00	1.772	14,00	.551	6	●
7029835	KRS102A140000H7	14,00	.552	0,60	.024	25,00	.984	77,00	3.031	132,00	5.197	45,00	1.772	14,00	.551	6	●

KenReam S103 • Front Gash • 5 x D • Internal Coolant • Straight Shank

NEW!



- first choice
- alternate choice

P	●
M	●
K	○
N	○
S	○
H	○

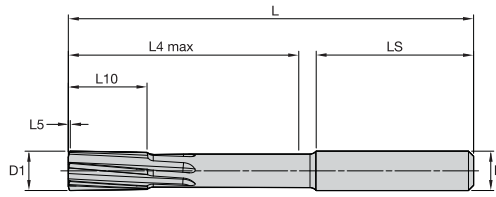
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7029836	KRS103A050000H7	5,00	.197	0,70	.028	9,00	.354	32,00	1.275	74,00	2.913	36,00	1.417	6,00	.236	6	●
7029837	KRS103A055000H7	5,50	.217	0,70	.028	9,00	.354	32,00	1.275	74,00	2.913	36,00	1.417	6,00	.236	6	●
7029838	KRS103A060000H7	6,00	.236	0,70	.028	9,00	.355	32,00	1.275	74,00	2.913	36,00	1.417	6,00	.236	6	●
7029839	KRS103A065000H7	6,50	.256	0,70	.028	12,00	.472	49,00	1.944	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029840	KRS103A070000H7	7,00	.276	0,70	.028	12,00	.472	49,00	1.944	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029841	KRS103A080000H7	8,00	.315	0,80	.031	12,00	.473	49,00	1.944	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029842	KRS103A090000H7	9,00	.354	0,80	.031	15,00	.591	57,00	2.259	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029843	KRS103A100000H7	10,00	.394	0,80	.032	15,00	.591	57,00	2.259	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029844	KRS103A110000H7	11,00	.433	0,90	.035	18,00	.709	67,00	2.653	118,00	4.646	45,00	1.772	12,00	.474	8	●
7029845	KRS103A120000H7	12,00	.472	0,90	.035	18,00	.709	67,00	2.653	118,00	4.646	45,00	1.772	12,00	.472	8	●
7029846	KRS103A130000H7	13,00	.512	0,90	.035	21,00	.827	81,00	3.204	132,00	5.197	45,00	1.772	14,00	.551	8	●
7029847	KRS103A140000H7	14,00	.552	0,90	.035	21,00	.827	81,00	3.204	132,00	5.197	45,00	1.772	14,00	.551	8	●

160-163	164	95-97	98, 168



KenReam™ S104 • Helical Fluted • 5 x D • Internal Coolant • Straight Shank

NEW!



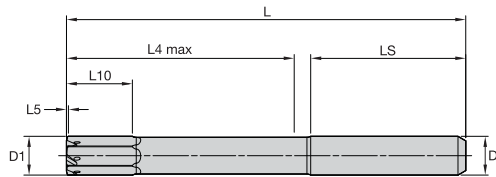
- first choice
- alternate choice

P	●
M	○
K	●
N	○
S	○
H	○

order number	catalog number	D1		L5		L10		L4 max		L		LS		D		Z	KCU05A
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		
7029848	KRS104A050000H7	5,00	.197	0,40	.016	12,00	.472	32,00	1.260	74,00	2.913	36,00	1.417	6,00	.236	4	●
7029849	KRS104A055000H7	5,50	.217	0,40	.016	12,00	.472	32,00	1.260	74,00	2.913	36,00	1.417	6,00	.236	4	●
7029850	KRS104A060000H7	6,00	.237	0,40	.016	12,00	.472	32,00	1.260	74,00	2.913	36,00	1.417	6,00	.236	4	●
7029862	KRS104A065000H7	6,50	.256	0,40	.016	16,00	.630	49,00	1.929	91,00	3.583	36,00	1.417	8,00	.315	4	●
7029863	KRS104A070000H7	7,00	.276	0,40	.016	16,00	.630	49,00	1.929	91,00	3.583	36,00	1.417	8,00	.315	4	●
7029864	KRS104A080000H7	8,00	.315	0,50	.020	16,00	.630	49,00	1.929	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029865	KRS104A090000H7	9,00	.355	0,50	.020	20,00	.787	57,00	2.244	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029866	KRS104A100000H7	10,00	.394	0,50	.020	20,00	.787	57,00	2.244	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029867	KRS104A110000H7	11,00	.434	0,60	.024	20,00	.787	67,00	2.638	118,00	4.646	45,00	1.772	12,00	.472	6	●
7029868	KRS104A120000H7	12,00	.473	0,60	.024	20,00	.787	67,00	2.638	118,00	4.646	45,00	1.772	12,00	.472	6	●
7029869	KRS104A130000H7	13,00	.512	0,60	.024	25,00	.984	81,00	3.189	132,00	5.197	45,00	1.772	14,00	.551	6	●
7029870	KRS104A140000H7	14,00	.552	0,60	.024	25,00	.984	81,00	3.189	132,00	5.197	45,00	1.772	14,00	.551	6	●

KenReam S105 • Front Gash • 5 x D • Internal Coolant • Straight Shank

NEW!



- first choice
- alternate choice

P	●
M	○
K	●
N	○
S	○
H	○

order number	catalog number	D1		L5		L10		L4 max		L		LS		D		Z	KCU05A
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		
7029872	KRS105A050000H7	5,00	.197	0,40	.016	9,00	.354	32,00	1.275	74,00	2.913	36,00	1.417	6,00	.236	6	●
7029873	KRS105A055000H7	5,50	.217	0,40	.016	9,00	.354	32,00	1.275	74,00	2.913	36,00	1.417	6,00	.236	6	●
7029874	KRS105A060000H7	6,00	.236	0,40	.016	9,00	.354	32,00	1.275	74,00	2.913	36,00	1.417	6,00	.236	6	●
7029875	KRS105A065000H7	6,50	.256	0,40	.016	12,00	.472	49,00	1.944	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029876	KRS105A070000H7	7,00	.276	0,40	.016	12,00	.472	49,00	1.944	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029877	KRS105A080000H7	8,00	.315	0,50	.020	12,00	.473	49,00	1.944	91,00	3.583	36,00	1.417	8,00	.315	6	●
7029878	KRS105A090000H7	9,00	.354	0,50	.020	15,00	.591	57,00	2.259	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029879	KRS105A100000H7	10,00	.394	0,50	.020	15,00	.591	57,00	2.259	103,00	4.055	40,00	1.575	10,00	.394	6	●
7029891	KRS105A110000H7	11,00	.433	0,60	.024	18,00	.709	67,00	2.653	118,00	4.646	45,00	1.772	12,00	.472	8	●
7029892	KRS105A120000H7	12,00	.472	0,60	.024	18,00	.709	67,00	2.653	118,00	4.646	45,00	1.772	12,00	.472	8	●
7029893	KRS105A130000H7	13,00	.512	0,60	.024	21,00	.827	81,00	3.204	132,00	5.197	45,00	1.772	14,00	.551	8	●
7029894	KRS105A140000H7	14,00	.552	0,60	.024	21,00	.827	81,00	3.204	132,00	5.197	45,00	1.772	14,00	.551	8	●

160-163	164	95-97	98, 168

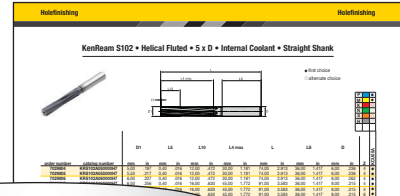
KenReam™ S • Application Data

Material Group	Cutting Speed – vc			Recommended feed per tooth (fz = mm/th)							
	Range – m/min			Tool Diameter (mm)	4,000–7,000		7,001–10,000		10,001–14,000		
	min	Starting Value	max		Feed/Tooth	min	max	min	max	min	max
P	1	90	130	160	mm/z	0,06	0,12	0,08	0,15	0,08	0,20
	2	90	130	160	mm/z	0,06	0,12	0,08	0,15	0,08	0,20
	3	90	130	160	mm/z	0,06	0,12	0,08	0,15	0,08	0,20
	4	80	120	160	mm/z	0,06	0,12	0,08	0,15	0,08	0,20
	5	20	40	60	mm/z	0,06	0,12	0,08	0,15	0,08	0,15
	6	20	40	60	mm/z	0,06	0,12	0,08	0,15	0,08	0,15
M	1	20	40	50	mm/z	0,08	0,12	0,08	0,15	0,08	0,15
	2	20	40	50	mm/z	0,08	0,12	0,08	0,15	0,08	0,15
	3	20	40	50	mm/z	0,08	0,12	0,08	0,15	0,08	0,15
K	1	80	160	240	mm/z	0,06	0,15	0,08	0,20	0,08	0,20
	2	80	140	200	mm/z	0,06	0,15	0,08	0,20	0,08	0,20
	3	60	90	120	mm/z	0,06	0,15	0,08	0,15	0,08	0,15
S	1	15	20	30	mm/z	0,06	0,12	0,06	0,15	0,06	0,15
	2	15	20	30	mm/z	0,06	0,12	0,06	0,15	0,06	0,15
	3	20	30	40	mm/z	0,06	0,12	0,06	0,15	0,06	0,15
	4	20	30	40	mm/z	0,06	0,12	0,06	0,15	0,06	0,15

Recommended Reaming Allowance in Diameter						
Tool Diameter (mm)	4,000–7,000		7,001–10,000		10,001–14,000	
2 x ap	min	max	min	max	min	max
mm	0,20	0,30	0,20	0,30	0,20	0,40

KenReam™ S • KRS Series • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

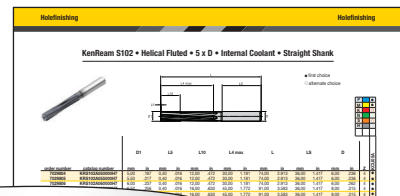


KRS100A05000H7

KRS100	A	050000	H7
KenReam S KRS Series	Shank Style	Cutting Diameter D1	ISO Tolerance Class
<p>KRS102 = Solid Carbide Reamer for Blind Holes in Steel</p> <p>KRS104 = Solid Carbide Reamer for Blind Holes in Cast Iron</p> <p>KRS103 = Solid Carbide Reamer for Through Holes in Steel</p> <p>KRS105 = Solid Carbide Reamer for Through Holes in Cast Iron</p>	<p>A = Straight Shank</p>	<p>Metric = D1 in mm</p> <p>Inch = D1 in decimal inch</p>	<p>H7</p>

KenReam S • RM Series • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

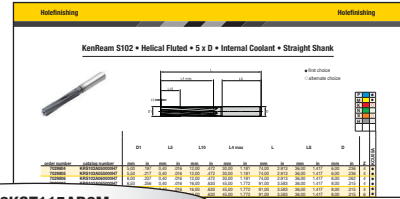


RSM05000H7SF

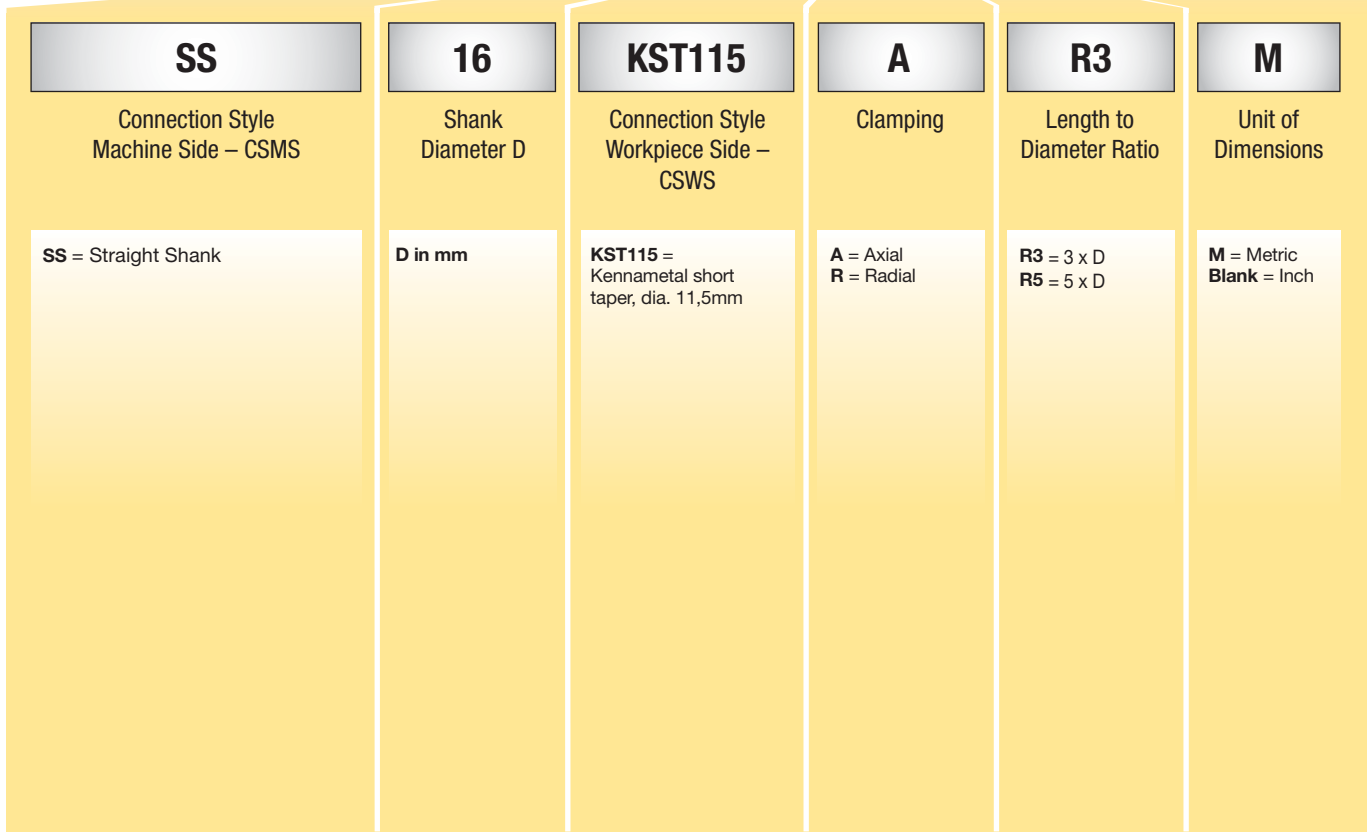
RMS	05000	H7	SF
KenReam S/E Series	Cutting Diameter D1	ISO Tolerance Class	Flute Style
<p>RMS = Solid Carbide Reamer</p> <p>RMR = Monoblock Reamer with Solid Head</p> <p>RMB = Monoblock Reamer with Tips</p> <p>RMBE = Monoblock Reamer with Tips, Expandable</p>	<p>Metric = D1 in mm</p> <p>Inch = D1 in decimal inch</p>	<p>H6</p> <p>H7</p>	<p>SF = Straight Flute</p> <p>HF = Helical Flute</p>

Modular Reamer Bodies • Catalog Numbering System

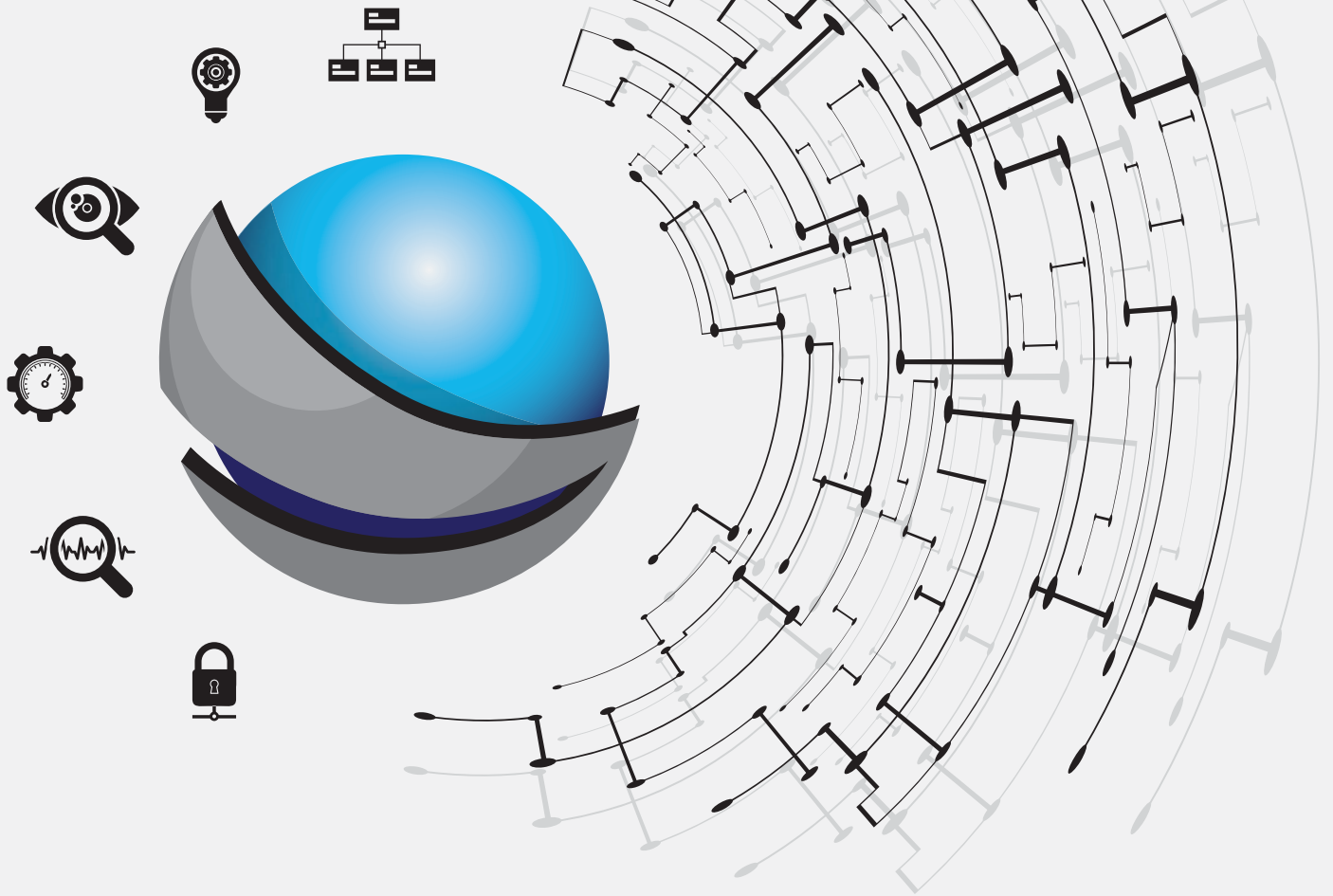
Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



SS16KST115AR3M











































NOVO™



**Digitally access and leverage product data and knowledge
to connect systems and processes throughout
the entire manufacturing lifecycle.**

VISIT KENNAMETAL.COM/NOVO.

Tool Selector

DYNAMIC MILLING							
	KOR5™ DS		KOR5 ^{DA}			KOR6™ DT	
				NEW! 			
Series	KOR5..R..	KOR5..L..	KOR5..R..I	KOR5..L..I	KOR5..R..C	KOR6..R..	KOR6..L..
Page	102	103	104–105	108–109	106–107	110	111
Tool type							
Rougher	●	●	●	●	●	●	●
Finisher	○	○	○	○	○		
Chamfering							
Main operation							
Workpiece material							
Primary	P M	P M	N	N	N	S	S
Secondary	K S H	K S H				P M K H	P M K H
Corner style			 	 	 		
Corner radius [R _e]	0.030–0.060"	0.030–0.060"	0.015–0.120"	0.015–0.120"	0.015–0.120"	0.030–0.060"	0.030–0.060"
Corner chamfer width [BCH]	–	–	–	–	–	–	–
Cutter diameter [D1]	1/4–1"	1/4–1"	3/8–1"	0.015–0.120"	3/8–1"	3/8–1"	3/8–1"
Length of cut	3 x D	5 x D	3 x D	5 x D	3 x D	3 x D	5 x D
Maximum cutting depth [A _{p1} max]	3/4–3"	1 1/4–5"	1 1/8–3"	1 7/8–5"	1 1/8–3"	1 1/8–3"	1 7/8–5"
Flute helix angle	40°	40°	35°	35°	35°	38°	38°
Number of flutes [ZU]	5	5	5	5	5	6	6
Coolant							
Additional operations	 	 	 	 	 	 	 

- Primary
- Secondary

KOR™ Series

High-Performance Dynamic Milling



Materials



Applications



Ramping



Trochoidal Milling



Side Milling/Shoulder
Milling: Roughing



Side Milling/Shoulder
Milling: Finishing

KOR Series

Designed for dynamic milling with low radial engagement and full length of cut. Maximizes capabilities of 5-axis machines, using CAM tool path generation software.

KOR5^{DA} — Dynamic Rougher for Aluminum

With chip splitters for near-perfect chip management.

Safe-Lock™ shanks available for pullout protection.

With and without internal coolant.

NEW!

5 x D length of cut with internal coolant for a broader application range.

KOR5™ DA



Proprietary flute forms reduce vibrations and improve tool life.

KOR5™ DS



Helix angles tailored to target material to minimize vibration and optimize tool life.

KOR6™ DT



Front end geometries for maximum tool life in helical and ramping operations.

KOR5^{DS} — Dynamic Rougher for Steel and Stainless Steel

With chip deformers for near-perfect chip management at high surface quality.

3 x D and 5 x D with plain and Weldon® shanks.

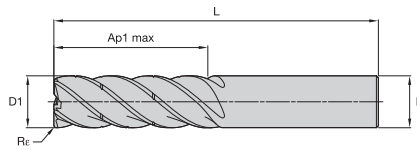
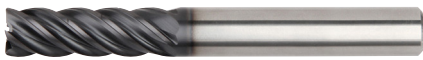
KOR6^{DT} — Dynamic Rougher for Titanium

With chip splitters for optimized chip management.

3 x D and 5 x D with Safe-Lock™ and Weldon shanks for pullout protection.

KOR5™ DS • Radiused • 5 Flutes • 3 x D • Plain Shank • Inch

- first choice
- alternate choice



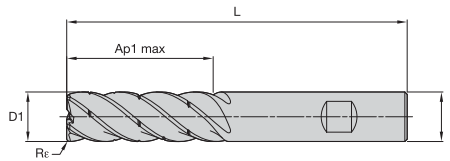
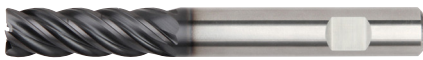
P	●
M	●
K	○
N	○
S	●
H	○

KC643M

order number	catalog number	D1	D	Ap1 max	L	Re	
6769720	KOR5RA0250R075HAR030	1/4	1/4	3/4	2 1/2	.030	●
6769781	KOR5RA0375R113HAR030	3/8	3/8	1 1/8	3	.030	●
6769782	KOR5RA0500R150HAR030	1/2	1/2	1 1/2	3 1/2	.030	●
6769783	KOR5RA0625R188HAR030	5/8	5/8	1 7/8	4	.030	●
6769784	KOR5RA0750R225HAR060	3/4	3/4	2 1/4	5	.060	●
6769785	KOR5RA1000R300HAR060	1	1	3	6	.060	●

KOR5 DS • Radiused • 5 Flutes • 3 x D • Weldon® Shank • Inch

- first choice
- alternate choice



P	●
M	●
K	○
N	○
S	●
H	○

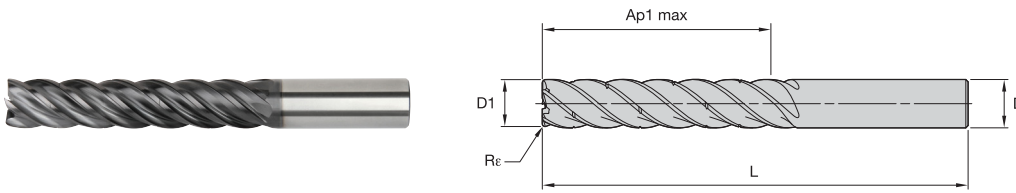
KC643M

order number	catalog number	D1	D	Ap1 max	L	Re	
6769786	KOR5RA0250R075HBR030	1/4	1/4	3/4	2 1/2	.030	●
6769787	KOR5RA0375R113HBR030	3/8	3/8	1 1/8	3	.030	●
6769789	KOR5RA0500R150HBR030	1/2	1/2	1 1/2	3 1/2	.030	●
6769790	KOR5RA0625R188HBR030	5/8	5/8	1 7/8	4	.030	●
6769791	KOR5RA0750R225HBR060	3/4	3/4	2 1/4	5	.060	●
6769792	KOR5RA1000R300HBR060	1	1	3	6	.060	●

160-163	164	114	98, 168

KOR5™ DS • Radiused • 5 Flutes • 5 x D • Plain Shank • Inch

- first choice
- alternate choice



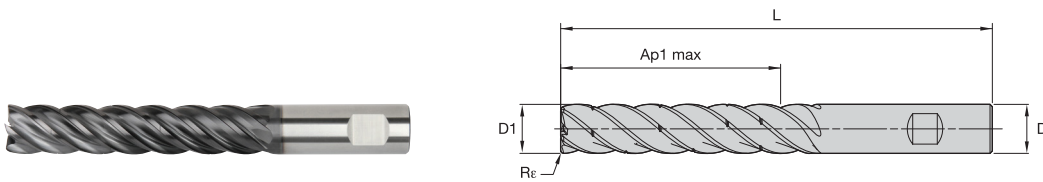
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KC643M

order number	catalog number	D1	D	Ap1 max	L	Re	
6764360	KOR5RA0250L125HAR030	1/4	1/4	1 1/4	3	.030	●
6764471	KOR5RA0375L188HAR030	3/8	3/8	1 7/8	4	.030	●
6764472	KOR5RA0500L250HAR030	1/2	1/2	2 1/2	5	.030	●
6764473	KOR5RA0625L313HAR030	5/8	5/8	3 1/8	6	.030	●
6764474	KOR5RA0750L375HAR060	3/4	3/4	3 3/4	7	.060	●
6764475	KOR5RA1000L500HAR060	1	1	5	7 1/2	.060	●

KOR5 DS • Radiused • 5 Flutes • 5 x D • Weldon® Shank • Inch

- first choice
- alternate choice



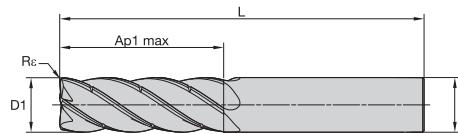
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N	<input type="checkbox"/>
S	<input checked="" type="checkbox"/>
H	<input type="checkbox"/>

KC643M

order number	catalog number	D1	D	Ap1 max	L	Re	
6764476	KOR5RA0250L125HBR030	1/4	1/4	1 1/4	3	.030	●
6764477	KOR5RA0375L188HBR030	3/8	3/8	1 7/8	4	.030	●
6764478	KOR5RA0500L250HBR030	1/2	1/2	2 1/2	5	.030	●
6764479	KOR5RA0625L313HBR030	5/8	5/8	3 1/8	6	.030	●
6764480	KOR5RA0750L375HBR060	3/4	3/4	3 3/4	7	.060	●
6764491	KOR5RA1000L500HBR060	1	1	5	7 1/2	.060	●

160-163	164	114	98, 168

KOR5™ DA • Radiused • 5 Flutes • 3 x D • Internal Coolant • Plain Shank • Inch

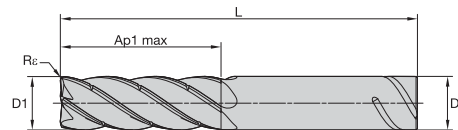


- first choice
- alternate choice

P	■
M	■
K	■
N	●
S	■
H	■

order number	catalog number	D1	D	Ap1 max	L	Re	K600
6754900	KOR5RA0375R113HAR015I	3/8	3/8	1 1/8	3	.015	●
6754921	KOR5RA0375R113HAR030I	3/8	3/8	1 1/8	3	.030	●
6754922	KOR5RA0375R113HAR060I	3/8	3/8	1 1/8	3	.060	●

KOR5 DA • Radiused • 5 Flutes • 3 x D • Internal Coolant • Safe-Lock™ Shank • Inch



- first choice
- alternate choice

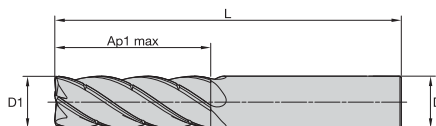
P	■
M	■
K	■
N	●
S	■
H	■

order number	catalog number	D1	D	Ap1 max	L	Re	K600
6754924	KOR5RA0500R150SLR015I	1/2	1/2	1 1/2	3 1/2	.015	●
6754925	KOR5RA0500R150SLR030I	1/2	1/2	1 1/2	3 1/2	.030	●
6754926	KOR5RA0500R150SLR060I	1/2	1/2	1 1/2	3 1/2	.060	●
6754928	KOR5RA0625R188SLR030I	5/8	5/8	1 7/8	4	.030	●
6754929	KOR5RA0625R188SLR060I	5/8	5/8	1 7/8	4	.060	●
6754930	KOR5RA0625R188SLR090I	5/8	5/8	1 7/8	4	.090	●
6754932	KOR5RA0750R225SLR030I	3/4	3/4	2 1/4	5	.030	●
6754933	KOR5RA0750R225SLR060I	3/4	3/4	2 1/4	5	.060	●
6754934	KOR5RA0750R225SLR090I	3/4	3/4	2 1/4	5	.090	●
6754935	KOR5RA0750R225SLR120I	3/4	3/4	2 1/4	5	.120	●
6754937	KOR5RA1000R300SLR030I	1	1	3	5 1/2	.030	●
6754938	KOR5RA1000R300SLR060I	1	1	3	5 1/2	.060	●
6754939	KOR5RA1000R300SLR090I	1	1	3	5 1/2	.090	●

160-163	164	114	98, 168

KOR5™ DA • Square End • 5 Flutes • 3 x D • Internal Coolant • Plain Shank • Inch

- first choice
- alternate choice

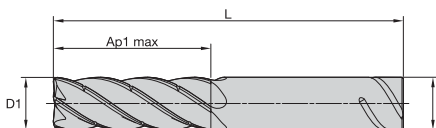


P	■
M	■
K	■
N	●
S	■
H	■
	■

order number	catalog number	D1	D	Ap1 max	L	K600
6754899	KOR5SE0375R113HAI	3/8	3/8	1 1/8	3	●

KOR5 DA • Square End • 5 Flutes • 3 x D • Internal Coolant • Safe-Lock™ Shank • Inch

- first choice
- alternate choice

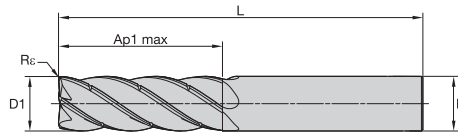


P	■
M	■
K	■
N	●
S	■
H	■
	■

order number	catalog number	D1	D	Ap1 max	L	K600
6754923	KOR5SE0500R150SLI	1/2	1/2	1 1/2	3 1/2	●
6754927	KOR5SE0625R188SLI	5/8	5/8	1 7/8	4	●
6754931	KOR5SE0750R225SLI	3/4	3/4	2 1/4	5	●
6754936	KOR5SE1000R300SLI	1	1	3	5 1/2	●

160-163	164	114	98, 168

KOR5™ DA • Radiused • 5 Flutes • 3 x D • Plain Shank • Inch

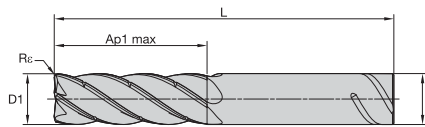


- first choice
- alternate choice

P	■
M	■
K	■
N	●
S	■
H	■

order number	catalog number	D1	D	Ap1 max	L	Rc	K600
6754952	KOR5RA0375R113HAR015C	3/8	3/8	1 1/8	3	.015	●
6754953	KOR5RA0375R113HAR030C	3/8	3/8	1 1/8	3	.030	●
6754954	KOR5RA0375R113HAR060C	3/8	3/8	1 1/8	3	.060	●

KOR5 DA • Radiused • 5 Flutes • 3 x D • Safe-Lock™ Shank • Inch



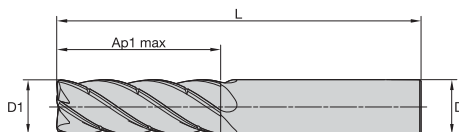
- first choice
- alternate choice

P	■
M	■
K	■
N	●
S	■
H	■

order number	catalog number	D1	D	Ap1 max	L	Rc	K600
6754956	KOR5RA0500R150SLR015C	1/2	1/2	1 1/2	3 1/2	.015	●
6754957	KOR5RA0500R150SLR030C	1/2	1/2	1 1/2	3 1/2	.030	●
6754958	KOR5RA0500R150SLR060C	1/2	1/2	1 1/2	3 1/2	.060	●
6754960	KOR5RA0625R188SLR030C	5/8	5/8	1 7/8	4	.030	●
6754961	KOR5RA0625R188SLR060C	5/8	5/8	1 7/8	4	.060	●
6754962	KOR5RA0625R188SLR090C	5/8	5/8	1 7/8	4	.090	●
6754964	KOR5RA0750R225SLR030C	3/4	3/4	2 1/4	5	.030	●
6754965	KOR5RA0750R225SLR060C	3/4	3/4	2 1/4	5	.060	●
6754966	KOR5RA0750R225SLR090C	3/4	3/4	2 1/4	5	.090	●
6754967	KOR5RA0750R225SLR120C	3/4	3/4	2 1/4	5	.120	●
6754969	KOR5RA1000R300SLR030C	1	1	3	5 1/2	.030	●
6754970	KOR5RA1000R300SLR060C	1	1	3	5 1/2	.060	●
6754971	KOR5RA1000R300SLR090C	1	1	3	5 1/2	.090	●

160-163	164	114	98, 168

KOR5™ DA • Square End • 5 Flutes • 3 x D • Plain Shank • Inch

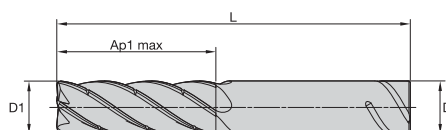


- first choice
- alternate choice

P	■
M	■
K	■
N	●
S	■
H	■

order number	catalog number	D1	D	Ap1 max	L	K600
6754951	KOR5SE0375R113HAC	3/8	3/8	1 1/8	3	●

KOR5 DA • Square End • 5 Flutes • 3 x D • Safe-Lock™ Shank • Inch



- first choice
- alternate choice

P	■
M	■
K	■
N	●
S	■
H	■

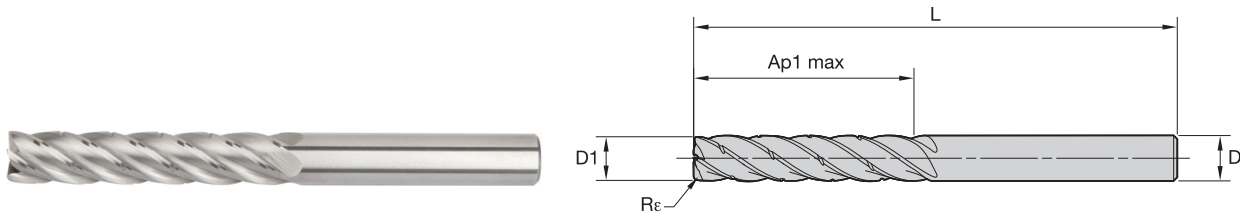
order number	catalog number	D1	D	Ap1 max	L	K600
6754955	KOR5SE0500R150SLC	1/2	1/2	1 1/2	3 1/2	●
6754959	KOR5SE0625R188SLC	5/8	5/8	1 7/8	4	●
6754963	KOR5SE0750R225SLC	3/4	3/4	2 1/4	5	●
6754968	KOR5SE1000R300SLC	1	1	3	5 1/2	●

160-163	164	114	98, 168

KOR5™ DA • Radiused • 5 Flutes • 5 x D • Internal Coolant • Plain Shank • Inch

● first choice
○ alternate choice

NEW!



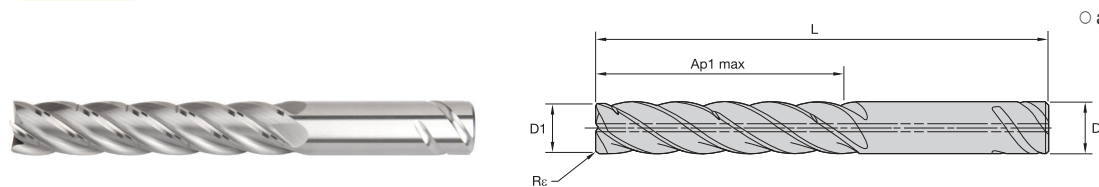
P	■
M	■
K	■
N	●
S	■
H	■

order number	catalog number	D1	D	Ap1 max	L	Rc	K600
6971843	KOR5RA0375L188HAR015I	3/8	3/8	1 7/8	4	.015	●
6971844	KOR5RA0375L188HAR030I	3/8	3/8	1 7/8	4	.030	●
6971845	KOR5RA0375L188HAR060I	3/8	3/8	1 7/8	4	.060	●

KOR5 DA • Radiused • 5 Flutes • 5 x D • Internal Coolant • Safe-Lock™ Shank • Inch

● first choice
○ alternate choice

NEW!

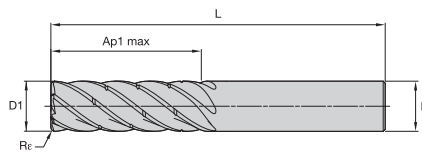


P	■
M	■
K	■
N	●
S	■
H	■

order number	catalog number	D1	D	Ap1 max	L	Rc	K600
6971847	KOR5RA0500L250SLR015I	1/2	1/2	2 1/2	4 1/2	.015	●
6971848	KOR5RA0500L250SLR030I	1/2	1/2	2 1/2	4 1/2	.030	●
6971849	KOR5RA0500L250SLR060I	1/2	1/2	2 1/2	4 1/2	.060	●
6971871	KOR5RA0625L313SLR030I	5/8	5/8	3 1/8	5 1/2	.030	●
6971872	KOR5RA0625L313SLR060I	5/8	5/8	3 1/8	5 1/2	.060	●
6971873	KOR5RA0625L313SLR090I	5/8	5/8	3 1/8	5 1/2	.090	●
6971875	KOR5RA0750L375SLR030I	3/4	3/4	3 3/4	6 1/4	.030	●
6971876	KOR5RA0750L375SLR060I	3/4	3/4	3 3/4	6 1/4	.060	●
6971877	KOR5RA0750L375SLR090I	3/4	3/4	3 3/4	6 1/4	.090	●
6971878	KOR5RA0750L375SLR120I	3/4	3/4	3 3/4	6 1/4	.120	●
6971880	KOR5RA1000L500SLR030I	1	1	5	8	.030	●
6971881	KOR5RA1000L500SLR060I	1	1	5	8	.060	●
6971882	KOR5RA1000L500SLR090I	1	1	5	8	.090	●

160-163	164	114	98, 168

KOR6™ DT • Radiused • 6 Flutes • 3 x D • Plain Shank • Inch



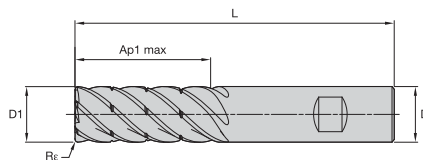
- first choice
- alternate choice

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KCSM15

order number	catalog number	D1	D	Ap1 max	L	Re
6767671	KOR6RA0375R113HAR030C	3/8	3/8	1 1/8	3	.030

KOR6 DT • Radiused • 6 Flutes • 3 x D • Weldon® Shank • Inch



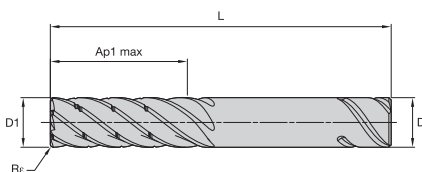
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- alternate choice

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KCSM15

order number	catalog number	D1	D	Ap1 max	L	Re
6767676	KOR6RA0375R113HBR030C	3/8	3/8	1 1/8	3	.030
6767677	KOR6RA0500R150HBR030C	1/2	1/2	1 1/2	3 1/2	.030
6767678	KOR6RA0625R188HBR030C	5/8	5/8	1 7/8	4	.030
6767679	KOR6RA0750R225HBR060C	3/4	3/4	2 1/4	5	.060
6767691	KOR6RA1000R300HBR060C	1	1	3	6	.060

KOR6 DT • Radiused • 6 Flutes • 3 x D • Safe-Lock™ Shank • Inch



- first choice
- alternate choice

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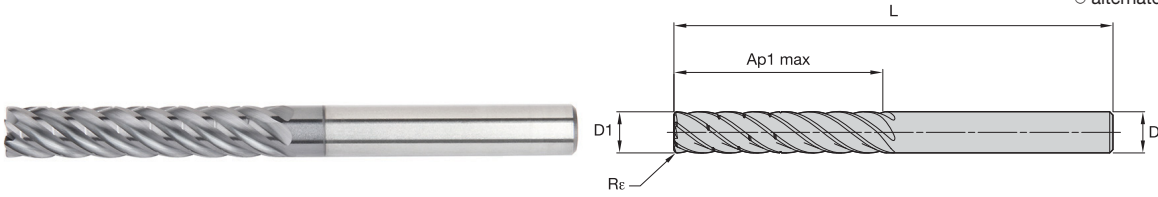
KCSM15

order number	catalog number	D1	D	Ap1 max	L	Re
6767672	KOR6RA0500R150SLR030C	1/2	1/2	1 1/2	3 1/2	.030
6767673	KOR6RA0625R188SLR030C	5/8	5/8	1 7/8	4	.030
6767674	KOR6RA0750R225SLR060C	3/4	3/4	2 1/4	5	.060
6767675	KOR6RA1000R300SLR060C	1	1	3	6	.060

160-163	164	114	98, 168

KOR6™ DT • Radiused • 6 Flutes • 5 x D • Plain Shank • Inch

● first choice
○ alternate choice



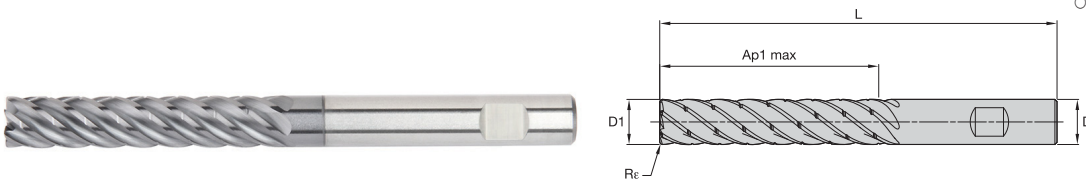
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KCSM15 ●

order number	catalog number	D1	D	Ap1 max	L	Re	
6767706	KOR6RA0375L188HAR030C	3/8	3/8	1 7/8	4	.030	●

KOR6 DT • Radiused • 6 Flutes • 5 x D • Weldon® Shank • Inch

● first choice
○ alternate choice



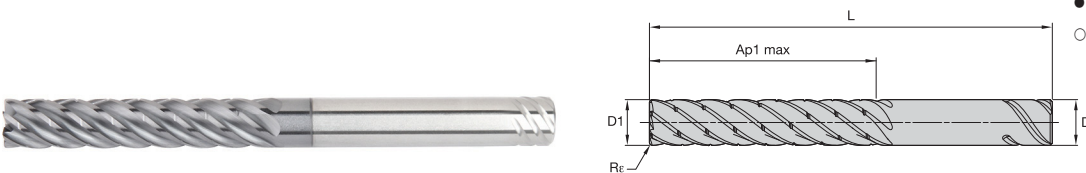
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KCSM15 ●

order number	catalog number	D1	D	Ap1 max	L	Re	
6767722	KOR6RA0375L188HBR030C	3/8	3/8	1 7/8	4	.030	●
6767727	KOR6RA0500L250HBR030C	1/2	1/2	2 1/2	5	.030	●
6767728	KOR6RA0625L313HBR030C	5/8	5/8	3 1/8	6	.030	●
6767729	KOR6RA0750L375HBR060C	3/4	3/4	3 3/4	7	.060	●
6767730	KOR6RA1000L500HBR060C	1	1	5	7 1/2	.060	●

KOR6 DT • Radiused • 6 Flutes • 5 x D • Safe-Lock™ Shank • Inch

● first choice
○ alternate choice



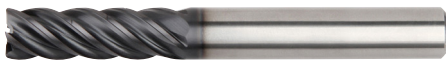
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K	<input type="checkbox"/>
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S	<input checked="" type="checkbox"/>
H	<input type="checkbox"/>

KCSM15 ●

order number	catalog number	D1	D	Ap1 max	L	Re	
6767707	KOR6RA0500L250SLR030C	1/2	1/2	2 1/2	5	.030	●
6767708	KOR6RA0625L313SLR030C	5/8	5/8	3 1/8	6	.030	●
6767710	KOR6RA0750L375SLR060C	3/4	3/4	3 3/4	7	.060	●
6767721	KOR6RA1000L500SLR060C	1	1	5	7 1/2	.060	●



KOR5™ DS / KOR6™ DT • 3 x D • Application Data • Inch



KOR5 DS • 3 x D

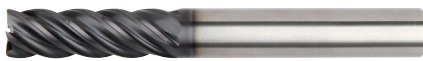


KOR6 DT • 3 x D

Material Group	A		Cutting Speed – vc SFM				Recommended feed per tooth (IPT = inch/th) for side milling (A).						
	ap	ae	min	max	frac. dec.	D1 – Diameter							
						.2500	.3750	.5000	.6250	.7500	1.0000		
P	0	3 x D	0.1 x D	500	–	1440	IPT	.0022	.0033	.0041	.0047	.0053	.0059
	1	3 x D	0.1 x D	500	–	1440	IPT	.0022	.0033	.0041	.0047	.0053	.0059
	2	3 x D	0.1 x D	460	–	1370	IPT	.0022	.0033	.0041	.0047	.0053	.0059
	3	3 x D	0.1 x D	400	–	1150	IPT	.0018	.0027	.0035	.0041	.0046	.0054
	4	3 x D	0.1 x D	300	–	1080	IPT	.0017	.0025	.0031	.0036	.0040	.0046
	5	3 x D	0.1 x D	200	–	720	IPT	.0015	.0022	.0028	.0033	.0037	.0043
M	6	3 x D	0.1 x D	170	–	540	IPT	.0012	.0018	.0023	.0027	.0030	.0034
	1	3 x D	0.1 x D	300	–	830	IPT	.0018	.0027	.0035	.0041	.0046	.0054
	2	3 x D	0.1 x D	200	–	580	IPT	.0015	.0022	.0028	.0033	.0037	.0043
K	3	3 x D	0.1 x D	200	–	510	IPT	.0012	.0018	.0023	.0027	.0030	.0034
	1	3 x D	0.1 x D	400	–	1080	IPT	.0022	.0033	.0041	.0047	.0053	.0059
	2	3 x D	0.1 x D	370	–	1010	IPT	.0018	.0027	.0035	.0041	.0046	.0054
S	3	3 x D	0.1 x D	370	–	940	IPT	.0015	.0022	.0028	.0033	.0037	.0043
	1	3 x D	0.1 x D	170	–	650	IPT	.0018	.0027	.0035	.0041	.0046	.0054
	2	3 x D	0.1 x D	80	–	580	IPT	.0015	.0022	.0028	.0033	.0037	.0043
	3	3 x D	0.1 x D	80	–	290	IPT	.0010	.0015	.0018	.0022	.0025	.0029
H	4	3 x D	0.1 x D	170	–	430	IPT	.0013	.0020	.0026	.0030	.0034	.0040
	1	3 x D	0.1 x D	270	–	1010	IPT	.0017	.0025	.0031	.0036	.0040	.0046
	2	3 x D	0.1 x D	230	–	870	IPT	.0012	.0018	.0023	.0027	.0030	.0034

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Side milling applications - for longest reach (L3) tools, reduce Ae by 30%. For better surface finish reduce feed per tooth.

KOR5 DS / KOR6 DT • 5 x D • Application Data • Inch



KOR5 DS • 5 x D



KOR6 DT • 5 x D

Material Group	A		Cutting Speed – vc SFM				Recommended feed per tooth (IPT = inch/th) for side milling (A).						
	ap	ae	min	max	frac. dec.	D1 – Diameter							
						.2500	.3750	.5000	.6250	.7500	1.0000		
P	0	5 x D	0.05 x D	500	–	1770	IPT	.0029	.0044	.0054	.0063	.0070	.0078
	1	5 x D	0.05 x D	500	–	1770	IPT	.0029	.0044	.0054	.0063	.0070	.0078
	2	5 x D	0.05 x D	460	–	1680	IPT	.0029	.0044	.0054	.0063	.0070	.0078
	3	5 x D	0.05 x D	400	–	1420	IPT	.0024	.0037	.0046	.0055	.0062	.0072
	4	5 x D	0.05 x D	300	–	1330	IPT	.0022	.0033	.0041	.0048	.0054	.0062
	5	5 x D	0.05 x D	200	–	890	IPT	.0020	.0029	.0037	.0044	.0049	.0058
M	6	5 x D	0.05 x D	170	–	660	IPT	.0017	.0024	.0031	.0036	.0040	.0045
	1	5 x D	0.05 x D	300	–	1020	IPT	.0024	.0037	.0046	.0055	.0062	.0072
	2	5 x D	0.05 x D	200	–	710	IPT	.0020	.0029	.0037	.0044	.0049	.0058
K	3	5 x D	0.05 x D	200	–	620	IPT	.0017	.0024	.0031	.0036	.0040	.0045
	1	5 x D	0.05 x D	400	–	1330	IPT	.0029	.0044	.0054	.0063	.0070	.0078
	2	5 x D	0.05 x D	370	–	1240	IPT	.0024	.0037	.0046	.0055	.0062	.0072
S	3	5 x D	0.05 x D	370	–	1150	IPT	.0020	.0029	.0037	.0044	.0049	.0058
	1	5 x D	0.05 x D	170	–	800	IPT	.0024	.0037	.0046	.0055	.0062	.0072
	2	5 x D	0.05 x D	80	–	710	IPT	.0020	.0029	.0037	.0044	.0049	.0058
	3	5 x D	0.05 x D	80	–	350	IPT	.0013	.0019	.0025	.0029	.0033	.0039
H	4	5 x D	0.05 x D	170	–	530	IPT	.0017	.0027	.0034	.0040	.0045	.0053
	1	5 x D	0.05 x D	270	–	1240	IPT	.0022	.0033	.0041	.0048	.0054	.0062
	2	5 x D	0.05 x D	230	–	1060	IPT	.0017	.0024	.0031	.0036	.0040	.0045

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Side milling applications - for longest reach (L3) tools, reduce Ae by 30%. For better surface finish reduce feed per tooth.

KOR5™ DS / KOR6™ DT • 5 x D • Adjustment Factor Table for Feed Calculation • Inch

	Ae/D1	0.50%	1.00%	1.50%	2.00%	4.00%	5.00%
Speed factor	Kv	2.00	1.97	1.93	1.38	1.03	1.00
Feed factor	KFz	1.27	1.18	1.14	1.09	1.05	1.00

To calculate application-specific cutting data, please use above Kv coefficient for adaptation of cutting speed and KFz for feed respectively.

Vc new = Vc * Kv
Fz new = IPT * KFz

Calculation example:

Application: D1 = 1", KOR5^{DS} / KOR6^{DT} 3 x D;
S4 material group;
Ae 0.05" (Ae = 5% D)
Cutting data recommendation: 500 SFM;
Fz = 0.0053 IPT
Adjustment coefficients: Ae = 0.02" equals 2.00%;
Kv = 1.38; KFz = 1.09

Final cutting data recommendation:

Vc new = 350 SFM * 1.38 = 483 SFM
Fz new = .0053 IPT * 1.09 = .0058 IPT

KOR5^{DA} • 5 Flutes • Application Data • Inch



Material Group					K600			Recommended feed per tooth (IPT = inch/th)					
	A		B		Cutting Speed – vc SFM			frac. dec.	D1 – Diameter				
	ap	ae	ap	min	max	3/8	1/2		5/8	3/4	1		
1	0.5 x D1	0.5 x D1	0.25 x D1	640	–	6560	IPT	.3750	.5000	.6250	.7500	1.0000	
2	0.5 x D1	0.5 x D1	0.25 x D1	640	–	4920	IPT	0.0025	0.0045	0.0055	0.0070	0.0085	

NOTE: These guidelines may require variations to achieve optimum results. For better surface finish, reduce feed per tooth. For cutting aluminum with high silicon, TiCN coating is recommended. Ap for milling machine with ceramic bearings spindle, multiply by 0.5. Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on >1/2" diameter.

KOR5^{DA} • 5 Flutes • Adjustment Factor Table for Feed Calculation

Ae/D1	2%	5%	10%	20%	30%	40%	50%	100%
Max Ap	Ap1 Max	Ap1 Max	Ap1 Max	Ap1 Max	2 x D1	1 x D1	.5 x D1	.25 x D1
Feed Multiplier	3.60	2.30	1.70	1.25	1.09	1.02	1.00	.90

To calculate application specific cutting data, please use coefficient table to the right for adaptation of feed.

Fz new = IPT * Feed Multiplier

Calculation example:

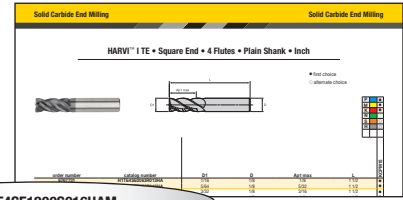
Application: D = 1";
N1 material group;
Ae 0.1"
Cutting data recommendation: 3600 SFM;
Fz = 0.0090 IPT
Adjustment coefficients: Ae = 0.1" equals 10.00%;
Feed Multiplier = 1.7

Final cutting data recommendation:

Fz new = .0090 IPT * 1.7 = .0153 IPT

HARVI™ I TE • KOR™ • PCD • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

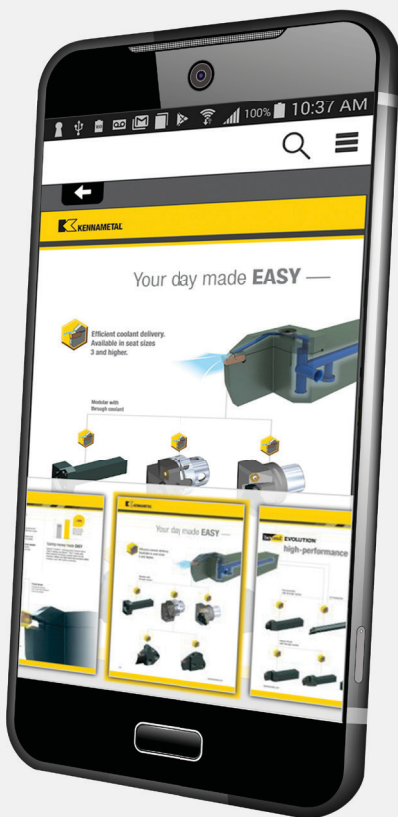


H1TE4SE1200S016HAM

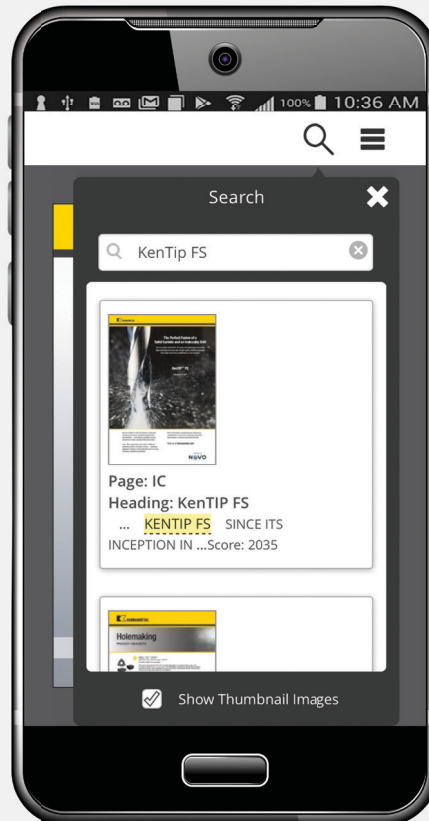
H1TE	4	SE	1200	S	016	HA			M																														
Series	Number of Flutes	Front End Style	Cutting Diameter D1	Flute Section Style	Length of Cut Ap1 max	Shank Style	Radius	Specific Features	Standard																														
<p>H1TE = HARVI I TE</p> <p>KOR = KOR</p> <p>ALCB = Basic PCD end mill with carbide body</p> <p>ALCC = Complex PCD end mill carbide body</p> <p>ALCR = Roughing PCD end mill with carbide body</p> <p>ALSB = Basic PCD end mill with steel body</p> <p>ALSR = Basic PCD end mill with steel body</p>	<p>1 = 1-Flute</p> <p>2 = 2-Flute</p> <p>3 = 3-Flute</p> <p>4 = 4-Flute</p> <p>5 = 5-Flute</p> <p>6 = 6-Flute</p> <p>7 = 7-Flute</p> <p>8 = 8-Flute</p> <p>9 = 9-Flute</p> <p>M = Multi-flute</p>	<p>SE = Sharp Edge</p> <p>CH = Chamfer</p> <p>RA = Radius</p> <p>BN = Ball Nose</p> <p>TB = Taper Ball Nose</p> <p>TO = Torroid</p>	<p>Metric = D1 in mm</p> <p>Inch = D1 in decimal inch</p>	<p>N = Neck</p> <p>E = Extended Neck</p> <p>S = Short Without Neck</p> <p>R = Regular Without Neck</p> <p>L = Long Without Neck</p> <p>X = Extra Long Without Neck</p>	<p>Metric = Ap1 Max in mm</p> <p>Inch = Ap1 Max in decimal inch</p>	<p>HA = Plain</p> <p>HB = Weldon®</p> <p>SL = Safe-Lock™</p> <p>DL = DUO-LOCK™</p>		<p>C = Chip Splitter</p> <p>I = Internal Coolant</p> <p>O = Coolant Grooves in Shank</p> <p>P = Polished Flutes</p>	<p>M = Metric</p> <p>Blank = Inch</p>																														
						<table border="1"> <thead> <tr> <th>Radius Metric</th> <th>Radius Inch</th> </tr> </thead> <tbody> <tr><td>R020 = 0,2mm</td><td>R010 = .010"</td></tr> <tr><td>R025 = 0,25mm</td><td>R015 = .015"</td></tr> <tr><td>R030 = 0,3mm</td><td>R030 = .030"</td></tr> <tr><td>R040 = 0,4mm</td><td>R060 = .060"</td></tr> <tr><td>R050 = 0,5mm</td><td>R090 = .090"</td></tr> <tr><td>R075 = 0,75mm</td><td>R120 = .120"</td></tr> <tr><td>R100 = 1,0mm</td><td>R160 = .160"</td></tr> <tr><td>R125 = 1,25mm</td><td>R250 = .250"</td></tr> <tr><td>R150 = 1,5mm</td><td>R190 = .190"</td></tr> <tr><td>R200 = 2,0mm</td><td>R375 = .375"</td></tr> <tr><td>R250 = 2,5mm</td><td>R045 = .045"</td></tr> <tr><td>R300 = 3,0mm</td><td></td></tr> <tr><td>R400 = 4,0mm</td><td></td></tr> <tr><td>R500 = 5,0mm</td><td></td></tr> <tr><td>R600 = 6,0mm</td><td></td></tr> </tbody> </table>	Radius Metric	Radius Inch	R020 = 0,2mm	R010 = .010"	R025 = 0,25mm	R015 = .015"	R030 = 0,3mm	R030 = .030"	R040 = 0,4mm	R060 = .060"	R050 = 0,5mm	R090 = .090"	R075 = 0,75mm	R120 = .120"	R100 = 1,0mm	R160 = .160"	R125 = 1,25mm	R250 = .250"	R150 = 1,5mm	R190 = .190"	R200 = 2,0mm	R375 = .375"	R250 = 2,5mm	R045 = .045"	R300 = 3,0mm		R400 = 4,0mm		R500 = 5,0mm		R600 = 6,0mm		
Radius Metric	Radius Inch																																						
R020 = 0,2mm	R010 = .010"																																						
R025 = 0,25mm	R015 = .015"																																						
R030 = 0,3mm	R030 = .030"																																						
R040 = 0,4mm	R060 = .060"																																						
R050 = 0,5mm	R090 = .090"																																						
R075 = 0,75mm	R120 = .120"																																						
R100 = 1,0mm	R160 = .160"																																						
R125 = 1,25mm	R250 = .250"																																						
R150 = 1,5mm	R190 = .190"																																						
R200 = 2,0mm	R375 = .375"																																						
R250 = 2,5mm	R045 = .045"																																						
R300 = 3,0mm																																							
R400 = 4,0mm																																							
R500 = 5,0mm																																							
R600 = 6,0mm																																							

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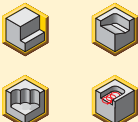


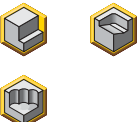



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Tool Selector

HIGH-PERFORMANCE ROUGHING & FINISHING					
HARVI™ ITE		HARVI I			
	NEW!	NEW!			
					
Series	H1TE4RA..R	H1TE4SE..R	UKDV	ULDV	UKBV
Page	122	122	123-124	123	124
Tool type					
Rougher	●	●	●	●	●
Finisher	○	○	○	○	○
Chamfering					
Main operation					
Workpiece material					
Primary	P M K S	P M K	P M	S	P M
Secondary	H	S H	K S	P M H	K S H
Corner style			 		
Corner radius [Rε]	0.015-0.06"	—	—	.015-.250"	—
Corner chamfer width [BCH]	—	—	.020"	—	—
Cutter diameter [D1]	0.375-1.0"	0.375-1.5"	3/8-1-1/4"	3/8-1-1/4"	3/8-1"
Length of cut	1.5 x D	1.5 x D	1.5 x D	1.5 x D	1.5 x D
Maximum cutting depth [Ap1 max]	0.5625-1.5"	0.5625-1.875"	9/16-1-7/8"	9/16-1-7/8"	9/16-1-1/2"
Flute helix angle	36°/39°	36°/39°	37°/39°	37°/39°	37°/39°
Number of flutes [ZU]	4	4	4	4	4
Center cutting	✓	✓	✓	✓	✓
Additional operations					
























- Primary
- Secondary

Tool Selector

	HIGH-PERFORMANCE ROUGHING & FINISHING		HP ROUGHING & FINISHING		ROUGHER	
	HARVI™ II		HARVI III		KenCut™ RR	
						
Series	UCDV	UDDV	UJDV	UJBV	RQDB	RKDF
Page	125–126	125	126	127	133	133
Tool type						
Rougher	○	○			●	●
Finisher	●	●	●	●		
Chamfering						
Main operation						
Workpiece material						
Primary	P M	S	S	P M	P M	S
Secondary	K S H	P H	P M H	K S H	K S H	P M K H
Corner style						
Corner radius [Rε]	—	.015–.250"	.015–.250"	—	—	.015–.030"
Corner chamfer width [BCH]	.020"	—	—	—	.020"	—
Cutter diameter [D1]	3/8–1-1/4"	3/8–1-1/4"	3/8–1-1/4"	3/8–1"	3/8–1"	3/8–1"
Length of cut	1.5 x D	1.5 x D	1.5 x D	1.5 x D	1.5 x D	1.5 x D
Maximum cutting depth [Ap1 max]	9/16–1-7/8"	9/16–1-7/8"	9/16–1-7/8"	9/16–1-1/2"	9/16–1-1/2"	9/16–1-1/2"
Flute helix angle	37°/39°	37°/39°	37°/39°	37°/39°	20°	45°
Number of flutes [ZU]	5	5	6	6	4 & 5	4 & 6
Center cutting	—	—	✓	✓	—	✓
Additional operations						























- Primary
- Secondary

Tool Selector

	FINISHER		ALUMINUM MACHINING		
	KenCut FF	RSM II™	MaxiMet™		
					
Series	FMDf	FSDE	ABDF	ABDE	ABBE
Page	135	135	137	137	138
Tool type					
Rougher			●	●	●
Finisher	●	●	○	●	●
Chamfering					
Main operation					
Workpiece material					
Primary	P M	S	N	N	N
Secondary	K S H	P M H			
Corner style					
Corner radius [Rε]	.015-.030"	.015-.250"	—	.015-.250"	—
Corner chamfer width [BCH]	—	—	—	—	—
Cutter diameter [D1]	3/8-1"	3/8-1"	3/8-3/4"	3/8-1"	3/8-1"
Length of cut	1.5 x D	1.5 x D	1.5 x D	1.5 x D	1.5 x D
Maximum cutting depth [Ap1 max]	9/16-1-1/2"	9/16-1-1/2"	9/16-1-1/8"	9/16-1-1/2"	9/16-1-1/2"
Flute helix angle	45°	36°	45°	38°	38°
Number of flutes [ZU]	6	9, 11, 15, & 19	2	3	3
Center cutting	✓	—	✓	✓	✓
Additional operations			 	 	 
					

- Primary
- Secondary

Tool Selector

	HIGH-FEED		DRIVEN TOOLING		CHAMFERER	
	KenFeed™		KenCut™ RR	KenCut FF	KenCut CM	
						
Series	KMDA	KSDB	RFDD	FGDF	XADA	XRDA
Page	140	141	143	143	145	145
Tool type						
Rougher	●	●	●	●		
Finisher	●	●		○		
Chamfering					●	●
Main operation						
Workpiece material						
Primary	H	S	P M	P M	P M	P M
Secondary	P	P M	K H	K S H	K N S H	K N S H
Corner style					—	—
Corner radius [Rε]	.020-.040"	.020-.040"	.015"	.015-.030"	—	—
Corner chamfer width [BCH]	—	—	—	—	—	—
Cutter diameter [D1]	3/8-3/4"	3/8-3/4"	3/8-3/4"	3/8-3/4"	3/8-5/8"	3/8-5/8"
Length of cut	—	—	0.75 x D	0.75 x D	.075-.178"	.030-.120"
Maximum cutting depth [Ap1 max]	.023-.040"	.023-.040"	9/32-3/4"	9/32-3/4"	.075-.178"	.030-.120"
Flute helix angle	20°	20°	35°	42°/45°/48°	0°	0°
Number of flutes [ZU]	6	6	3	3	4, 5, & 6	4, 5, & 6
Center cutting	—	—	✓	✓	—	—
Additional operations			 	 		

- Primary
- Secondary

DUO-LOCK™

Modular End Milling



NEW!

Portfolio Materials



Portfolio Applications



Plunge Milling



Ramping



Slotting



Side Milling/
Shoulder Milling



3D Milling/Profiling



Chamfer Milling



Side Milling/Shoulder
Milling: Radius

DUO-LOCK®
by HAIMER® and Kennametal

DUO-LOCK is a new revolutionary coupling for solid carbide end milling applications. This replaceable head design combines a high accuracy in runout and length repeatability with maximum stability, making it a precise and virtually unbreakable interface.

The **ONLY** modular system with the performance of a solid carbide end mill.

To adapt DUO-LOCK perfectly to your spindle, a vast array of adapters and extensions is available.

- Standard-length extensions with Safe-Lock™, cylindrical and conical.
- Cut-to-size extensions, cylindrical and conical.
- Integral adapters with HSK, PSC, DV, and BT back ends.

Intermediate diameters are available upon request as custom solutions.

Reconditioning will maximize tool life and your investment.

Double cone eliminates expensive presetting processes by providing an axial $10\mu\text{m}$ repeatability. Length repeatability from insert tip-to-tip within $50\mu\text{m}$.

3rd contact surface delivers high stiffness and highest accuracy below $5\mu\text{m}$ runout.

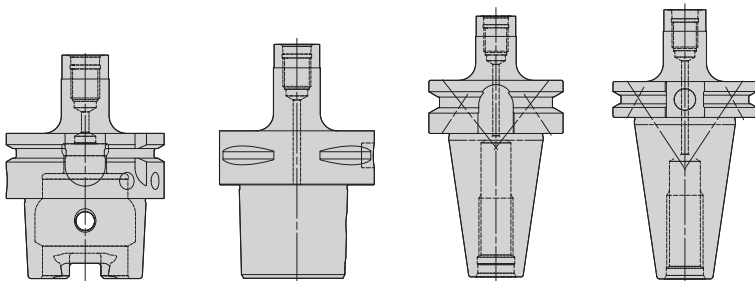


Vast array of roughing, finishing, profiling, and chamfering tools, and blanks available, covering all end milling applications.

Intelligent thread ensures stress level to remain below critical values, allowing $>25\%$ higher transmittable torque.

With a DUO-LOCK™ wrench, the tool change becomes easy and can be done in a few seconds.

Adapters



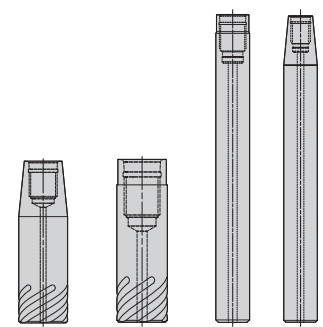
HSK

PSC

BT

CV

Extensions

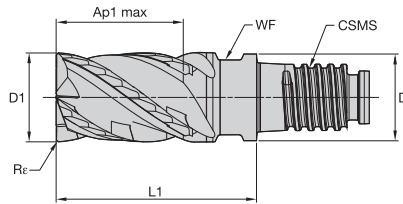


SAFE-LOCK®
by HAIMER®

Cut-to-length

DUO-LOCK™ • HARVI™ I TE • Radiused • 4 Flutes • Inch

NEW!



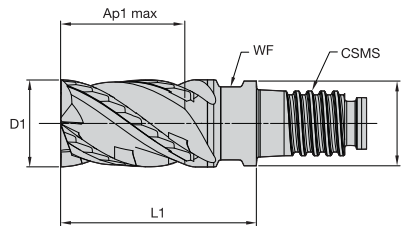
- first choice
- alternate choice

P	●
M	●
K	○
N	○
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	KCSM15
6953292	H1TE4RA0375R056DLR015	3/8	.359	9/16	.843	DL10	.315	.015	●
6953293	H1TE4RA0500R075DLR030	1/2	.480	3/4	1.126	DL12	.374	.030	●
6953294	H1TE4RA0500R075DLR060	1/2	.480	3/4	1.126	DL12	.374	.060	●
6953295	H1TE4RA0625R094DLR030	5/8	.605	15/16	1.406	DL16	.512	.030	●
6953296	H1TE4RA0750R113DLR030	3/4	.730	1 1/8	1.689	DL20	.630	.030	●
6953297	H1TE4RA1000R150DLR030	1	.961	1 1/2	2.252	DL25	.827	.030	●
6953298	H1TE4RA1000R150DLR060	1	.961	1 1/2	2.252	DL25	.827	.060	●

DUO-LOCK • HARVI I TE • Square End • 4 Flutes • Inch

NEW!



- first choice
- alternate choice

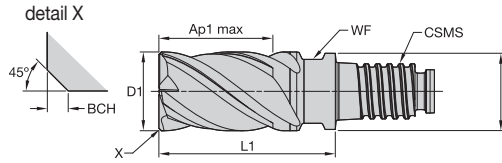
P	●
M	●
K	○
N	○
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	KCPM15
6953266	H1TE4SE0375R056DL	3/8	.359	9/16	.843	DL10	.315	●
6953267	H1TE4SE0500R075DL	1/2	.480	3/4	1.126	DL12	.374	●
6953268	H1TE4SE0625R094DL	5/8	.605	15/16	1.406	DL16	.512	●
6953269	H1TE4SE0750R113DL	3/4	.730	1 1/8	1.689	DL20	.630	●
6953270	H1TE4SE1000R150DL	1	.961	1 1/2	2.252	DL25	.827	●
6953291	H1TE4SE1250R188DL	1 1/4	1.211	1 7/8	2.815	DL32	1.102	●

160-163	164	156-158	98, 168

DUO-LOCK™ • HARVI™ I • Chamfered • 4 Flutes • Inch

- first choice
- alternate choice

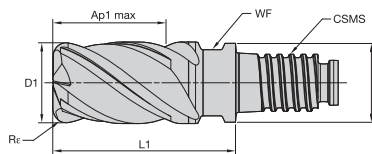


P	●
M	●
K	●
N	●
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	BCH	KCPM15
6072340	UKDV0375Y4CV	3/8	.359	9/16	.843	DL10	.315	.020	●
6072342	UKDV0500Y4CV	1/2	.480	3/4	1.126	DL12	.374	.020	●
6072343	UKDV0625Y4CV	5/8	.605	15/16	1.406	DL16	.512	.020	●
6072344	UKDV0750Y4CV	3/4	.730	1 1/8	1.689	DL20	.630	.020	●
6072345	UKDV1000Y4CV	1	.961	1 1/2	2.264	DL25	.827	.020	●
6072346	UKDV1250Y4CV	1 1/4	1.211	1 7/8	2.803	DL32	1.102	.020	●

DUO-LOCK • HARVI I • Radiused • 4 Flutes • Inch

- first choice
- alternate choice



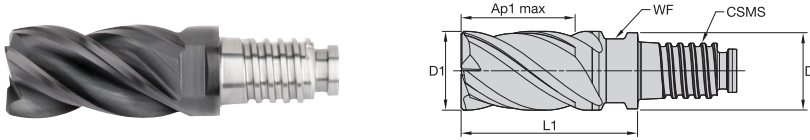
P	●
M	●
K	○
N	○
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Rr	KCSM15
6072347	ULDV0375Y4CQA	3/8	.359	9/16	.843	DL10	.315	.015	●
6072348	ULDV0375Y4CQB	3/8	.359	9/16	.843	DL10	.315	.030	●
6072349	ULDV0375Y4CQC	3/8	.359	9/16	.843	DL10	.315	.060	●
6072350	ULDV0375Y4CQD	3/8	.359	9/16	.843	DL10	.315	.090	●
6072351	ULDV0500Y4CQA	1/2	.480	3/4	1.126	DL12	.374	.015	●
6072352	ULDV0500Y4CQB	1/2	.480	3/4	1.126	DL12	.374	.030	●
6072353	ULDV0500Y4CQC	1/2	.480	3/4	1.126	DL12	.374	.060	●
6072354	ULDV0500Y4CQD	1/2	.480	3/4	1.126	DL12	.374	.090	●
6072355	ULDV0500Y4CQE	1/2	.480	3/4	1.126	DL12	.374	.120	●
6072356	ULDV0625Y4CQA	5/8	.605	15/16	1.406	DL16	.512	.015	●
6072357	ULDV0625Y4CQB	5/8	.605	15/16	1.406	DL16	.512	.030	●
6072358	ULDV0625Y4CQC	5/8	.605	15/16	1.406	DL16	.512	.060	●
6072359	ULDV0625Y4CQD	5/8	.605	15/16	1.406	DL16	.512	.090	●
6072360	ULDV0625Y4CQE	5/8	.605	15/16	1.406	DL16	.512	.120	●
6072361	ULDV0750Y4CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030	●
6072362	ULDV0750Y4CQC	3/4	.730	1 1/8	1.689	DL20	.630	.060	●
6072363	ULDV0750Y4CQD	3/4	.730	1 1/8	1.689	DL20	.630	.090	●
6072364	ULDV0750Y4CQE	3/4	.730	1 1/8	1.689	DL20	.630	.120	●
6072365	ULDV1000Y4CQB	1	.961	1 1/2	2.252	DL25	.827	.030	●
6072366	ULDV1000Y4CQC	1	.961	1 1/2	2.252	DL25	.827	.060	●
6072367	ULDV1000Y4CQD	1	.961	1 1/2	2.252	DL25	.827	.090	●
6072368	ULDV1000Y4CQE	1	.961	1 1/2	2.252	DL25	.827	.120	●
6072369	ULDV1000Y4CQF	1	.961	1 1/2	2.252	DL25	.827	.250	●
6072370	ULDV1250Y4CQD	1 1/4	1.211	1 7/8	2.803	DL32	1.102	.090	●
6072381	ULDV1250Y4CQF	1 1/4	1.211	1 7/8	2.803	DL32	1.102	.250	●

160-163	164	156-158	98, 168

DUO-LOCK™ • HARVI™ I • Square End • 4 Flutes • Inch

- first choice
- alternate choice

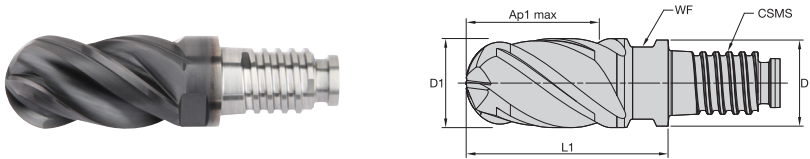


P	●
M	●
K	●
N	○
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	KCPM15
6072333	UKDV0375Y4CU	3/8	.359	9/16	.843	DL10	.315	●
6072334	UKDV0500Y4CU	1/2	.480	3/4	1.126	DL12	.374	●
6072335	UKDV0625Y4CU	5/8	.605	15/16	1.406	DL16	.512	●
6072337	UKDV0750Y4CU	3/4	.730	1 1/8	1.689	DL20	.630	●
6072338	UKDV1000Y4CU	1	.961	1 1/2	2.252	DL25	.827	●
6072339	UKDV1250Y4CU	1 1/4	1.211	1 7/8	2.803	DL32	1.102	●

DUO-LOCK • HARVI I • Ball Nose • 4 Flutes • Inch

- first choice
- alternate choice



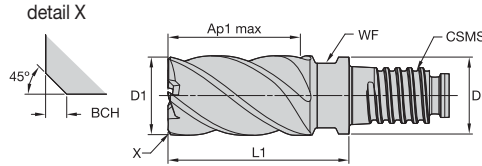
P	●
M	●
K	●
N	○
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	KCPM15
6070991	UKBV0375Y4CN	3/8	.359	9/16	.843	DL10	.315	●
6070992	UKBV0500Y4CN	1/2	.480	3/4	1.126	DL12	.374	●
6070993	UKBV0625Y4CN	5/8	.605	15/16	1.406	DL16	.512	●
6070994	UKBV0750Y4CN	3/4	.730	1 1/8	1.689	DL20	.630	●
6070995	UKBV1000Y4CN	1	.961	1 1/2	2.252	DL25	.827	●

160-163	164	156-158	98, 168

DUO-LOCK™ • HARVI™ II • Chamfered • 5 Flutes • Inch

- first choice
- alternate choice



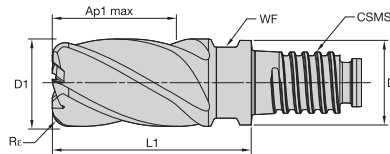
P	●
M	●
K	●
N	●
S	○
H	○

KCPM15

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	BCH	
6072205	UCDV0375Y5CV	3/8	.359	9/16	.843	DL10	.315	.020	●
6072206	UCDV0500Y5CV	1/2	.480	3/4	1.126	DL12	.374	.020	●
6072207	UCDV0625Y5CV	5/8	.605	15/16	1.406	DL16	.512	.020	●
6072208	UCDV0750Y5CV	3/4	.730	1 1/8	1.689	DL20	.630	.020	●
6072209	UCDV1000Y5CV	1	.961	1 1/2	2.252	DL25	.827	.020	●
6072210	UCDV1250Y5CV	1 1/4	1.211	1 7/8	2.803	DL32	1.102	.020	●

DUO-LOCK • HARVI II • Radiused • 5 Flutes • Inch

- first choice
- alternate choice



P	●
M	●
K	●
N	●
S	●
H	○

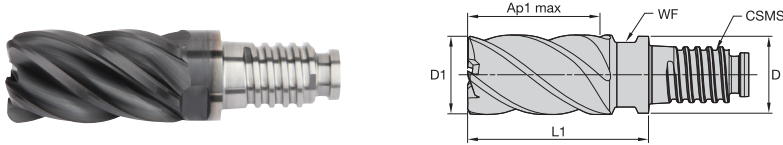
KC643M

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	
6072231	UDDV0375Y5CQA	3/8	.359	9/16	.843	DL10	.315	.015	●
6072232	UDDV0375Y5CQB	3/8	.359	9/16	.843	DL10	.315	.030	●
6072235	UDDV0500Y5CQA	1/2	.480	3/4	1.126	DL12	.374	.015	●
6072236	UDDV0500Y5CQB	1/2	.480	3/4	1.126	DL12	.374	.030	●
6072237	UDDV0500Y5CQC	1/2	.480	3/4	1.126	DL12	.374	.060	●
6072238	UDDV0500Y5CQD	1/2	.480	3/4	1.126	DL12	.374	.090	●
6072239	UDDV0500Y5CQE	1/2	.480	3/4	1.126	DL12	.374	.120	●
6072240	UDDV0625Y5CQA	5/8	.605	15/16	1.406	DL16	.512	.015	●
6072251	UDDV0625Y5CQB	5/8	.605	15/16	1.406	DL16	.512	.030	●
6072252	UDDV0625Y5CQC	5/8	.605	15/16	1.406	DL16	.512	.060	●
6072255	UDDV0750Y5CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030	●
6072256	UDDV0750Y5CQC	3/4	.730	1 1/8	1.689	DL20	.630	.060	●
6072257	UDDV0750Y5CQD	3/4	.730	1 1/8	1.689	DL20	.630	.090	●
6072258	UDDV0750Y5CQE	3/4	.730	1 1/8	1.689	DL20	.630	.120	●
6072259	UDDV1000Y5CQB	1	.961	1 1/2	2.252	DL25	.827	.030	●
6072260	UDDV1000Y5CQC	1	.961	1 1/2	2.252	DL25	.827	.060	●
6072272	UDDV1000Y5CQE	1	.961	1 1/2	2.252	DL25	.827	.120	●
6072273	UDDV1000Y5CQF	1	.961	1 1/2	2.252	DL25	.827	.250	●
6072275	UDDV1250Y5CQF	1 1/4	1.211	1 7/8	2.803	DL32	1.102	.250	●

160-163	164	156-158	98, 168

DUO-LOCK™ • HARVI™ II • Square End • 5 Flutes • Inch

- first choice
- alternate choice

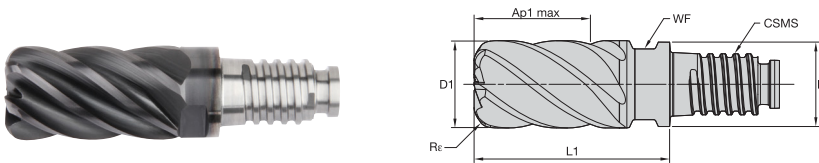


P	●
M	●
K	●
N	○
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF		KCPM15
6072178	UCDV0375Y5CU	3/8	.359	9/16	.843	DL10	.315	●	●
6072180	UCDV0500Y5CU	1/2	.480	3/4	1.126	DL12	.374	●	●
6072201	UCDV0625Y5CU	5/8	.605	15/16	1.406	DL16	.512	●	●
6072202	UCDV0750Y5CU	3/4	.730	1 1/8	1.689	DL20	.630	●	●
6072203	UCDV1000Y5CU	1	.961	1 1/2	2.252	DL25	.827	●	●
6072204	UCDV1250Y5CU	1 1/4	1.211	1 7/8	2.803	DL32	1.102	●	●

DUO-LOCK • HARVI III • Radiused • 6 Flutes • Inch

- first choice
- alternate choice



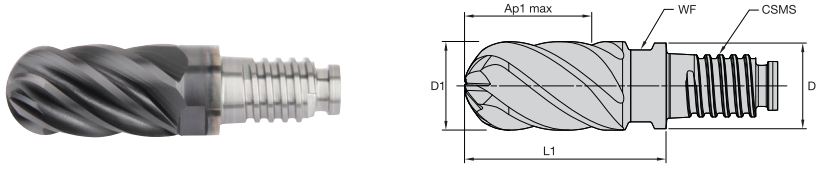
P	○
M	●
K	○
N	○
S	●
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	KCSM15
6072211	UJDV0375Y6CQA	3/8	.359	9/16	.843	DL10	.315	.015	●
6072212	UJDV0375Y6CQB	3/8	.359	9/16	.843	DL10	.315	.030	●
6072213	UJDV0375Y6CQC	3/8	.359	9/16	.843	DL10	.315	.060	●
6072214	UJDV0375Y6CQD	3/8	.359	9/16	.843	DL10	.315	.090	●
6072215	UJDV0500Y6CQA	1/2	.480	3/4	1.126	DL12	.374	.015	●
6072216	UJDV0500Y6CQB	1/2	.480	3/4	1.126	DL12	.374	.030	●
6072217	UJDV0500Y6CQC	1/2	.480	3/4	1.126	DL12	.374	.060	●
6072218	UJDV0500Y6CQD	1/2	.480	3/4	1.126	DL12	.374	.090	●
6072219	UJDV0500Y6CQE	1/2	.480	3/4	1.126	DL12	.374	.120	●
6072220	UJDV0625Y6CQA	5/8	.605	15/16	1.406	DL16	.512	.015	●
6072241	UJDV0625Y6CQB	5/8	.605	15/16	1.406	DL16	.512	.030	●
6072242	UJDV0625Y6CQC	5/8	.605	15/16	1.406	DL16	.512	.060	●
6072243	UJDV0625Y6CQD	5/8	.605	15/16	1.406	DL16	.512	.090	●
6072244	UJDV0625Y6CQE	5/8	.605	15/16	1.406	DL16	.512	.120	●
6072245	UJDV0750Y6CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030	●
6072246	UJDV0750Y6CQC	3/4	.730	1 1/8	1.689	DL20	.630	.060	●
6072247	UJDV0750Y6CQD	3/4	.730	1 1/8	1.689	DL20	.630	.090	●
6072248	UJDV0750Y6CQE	3/4	.730	1 1/8	1.689	DL20	.630	.120	●
6072262	UJDV1000Y6CQE	1	.961	1 1/2	2.252	DL25	.827	.120	●
6072261	UJDV1000Y6CQD	1	.961	1 1/2	2.252	DL25	.827	.090	●
6072249	UJDV1000Y6CQB	1	.961	1 1/2	2.252	DL25	.827	.030	●
6072250	UJDV1000Y6CQC	1	.961	1 1/2	2.252	DL25	.827	.060	●
6072263	UJDV1000Y6CQF	1	.961	1 1/2	2.252	DL25	.827	.250	●
6072264	UJDV1250Y6CQD	1 1/4	1.211	1 7/8	2.803	DL32	1.102	.090	●
6072265	UJDV1250Y6CQF	1 1/4	1.211	1 7/8	2.803	DL32	1.102	.250	●

160-163	164	156-158	98, 168





DUO-LOCK™ • HARVI™ III • Ball Nose • 6 Flutes • Inch

- first choice
- alternate choice



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

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	KCSMT15
6072144	UJBV0375Y6CN	3/8	.359	9/16	.843	DL10	.315	●
6072145	UJBV0500Y6CN	1/2	.480	3/4	1.126	DL12	.374	●
6072147	UJBV0625Y6CN	5/8	.605	15/16	1.406	DL16	.512	●
6072149	UJBV0750Y6CN	3/4	.730	1 1/8	1.689	DL20	.630	●
6072150	UJBV1000Y6CN	1	.961	1 1/2	2.252	DL25	.827	●

			
160-163	164	156-158	98, 168

DUO-LOCK™ • HARVI™ I TE • Side Milling/Slotting • Application Data • Inch



Material Group					short		medium		long		Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.									
	A		B		adapter reach						D1 – Diameter									
					KCPM15		KCPM15		KCPM15											
	ap		ae		Cutting Speed – vc SFM		Cutting Speed – vc SFM		Cutting Speed – vc SFM		frac.	3/8	1/2	5/8	3/4	1	1 1/4			
	0	1.5 x D	0.5 x D	1 x D	490	–	660	441	–	594	441	–	594	IPT	0.0027	0.0034	0.0039	0.0044	0.0049	0.0049
P	1	1.5 x D	0.5 x D	1 x D	490	–	660	441	–	594	441	–	594	IPT	0.0027	0.0034	0.0039	0.0044	0.0049	0.0049
	2	1.5 x D	0.5 x D	1 x D	460	–	620	414	–	558	414	–	558	IPT	0.0027	0.0034	0.0039	0.0044	0.0049	0.0049
	3	1.5 x D	0.5 x D	1 x D	390	–	520	351	–	468	351	–	468	IPT	0.0023	0.0029	0.0034	0.0039	0.0045	0.0048
	4	1.5 x D	0.5 x D	0.75 x D	300	–	490	270	–	441	270	–	441	IPT	0.0020	0.0026	0.0030	0.0034	0.0039	0.0040
	5	1.5 x D	0.5 x D	1 x D	200	–	330	170	–	281	160	–	264	IPT	0.0018	0.0023	0.0027	0.0031	0.0036	0.0039
	6	1.5 x D	0.5 x D	0.75 x D	160	–	250	136	–	213	128	–	200	IPT	0.0015	0.0019	0.0022	0.0025	0.0028	0.0029
M	1	1.5 x D	0.5 x D	1 x D	300	–	380	240	–	304	210	–	266	IPT	0.0023	0.0029	0.0034	0.0039	0.0045	0.0048
	2	1.5 x D	0.5 x D	1 x D	200	–	260	160	–	208	140	–	182	IPT	0.0018	0.0023	0.0027	0.0031	0.0036	0.0039
	3	1.5 x D	0.5 x D	1 x D	200	–	230	160	–	184	140	–	161	IPT	0.0015	0.0019	0.0022	0.0025	0.0028	0.0029
K	1	1.5 x D	0.5 x D	1 x D	390	–	490	351	–	441	351	–	441	IPT	0.0027	0.0034	0.0039	0.0044	0.0049	0.0049
	2	1.5 x D	0.5 x D	1 x D	360	–	460	324	–	414	324	–	414	IPT	0.0023	0.0029	0.0034	0.0039	0.0045	0.0048
	3	1.5 x D	0.5 x D	1 x D	360	–	430	324	–	387	324	–	387	IPT	0.0018	0.0023	0.0027	0.0031	0.0036	0.0039
S	1	1.5 x D	0.3 x D	0.3 x D	160	–	300	128	–	240	96	–	180	IPT	0.0023	0.0029	0.0034	0.0039	0.0045	0.0048
	2	1.5 x D	0.3 x D	0.3 x D	160	–	260	128	–	208	96	–	156	IPT	0.0018	0.0023	0.0027	0.0031	0.0036	0.0039
	3	1.5 x D	0.5 x D	1 x D	80	–	130	64	–	104	48	–	78	IPT	0.0012	0.0015	0.0018	0.0021	0.0024	0.0026
	4	1.5 x D	0.5 x D	1 x D	160	–	200	128	–	160	96	–	120	IPT	0.0017	0.0021	0.0025	0.0028	0.0033	0.0036
H	1	1.5 x D	0.5 x D	0.75 x D	260	–	460	208	–	368	156	–	276	IPT	0.0020	0.0026	0.0030	0.0034	0.0039	0.0040
	2	1.5 x D	0.2 x D	0.5 x D	230	–	390	184	–	312	138	–	234	IPT	0.0015	0.0019	0.0022	0.0025	0.0028	0.0029

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group. Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group. Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters greater than 12mm. For side milling with Ap larger than 1 x D, reduce Fz by 20%. Cylindrical shanks not recommended for full slotting.

DUO-LOCK • HARVI I TE • Ramping 0°-15° • Application Data • Inch





Material Group	Max Depth					Recommended feed per tooth (fz = IPT) for Helical Interpolation and Ramping – z _{eff} = 2						
		KCPM15-KCSM15				Diameter – D1 [Ømin–Ømax] for helical interpolation						
		Cutting Speed – Vc SFM				frac.	3/8	1/2	5/8	3/4	1	1 1/4
		min	Start	max								
P	0	1 x D	410	490	580	IPT	0.0022	0.0026	0.003	0.0034	0.0037	0.0041
	1	1 x D	410	490	580	IPT	0.0022	0.0026	0.003	0.0034	0.0037	0.0041
	2	1 x D	410	490	580	IPT	0.0022	0.0026	0.003	0.0034	0.0037	0.0041
	3	1 x D	360	430	490	IPT	0.0019	0.0021	0.0026	0.0031	0.0035	0.0037
	4	1 x D	250	360	460	IPT	0.0016	0.0019	0.0023	0.0027	0.003	0.0032
	5	0.75 x D	160	230	300	IPT	0.0015	0.0017	0.0021	0.0024	0.0028	0.003
M	6	0.75 x D	130	180	230	IPT	0.0012	0.0014	0.0017	0.002	0.0022	0.0024
	1	0.75 x D	250	300	330	IPT	0.0019	0.0021	0.0026	0.0031	0.0035	0.0037
	2	0.75 x D	150	180	220	IPT	0.0015	0.0017	0.0021	0.0024	0.0028	0.003
K	3	0.5 x D	130	160	210	IPT	0.0012	0.0014	0.0017	0.002	0.0022	0.0024
	1	1 x D	360	400	460	IPT	0.0022	0.0026	0.003	0.0034	0.0037	0.0041
	2	1 x D	330	380	430	IPT	0.0019	0.0021	0.0026	0.0031	0.0035	0.0037
S	3	0.75 x D	300	340	390	IPT	0.0015	0.0017	0.0021	0.0024	0.0028	0.003
	1	0.5 x D	130	190	260	IPT	0.0019	0.0021	0.0026	0.0031	0.0035	0.0037
	2	0.5 x D	130	180	230	IPT	0.0015	0.0017	0.0021	0.0024	0.0028	0.003
	3	0.3 x D	60	80	110	IPT	0.0009	0.0011	0.0014	0.0016	0.0019	0.002
H	4	0.75 x D	130	150	160	IPT	0.0013	0.0016	0.002	0.0022	0.0025	0.0028
	1	0.75 x D	230	320	390	IPT	0.0016	0.0019	0.0023	0.0027	0.003	0.0032
	2	0.75 x D	185	255	315	IPT	0.0011	0.0013	0.0016	0.0019	0.0021	0.0022

NOTE: Ø min and Ø max to be calculated with formula for helical ramping above.

DUO-LOCK™ • HARVI™ I TE • Plunging/Drilling • Application Data • Inch



Material Group	 			KCPM15-KCSM15			Recommended feed per revolution (fn =mm/rev) for plunging and drilling							
	Max Depth	Applicable	Coolant	Cutting Speed – vc m/min			D1 – Diameter							
				min	Start	max	frac.	3/8	1/2	5/8	3/4	1	1-1/4	
P	0	1 x D	●	Preferred	360	430	490	IPR	0.0022	0.0026	0.0033	0.0044	0.0051	0.006
	1	1 x D	●	Required	360	430	490	IPR	0.0022	0.0026	0.0033	0.0044	0.0051	0.006
	2	1 x D	●	Required	360	430	490	IPR	0.0022	0.0026	0.0033	0.0044	0.0051	0.006
	3	1 x D	●	Required	330	350	390	IPR	0.0017	0.0019	0.003	0.0035	0.0041	0.0053
	4	1 x D	●	Required	220	280	330	IPR	0.0017	0.0019	0.003	0.0035	0.0041	0.0053
	5	0.75 x D	○	Required	150	160	210	IPR	0.0011	0.0014	0.0018	0.0024	0.0028	0.003
M	1	0.75 x D	●	Required	190	220	260	IPR	0.0017	0.0019	0.003	0.0035	0.0041	0.0053
	2	0.75 x D	○	Required	130	150	190	IPR	0.0011	0.0014	0.0018	0.0024	0.0028	0.003
	3	0.5 x D	○	Required	110	130	160	IPR	0.0011	0.0014	0.0018	0.0024	0.0028	0.003
K	1	1 x D	●	Preferred	330	360	390	IPR	0.0022	0.0026	0.0033	0.0044	0.0051	0.006
	2	1 x D	●	Required	300	330	360	IPR	0.0017	0.0019	0.003	0.0035	0.0041	0.0053
	3	0.75 x D	○	Required	250	280	330	IPR	0.0017	0.0019	0.003	0.0035	0.0041	0.0053
S	1	0.5 x D	○	Required	100	130	180	IPR	0.0017	0.0019	0.003	0.0035	0.0041	0.0053
	2	0.5 x D	○	Required	100	120	150	IPR	0.0011	0.0014	0.0018	0.0024	0.0028	0.003
	3	0.3 x D	○	Required	50	60	90	IPR	0.0007	0.0009	0.0012	0.0017	0.0019	0.0023
	4	0.75 x D	○	Required	100	110	130	IPR	0.0011	0.0014	0.0018	0.0024	0.0028	0.003
H	1	0.75 x D	○	Required	190	220	260	IPR	0.0017	0.0019	0.003	0.0035	0.0041	0.0053
	2	0.75 x D	○	Required	150	175	210	IPR	0.0012	0.0013	0.0021	0.0025	0.0029	0.0037

NOTE: Other available diameters are not recommended for plunging applications.



DUO-LOCK • HARVI • Application Data • Inch



UKDV



ULDV

Material Group	 		short	medium	long	Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.															
	A	B				adapter reach			D1 – Diameter												
			KCSM15		KCSM15		KCSM15		frac.	3/8	1/2	5/8	3/4	1	1 1/4						
	UKDV	ULDV	ap	ae	ap	min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500	1.2500	1.2500			
P	0	0	1.5 x D	0.5 x D	1 x D	490	–	660	441	–	594	441	–	594	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	1	1	1.5 x D	0.5 x D	1 x D	490	–	660	441	–	594	441	–	594	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	2	2	1.5 x D	0.5 x D	1 x D	460	–	620	414	–	558	414	–	558	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	3	3	1.5 x D	0.5 x D	1 x D	390	–	520	351	–	468	351	–	468	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	4	4	1.5 x D	0.4 x D	0.75 x D	300	–	490	270	–	441	270	–	441	IPT	.0017	.0022	.0026	.0029	.0034	.0034
	5	5	1.5 x D	0.4 x D	1 x D	200	–	330	170	–	280.5	160	–	264	IPT	.0016	.0020	.0023	.0026	.0033	.0033
M	1	1	1.5 x D	0.4 x D	1 x D	300	–	380	240	–	304	210	–	266	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	2	2	1.5 x D	0.4 x D	1 x D	200	–	260	160	–	208	140	–	182	IPT	.0016	.0020	.0023	.0026	.0033	.0033
	3	3	1.5 x D	0.4 x D	1 x D	200	–	230	160	–	184	140	–	161	IPT	.0013	.0016	.0019	.0021	.0024	.0024
K	–	1	1.5 x D	0.5 x D	1 x D	390	–	490	351	–	441	351	–	441	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	–	2	1.5 x D	0.5 x D	1 x D	360	–	460	324	–	414	324	–	414	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	–	3	1.5 x D	0.5 x D	1 x D	360	–	430	324	–	387	324	–	387	IPT	.0016	.0020	.0023	.0026	.0033	.0033
S	1	1	1.5 x D	0.3 x D	0.3 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022
	2	2	1.5 x D	0.3 x D	0.3 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022
	3	3	1.5 x D	0.3 x D	0.3 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022
	4	4	1.5 x D	0.4 x D	1 x D	160	–	200	128	–	160	96	–	120	IPT	.0014	.0018	.0021	.0024	.0030	.0030
H	–	1	1.5 x D	0.4 x D	0.75 x D	260	–	460	208	–	368	156	–	276	IPT	.0017	.0022	.0026	.0029	.0034	.0034
	–	2	1.5 x D	0.2 x D	0.5 x D	230	–	390	184	–	312	138	–	234	IPT	.0013	.0016	.0019	.0021	.0024	.0024

NOTE: Those guidelines may require variations to achieve optimum results.
 Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. Please adjust parameters according to system stability.
 For side milling with ap larger than 1 x D, reduce fz by 20%!
 Cylindrical shanks not recommended for full slotting.



DUO-LOCK™ • HARVI™ I Ball Nose • Application Data • Inch



Material Group					short		medium		long		Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.						
	A		B		adapter reach						D1 – Diameter						
					KCPM15		KCPM15		KCPM15								
	ap		ae		Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc		frac.	3/8	1/2	5/8	3/4	1	1 1/4
				min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500	1.2500	1.2500	
P	0	1.25 x D	0.5 x D	1 x D	490	660	441	594	441	594	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	1	1.25 x D	0.5 x D	1 x D	490	660	441	594	441	594	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	2	1.25 x D	0.5 x D	1 x D	460	620	414	558	414	558	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	3	1.25 x D	0.5 x D	1 x D	390	520	351	468	351	468	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	4	1.25 x D	0.4 x D	0.75 x D	300	490	270	441	270	441	IPT	.0017	.0022	.0026	.0029	.0034	.0034
	5	1.25 x D	0.4 x D	1 x D	200	330	170	280.5	160	264	IPT	.0016	.0020	.0023	.0026	.0033	.0033
M	1	1.25 x D	0.4 x D	1 x D	300	380	240	304	210	266	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	2	1.25 x D	0.4 x D	1 x D	200	260	160	208	140	182	IPT	.0016	.0020	.0023	.0026	.0033	.0033
	3	1.25 x D	0.4 x D	1 x D	200	230	160	184	140	161	IPT	.0013	.0016	.0019	.0021	.0024	.0024
K	1	1.25 x D	0.5 x D	1 x D	390	490	351	441	351	441	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	2	1.25 x D	0.5 x D	1 x D	360	460	324	414	324	414	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	3	1.25 x D	0.5 x D	1 x D	360	430	324	387	324	387	IPT	.0016	.0020	.0023	.0026	.0033	.0033
S	1	1 x D	0.3 x D	0.3 x D	160	300	128	240	96	180	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	2	1 x D	0.3 x D	0.3 x D	80	130	64	104	48	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022
	3	1.25 x D	0.3 x D	0.3 x D	80	130	64	104	48	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022
	4	1.25 x D	0.4 x D	1 x D	160	200	128	160	96	120	IPT	.0014	.0018	.0021	.0024	.0030	.0030
H	1	1.25 x D	0.4 x D	0.75 x D	260	460	208	368	156	276	IPT	.0017	.0022	.0026	.0029	.0034	.0034
	2	1.25 x D	0.2 x D	0.5 x D	230	390	184	312	138	234	IPT	.0013	.0016	.0019	.0021	.0024	.0024

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
Above parameters are based on ideal conditions. Please adjust parameters according to system stability.
For side milling with ap larger than 1 x D, reduce fz by 20%!
Cylindrical shanks not recommended for full slotting.

DUO-LOCK • HARVI II • Application Data • Inch



UCDV



UDDV

Material Group					short		medium		long		Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.							
	A		B		adapter reach						D1 – Diameter							
					KCPM15		KCPM15		KCPM15									
	ap		ae		Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc		frac.	3/8	1/2	5/8	3/4	1	1 1/4	
				min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500	1.2500	1.2500		
P	UCDV	UDDV	1.5 x D	0.5 x D	1 x D	490	660	441	594	441	594	IPT	.0023	.0029	.0034	.0037	.0042	.0042
	1	1.5 x D	0.5 x D	1 x D	490	660	441	594	441	594	IPT	.0023	.0029	.0034	.0037	.0042	.0042	
	2	1.5 x D	0.5 x D	1 x D	460	620	414	558	414	558	IPT	.0023	.0029	.0034	.0037	.0042	.0042	
	3	1.5 x D	0.5 x D	1 x D	390	520	351	468	351	468	IPT	.0019	.0025	.0029	.0033	.0041	.0041	
	4	1.5 x D	0.4 x D	0.75 x D	300	490	270	441	270	441	IPT	.0017	.0022	.0026	.0029	.0034	.0034	
	5	1.5 x D	0.4 x D	1 x D	200	330	170	280.5	160	264	IPT	.0016	.0020	.0023	.0026	.0033	.0033	
M	1	1.5 x D	0.4 x D	1 x D	300	380	240	304	210	266	IPT	.0019	.0025	.0029	.0033	.0041	.0041	
	2	1.5 x D	0.4 x D	1 x D	200	260	160	208	140	182	IPT	.0016	.0020	.0023	.0026	.0033	.0033	
	3	1.5 x D	0.4 x D	1 x D	200	230	160	184	140	161	IPT	.0013	.0016	.0019	.0021	.0024	.0024	
K	1	1.5 x D	0.5 x D	1 x D	390	490	351	441	351	441	IPT	.0023	.0029	.0034	.0037	.0042	.0042	
	2	1.5 x D	0.5 x D	1 x D	360	460	324	414	324	414	IPT	.0019	.0025	.0029	.0033	.0041	.0041	
	3	1.5 x D	0.5 x D	1 x D	360	430	324	387	324	387	IPT	.0016	.0020	.0023	.0026	.0033	.0033	
S	1	1.5 x D	0.3 x D	0.3 x D	160	300	128	240	96	180	IPT	.0019	.0025	.0029	.0033	.0041	.0041	
	2	1.5 x D	0.3 x D	0.3 x D	80	130	64	104	48	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022	
	3	1.5 x D	0.3 x D	0.3 x D	80	130	64	104	48	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022	
	4	1.5 x D	0.4 x D	1 x D	160	200	128	160	96	120	IPT	.0014	.0018	.0021	.0024	.0030	.0030	
H	1	1.5 x D	0.4 x D	0.75 x D	260	460	208	368	156	276	IPT	.0017	.0022	.0026	.0029	.0034	.0034	
	2	1.5 x D	0.2 x D	0.5 x D	230	390	184	312	138	234	IPT	.0013	.0016	.0019	.0021	.0024	.0024	

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
Above parameters are based on ideal conditions. Please adjust parameters according to system stability.
For side milling with Ap bigger than 1 x D reduce Fz by 20%!
Cylindrical shanks not recommended for full slotting.



DUO-LOCK™ • HARVI™ III • Application Data • Inch



Roughing

Material Group			short			medium			long			Roughing – Recommended feed per tooth (IPT = inch/th) for side milling (A).						
			adapter reach									D1 – Diameter						
	A		KCSM15			KCSM15			KCSM15			frac.	3/8	1/2	5/8	3/4	1	1 1/4
			Cutting Speed – vc SFM			Cutting Speed – vc SFM			Cutting Speed – vc SFM									
ap	ae	min	–	max	min	–	max	min	–	max	dec.	.3750	.5000	.6250	.7500	1.2500	1.2500	
P	4	Ap max 0.4 x D	300	–	490	270	–	441	270	–	441	IPT	.0017	.0022	.0026	.0029	.0034	.0034
	5	Ap max 0.4 x D	200	–	330	170	–	280.5	160	–	264	IPT	.0016	.0020	.0023	.0026	.0033	.0033
M	1	Ap max 0.4 x D	300	–	380	240	–	304	210	–	266	IPT	.0019	.0025	.0029	.0033	.0041	.0041
	2	Ap max 0.4 x D	200	–	260	160	–	208	140	–	182	IPT	.0016	.0020	.0023	.0026	.0033	.0033
S	3	Ap max 0.4 x D	200	–	230	160	–	184	140	–	161	IPT	.0013	.0016	.0019	.0021	.0024	.0024
	1	Ap max 0.4 x D	160	–	300	128	–	240	96	–	180	IPT	.0019	.0025	.0029	.0033	.0041	.0041
H	2	Ap max 0.4 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022
	3	Ap max 0.4 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0013	.0015	.0018	.0022	.0022
H	4	Ap max 0.4 x D	160	–	200	128	–	160	96	–	120	IPT	.0014	.0018	.0021	.0024	.0030	.0030
	1	Ap max 0.4 x D	260	–	460	208	–	368	156	–	276	IPT	.0017	.0022	.0026	.0029	.0034	.0034
H	2	Ap max 0.4 x D	230	–	390	184	–	312	138	–	234	IPT	.0013	.0016	.0019	.0021	.0024	.0024

Finishing

Material Group			short			medium			long			Finishing – Recommended feed per tooth (IPT = inch/th) for side milling (A).						
			adapter reach									D1 – Diameter						
	A		KCSM15			KCSM15			KCSM15			frac.	3/8	1/2	5/8	3/4	1	1 1/4
			Cutting Speed – vc SFM			Cutting Speed – vc SFM			Cutting Speed – vc SFM									
ap	ae	min	–	max	min	–	max	min	–	max	dec.	.3750	.5000	.6250	.7500	1.2500	1.2500	
P	4	Ap max 0.6 x D	560	–	940	504	–	846	504	–	846	IPT	.0021	.0026	.0031	.0034	.0041	.0041
	5	Ap max 0.6 x D	370	–	620	314.5	–	527	296	–	496	IPT	.0019	.0024	.0028	.0031	.0040	.0040
M	1	Ap max 0.6 x D	560	–	720	448	–	576	392	–	504	IPT	.0023	.0029	.0035	.0039	.0049	.0049
	2	Ap max 0.6 x D	370	–	500	296	–	400	259	–	350	IPT	.0019	.0024	.0028	.0031	.0040	.0040
S	3	Ap max 0.6 x D	370	–	440	296	–	352	259	–	308	IPT	.0016	.0020	.0023	.0025	.0029	.0029
	1	Ap max 0.6 x D	310	–	560	248	–	448	186	–	336	IPT	.0023	.0029	.0035	.0039	.0049	.0049
H	2	Ap max 0.6 x D	160	–	250	128	–	200	96	–	150	IPT	.0012	.0016	.0019	.0021	.0027	.0027
	3	Ap max 0.6 x D	160	–	250	128	–	200	96	–	150	IPT	.0012	.0016	.0019	.0021	.0027	.0027
H	4	Ap max 0.6 x D	310	–	370	248	–	296	186	–	222	IPT	.0017	.0022	.0026	.0029	.0036	.0036
	1	Ap max 0.6 x D	500	–	870	400	–	696	300	–	522	IPT	.0021	.0026	.0031	.0034	.0041	.0041
H	2	Ap max 0.6 x D	440	–	750	352	–	600	264	–	450	IPT	.0016	.0020	.0023	.0025	.0029	.0029

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group. Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group. Above parameters are based on ideal conditions. Please adjust parameters according to system stability. For side milling with Ap bigger than 1 x D, reduce fz by 20%! Cylindrical shanks not recommended for full slotting.

DUO-LOCK™ • HARVI™ III Ball Nose • Application Data • Inch



Roughing

Material Group			short	adapter reach						Roughing – Recommended feed per tooth (IPT = inch/th) for side milling (A).					
				KCSM15		KCSM15		KCSM15		D1 – Diameter					
	A		Cutting Speed – vc SFM		Cutting Speed – vc SFM		Cutting Speed – vc SFM		frac.	3/8	1/2	5/8	3/4	1	
	ap	ae	min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500	1.2500	
P	0	Ap max 0.4 x D	490	660	441	594	441	594	IPT	.0023	.0029	.0034	.0037	.0042	
	1	Ap max 0.4 x D	490	660	441	594	441	594	IPT	.0023	.0029	.0034	.0037	.0042	
	2	Ap max 0.4 x D	460	620	414	558	414	558	IPT	.0023	.0029	.0034	.0037	.0042	
	3	Ap max 0.4 x D	390	520	351	468	351	468	IPT	.0019	.0025	.0029	.0033	.0041	
	4	Ap max 0.4 x D	300	490	270	441	270	441	IPT	.0017	.0022	.0026	.0029	.0034	
	5	Ap max 0.4 x D	200	330	170	280.5	160	264	IPT	.0016	.0020	.0023	.0026	.0033	
M	1	Ap max 0.4 x D	160	250	136	212.5	128	200	IPT	.0013	.0016	.0019	.0021	.0024	
	2	Ap max 0.4 x D	300	380	240	304	210	266	IPT	.0019	.0025	.0029	.0033	.0041	
	3	Ap max 0.4 x D	200	260	160	208	140	182	IPT	.0016	.0020	.0023	.0026	.0033	
K	1	Ap max 0.4 x D	200	230	160	184	140	161	IPT	.0013	.0016	.0019	.0021	.0024	
	2	Ap max 0.4 x D	390	490	351	441	351	441	IPT	.0023	.0029	.0034	.0037	.0042	
	3	Ap max 0.4 x D	360	460	324	414	324	414	IPT	.0019	.0025	.0029	.0033	.0041	
S	1	Ap max 0.4 x D	360	430	324	387	324	387	IPT	.0016	.0020	.0023	.0026	.0033	
	2	Ap max 0.4 x D	160	300	128	240	96	180	IPT	.0019	.0025	.0029	.0033	.0041	
	3	Ap max 0.4 x D	80	130	64	104	48	78	IPT	.0010	.0013	.0015	.0018	.0022	
	4	Ap max 0.4 x D	80	130	64	104	48	78	IPT	.0010	.0013	.0015	.0018	.0022	
H	1	Ap max 0.4 x D	160	200	128	160	96	120	IPT	.0014	.0018	.0021	.0024	.0030	
	2	Ap max 0.4 x D	260	460	208	368	156	276	IPT	.0017	.0022	.0026	.0029	.0034	

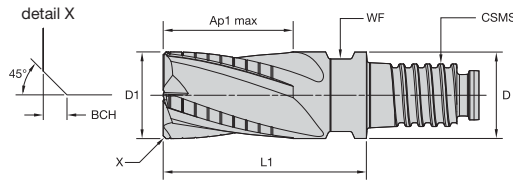
Finishing

Material Group			short	adapter reach						Finishing – Recommended feed per tooth (IPT = inch/th) for side milling (A).					
				KCSM15		KCSM15		KCSM15		D1 – Diameter					
	A		Cutting Speed – vc SFM		Cutting Speed – vc SFM		Cutting Speed – vc SFM		frac.	3/8	1/2	5/8	3/4	1	
	ap	ae	min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500	1.2500	
P	0	Ap max 0.06 x D	940	1250	846	1125	846	1125	IPT	.0028	.0035	.0040	.0045	.0050	
	1	Ap max 0.06 x D	940	1250	846	1125	846	1125	IPT	.0028	.0035	.0040	.0045	.0050	
	2	Ap max 0.06 x D	870	1180	783	1062	783	1062	IPT	.0028	.0035	.0040	.0045	.0050	
	3	Ap max 0.06 x D	750	1000	675	900	675	900	IPT	.0023	.0029	.0035	.0039	.0049	
	4	Ap max 0.06 x D	560	940	504	846	504	846	IPT	.0021	.0026	.0031	.0034	.0041	
	5	Ap max 0.06 x D	370	620	314.5	527	296	496	IPT	.0019	.0024	.0028	.0031	.0040	
M	1	Ap max 0.06 x D	310	470	263.5	399.5	248	376	IPT	.0016	.0020	.0023	.0025	.0029	
	2	Ap max 0.06 x D	560	720	448	576	392	504	IPT	.0023	.0029	.0035	.0039	.0049	
	3	Ap max 0.06 x D	370	500	296	400	259	350	IPT	.0019	.0024	.0028	.0031	.0040	
K	1	Ap max 0.06 x D	370	440	296	352	259	308	IPT	.0016	.0020	.0023	.0025	.0029	
	2	Ap max 0.06 x D	750	940	675	846	675	846	IPT	.0028	.0035	.0040	.0045	.0050	
	3	Ap max 0.06 x D	690	870	621	783	621	783	IPT	.0023	.0029	.0035	.0039	.0049	
S	1	Ap max 0.06 x D	690	810	621	729	621	729	IPT	.0019	.0024	.0028	.0031	.0040	
	2	Ap max 0.06 x D	310	560	248	448	186	336	IPT	.0023	.0029	.0035	.0039	.0049	
	3	Ap max 0.06 x D	160	250	128	200	96	150	IPT	.0012	.0016	.0019	.0021	.0027	
	4	Ap max 0.06 x D	160	250	128	200	96	150	IPT	.0012	.0016	.0019	.0021	.0027	
H	1	Ap max 0.06 x D	310	370	248	296	186	222	IPT	.0017	.0022	.0026	.0029	.0036	
	2	Ap max 0.06 x D	400	870	400	696	300	522	IPT	.0021	.0026	.0031	.0034	.0041	

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. Please adjust parameters according to system stability.
 For side milling with Ap bigger than 1 x D, reduce fz by 20%!
 Cylindrical shanks not recommended for full slotting.



DUO-LOCK™ • KenCut™ RR • Chamfered • 4-5 Flutes • Inch

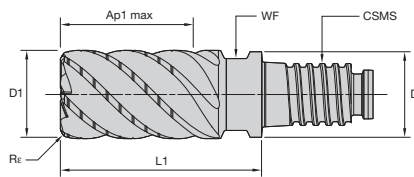


- first choice
- alternate choice

P	●
M	●
K	●
N	●
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	BCH	KCPM15
6127415	RQDB0375Y4CV	3/8	.359	9/16	.843	DL10	.315	.020	●
6127416	RQDB0500Y4CV	1/2	.480	3/4	1.126	DL12	.374	.020	●
6127417	RQDB0625Y4CV	5/8	.605	15/16	1.406	DL16	.512	.020	●
6127418	RQDB0750Y4CV	3/4	.730	1 1/8	1.689	DL20	.630	.020	●
6127419	RQDB1000Y5CV	1	.961	1 1/2	2.252	DL25	.827	.020	●

DUO-LOCK • KenCut RR • Radiused • 4 & 6 Flutes • Inch



- first choice
- alternate choice

P	○
M	●
K	○
N	●
S	●
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	Z U	KCSM15
6126918	RKDF0375Y4CQA	3/8	.359	9/16	.843	DL10	.315	.015	4	●
6126919	RKDF0500Y4CQB	1/2	.480	3/4	1.126	DL12	.374	.030	4	●
6126920	RKDF0625Y4CQB	5/8	.605	15/16	1.406	DL16	.512	.030	4	●
6127051	RKDF0750Y6CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030	6	●
6127052	RKDF1000Y6CQB	1	.961	1 1/2	2.252	DL25	.827	.030	6	●

160-163	164	156-158	98, 168

DUO-LOCK™ • KenCut™ RR • RQDB • Application Data • Inch



Material Group					short		medium			long		Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.							
	A		B		adapter reach														
					KCPM15			KCPM15			KCPM15			D1 – Diameter					
	ap		ae		Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc		frac.	3/8	1/2	5/8	3/4	1	
	ap	ae	ap	min	max	min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500	1.2500		
P	0	1.5 x D	0.5 x D	1 x D	390	–	520	351	–	468	351	–	468	IPT	.0020	.0025	.0029	.0032	.0036
	1	1.5 x D	0.5 x D	1 x D	390	–	520	351	–	468	351	–	468	IPT	.0020	.0025	.0029	.0032	.0036
	2	1.5 x D	0.5 x D	1 x D	370	–	500	333	–	450	333	–	450	IPT	.0020	.0025	.0029	.0032	.0036
	3	1.5 x D	0.4 x D	0.75 x D	310	–	420	279	–	378	279	–	378	IPT	.0017	.0021	.0025	.0028	.0035
	4	1.5 x D	0.3 x D	0.3 x D	240	–	390	216	–	351	216	–	351	IPT	.0015	.0019	.0022	.0024	.0029
M	1	1.5 x D	0.4 x D	0.75 x D	160	–	260	136	–	221	128	–	208	IPT	.0013	.0017	.0020	.0022	.0028
	2	1.5 x D	0.4 x D	0.75 x D	240	–	300	192	–	240	168	–	210	IPT	.0017	.0021	.0025	.0028	.0035
	3	1.5 x D	0.4 x D	0.75 x D	160	–	210	128	–	168	112	–	147	IPT	.0013	.0017	.0020	.0022	.0028
K	1	1.5 x D	0.5 x D	1 x D	310	–	390	279	–	351	279	–	351	IPT	.0020	.0025	.0029	.0032	.0036
	2	1.5 x D	0.4 x D	1 x D	290	–	370	261	–	333	261	–	333	IPT	.0017	.0021	.0025	.0028	.0035
	3	1.5 x D	0.4 x D	1 x D	290	–	340	261	–	306	261	–	306	IPT	.0013	.0017	.0020	.0022	.0028
S	1	1.5 x D	0.4 x D	0.75 x D	130	–	240	104	–	192	78	–	144	IPT	.0017	.0021	.0025	.0028	.0035
	3	1.5 x D	0.4 x D	0.75 x D	70	–	100	56	–	80	42	–	60	IPT	.0009	.0011	.0013	.0015	.0019
	1	1.5 x D	0.3 x D	0.3 x D	210	–	370	168	–	296	126	–	222	IPT	.0015	.0019	.0022	.0024	.0029

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Above parameters are based on ideal conditions. Please adjust parameters according to system stability.
For side milling with Ap bigger than 1 x D, reduce fz by 20%!
Cylindrical shanks not recommended for full slotting.

DUO-LOCK • KenCut RR • RKDF • Application Data • Inch

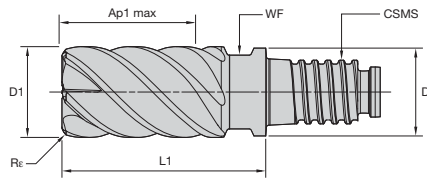


Material Group					short		medium			long		Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.							
	A		B		adapter reach														
					KCSM15			KCSM15			KCSM15			D1 – Diameter					
	ap		ae		Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc		frac.	3/8	1/2	5/8	3/4	1	
	ap	ae	ap	min	max	min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500	1.000		
P	3	1.0 x D	0.5 x D	0.75 x D	390	–	520	351	–	468	351	–	468	IPT	.0019	.0025	.0029	.0033	.0033
	4	1.0 x D	0.3 x D	0.75 x D	300	–	490	270	–	441	270	–	441	IPT	.0017	.0022	.0026	.0029	.0028
	5	1.0 x D	0.4 x D	0.75 x D	200	–	330	170	–	280.5	160	–	264	IPT	.0016	.0020	.0023	.0026	.0026
	6	1.0 x D	0.3 x D	0.3 x D	160	–	250	136	–	212.5	128	–	200	IPT	.0013	.0016	.0019	.0021	.0020
M	1	1.0 x D	0.4 x D	0.75 x D	300	–	380	240	–	304	210	–	266	IPT	.0019	.0025	.0029	.0033	.0033
	2	1.0 x D	0.4 x D	0.75 x D	200	–	260	160	–	208	140	–	182	IPT	.0016	.0020	.0023	.0026	.0026
	3	1.0 x D	0.4 x D	0.75 x D	200	–	230	160	–	184	140	–	161	IPT	.0013	.0016	.0019	.0021	.0020
K	1	1.0 x D	0.5 x D	1 x D	390	–	490	351	–	441	351	–	441	IPT	.0023	.0029	.0034	.0037	.0035
	2	1.0 x D	0.5 x D	1 x D	360	–	460	324	–	414	324	–	414	IPT	.0019	.0025	.0029	.0033	.0033
	3	1.0 x D	0.5 x D	1 x D	360	–	430	324	–	387	324	–	387	IPT	.0016	.0020	.0023	.0026	.0026
S	1	1.0 x D	0.3 x D	0.75 x D	160	–	300	128	–	240	96	–	180	IPT	.0019	.0025	.0029	.0033	.0033
	2	1.0 x D	0.3 x D	0.75 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0013	.0015	.0018	.0018
	3	1.0 x D	0.3 x D	0.75 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0013	.0015	.0018	.0018
	4	1.0 x D	0.4 x D	0.75 x D	160	–	200	128	–	160	96	–	120	IPT	.0014	.0018	.0021	.0024	.0024
H	1	1.0 x D	0.3 x D	0.3 x D	260	–	460	208	–	368	156	–	276	IPT	.0017	.0022	.0026	.0029	.0028
	2	1.0 x D	0.2 x D	0.2 x D	230	–	390	184	–	312	138	–	234	IPT	.0013	.0016	.0019	.0021	.0020
	3	1.0 x D	0.2 x D	0.2 x D	200	–	300	160	–	240	120	–	180	IPT	.0010	.0013	.0015	.0018	.0018

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For side milling with Ap bigger than 1 x D, reduce fz by 20%!
Cylindrical shanks not recommended for full slotting.



DUO-LOCK™ • KenCut™ FF • Radiused • 6 Flutes • Inch

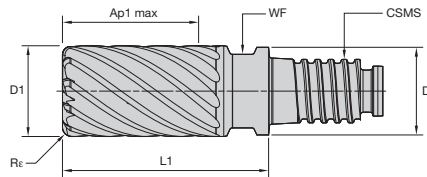


- first choice
- alternate choice

P	●
M	●
K	●
N	●
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	KCPM15
6127558	FMDFO375Y6CQA	3/8	.359	9/16	.843	DL10	.315	.015	●
6127559	FMDFO500Y6CQB	1/2	.480	3/4	1.126	DL12	.374	.030	●
6127560	FMDFO625Y6CQB	5/8	.605	15/16	1.406	DL16	.512	.030	●
6127581	FMDFO750Y6CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030	●
6127582	FMDFO1000Y6CQB	1	.961	1 1/2	2.252	DL25	.827	.030	●

DUO-LOCK • RSM II™ • Radiused • Multi-Flute • Inch



- first choice
- alternate choice

P	○
M	●
K	●
N	●
S	●
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	Z U	KC643M
6127058	FSDE0375Y9CQA	3/8	.359	9/16	.843	DL10	.315	.015	9	●
6127059	FSDE0375Y9CQB	3/8	.359	9/16	.843	DL10	.315	.030	9	●
6127060	FSDE0375Y9CQC	3/8	.359	9/16	.843	DL10	.315	.060	9	●
6127212	FSDE0500Y9CQA	1/2	.480	3/4	1.126	DL12	.374	.015	9	●
6127214	FSDE0500Y9CQC	1/2	.480	3/4	1.126	DL12	.374	.060	9	●
6127216	FSDE0500Y9CQE	1/2	.480	3/4	1.126	DL12	.374	.120	9	●
6127217	FSDE0625Y11CQA	5/8	.605	15/16	1.406	DL16	.512	.015	11	●
6127218	FSDE0625Y11CQB	5/8	.605	15/16	1.406	DL16	.512	.030	11	●
6127219	FSDE0625Y11CQC	5/8	.605	15/16	1.406	DL16	.512	.060	11	●
6127232	FSDE0750Y15CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030	15	●
6127234	FSDE0750Y15CQD	3/4	.730	1 1/8	1.689	DL20	.630	.090	15	●
6127235	FSDE0750Y15CQE	3/4	.730	1 1/8	1.689	DL20	.630	.120	15	●
6127236	FSDE1000Y19CQB	1	.961	1 1/2	2.252	DL25	.827	.030	19	●
6127237	FSDE1000Y19CQC	1	.961	1 1/2	2.252	DL25	.827	.060	19	●
6127238	FSDE1000Y19CQD	1	.961	1 1/2	2.252	DL25	.827	.090	19	●
6127239	FSDE1000Y19CQE	1	.961	1 1/2	2.252	DL25	.827	.120	19	●
6127240	FSDE1000Y19CQF	1	.961	1 1/2	2.252	DL25	.827	.250	19	●

160-163	164	156-158	98, 168



DUO-LOCK™ • KenCut™ FF • FMDF • Application Data • Inch



Material Group			short		medium				long		Recommended feed per tooth (IPT = inch/th) for side milling (A).							
			adapter reach									D1 – Diameter						
	A		KCPM15			KCPM15			KCPM15			frac.	3/8	1/2	5/8	3/4	1	
	ap	ae	Cutting Speed – vc SFM			Cutting Speed – vc SFM			Cutting Speed – vc SFM			dec.	.375	.500	.625	.750	1.000	
P	0	1.5 x D	0.1 x D	490	–	660	441	–	594	441	–	594	IPT	.0027	.0034	.0039	.0044	.0049
	1	1.5 x D	0.1 x D	490	–	660	441	–	594	441	–	594	IPT	.0027	.0034	.0039	.0044	.0049
	2	1.5 x D	0.1 x D	460	–	620	414	–	558	414	–	558	IPT	.0027	.0034	.0039	.0044	.0049
	3	1.5 x D	0.1 x D	390	–	520	351	–	468	351	–	468	IPT	.0023	.0029	.0034	.0039	.0045
	4	1.5 x D	0.1 x D	300	–	490	270	–	441	270	–	441	IPT	.0020	.0026	.0030	.0034	.0039
	5	1.5 x D	0.1 x D	200	–	330	170	–	280.5	160	–	264	IPT	.0018	.0023	.0027	.0031	.0036
M	6	1.5 x D	0.1 x D	160	–	250	136	–	212.5	128	–	200	IPT	.0015	.0019	.0022	.0025	.0028
	1	1.5 x D	0.1 x D	300	–	380	240	–	304	210	–	266	IPT	.0023	.0029	.0034	.0039	.0045
	2	1.5 x D	0.1 x D	200	–	260	160	–	208	140	–	182	IPT	.0018	.0023	.0027	.0031	.0036
K	3	1.5 x D	0.1 x D	200	–	230	160	–	184	140	–	161	IPT	.0015	.0019	.0022	.0025	.0028
	1	1.5 x D	0.1 x D	390	–	490	351	–	441	351	–	441	IPT	.0027	.0034	.0039	.0044	.0049
	2	1.5 x D	0.1 x D	360	–	460	324	–	414	324	–	414	IPT	.0023	.0029	.0034	.0039	.0045
S	3	1.5 x D	0.1 x D	360	–	430	324	–	387	324	–	387	IPT	.0018	.0023	.0027	.0031	.0036
	1	1.5 x D	0.1 x D	160	–	300	128	–	240	96	–	180	IPT	.0023	.0029	.0034	.0039	.0045
	2	1.5 x D	0.1 x D	80	–	130	64	–	104	48	–	78	IPT	.0012	.0015	.0018	.0021	.0024
	3	1.5 x D	0.1 x D	80	–	130	64	–	104	48	–	78	IPT	.0012	.0015	.0018	.0021	.0024
H	4	1.5 x D	0.15 x D	160	–	200	128	–	160	96	–	120	IPT	.0017	.0021	.0025	.0028	.0033
	1	1.5 x D	0.1 x D	260	–	460	208	–	368	156	–	276	IPT	.0020	.0026	.0030	.0034	.0039
	2	1.5 x D	0.1 x D	230	–	390	184	–	312	138	–	234	IPT	.0015	.0019	.0022	.0025	.0028

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. Please adjust parameters according to system stability.
 For side milling with Ap bigger than 1 x D, reduce fz by 20%!
 Cylindrical shanks not recommended for full slotting.

DUO-LOCK • RSM II™ • FSDE • Application Data • Inch

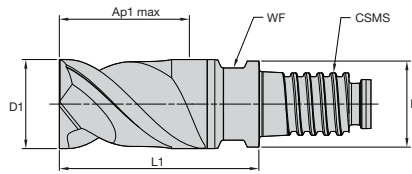


Material Group			short		medium				long		Recommended feed per tooth (IPT = inch/th) for side milling (A).							
			adapter reach									D1 – Diameter						
	A		KC643M			KC643M			KC643M			frac.	3/8	1/2	5/8	3/4	1	
	ap	ae	Cutting Speed – vc SFM			Cutting Speed – vc SFM			Cutting Speed – vc SFM			dec.	.375	.500	.625	.750	1.000	
P	4	Ap max	0.008–0.012"	445	–	1628	401	–	1465	401	–	1465	IPT	.0045	.0053	.0058	.0061	.0066
	5	Ap max	0.008–0.012"	295	–	1078	251	–	916	236	–	862	IPT	.0040	.0048	.0052	.0056	.0061
M	1	Ap max	0.008–0.012"	445	–	1243	356	–	994	312	–	870	IPT	.0050	.0060	.0066	.0070	.0077
	2	Ap max	0.008–0.012"	295	–	869	236	–	695	207	–	608	IPT	.0040	.0048	.0052	.0056	.0061
S	3	Ap max	0.008–0.012"	295	–	759	236	–	607	207	–	531	IPT	.0033	.0040	.0043	.0045	.0048
	1	Ap max	0.008–0.012"	245	–	979	196	–	783	147	–	587	IPT	.0050	.0060	.0066	.0070	.0077
	2	Ap max	0.008–0.012"	125	–	429	100	–	343	75	–	257	IPT	.0026	.0032	.0035	.0037	.0041
	3	Ap max	0.008–0.012"	125	–	429	100	–	343	75	–	257	IPT	.0026	.0032	.0035	.0037	.0041
H	4	Ap max	0.008–0.012"	245	–	649	196	–	519	147	–	389	IPT	.0037	.0044	.0048	.0051	.0056
	1	Ap max	0.008–0.012"	395	–	1518	316	–	1214	237	–	911	IPT	.0045	.0053	.0058	.0061	.0066
	2	Ap max	0.008–0.012"	345	–	1298	276	–	1038	207	–	779	IPT	.0033	.0040	.0043	.0045	.0048

NOTE: For better surface, finish reduce feed per tooth.
 For side milling with Ap bigger than 1 x D, reduce fz by 20%!
 Cylindrical shanks not recommended for full slotting.

DUO-LOCK™ • MaxiMet™ • Square End • 2 Flutes • Inch

- first choice
- alternate choice

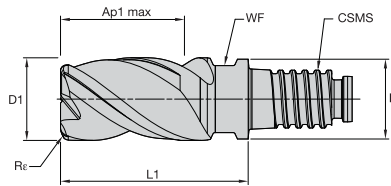


P	Blue	
M	Yellow	
K	Red	
N	Green	●
S	Orange	
H	Grey	

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	K600
6151112	ABDF0375Y2CU	3/8	.359	9/16	.843	DL10	.315	●
6151113	ABDF0500Y2CU	1/2	.480	3/4	1.126	DL12	.374	●
6151114	ABDF0625Y2CU	5/8	.605	15/16	1.406	DL16	.512	●
6151115	ABDF0750Y2CU	3/4	.730	1 1/8	1.689	DL20	.630	●

DUO-LOCK • MaxiMet • Radiused • 3 Flutes • Inch

- first choice
- alternate choice



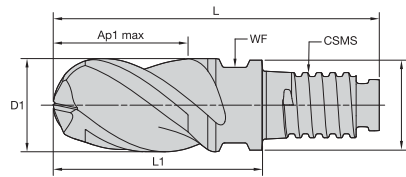
P	Blue	
M	Yellow	
K	Red	
N	Green	●
S	Orange	
H	Grey	

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	K600
6153950	ABDE0375Y3CQC	3/8	.359	9/16	.843	DL10	.315	.060	●
6153951	ABDE0375Y3CQD	3/8	.359	9/16	.843	DL10	.315	.090	●
6153952	ABDE0500Y3CQA	1/2	.480	3/4	1.126	DL12	.374	.060	●
6153953	ABDE0500Y3CQB	1/2	.480	3/4	1.126	DL12	.374	.030	●
6153954	ABDE0500Y3CQC	1/2	.480	3/4	1.126	DL12	.374	.060	●
6153955	ABDE0500Y3CQD	1/2	.480	3/4	1.126	DL12	.374	.090	●
6153956	ABDE0500Y3CQE	1/2	.480	3/4	1.126	DL12	.374	.120	●
6153957	ABDE0625Y3CQA	5/8	.605	15/16	1.406	DL16	.512	.015	●
6153958	ABDE0625Y3CQB	5/8	.605	15/16	1.406	DL16	.512	.030	●
6153959	ABDE0625Y3CQC	5/8	.605	15/16	1.406	DL16	.512	.060	●
6153963	ABDE0750Y3CQB	3/4	.730	1 1/8	1.689	DL20	.630	.030	●
6153964	ABDE0750Y3CQC	3/4	.730	1 1/8	1.689	DL20	.630	.060	●
6153965	ABDE0750Y3CQD	3/4	.730	1 1/8	1.689	DL20	.630	.090	●
6153966	ABDE0750Y3CQE	3/4	.730	1 1/8	1.689	DL20	.630	.120	●
6153967	ABDE1000Y3CQB	1	.961	1 1/2	2.252	DL25	.827	.030	●
6153968	ABDE1000Y3CQC	1	.961	1 1/2	2.252	DL25	.827	.060	●
6153970	ABDE1000Y3CQE	1	.961	1 1/2	2.252	DL25	.827	.120	●

160-163	164	156-158	98, 168



DUO-LOCK™ • MaxiMet™ • Ball Nose • 3 Flutes • Inch



- first choice
- alternate choice

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

order number	catalog number	D1	D	Ap1 max	L	L1	CSMS system size	WF	K600
6626767	ABBE0375Y3CN	3/8	.359	9/16	1.335	.843	DL10	.315	●
6626768	ABBE0500Y3CN	1/2	.480	3/4	1.717	1.126	DL12	.374	●
6626769	ABBE0625Y3CN	5/8	.605	15/16	2.193	1.406	DL16	.512	●
6626770	ABBE0750Y3CN	3/4	.730	1 1/8	2.630	1.689	DL20	.630	●

160-163	164	156-158	98, 168

DUO-LOCK™ • MaxiMet™ • ABDF & ABDE • Application Data • Inch



MaxiMet ABDF



MaxiMet ABDE

Material Group					short		medium				long				Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.						
	A		B		adapter reach												D1 – Diameter				
					K600				K600				K600				frac.	3/8	1/2	5/8	3/4
	ap		ae		ap		Cutting Speed – vc SFM		Cutting Speed – vc SFM		Cutting Speed – vc SFM		min		max		dec.	.3750	.5000	.6250	.7500
N	1	1.5 x D	0.3 x D	1.0 x D	1640	–	6560	1312	–	3936	984	–	3936	IPT	.0029	.0038	.0048	.0057			
	2	1.5 x D	0.3 x D	1.0 x D	1640	–	4920	1312	–	2952	984	–	2952	IPT	.0023	.0031	.0038	.0046			
	3	1.5 x D	0.3 x D	1.0 x D	1640	–	4920	1312	–	2952	984	–	2952	IPT	.0020	.0027	.0033	.0040			
	4	1.5 x D	0.3 x D	1.0 x D	1310	–	2460	1048	–	1476	786	–	1476	IPT	.0020	.0027	.0033	.0040			
	5	1.5 x D	0.3 x D	1.0 x D	820	–	3280	656	–	1968	492	–	1968	IPT	.0026	.0034	.0043	.0052			

NOTE: Ap for spindle with ceramic bearings multiply by 0.5.
 For better surface finish reduce feed per tooth.
 Above parameters are based on ideal conditions.
 Please adjust parameters according to system stability.
 For side milling with Ap bigger than 1 x D reduce Fz by 20%!
 Cylindrical shanks not recommended for full slotting.

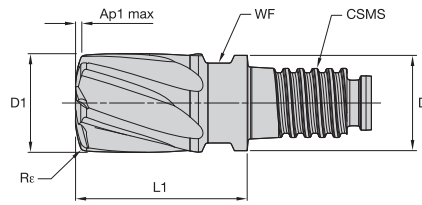
DUO-LOCK • MaxiMet • ABE • Application Data • Inch



Material Group					short		medium				long				Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.						
	A		B		adapter reach												D1 – Diameter				
					K600				K600				K600				frac.	3/8	1/2	5/8	3/4
	ap		ae		ap		Cutting Speed – vc SFM		Cutting Speed – vc SFM		Cutting Speed – vc SFM		min		max		dec.	.3750	.5000	.6250	.7500
N	1	1.0 x D	0.5 x D	1.0 x D	1640	–	6560	1312	–	5248	984	–	3936	IPT	.0028	.0038	.0047	.0056			
	2	1.0 x D	0.5 x D	1.0 x D	1640	–	4920	1312	–	3936	984	–	2952	IPT	.0023	.0030	.0038	.0045			
	3	1.0 x D	0.5 x D	1.0 x D	1640	–	4920	1312	–	3936	984	–	2952	IPT	.0020	.0026	.0033	.0039			
	4	1.0 x D	0.5 x D	1.0 x D	1310	–	2460	1048	–	1968	786	–	1476	IPT	.0020	.0026	.0033	.0039			
	5	1.0 x D	0.5 x D	1.0 x D	820	–	3280	656	–	2624	492	–	1968	IPT	.0025	.0034	.0042	.0051			
	6	1.0 x D	0.5 x D	1.0 x D	330	–	2460	264	–	1968	198	–	1476	IPT	.0028	.0038	.0047	.0056			
	7	1.0 x D	0.5 x D	1.0 x D	330	–	2460	264	–	1968	198	–	1476	IPT	.0020	.0026	.0033	.0039			

NOTE: These guidelines may require variations to achieve optimum results.
 Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters greater than 1/2".
 For better surface finish, reduce feed per tooth.

DUO-LOCK™ • KenFeed™ • KMDA • Radiused • 6 Flutes • Inch

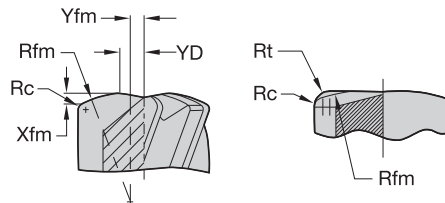


- first choice
- alternate choice

P	■	○
M	■	○
K	■	○
N	■	○
S	■	○
H	■	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	KC639M
6197711	KMDA0375Y6BQX	3/8	.359	0.0201	.655	DL10	.315	.023	●
6197713	KMDA0500Y6BQX	1/2	.480	0.0268	.876	DL12	.374	.031	●
6197714	KMDA0625Y6BQX	5/8	.605	0.0335	1.093	DL16	.512	.039	●
6197715	KMDA0750Y6BQX	3/4	.730	0.0399	1.314	DL20	.630	.047	●

DUO-LOCK • KenFeed • 6 Flutes • Programming Data



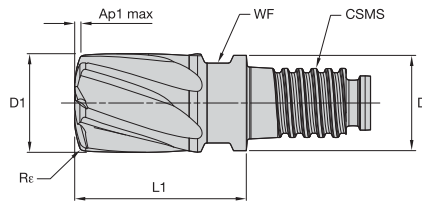
Geometrical Parameters							Ramping Guide for Circular and Linear Ramping						
							Circular Interpolation		Linear Ramping				
							Optimal Range of Circle Diameter for a Single Pass		Calculated Length per Ramp Angle				
catalog number	D1	Ap1 max	R	Re	YRC	RCN	Smallest	Largest	1°	2°	3°	4°	5°
KMDA0375Y6BQX	3/8	0.0123	0.375	0.0240	0.0469	0.0825	0.540	0.750	0.706	0.353	0.235	0.176	0.141
KMDA0500Y6BQX	1/2	0.0164	0.500	0.0320	0.0625	0.1100	0.720	1.000	0.941	0.470	0.313	0.235	0.188
KMDA0625Y6BQX	5/8	0.0205	0.625	0.0400	0.0781	0.1375	0.900	1.250	1.176	0.588	0.392	0.294	0.235
KMDA0750Y6BQX	3/4	0.0246	0.750	0.0470	0.0938	0.1650	1.080	1.500	1.411	0.705	0.470	0.352	0.282
recommended % of programmed feed rate to use while ramping									100%	70%	50%	30%	10%

NOTE: YRC = distance from centerline to the crown of the R radius.
 RCN = distance from centerline to the start of the cutting edge. This dimension can also help determine the minimum circle size when helical ramping.
 R = the head radius size.
 Rc = the shoulder radius or radius at the corner of the cutter.

160-163	164	156-158	98, 168



DUO-LOCK™ • KenFeed™ • KSDB • Radiused • 6 Flutes • Inch



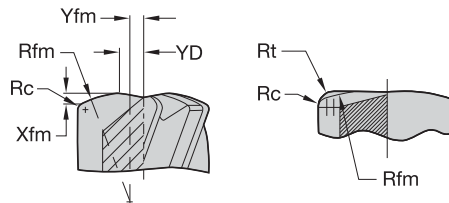
- first choice
- alternate choice

P	●
M	○
K	●
N	○
S	●
H	○

KC643M

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	
6626700	KSDB0375Y6BQX	3/8	.359	0.0201	.655	DL10	.315	.023	●
6626761	KSDB0500Y6BQX	1/2	.480	0.0268	1.126	DL12	.374	.031	●
6626763	KSDB0625Y6BQX	5/8	.605	0.0335	1.093	DL16	.512	.039	●
6626764	KSDB0750Y6BQX	3/4	.730	0.0398	1.314	DL20	.630	.047	●
6531738	KSDB1000Y6BQX	1	.961	0.5000	1.752	DL25	.827	.063	●

DUO-LOCK • KenFeed • 6 Flutes • Programming Data



Geometrical Parameters											ramping guide for circular and linear interpolation					
											Circular Interpolation		linear interpolation			
allowed range of hole diameter											Calculated Length per Ramp Angle					
catalog number	D1	Ap1 max	Rfm	Rt	Rc	Xfm	Yfm	YD	number of flutes	Smallest	Largest	1°	2°	3°	4°	5°
KSDB0375Y6BQX	3/8	.020	3/8	.0399	.0235	.0200	.0469	.0788	6	.5325	.75	1.14	.57	.38	.29	.23
KSDB0500Y6BQX	1/2	.027	1/2	.0538	.0320	.0266	.0625	.1050	6	.7100	1.00	1.52	.76	.51	.38	.30
KSDB0625Y6BQX	5/8	.034	5/8	.0672	.0400	.0333	.0781	.1313	6	.8875	1.25	1.91	.95	.63	.48	.38
KSDB0750Y6BQX	3/4	.040	3/4	.0798	.0470	.0399	.0938	.1575	6	1.0650	1.50	2.29	1.14	.76	.57	.46
recommended degree of programmed feed rate to use while ramping											100%	70%	50%	30%	10%	

NOTE: YRC = distance from centerline to the crown of the R radius.
 RCN = distance from centerline to the start of the cutting edge. This dimension can also help determine the minimum circle size when helical ramping.
 R = the head radius size.
 Rc = the shoulder radius or radius at the corner of the cutter.

160-163	164	156-158	98, 168



DUO-LOCK™ • KenFeed™ • KMDA • Application Data • Inch



Material Group			straight short			conical medium			conical long			Recommended feed per tooth (IPT = inch/th) for side milling (A).					
	A		KC639M			KC639M			KC639M			D1 – Diameter					
			Cutting Speed – vc SFM			Cutting Speed – vc SFM			Cutting Speed – vc SFM			frac.	3/8	1/2	5/8	3/4	
	ap	ae	min	max	min	max	min	max	min	max	dec.	0.3750	0.5000	0.6250	0.7500		
P	3	0.05 x D	0.55 x D	390	–	520	351	–	468	351	–	468	IPT	0.0160	0.0202	0.0239	0.0270
	4	0.05 x D	0.55 x D	300	–	490	270	–	441	270	–	441	IPT	0.0143	0.0180	0.0211	0.0236
H	1	0.05 x D	0.55 x D	260	–	460	208	–	368	156	–	276	IPT	0.0143	0.0180	0.0211	0.0236
	2	0.05 x D	0.55 x D	230	–	390	184	–	312	138	–	234	IPT	0.0107	0.0134	0.0156	0.0174

NOTE: These guidelines may require variations to achieve optimum results.
 Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters >1/2".
 For better surface finish, reduce feed per tooth.
 For tools with reach > 3 x D, reduce fz by 20%.
 For tools with reach >5 x D, reduce fz by 30%.
 For tools with reach >10 x D, reduce vc and fz by 30%.

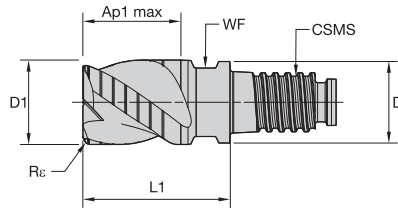
DUO-LOCK • KenFeed • KSDB • Application Data • Inch



Material Group			short			medium			long			Recommended feed per tooth (IPT = inch/th) for side milling (A).					
	A		KC643M			KC643M			KC643M			D1 – Diameter					
			Cutting Speed – vc SFM			Cutting Speed – vc SFM			Cutting Speed – vc SFM			frac.	3/8	1/2	5/8	3/4	
	ap	ae	min	max	min	max	min	max	min	max	dec.	.3750	.5000	.6250	.7500		
P	5	0.05 x D	0.55 x D	200	–	330	170	–	281	160	–	264	IPT	.0110	.0139	.0164	.0185
	6	0.05 x D	0.55 x D	160	–	250	136	–	213	128	–	200	IPT	.0092	.0115	.0134	.0149
M	1	0.05 x D	0.55 x D	300	–	380	240	–	304	210	–	266	IPT	.0137	.0173	.0205	.0232
	2	0.05 x D	0.55 x D	200	–	260	160	–	208	140	–	182	IPT	.0110	.0139	.0164	.0185
S	3	0.05 x D	0.55 x D	200	–	230	160	–	184	140	–	161	IPT	.0092	.0115	.0134	.0149
	1	0.05 x D	0.55 x D	160	–	300	128	–	240	96	–	180	IPT	.0137	.0173	.0205	.0232
	2	0.05 x D	0.55 x D	80	–	130	64	–	104	48	–	78	IPT	.0073	.0092	.0109	.0124
	3	0.05 x D	0.55 x D	80	–	130	64	–	104	48	–	78	IPT	.0073	.0092	.0109	.0124
	4	0.05 x D	0.55 x D	160	–	200	128	–	160	96	–	120	IPT	.0101	.0128	.0151	.0170

NOTE: These guidelines may require variations to achieve optimum results.
 Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters greater than 1/2".
 For cutting aluminum, with high silicon TiCN coating is recommended.
 For better surface finish, reduce feed per tooth.
 For tools with reach >3 x D, reduce fz by 20%.
 For tools with reach >5 x D, reduce fz by 30%.
 For tools with reach >10 x D, reduce Vc and fz by 30%.

DUO-LOCK™ • KenCut RR • Radiused • 3 Flutes • Inch



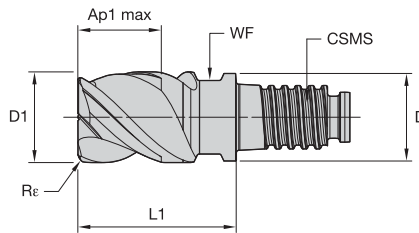
- first choice
- alternate choice

P	●
M	●
K	●
N	●
S	●
H	○

KCPM15

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	KCPM15
6441025	RFDD0375Y3AQA	3/8	.359	9/32	.655	DL10	.315	.015	●
6441026	RFDD0500Y3AQA	1/2	.480	3/8	.876	DL12	.374	.015	●
6441027	RFDD0625Y3AQA	5/8	.605	15/32	1.093	DL16	.512	.015	●
6441028	RFDD0750Y3AQA	3/4	.730	9/16	1.314	DL20	.630	.015	●

DUO-LOCK • KenCut™ FF • Radiused • 3 Flutes • Inch



- first choice
- alternate choice

P	●
M	●
K	●
N	●
S	●
H	○

KCPM15

order number	catalog number	D1	D	Ap1 max	L1	CSMS	WF	Re	KCPM15
6440977	FGDF0375Y3AQA	3/8	.359	9/32	.655	DL10	.315	.015	●
6441021	FGDF0375Y3AQB	3/8	.359	9/32	.655	DL10	.315	.030	●
6440978	FGDF0500Y3AQA	1/2	.480	3/8	.876	DL12	.374	.015	●
6441022	FGDF0500Y3AQB	1/2	.480	3/8	.876	DL12	.374	.030	●
6440979	FGDF0625Y3AQA	5/8	.605	15/32	1.093	DL16	.512	.015	●
6441023	FGDF0625Y3AQB	5/8	.605	15/32	1.093	DL16	.512	.030	●
6440980	FGDF0750Y3AQA	3/4	.730	9/16	1.314	DL20	.630	.015	●
6441024	FGDF0750Y3AQB	3/4	.730	9/16	1.314	DL20	.630	.030	●

160-163	164	156-158	98, 168

DUO-LOCK™ • KenCut™ RR • Application Data • Inch



Material Group					straight short		conical medium			conical long			Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.					
	A		B		KCPM15			KCPM15			KCPM15			D1 – Diameter				
	Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc			Cutting Speed – vc			Cutting Speed – vc			frac.	3/8	1/2	5/8	3/4
	ap	ae	ap	ap	min	max	min	max	min	max	min	max	dec.	0.3750	0.5000	0.6250	0.7500	
P	0	0.75 x D	0.5 x D	0.5 x D	490	–	660	441	–	594	441	–	594	IPT	0.0023	0.0029	0.0034	0.0037
	1	0.75 x D	0.5 x D	0.5 x D	490	–	660	441	–	594	441	–	594	IPT	0.0023	0.0029	0.0034	0.0037
	2	0.75 x D	0.5 x D	0.5 x D	460	–	620	414	–	558	414	–	558	IPT	0.0023	0.0029	0.0034	0.0037
	3	0.75 x D	0.5 x D	0.5 x D	390	–	520	351	–	468	351	–	468	IPT	0.0019	0.0025	0.0029	0.0033
	4	0.75 x D	0.4 x D	0.5 x D	300	–	490	270	–	441	270	–	441	IPT	0.0017	0.0022	0.0026	0.0029
	5	0.75 x D	0.5 x D	0.5 x D	200	–	330	170	–	281	160	–	264	IPT	0.0016	0.0020	0.0023	0.0026
M	6	0.75 x D	0.4 x D	0.5 x D	160	–	250	136	–	213	128	–	200	IPT	0.0013	0.0016	0.0019	0.0021
	1	0.75 x D	0.4 x D	0.5 x D	300	–	380	240	–	304	210	–	266	IPT	0.0019	0.0025	0.0029	0.0033
	2	0.75 x D	0.4 x D	0.5 x D	200	–	260	160	–	208	140	–	182	IPT	0.0016	0.0020	0.0023	0.0026
K	3	0.75 x D	0.4 x D	0.5 x D	200	–	230	160	–	184	140	–	161	IPT	0.0013	0.0016	0.0019	0.0021
	1	0.75 x D	0.5 x D	0.5 x D	390	–	490	351	–	441	351	–	441	IPT	0.0023	0.0029	0.0034	0.0037
	2	0.75 x D	0.5 x D	0.5 x D	360	–	460	324	–	414	324	–	414	IPT	0.0019	0.0025	0.0029	0.0033
H	3	0.75 x D	0.4 x D	0.5 x D	360	–	430	324	–	387	324	–	387	IPT	0.0016	0.0020	0.0023	0.0026
	1	0.75 x D	0.2 x D	0.3 x D	260	–	460	208	–	368	156	–	276	IPT	0.0017	0.0022	0.0026	0.0029

NOTE: These guidelines may require variations to achieve optimum results.
 Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters >1/2".
 For tools with reach > 3 x D, reduce fz by 20%.
 For tools with reach >5 x D, reduce fz by 30%.
 For tools with reach >10 x D, reduce Vc and fz by 30%.

DUO-LOCK • KenCut FF • Application Data • Inch

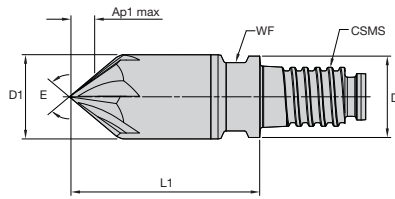


Material Group					straight short		conical medium			conical long			Recommended feed per tooth (IPT = inch/th) for side milling (A). For slotting (B), reduce IPT by 20%.					
	A		B		KCPM15			KCPM15			KCPM15			D1 – Diameter				
	Cutting Speed – vc		Cutting Speed – vc		Cutting Speed – vc			Cutting Speed – vc			Cutting Speed – vc			frac.	3/8	1/2	5/8	3/4
	ap	ae	ap	ap	min	max	min	max	min	max	min	max	dec.	0.3750	0.5000	0.6250	0.7500	
P	0	0.75 x D	0.5 x D	0.5 x D	490	–	660	441	–	594	441	–	594	IPT	0.0023	0.0029	0.0034	0.0037
	1	0.75 x D	0.5 x D	0.5 x D	490	–	660	441	–	594	441	–	594	IPT	0.0023	0.0029	0.0034	0.0037
	2	0.75 x D	0.5 x D	0.5 x D	460	–	620	414	–	558	414	–	558	IPT	0.0023	0.0029	0.0034	0.0037
	3	0.75 x D	0.4 x D	0.5 x D	390	–	520	351	–	468	351	–	468	IPT	0.0019	0.0025	0.0029	0.0033
	4	0.75 x D	0.3 x D	0.5 x D	300	–	490	270	–	441	270	–	441	IPT	0.0017	0.0022	0.0026	0.0029
	5	0.75 x D	0.4 x D	0.5 x D	200	–	330	170	–	281	160	–	264	IPT	0.0016	0.0020	0.0023	0.0026
M	6	0.75 x D	0.3 x D	0.5 x D	160	–	250	136	–	213	128	–	200	IPT	0.0013	0.0016	0.0019	0.0021
	1	0.75 x D	0.4 x D	0.5 x D	300	–	380	240	–	304	210	–	266	IPT	0.0019	0.0025	0.0029	0.0033
	2	0.75 x D	0.4 x D	0.5 x D	200	–	260	160	–	208	140	–	182	IPT	0.0016	0.0020	0.0023	0.0026
K	3	0.75 x D	0.4 x D	0.5 x D	200	–	230	160	–	184	140	–	161	IPT	0.0013	0.0016	0.0019	0.0021
	1	0.75 x D	0.5 x D	0.5 x D	390	–	490	351	–	441	351	–	441	IPT	0.0023	0.0029	0.0034	0.0037
	2	0.75 x D	0.5 x D	0.5 x D	360	–	460	324	–	414	324	–	414	IPT	0.0019	0.0025	0.0029	0.0033
S	3	0.75 x D	0.4 x D	0.5 x D	360	–	430	324	–	387	324	–	387	IPT	0.0016	0.0020	0.0023	0.0026
	1	0.3 x D	0.3 x D	0.5 x D	160	–	300	128	–	240	96	–	180	IPT	0.0019	0.0025	0.0029	0.0033
	2	0.3 x D	0.3 x D	0.5 x D	80	–	130	64	–	104	48	–	78	IPT	0.0010	0.0013	0.0015	0.0018
	3	0.75 x D	0.3 x D	0.5 x D	80	–	130	64	–	104	48	–	78	IPT	0.0010	0.0013	0.0015	0.0018
H	4	0.75 x D	0.3 x D	0.5 x D	160	–	200	128	–	160	96	–	120	IPT	0.0014	0.0018	0.0021	0.0024
	1	0.75 x D	0.2 x D	0.3 x D	260	–	460	208	–	368	156	–	276	IPT	0.0017	0.0022	0.0026	0.0029

NOTE: These guidelines may require variations to achieve optimum results.
 Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters >1/2".
 For tools with reach > 3 x D, reduce fz by 20%.
 For tools with reach >5 x D, reduce fz by 30%.
 For tools with reach >10 x D, reduce Vc and fz by 30%.



DUO-LOCK™ • KenCut™ CM • Multi-Flute • Inch

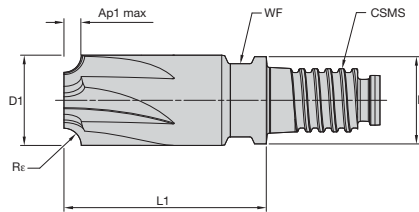


- first choice
- alternate choice

P	●
M	●
K	●
N	●
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	E	Z U	KCPM15
6127351	XADA0375Y4CU45	3/8	.359	.075	.847	DL10	.315	90	4	●
6408092	XADA0375Y4CU60	3/8	.359	.075	.847	DL10	.315	60	4	●
6127352	XADA0500Y5CU45	1/2	.480	.100	1.130	DL12	.374	90	5	●
6408093	XADA0500Y5CU60	1/2	.480	.100	1.130	DL12	.374	60	5	●
6127353	XADA0625Y6CU45	5/8	.605	.125	1.402	DL16	.512	90	6	●
6408094	XADA0625Y6CU60	5/8	.605	.125	1.402	DL16	.512	60	6	●

DUO-LOCK • KenCut CM • Multi-Flute • Inch



- first choice
- alternate choice

P	●
M	●
K	●
N	●
S	○
H	○

order number	catalog number	D1	D	Ap1 max	L1	CSMS system size	WF	Re	Z U	KCPM15
6127709	XRDA0375Y4CUC	3/8	.359	.060	.847	DL10	.315	.060	4	●
6127710	XRDA0375Y4CUE	3/8	.359	.120	.852	DL10	.315	.120	4	●
6127711	XRDA0500Y5CUB	1/2	.480	.030	1.132	DL12	.374	.030	5	●
6127712	XRDA0500Y5CUC	1/2	.480	.060	1.131	DL12	.374	.060	5	●
6127713	XRDA0500Y5CUE	1/2	.480	.120	1.136	DL12	.374	.120	5	●
6127714	XRDA0625Y6CUC	5/8	.605	.060	1.410	DL16	.512	.060	6	●

160-163	164	156-158	98, 168



DUO-LOCK™ • Corner Machining • Application Data • Inch



KenCut™ CM – XADA



KenCut CM – XRDA

Material Group			short			medium			long			Recommended feed per tooth (IPT = inch/th) for side milling (A).				
			adapter reach									D1 – Diameter				
	A		KCPM15 Cutting Speed – vc SFM			KCPM15 Cutting Speed – vc SFM			KCPM15 Cutting Speed – vc SFM			frac.	3/8	1/2	5/8	
	ap	ae	min	–	max	min	–	max	min	–	max	dec.	.375	.500	.625	
P	0	0.35 x D	0.35 x D	490	–	660	441	–	594	441	–	594	IPT	.0022	.0027	.0032
	1	0.35 x D	0.35 x D	490	–	660	441	–	594	441	–	594	IPT	.0022	.0027	.0032
	2	0.35 x D	0.35 x D	460	–	620	414	–	558	414	–	558	IPT	.0022	.0027	.0032
	3	0.35 x D	0.35 x D	390	–	520	351	–	468	351	–	468	IPT	.0018	.0023	.0027
	4	0.35 x D	0.35 x D	300	–	490	270	–	441	270	–	441	IPT	.0016	.0021	.0024
	5	0.35 x D	0.35 x D	200	–	330	170	–	280.5	160	–	264	IPT	.0015	.0018	.0022
M	6	0.35 x D	0.35 x D	160	–	250	136	–	212.5	128	–	200	IPT	.0012	.0015	.0018
	1	0.35 x D	0.35 x D	300	–	380	240	–	304	210	–	266	IPT	.0018	.0023	.0027
	2	0.35 x D	0.35 x D	200	–	260	160	–	208	140	–	182	IPT	.0015	.0018	.0022
K	3	0.35 x D	0.35 x D	200	–	230	160	–	184	140	–	161	IPT	.0012	.0015	.0018
	1	0.35 x D	0.35 x D	390	–	490	351	–	441	351	–	441	IPT	.0022	.0027	.0032
	2	0.35 x D	0.35 x D	360	–	460	324	–	414	324	–	414	IPT	.0018	.0023	.0027
N	3	0.35 x D	0.35 x D	360	–	430	324	–	387	324	–	387	IPT	.0015	.0018	.0022
	1	0.35 x D	0.35 x D	1640	–	6560	1312	–	5248	984	–	3936	IPT	.0030	.0040	.0050
	2	0.35 x D	0.35 x D	1640	–	4920	1312	–	3936	984	–	2952	IPT	.0024	.0032	.0040
	3	0.35 x D	0.35 x D	1640	–	4920	1312	–	3936	984	–	2952	IPT	.0021	.0028	.0035
	4	0.35 x D	0.35 x D	1310	–	2460	1048	–	1968	786	–	1476	IPT	.0021	.0028	.0035
	5	0.35 x D	0.35 x D	820	–	3280	656	–	2624	492	–	1968	IPT	.0027	.0036	.0045
	6	0.35 x D	0.35 x D	330	–	2460	264	–	1968	198	–	1476	IPT	.0030	.0040	.0050
S	7	0.35 x D	0.35 x D	330	–	2460	264	–	1968	198	–	1476	IPT	.0021	.0028	.0035
	1	0.35 x D	0.35 x D	160	–	300	128	–	240	96	–	180	IPT	.0018	.0023	.0027
	2	0.35 x D	0.35 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0012	.0015
	3	0.35 x D	0.35 x D	80	–	130	64	–	104	48	–	78	IPT	.0010	.0012	.0015
H	4	0.35 x D	0.35 x D	160	–	200	128	–	160	96	–	120	IPT	.0013	.0017	.0020
	1	0.35 x D	0.35 x D	260	–	460	208	–	368	156	–	276	IPT	.0016	.0021	.0024

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
 Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters >1/2".
 For side milling with ap larger than 1 x D, reduce fz by 20%!

DUO-LOCK™ • Intelligent Thread

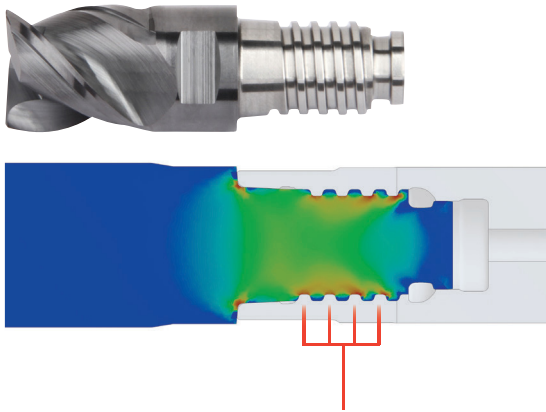
The DUO-LOCK Intelligent Thread eliminates the force peaks all regular threads have in the first groove.

3 golden rules to success:

1. Clean both sides of the coupling. Thread needs to be free of any lubricant, such as oil, anti seize, grease, etc.
2. Apply recommended torque values.
3. When using DUO-LOCK cylindrical extensions, never clamp on the coupling.

Finite Element Analysis FEA

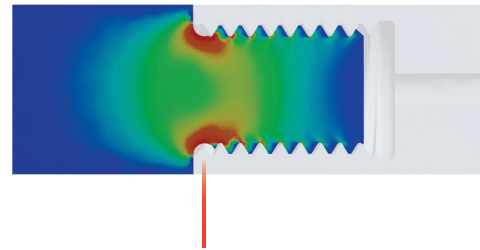
DUO-LOCK Intelligent Thread



DUO-LOCK Intelligent Thread at maximum load.

The DUO-LOCK Intelligent Thread evenly distributes the forces across the entire length of the thread. This allows a greater than 25% torque transmission than known competitors.

Regular threads



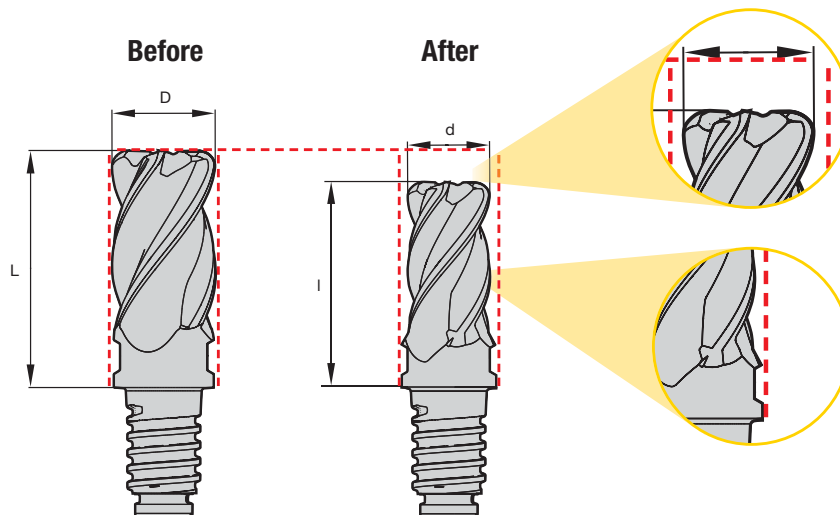
Typical for any regular thread at maximum load.

High force peak in the first groove, limiting the performance of the connection.

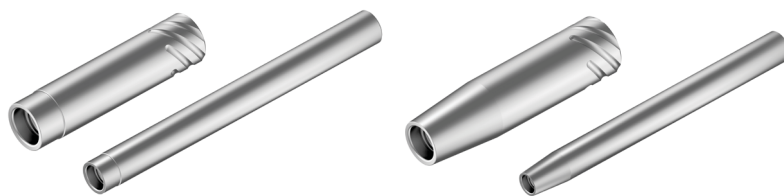
DUO-LOCK • Reconditioning

Wear and/or chipping determines to what extent and how often DUO-LOCK tips can be reconditioned. To ensure integrity of the wrench flats, the neck portion cannot be modified.

NOTE: The cutting diameter of reconditioned DUO-LOCK tips might be smaller than the neck diameter, and therefore may not have a clearance anymore. To prevent collisions, precautions need to be taken.



DUO-LOCK™ • Tool Clamping



DUO-LOCK Extension Shank Diameter [D2]		10	12	16	20	25	32	12	16	20	25	32	40	50
HydroForce™		–	–	–	●	–	●	–	–	●	–	●	–	●
HydroForce with Sleeve		●	●	●	●	●	–	●	●	●	●	–	●	–
HydroForce with Safe-Lock™ Sleeve *		–	●	●	●	●	–	●	●	●	●	–	–	–
Shrink Fit		●	●	●	●	●	●	●	●	●	●	●	●	●
Safe-Lock Shrink Fit *		–	●	●	●	●	●	●	●	●	●	●	●	●
Milling Chuck		–	–	–	●	–	●	–	–	●	–	●	–	–
Milling Chuck with Sleeve		●	●	●	●	●	–	●	●	●	●	–	–	–
ER Collet Chuck		■	■	○	○	○	–	■	■	○	○	–	–	–
TG Collet Chuck		■	■	■	○	○	–	■	■	■	○	–	–	–

* Features Safe-Lock pullout protection

● Recommended

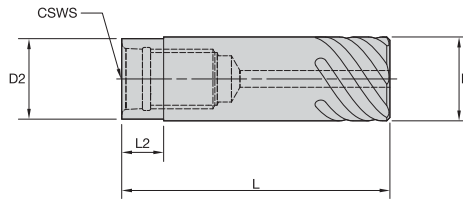
○ Not recommended

■ Suitable with limitations

– Not available

NOTE: DUO-LOCK steel extensions require high power shrinking units greater than 10kW. All Safe-Lock extensions can be clamped in a cylindrical shank adapter.

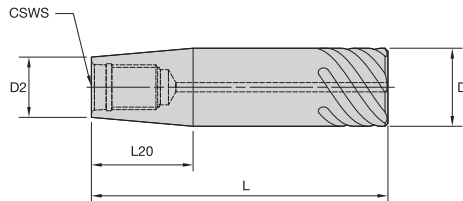
DUO-LOCK™ • Steel Extension • Cylindrical • Safe-Lock™ • Inch



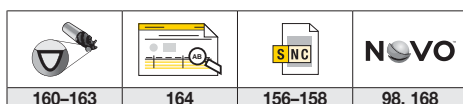
order number	catalog number	CSWS system size	D	D2	L	L2	ft. lbs.
6136800	SS038SLDL100225	DL10	.38	.36	2.25	.19	18.40
6136868	SS050SLDL120250	DL12	.50	.48	2.50	.25	22.10
6136874	SS062SLDL160275	DL16	.63	.61	2.75	.33	44.20
6136880	SS075SLDL200300	DL20	.75	.73	3.00	.39	59.00
6136884	SS100SLDL250350	DL25	1.00	.96	3.50	.52	73.80
6136888	SS125SLDL320400	DL32	1.25	1.21	4.00	.64	95.90

NOTE: Cylindrical shanks not recommended for full slotting.

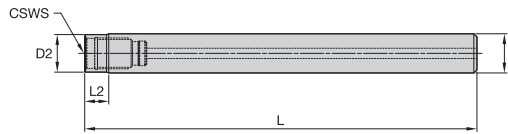
DUO-LOCK • Steel Extension • Conical • Safe-Lock • Inch



order number	catalog number	CSWS system size	D	D2	L	L20	lbs
6136862	SS050SLDL100250	DL10	.50	.36	2.50	.80	.11
6136864	SS062SLDL100350	DL10	.63	.36	3.50	1.52	.24
6136866	SS075SLDL100450	DL10	.75	.36	4.50	2.23	.42
6136870	SS062SLDL120325	DL12	.63	.48	3.25	.82	.24
6136872	SS075SLDL120425	DL12	.75	.48	4.25	1.53	.45
6136876	SS075SLDL160325	DL16	.75	.61	3.25	.82	.34
6136878	SS100SLDL160450	DL16	1.00	.61	4.50	2.25	.78
6136882	SS100SLDL200375	DL20	1.00	.73	3.75	1.53	.67
6136886	SS125SLDL250425	DL25	1.25	.96	4.25	1.64	1.19
6136890	SS150SLDL320550	DL32	1.50	1.21	5.50	1.64	2.29
6136892	SS200SLDL320750	DL32	2.00	1.21	7.50	4.50	4.92



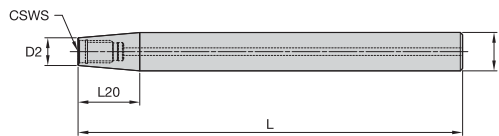
DUO-LOCK™ • Steel Extension • Cylindrical • Straight Shank • Inch



order number	catalog number	CSWS system size	D	D2	L	L2	ft. lbs.
6136861	SS038DL100375	DL10	.38	.36	3.75	.19	18.40
6136869	SS050DL120500	DL12	.50	.48	5.00	.25	22.10
6136875	SS062DL160625	DL16	.63	.61	6.25	.31	44.20
6136881	SS075DL200750	DL20	.75	.73	7.50	.38	59.00
6136885	SS100DL251000	DL25	1.00	.96	10.00	.50	73.80
6136889	SS125DL321000	DL32	1.25	1.21	10.00	.63	95.90

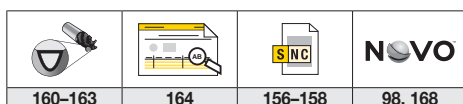
NOTE: Standard catalog cutting data does not apply. Consult tooling application expert before use.

DUO-LOCK • Steel Extension • Conical • Straight Shank • Inch



order number	catalog number	CSWS system size	D	D2	L	L20	lbs
6136863	SS050DL100500	DL10	.50	.36	5.00	.80	.25
6136865	SS062DL100625	DL10	.63	.36	6.25	1.52	.47
6136867	SS075DL100750	DL10	.75	.36	7.50	2.23	.79
6136871	SS062DL120625	DL12	.63	.48	6.25	.82	.50
6136873	SS075DL120750	DL12	.75	.48	7.50	1.53	.85
6136877	SS075DL160750	DL16	.75	.61	7.50	.82	.86
6136879	SS100DL161000	DL16	1.00	.61	10.00	2.25	1.99
6136883	SS100DL201000	DL20	1.00	.73	10.00	1.53	2.04
6136887	SS125DL251000	DL25	1.25	.96	10.00	1.64	3.14
6136891	SS150DL321000	DL32	1.50	1.21	10.00	1.64	4.51
6136893	SS200DL321000	DL32	2.00	1.21	10.00	4.50	7.18

NOTE: Standard catalog cutting data does not apply. Consult tooling application expert before use.



160-163

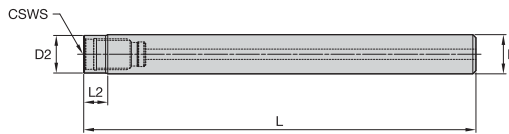
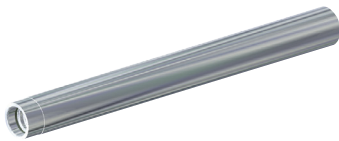
164

156-158

98, 168

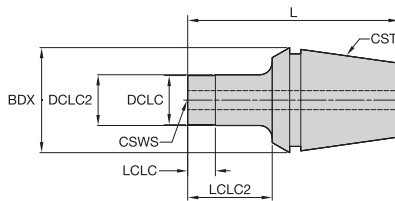
DUO-LOCK™ • Heavy Metal Extension • Cylindrical • Straight Shank • Inch

NEW!



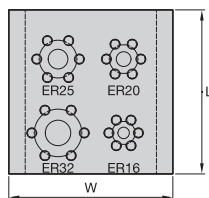
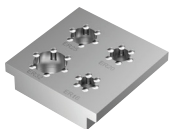
order number	catalog number	CSWS system size	D	D2	L	L2	ft. lbs.
6933530	HS050DL12N0950325	DL12	.50	.48	3.25	.95	18.44
6933536	HS050DL12N1950425	DL12	.50	.48	4.25	1.95	18.44
6933531	HS062DL16N1170350	DL16	.63	.61	3.50	1.17	29.50
6933537	HS062DL16N2420475	DL16	.63	.61	4.75	2.42	29.50
6933532	HS075DL20N1390375	DL20	.75	.73	3.75	1.39	44.25
6933538	HS075DL20N2890525	DL20	.75	.73	5.25	2.89	44.25
6933533	HS100DL25N1830450	DL25	1.00	.96	4.50	1.83	66.38
6933539	HS100DL25N3830650	DL25	1.00	.96	6.50	3.83	66.38
6933534	HS125DL32N2280500	DL32	1.25	1.21	5.00	2.28	95.88
6933540	HS125DL32N4780750	DL32	1.25	1.21	7.50	4.78	95.88

DUO-LOCK • ER Solid Collets



order number	catalog number	CST	CSWS	BDX	L	DCLC	DCLC2	LCLC	LCLC2	kg	Nm
6612283	16ERDL10	ER16	DL10	17	32,8	9,6	—	5,3	—	0,03	20
6612284	20ERDL10	ER20	DL10	21	37,0	9,6	—	5,5	—	0,06	20
6612285	20ERDL12	ER20	DL12	21	38,0	11,5	—	6,5	—	0,06	30
6612286	25ERDL10	ER25	DL10	26	39,5	9,6	—	5,5	—	0,10	20
6612287	25ERDL12	ER25	DL12	26	40,5	11,5	—	6,5	—	0,10	30
6612288	25ERDL16	ER25	DL16	26	39,5	15,5	—	5,5	—	0,10	60
6612289	32ERDL10	ER32	DL10	33	66,5	9,6	10	5,0	26,5	0,21	20
6612290	32ERDL12	ER32	DL12	33	67,5	11,5	12	6,0	27,5	0,21	30
6612331	32ERDL16	ER32	DL16	33	66,5	15,5	16	8,0	26,5	0,22	60
6612332	32ERDL20	ER32	DL20	33	66,5	19,3	20	10,0	26,5	0,23	80

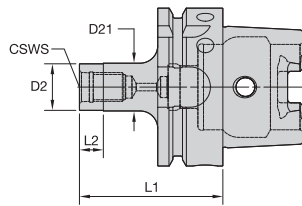
DUO-LOCK • ER Solid Collet Mounting Plate



order number	catalog number	L	W	kg
6612333	DLCCDER	100	100	0,57

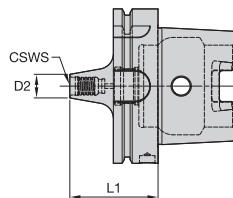
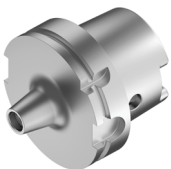
160-163	164	156-158	98, 168

DUO-LOCK™ • Adapter • HSK63 Form A • Inch



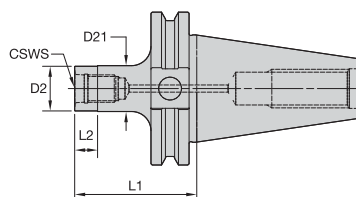
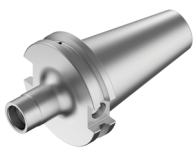
order number	catalog number	CSWS system size	D2	D21	L1	L2	ft. lbs.
6136895	HSK63ADL10200	DL10	.36	.38	2.00	.19	18.40
6136896	HSK63ADL12225	DL12	.48	.50	2.25	.25	21.10
6136897	HSK63ADL16225	DL16	.61	.63	2.25	.31	44.20
6136898	HSK63ADL20225	DL20	.73	.75	2.25	.37	59.00
6136899	HSK63ADL25250	DL25	.96	1.00	2.50	.49	73.80

DUO-LOCK • Adapter • HSK100 Form A • Inch

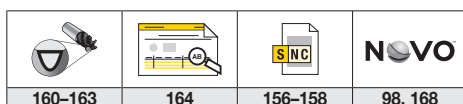


order number	catalog number	CSWS	D2	L1	lbs
6478868	HSK100ADL16225	DL16	.61	2.25	4.56
6478869	HSK100ADL20225	DL20	.73	2.25	4.62
6478870	HSK100ADL25250	DL25	.96	2.50	4.79
6478871	HSK100ADL32300	DL32	1.21	3.00	5.32

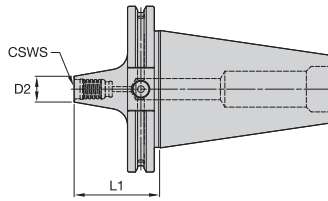
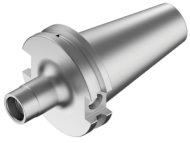
DUO-LOCK • Adapter • CV40 • Inch



order number	catalog number	CSWS system size	D2	D21	L1	L2	lbs
6136937	CV40BDL10162	DL10	.36	.38	1.62	.19	1.77
6136938	CV40BDL12162	DL12	.48	.50	1.62	.25	1.78
6136939	CV40BDL16200	DL16	.61	.63	2.00	.31	1.82
6136940	CV40BDL20200	DL20	.73	.75	2.00	.37	1.84
6136941	CV40BDL25225	DL25	.96	1.00	2.25	.49	1.94

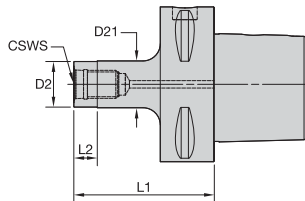


DUO-LOCK™ • Adapter • CV50 • Inch



order number	catalog number	CSWS	D2	L1	lbs
6478863	CV50BDL16200	DL16	.61	2.00	5.95
6478864	CV50BDL20200	DL20	.73	2.00	6.02
6478865	CV50BDL25225	DL25	.96	2.25	6.19
6478867	CV50BDL32250	DL32	1.21	2.50	6.59

DUO-LOCK • Adapter • PSC63 • Inch



order number	catalog number	CSWS system size	D2	D21	L1	L2	lbs
6136931	PSC63DL10200	DL10	.36	.37	2.00	.19	1.69
6136932	PSC63DL12200	DL12	.48	.50	2.00	.25	1.70
6136933	PSC63DL16225	DL16	.61	.63	2.25	.31	1.73
6136934	PSC63DL20225	DL20	.73	.75	2.25	.37	1.75
6136935	PSC63DL25238	DL25	.96	1.00	2.38	.49	1.84

160-163	164	156-158	98, 168

DUO-LOCK™ • Double-Handed Torque Wrench



order number	catalog number	Description
6135413	TWDLTM	BASIC DUO LOCK WRENCH
6135414	TWTMINsertDL10	TORQUE WRENCH INSERT DL10
6135415	TWTMINsertDL12	TORQUE WRENCH INSERT DL12
6135416	TWTMINsertDL16	TORQUE WRENCH INSERT DL16
6135417	TWTMINsertDL20	TORQUE WRENCH INSERT DL20
6135418	TWTMINsertDL25	TORQUE WRENCH INSERT DL25
6135419	TWTMINsertDL32	TORQUE WRENCH INSERT DL32
6135422	TWTMEXT	TORQUE WRENCH EXTENSION HANDLE
6135423	TWTMBC	TORQUE WRENCH BOLT SET

NOTE: Combine basic DUO-LOCK wrench with selected torque wrench inserts needed.

DUO-LOCK • Torque Wrench • Double-Handed • Kit

1 ERICKSON™ Torque Master Wrench

2 Insert

3 Extension Handle



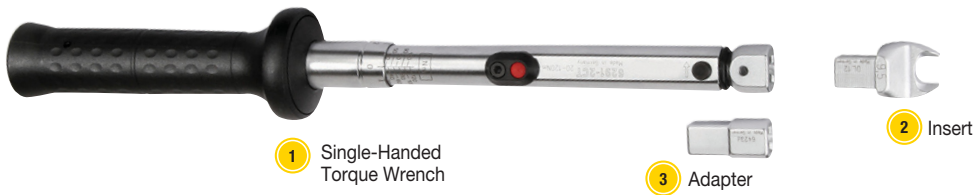
Order this

Get that

order number	catalog number	Kit Description	DUO-LOCK Size	torque (Nm)
6342967	TWDL10TM	D-L WRENCH WITH DL10 INSERT AND HANDLES	DL 10	20
6342968	TWDL12TM	D-L WRENCH WITH DL12 INSERT AND HANDLES	DL 12	30
6342969	TWDL16TM	D-L WRENCH WITH DL16 INSERT AND HANDLES	DL 16	60
6342970	TWDL20TM	D-L WRENCH WITH DL20 INSERT AND HANDLES	DL 20	80
6343061	TWDL25TM	D-L WRENCH WITH DL25 INSERT AND HANDLES	DL 25	100
6343062	TWDL32TM	D-L WRENCH WITH DL32 INSERT AND HANDLES	DL 32	130

1+2+3

DUO-LOCK™ • Single-Handed Torque Wrench • Wrench



1

order number	catalogue number	description	DUO-LOCK Size	torque (Nm)
6411155	TWDL9X12	D-L SINGLE HAND TORQUE WRENCH	–	–

DUO-LOCK • Single-Handed Torque Wrench • Insert

2

order number	catalogue number	description	DUO-LOCK Size	torque (Nm)
6410950	TWSH9X12INSERTDL10	D-L TORQUE WRENCH SH INSERT	DL10	20
6411151	TWSH9X12INSERTDL12	D-L TORQUE WRENCH SH INSERT	DL12	30
6411152	TWSH9X12INSERTDL16	D-L TORQUE WRENCH SH INSERT	DL16	60
6411153	TWSH9X12INSERTDL20	D-L TORQUE WRENCH SH INSERT	DL20	80

DUO-LOCK • Single-Handed Torque Wrench • Adapter

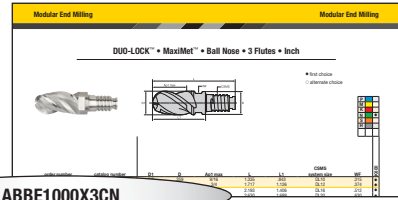
3

order number	catalogue number	description	DUO-LOCK Size	torque (Nm)
6411154	TWDL9X12CA14X18	D-L ADAPTER 9X12 TO 14X18	–	–

160–163	164	156–158	98, 168

DUO-LOCK™ • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



ABBE1000X3CN

AB	B	E	1000	X	3	C	N	
Series	End Mill Shape	Helix Angle	Diameter	Shank Style	Number of Flutes	Length-of-Cut	Shape/Feature	Corner Configuration
AB = MaxiMet™ – Non-ferrous metals FG = Finisher general applications – Steels FM = Finisher multi-flute – Steels FS = RSM II™ multi-flute – High-temperature alloys KM = KenFeed™ – Medium steels RF = Rougher – Chipbreaker design RK = Rougher – Fine-pitch profile design RQ = Rougher – Coarse-pitch profile design UC = HARVI™ II – Stainless steels UD = HARVI II – High-temperature alloys UJ = HARVI III center cut & eccentric cut – High-temperature alloys UK = HARVI I asymmetric fluting – Stainless steels UL = HARVI I asymmetric fluting – High-temperature alloys XA = Chamfering tool XR = Corner rounding tool	B = Ball Nose D = Square End	A = 0–10 B = 11–20 D = 31–35 E = 36–40 F = 41–45 V = 37/39° variable		X = Metric – DUO-LOCK™ Y = Inch – DUO-LOCK	2 3 4 5 6 9 B = 11 F = 15 J = 19	A = 0,75 x D B = 1,0 x D C = 1,5 x D	H = Chamfer N = Necked Q = Necked & Radius R = Radius U = Necked + Sharp V = Necked + Chamfer	Metric D = Metric – 0,4mm E = Metric – 0,5mm F = Metric – 0,75mm H = Metric – 1,25mm J = Metric – 1,5mm N = Metric – 4,0mm S = Sharp X = Custom Inch A = Inch – .015" B = Inch – .030" C = Inch – .060" D = Inch – .090" E = Inch – .120" F = Inch – .250" S = Sharp X = Custom

HARVI™ I TE DUO-LOCK • Catalog Numbering System

H1TE4SE1200S016HAM

H1TE	4	SE	1200	S	016	HA		M
Series	Number of Flutes	Front End Style	Cutting Diameter D1	Flute Section Style	Length of Cut Ap1 max	Shank Style	Radius	Standard
H1TE = HARVI I TE	4 = 4-Flute	SE = Sharp Edge CH = Chamfer RA = Radius	Metric = D1 in mm Inch = D1 in decimal inch	R = Regular Without Neck	Metric = Ap1 Max in mm Inch = Ap1 Max in decimal inch	DL = DUO-LOCK		M = Metric Blank = Inch



DUO-LOCK™ Extensions • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

Item Number	Series	Material	CSWS	DL	L	W	Wt.	Wt. (oz)
SS10SLDL10055M	SS10SLDL	Steel	DL10	10	5.5	0.5	0.05	0.05
SS10SLDL10055M	SS10SLDL	Steel	DL10	10	5.5	0.5	0.05	0.05
SS10SLDL10055M	SS10SLDL	Steel	DL10	10	5.5	0.5	0.05	0.05
SS10SLDL10055M	SS10SLDL	Steel	DL10	10	5.5	0.5	0.05	0.05

SS10SLDL10055M

SS

Connection Style
Machine Side
(CSMS)

SS = Straight Shank

10

Shank
Diameter D

Metric = D in mm
Inch = D in decimal inch

SL

Shank Style

SL = Safe-Lock™
Blank = Plain

DL10

Connection Style
Workpiece Side (CSWS)
System Size

DL10 = DUO-LOCK size 10

055

Tool Length

Metric = L in mm
Inch = L in decimal inch

M

Value

Metric

DUO-LOCK Solid ER Collet • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

Item Number	Series	Material	CSWS	DL	L	W	Wt.	Wt. (oz)
32ERDL16	32ERDL	Steel	DL16	16	1.6	0.16	0.016	0.016
32ERDL16	32ERDL	Steel	DL16	16	1.6	0.16	0.016	0.016
32ERDL16	32ERDL	Steel	DL16	16	1.6	0.16	0.016	0.016
32ERDL16	32ERDL	Steel	DL16	16	1.6	0.16	0.016	0.016

32ERDL16

32

Collet
Size

16 = ER16
20 = ER 20
25 = ER 25
32 = ER 32

ER

Collet
Type

ER

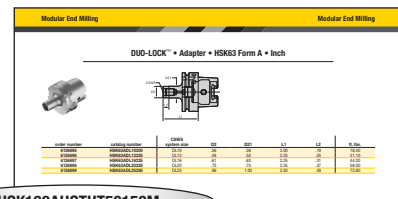
DL16

DUO-LOCK
Coupling Size

DL10
DL12
DL16
DL20

DUO-LOCK™ Adapters • Catalog Numbering System

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



HSK100AHCHT50150M

HSK	100	A	HCTHT	50	150	M
Connection Style Machine Side (CSMS)	Connection Size	System Flange Form	Hydraulic Chuck Type	Clamping Diameter	Tool Length	Value
KM™ KM4X™ HSK DV CV BT PSC	30 32 40 50 63 80 100 125	A = Form A C = Form C B = Coolant	HCTHT = HydroForce™ HCSL = Slim Line HCSLT = Slim Line T HC = High Performance DL = DUO-LOCK	50 = 50mm 075 = 3/4"	150 = 150mm 413 = 4.13"	M = Metric Blank = Inch

Online Catalog

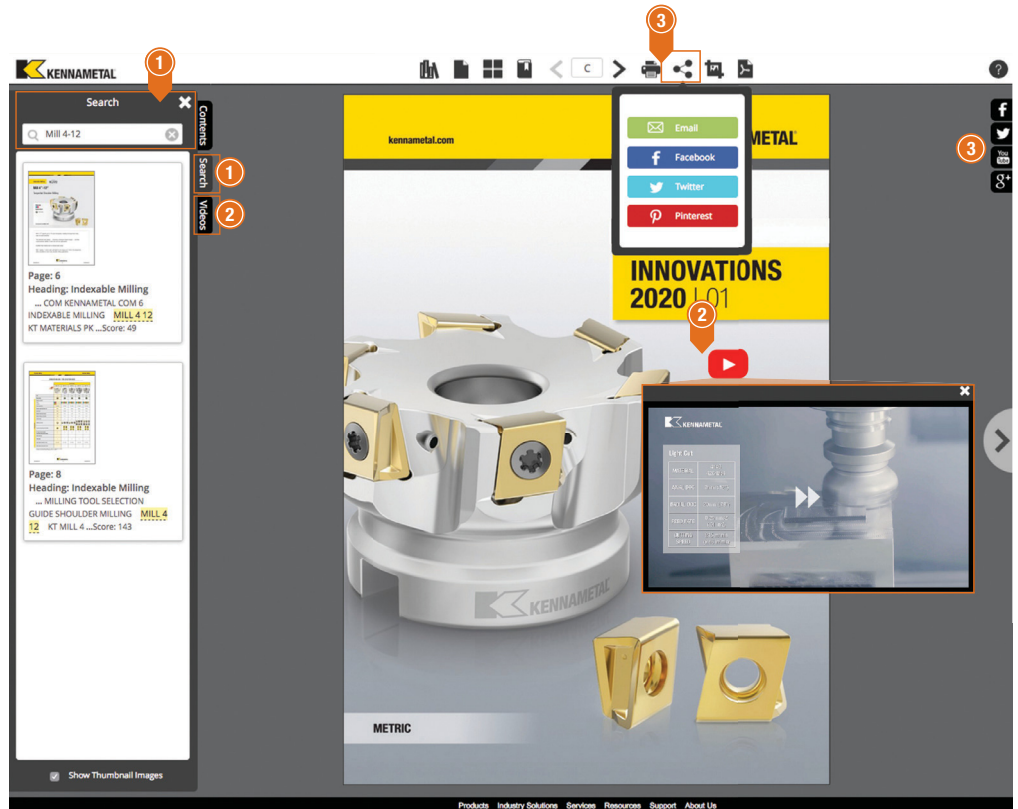
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1 Search for what you need

2 Watch videos

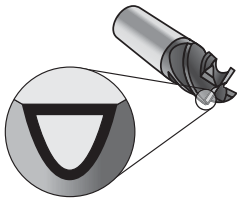
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Check out our new catalog app.
Available in the Google Play™ Store or
the App Store®.



Holemaking



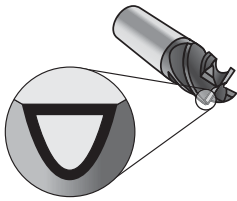
Coatings provide high-speed capability and are engineered for roughing to finishing.

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

wear resistance ← → toughness

Grade	Coating	Grade Description	Material Groups																					
				05	10	15	20	25	30	35	40	45												
KMF		Uncoated carbide grade. KMF is a fine-grain substrate for machining of high-temp alloys and non-ferrous materials and cast irons.																						
			K																					
			N																					
			S																					
			H																					
KC7315		Composition: Multilayered PVD TiN-TiAlN coated fine-grain carbide Application: Applicable for steel, cast iron, and hardened materials. This grade offers excellent wear resistance and reliability at intermediate to elevated cutting speeds.	P																					
			K																					
			H																					
			P																					
			K																					
KCU15		Composition: Multilayered PVD TiN-TiAlN coated submicron-grain carbide. Application: Applicable to all material groups. This grade offers excellent wear resistance and reliability at intermediate and elevated cutting speeds. KCU15 provides excellent coating adhesion even in tough cutting conditions.	P																					
			M																					
			K																					
			N																					
			S																					
KCU15A		Composition: Multilayered PVD TiN-TiAlN coated submicron-grain carbide with superior surface finish. Application: Applicable to all material groups. This grade offers excellent wear resistance and reliability at intermediate and elevated cutting speeds. A state-of-the-art surface condition enables superior chip evacuation, high metal removal rates, and highest wear resistance.	P																					
			M																					
			K																					
			N																					
			S																					
KCU05A		Composition: Monolayer PVD TiAlSiN coated submicron carbide with enhanced coating surface. Application: Optimized for steel and cast iron, this grade also offers excellent performance in stainless steel and high-temperature alloys. High wear resistance and high performance consistency even at elevated cutting conditions makes it the first choice for machining abrasive materials.	P																					
			M																					
			K																					
			N																					
			S																					

Solid Carbide End Milling & Modular End Milling



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

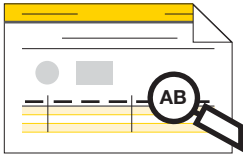
P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials
C	CFRP Materials

wear resistance ← → toughness

Grade	Coating	Grade Description	Material Groups																							
				05	10	15	20	25	30	35	40	45														
K600		Composition: Uncoated, highly wear-resistant submicron-grain carbide. Application: Very high toughness ensures a controlled wear rate. The micrograin structure enables extremely sharp edges. First choice for milling of non-ferrous materials.																								
			N																							
KC633M		Composition: Multilayered PVD TiN/TiAlN-coated submicron-grain carbide. Application: This multi-purpose grade offers highest versatility and best reliability across recommended material groups at intermediate cutting conditions.	P																							
			M																							
			K																							
			S																							
KC643M		Composition: Monolayer PVD AlTiN-coated submicron-grain carbide. Application: This grade offers high hardness and excellent wear resistance for general application in steel, stainless steel, cast iron, and high-temperature alloys.	P																							
			M																							
			K																							
			S																							
KCPM15		Composition: Monolayer PVD AlTiN-coated submicron-grain carbide with smooth coating surface. Application: Proprietary coating with best-in-class tool life as well as performance consistency optimized for applications in steel, stainless steel, cast iron, and hard materials.	P																							
			M																							
			K																							
			H																							
KCSM15		Composition: Monolayer PVD AlTiN-coated submicron-grain carbide with smooth coating surface. Application: Proprietary coating with best-in-class tool life as well as performance consistency optimized for application in stainless steel and high-temperature alloys.	M																							
			S																							



Key to Product Table Column Headings



You may notice a slight change in the appearance of our product tables and specification charts. In this catalog, Kennametal introduces a set of short-name codes to improve the readability of tables and drawings. These codes replace full-text descriptions. The full list of codes and their definitions can be found below.

Short-Name Code	Full Text Description
A	Coolant Hole Diameter
Ap max	Maximum Cutting Depth
Ap1 max	Maximum Cutting Depth
B	Shank Width
B1	Front Clearance
B2	Overall Width
B3	Head Back Offset
BCH	Corner Chamfer Width
BR1 - O.D.	Bore Range O.D.
BR1 bore range	Bore Range
BS	Corner Facet Length
BSC	Blade Size Code
CD	Cutting Depth
CE	Cutting Edges
CF	Coolant Supply Size Radial
CFVDI	Coolant Supply Size - VDI
CS	Coolant Supply Size
CSMS	Connection System Size Machine Side
D	Insert: Insert IC Size
D	Shank/Bore Diameter
D max	Maximum Bore Diameter
D min	Minimum Bore Diameter
D1	Insert: Insert Hole Size
D1	Milling: Cutter Diameter
D1	Toolholder: Clamping Diameter
D2	Body Diameter 1 Workpiece Side
D3	Neck Diameter
D5	Body Diameter Machine Side
D6	Hub Diameter
DPM	Pilot Diameter Machine Side
F	F Dimension
FS	Secondary F dimension
G	Connector Thread Size Machine Side
G3	Connection Thread Size Workpiece Side
G3X	Connection Thread Size External
GI	Gage Insert
H	Shank Height
H1	Cutting Height
H1	Centerline Height
H2	Toolholder: Head Height
H2	Overall Height
H3	Head Bottom Offset
hm	Average Chip Thickness
HW	Shank Height
IHS	Insert Holder Size
L	Overall Length
L1	Tool Length
L1	Toolholder: Gage Length
L1 assy	L1 Assembly Length
L1 assy - O.D.	L1 Assembly Length O.D.
L1 assy BB	L1 Assembly Length for back boring
L10	Insert Cutting Edge Length
L2	Milling: Head Length
L2 assy	L2 Assembly Length
L2 assy BB	L2 Assembly Length for back boring
L3	Milling: Maximum Depth
L4	Maximum Boring Depth
lbs	Weight Pounds
LEFF	Tip Length Tangent
LH	Head Length
LI	Insert Length
LPR	Protruding Length
LS	Shank Length
max RPM	Maximum Revolutions Per Minute
RC	Corner Radius Center
R _ε	Corner Radius
RL	Corner Radius Left Hand
RR	Corner Radius Right Hand
S	Insert Thickness
SSC	Seat Size Code
W	Cutting Edge Width or Slot Width
W	Turning: Groove Width
W	Insert Width
W tol ±	Cutting Width (+/-) Tolerance
W1	Blade Width
WF	Milling: Width of Flat
Z	Number of Inserts
Z U	Number of Flutes
αL	Cutting Edge Angle Left Hand
αR	Cutting Edge Angle Right Hand

P	Steel
M	Stainless Steel
K	Cast Iron

N	Non-Ferrous
S	High-Temp Alloys

H	Hardened Materials
C	CFRP Materials

material group	description	content	tensile strength RM (MPa)*	hardness (HB)	hardness (HRC)	material number
P0	Low-Carbon Steels, Long Chipping	C <0,25%	<530	<125	-	A36, 1008, 1010, 1018 through 1029; 1108, 1117
P1	Low-Carbon Steels, Short Chipping, Free Machining	C <0,25%	<530	<125	-	10L18, 1200 Series, 1213, 12L14
P2	Medium- and High-Carbon Steels	C >0,25%	>530	<220	<25	1035, 1045, 10L45, 1050, 10L50, 1080, 1137, 1144, 11L44, 1525, 1545, 1572
P3	Alloy Steels and Tool Steels	C >0,25%	600-850	<330	<35	1300, 2000, 3000, 4000, 5000, 8000, P20, SAE: A, D, H, O, S, M, T
P4	Alloy Steels and Tool Steels	C >0,25%	850-1400	340-450	35-48	1300, 2000, 3000, 4000, 5000, 8000, P20, SAE: A, D, H, O, S, M, T
P5	Ferritic, Martensitic, and PH Stainless Steels	-	600-900	<330	<35	15-5 PH, 13-8 PH, 17-4 PH, 400 and 500 Series
P6	High-Strength Ferritic, Martensitic, and PH Stainless Steels	-	900-1350	350-450	35-48	15-5 PH, 13-8 PH, 17-4 PH, 400 and 500 Series
M1	Austenitic Stainless Steel	-	<600	130-200	-	200 Series, 301, 302, 304, 304L, 309
M2	High-Strength Austenitic Stainless and Cast Stainless Steels	-	600-800	150-230	<25	310, 316, 316L, 321, 347, 384 ASTM Cast XM-1, XM-5, XM-7, XM-21
M3	Duplex Stainless Steel	-	<800	135-275	<30	323, 329, F55, 2205, S329000
K1	Gray Cast Iron	-	125-500	120-290	<32	Class 20, 25, 30, 35, 40, 45, 50, 55, 60, G1800, G3000, G3500, G4000
K2	Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI)	-	<600	130-260	<28	60-40-18, 65-45-12, 80-55-06; SAE J434: D4018, D4512, D5506; ASTM A47: Grade 32510, 35018; SAE J158: Grade M3210, M4504, M5003, M5503, M7002; ASTM A842: Grade 250, 300, 350, 400, 450
K3	High-Strength Ductile Irons and Austempered Ductile Iron (ADI)	-	>600	180-350	<43	ASTM A536:100-70-03, 120-90-02, SAE J434: D7003, SAE J158: Grade M8501AST A897: 125-80-10, 150-100-7, 175-125-4, 200-150-1, 230-185
N1	Wrought Aluminum	-	-	-	-	2025, 5050, 7050, 1000, 2017
N2	Low-Silicon Aluminum Alloys and Magnesium Alloys	Si <12,2%	-	-	-	2024, 6061, 7075
N3	High-Silicon Aluminum Alloys and Magnesium Alloys	Si >12,2%	-	-	-	-
N4	Copper-, Brass-, Zinc-Based on Machinability Index Range of 70-100	-	-	-	-	C81500
N5	Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass	-	-	-	-	-
N6	Carbon, Graphite Composites, CFRP	-	-	-	-	Graphite, CFK, CFRP
N7	Metal Matrix Composites (MMC)	-	-	-	-	C63000
S1	Iron-Based, Heat-Resistant Alloys	-	500-1200	160-260	25-48	A-286, INCOLOY® 800 Series, A608, A567, Discaloy™, INVAR®, N-155, 16-25-6, 19-9 DL; Cast: ASTM A-297, A-351, A-567, A-608
S2	Cobalt-Based, Heat-Resistant Alloys	-	1000-1450	250-450	25-48	Haynes® 25 (L605), Haynes 188, J-1570, Stellite™, AiResist 213; Cast: AiResist 13, Haynes 21, MAR-M302, MAR-M509, NASA Co-W-Re, WI-52
S3	Nickel-Based, Heat-Resistant Alloys	-	600-1700	160-450	<48	Astrolloy™, Hastelloy® B/C/ C-276 /X, INCONEL® 600 and 700 Series, IN102, INCOLOY® 900 Series, Rene 41, Waspaloy®, MONEL®, K-500, MAR-M20, NIMONIC®, UDIMET®
S4	Titanium and Titanium Alloys	-	900-1600	300-400	33-48	Pure: Ti 98.8, Ti 98.9, Ti 99.9; Alloyed: Ti 5Al-2.5Sn, Ti6Al-4V, Ti6Al-2Sn-4Zr-2Mo, Ti-3Al-8V-6Cr-4Mo-4Zr, Ti-10V-2Fe-3Al, Ti-13V-11Cr-3Al
H1	Hardened Materials	-	-	-	44-48	Tool Steel H10, H11, H13, D2, D3, 4340, P20
H2	Hardened Materials	-	-	-	48-55	Tool Steel H10, H11, H13, D2, D3, 4340, P20
H3	Hardened Materials	-	-	-	56-60	Tool Steel H10, H11, H13, D2, D3, 4340, P20
H4	Hardened Materials	-	-	-	>60	Tool Steel H10, H11, H13, D2, D3, 4340, P20
C1	CFRP, CFRP/CFRP	-	-	-	-	-
C2	CFRP/Non-Ferrous	-	-	-	-	-
C3	CFRP/High-Temp	-	-	-	-	-
C4	CFRP/Stainless Steel	-	-	-	-	-
C5	CFRP/Non-Ferrous/High-Temp	-	-	-	-	-

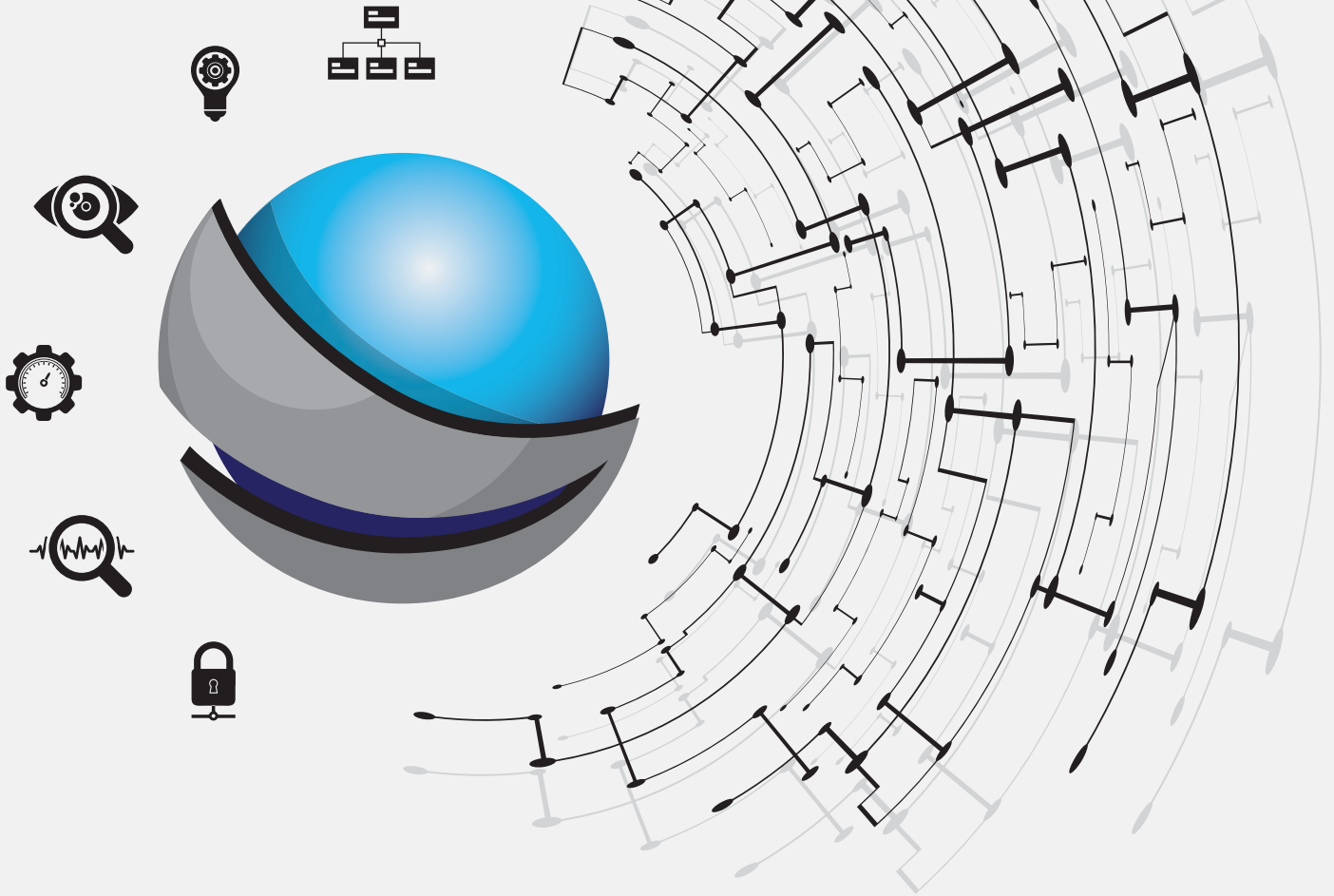
P	Steel
M	Stainless Steel
K	Cast Iron

N	Non-Ferrous
S	High-Temp Alloys

H	Hardened Materials
C	CFRP Materials

material group	description	content	tensile strength RM (MPa)*	hardness (HB)	hardness (HRC)	material number
P0	Low-Carbon Steels, Long Chipping	C <0,25%	<530	<125	-	-
P1	Low-Carbon Steels, Short Chipping, Free Machining	C <0,25%	<530	<125	-	C15, Ck22, ST37-2, S235JR, 9SMnPb28, GS38
P2	Medium- and High-Carbon Steels	C >0,25%	>530	<220	<25	ST52, S355JR, C35, GS60, Cf53
P3	Alloy Steels and Tool Steels	C >0,25%	600-850	<330	<35	16MnCr5, Ck45, 21CrMoV5-7, 38SMn28
P4	Alloy Steels and Tool Steels	C >0,25%	850-1400	340-450	35-48	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P5	Ferritic, Martensitic, and PH Stainless Steels	-	600-900	<330	<35	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P6	High-Strength Ferritic, Martensitic, and PH Stainless Steels	-	900-1350	350-450	35-48	X102CrMo17, G-X120Cr29
M1	Austenitic Stainless Steel	-	<600	130-200	-	X5CrNi 18 10, X2CrNiMo 17 13 2, G-X25CrNiSi18 9, X15CrNiSi 20 12
M2	High-Strength Austenitic Stainless and Cast Stainless Steels	-	600-800	150-230	<25	X2CrNiMo 13 4, X5NiCr 32 21, X5CrNiNb 18 10, G-X15CrNi 25-20
M3	Duplex Stainless Steel	-	<800	135-275	<30	X8CrNiMo27 5, X2CrNiMoN22 5 3, X20CrNiSi25 4, G-X40CrNiSi27 4
K1	Gray Cast Iron	-	125-500	120-290	<32	GG15, GG25, GG30, GG40, GTW40
K2	Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI)	-	<600	130-260	<28	GGG40, GTS35
K3	High-Strength Ductile Irons and Austempered Ductile Iron (ADI)	-	>600	180-350	<43	GGG60, GTW55, GTS65
N1	Wrought Aluminum	-	-	-	-	AlMg1, Al99.5, AlCuMg1, AlCuBiPb, AlMgSi1, AlMgSiPb
N2	Low-Silicon Aluminum Alloys and Magnesium Alloys	Si <12,2%	-	-	-	GAISIcU4, GDAISI10Mg
N3	High-Silicon Aluminum Alloys and Magnesium Alloys	Si >12,2%	-	-	-	G-ALSi12, G-ALSi17Cu4, G-ALSi21CuNiMg
N4	Copper-, Brass-, Zinc-Based on Machinability Index Range of 70-100	-	-	-	-	CuZn40, Ms60, G-CuSn5ZnPb, CuZn37, CuSi3Mn
N5	Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass	-	-	-	-	LEXAN®, HOSTALEN®, POLYSTYROL®, MAKROLON®
N6	Carbon, Graphite Composites, CFRP	-	-	-	-	CFK, GFK
N7	Metal Matrix Composites (MMC)	-	-	-	-	-
S1	Iron-Based, Heat-Resistant Alloys	-	500-1200	160-260	25-48	X1NiCrMoCu32 28 7, X12NiCrSi36 16, X5NiCrAlTi31 20, X40CoCrNi20 20
S2	Cobalt-Based, Heat-Resistant Alloys	-	1000-1450	250-450	25-48	Haynes® 188, Stellite™ 6,21,31
S3	Nickel-Based, Heat-Resistant Alloys	-	600-1700	160-450	<48	INCONEL® 690, INCONEL 625, Hastelloy®, NIMONIC® 75
S4	Titanium and Titanium Alloys	-	900-1600	300-400	33-48	Ti1, TiAl5Sn2, TiAl6V4, TiAl4Mo4Sn2
H1	Hardened Materials	-	-	-	44-48	GX260NiCr42, GX330NiCr42, GX300CrNiSi952, GX300CrMo153, Hardox® 400
H2	Hardened Materials	-	-	-	48-55	-
H3	Hardened Materials	-	-	-	56-60	-
H4	Hardened Materials	-	-	-	>60	-
C1	CFRP, CFRP/CFRP	-	-	-	-	-
C2	CFRP/Non-Ferrous	-	-	-	-	-
C3	CFRP/High-Temp	-	-	-	-	-
C4	CFRP/Stainless Steel	-	-	-	-	-
C5	CFRP/Non-Ferrous/High-Temp	-	-	-	-	-

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METALCUTTING SAFETY

IMPORTANT SAFETY INSTRUCTIONS

Read before using the tools in this catalog!

Projectile and Fragmentation Hazards:

Modern metalcutting operations involve high spindle and cutter speeds and high temperatures and cutting forces. Hot metal chips may fly off the workpiece during metalcutting. Although cutting tools are designed and manufactured to withstand high cutting forces and temperatures, they can sometimes fragment, particularly if they are subjected to over-stress, severe impact, or other abuse.

To avoid injury:

- Always wear appropriate personal protective equipment, including safety goggles, when operating metalcutting machines or working nearby.
- Always make sure all machine guards are in place.

Breathing and Skin Contact Hazards:

Grinding carbide or other advanced cutting tool materials produces dust or mist containing metallic particles. Breathing this dust or mist — especially over an extended period — can cause temporary or permanent lung disease or make existing medical conditions worse. Contact with this dust or mist can irritate eyes, skin, and mucous membranes and may make existing skin conditions worse.

To avoid injury:

- Always wear breathing protection and safety goggles when grinding.
- Provide ventilation control and collect and properly dispose of dust, mist, or sludge from grinding.
- Avoid skin contact with dust or mist.

For more information, read the applicable Material Safety Data Sheet provided by Kennametal and consult General Industry Safety and Health Regulations, Part 1910, Title 29 of the Code of Federal Regulations.

These safety instructions are general guidelines. Many variables affect machining operations. It is impossible to cover every specific situation. The technical information included in this catalog and recommendations on machining practices may not apply to your particular operation. For more information, consult the Kennametal Metalcutting Safety booklet, available free from Kennametal at 724 539 5747 or fax 724 539 5439. For specific product safety and environmental questions, contact our Corporate Environmental Health and Safety Office at 724 539 5066 or fax 724 539 5372.

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