



MASTER CATALOG **2018**

VOLUME TWO | **ROTATING TOOLS**



HOLEMAKING | TAPPING | SOLID END MILLING | INDEXABLE MILLING

KenTIP™ FS

The Perfect Fusion of a Solid Carbide and an Indexable Drill

The new modular drill 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.

3-point geometries, 3 high-performance grades, 3 different shank styles.

This modular drilling system covers a 6–26mm (.2363–1.0236") diameter range.

Up to 12 x D drilling depths.

Applicable in steel, stainless steel, and cast iron.

Intelligent Interface

 Taper interface uniquely designed for highest rigidity clamping.

 Retention lock prevents insert pullout.

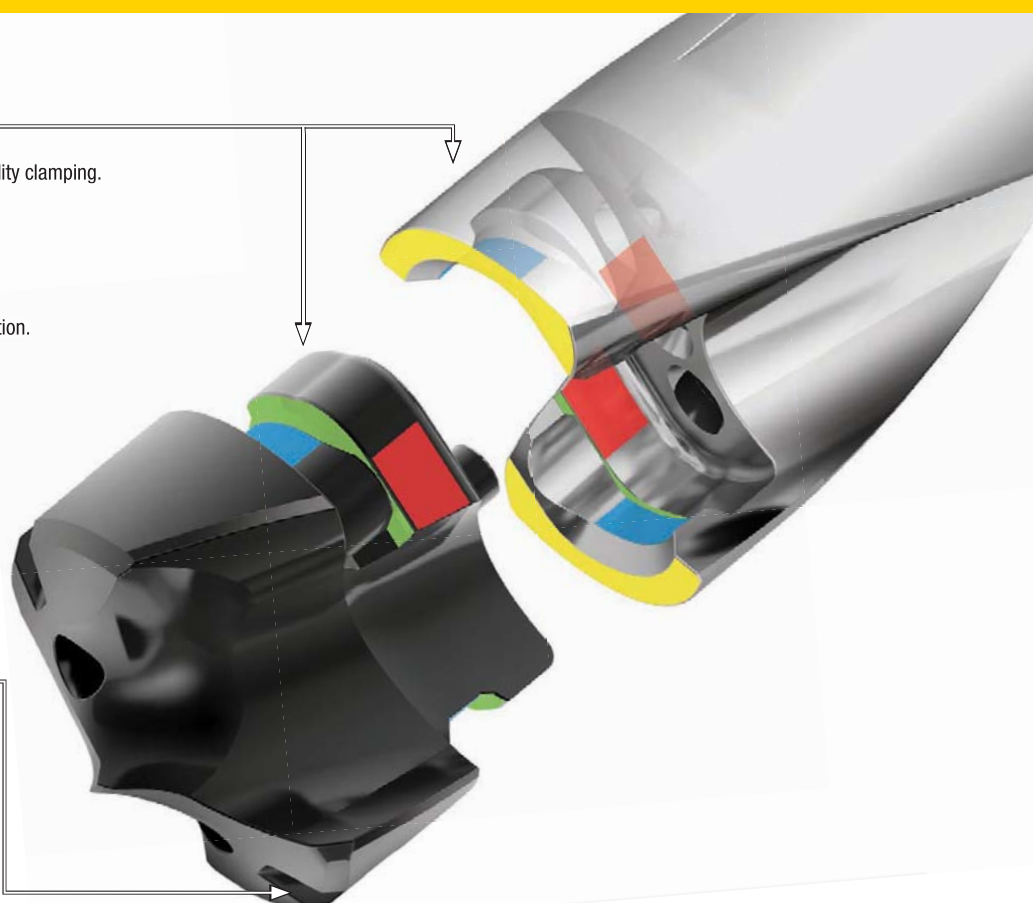
 Large bearing surface positioned for transmission of highest torsional loads without pocket deformation.

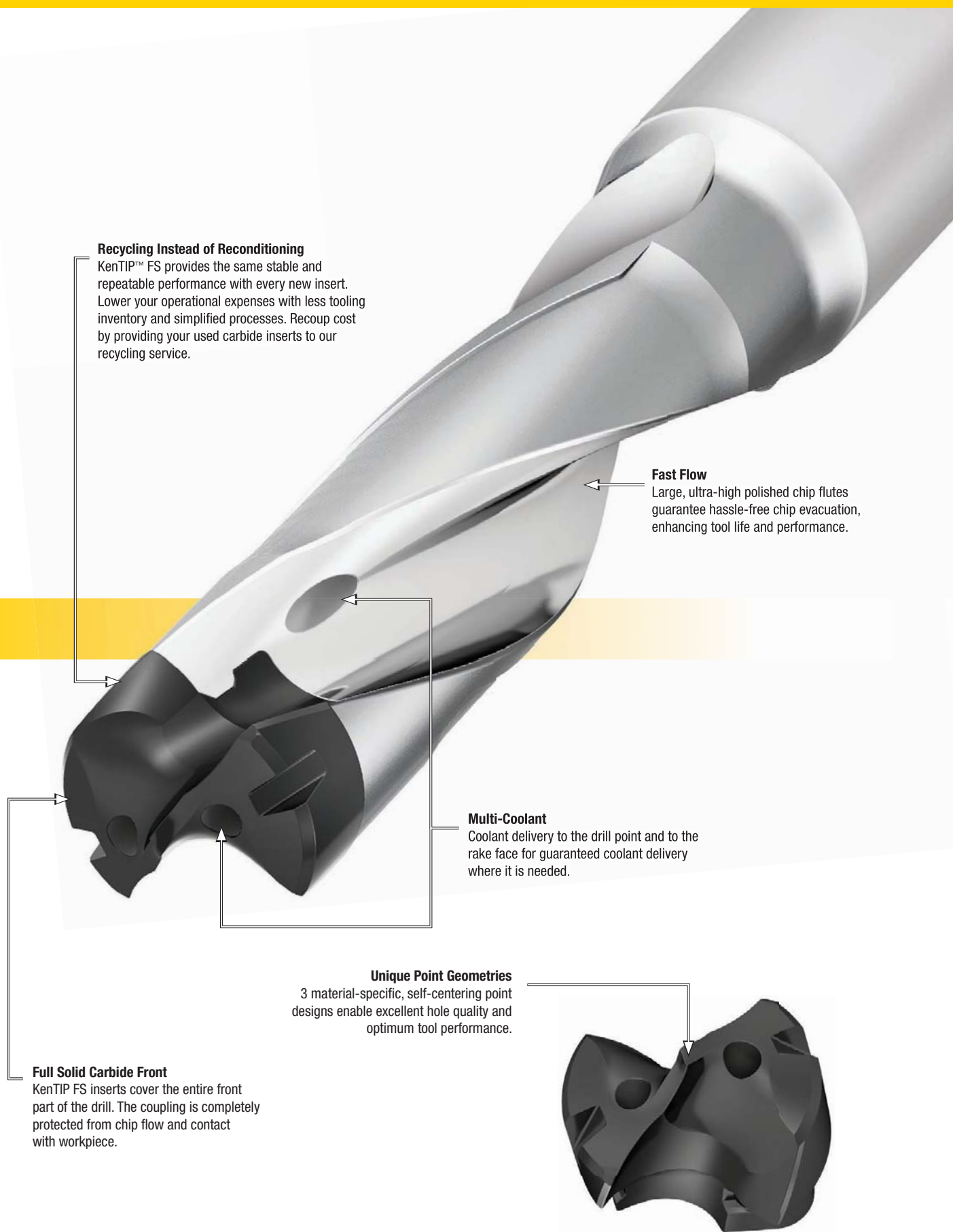
 Large face contact surface.

Maximum performance and long tool life, even in unstable conditions.

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.





Recycling Instead of Reconditioning

KenTIP™ FS provides the same stable and repeatable performance with every new insert. Lower your operational expenses with less tooling inventory and simplified processes. Recoup cost by providing your used carbide inserts to our recycling service.

Fast Flow

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

Multi-Coolant

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

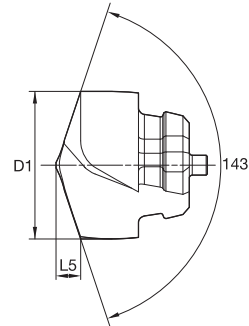
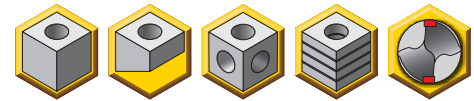
Unique Point Geometries

3 material-specific, self-centering point designs enable excellent hole quality and optimum tool performance.

Full Solid Carbide Front

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

- HPG-point geometry for steels.
- Great positioning and centering capabilities for drilling without precentering, even in deeper holes.
- KCP15A™ is an AlTiN PVD monolayer coating.
- Enhanced thermal stability.
- Excellent balance between toughness and wear resistance.
- Without internal coolant.



HPG Geometry

■ KenTIP FS Inserts • HPG KCP15A • No Internal Coolant Channels



KCP15A	D1		L5		seat size
	mm	in	mm	in	
KTFSS06000HPGM	6,000	.2362	1,370	.0539	A
KTFSS06100HPGM	6,100	.2402	1,380	.0543	A
KTFSS06200HPGM	6,200	.2441	1,400	.0551	A
KTFSS06300HPGM	6,300	.2480	1,440	.0567	B
KTFSS06350HPGM	6,350	.2500	1,450	.0571	B
KTFSS06400HPGM *	6,400	.2520	1,450	.0571	B
KTFSS06500HPGM	6,500	.2559	1,470	.0579	B
KTFSS06530HPGM	6,530	.2571	1,480	.0583	B
KTFSS06600HPGM	6,600	.2598	1,490	.0587	C
KTFSS06629HPGM *	6,629	.2610	1,500	.0591	C
KTFSS06700HPGM	6,700	.2638	1,510	.0594	C
KTFSS06746HPGM	6,746	.2656	1,520	.0598	C
KTFSS06800HPGM	6,800	.2677	1,530	.0602	C
KTFSS06900HPGM *	6,900	.2717	1,540	.0606	C
KTFSS06909HPGM	6,909	.2720	1,540	.0606	C
KTFSS07000HPGM	7,000	.2756	1,590	.0626	D
KTFSS07100HPGM *	7,100	.2795	1,610	.0634	D
KTFSS07145HPGM	7,145	.2813	1,610	.0634	D
KTFSS07200HPGM *	7,200	.2835	1,620	.0638	D
KTFSS07366HPGM	7,366	.2900	1,650	.0650	D
KTFSS07400HPGM	7,400	.2913	1,660	.0654	D
KTFSS07500HPGM	7,500	.2953	1,680	.0661	E
KTFSS07541HPGM	7,541	.2969	1,690	.0665	E
KTFSS07600HPGM *	7,600	.2992	1,700	.0669	E
KTFSS07700HPGM *	7,700	.3031	1,710	.0673	E
KTFSS07800HPGM *	7,800	.3071	1,730	.0681	E
KTFSS07900HPGM *	7,900	.3110	1,750	.0689	E
KTFSS07938HPGM	7,938	.3125	1,750	.0689	E
KTFSS08000HPGM	8,000	.3150	1,800	.0709	F
KTFSS08100HPGM	8,100	.3189	1,820	.0717	F
KTFSS08164HPGM	8,164	.3214	1,830	.0720	F
KTFSS08204HPGM	8,204	.3230	1,840	.0724	F
KTFSS08300HPGM	8,300	.3268	1,850	.0728	F
KTFSS08334HPGM	8,334	.3281	1,860	.0732	F
KTFSS08400HPGM	8,400	.3307	1,870	.0736	F
KTFSS08433HPGM	8,433	.3320	1,870	.0736	F
KTFSS08500HPGM	8,500	.3346	1,890	.0744	G
KTFSS08600HPGM	8,600	.3386	1,910	.0752	G
KTFSS08611HPGM *	8,611	.3390	1,910	.0752	G
KTFSS08700HPGM	8,700	.3425	1,920	.0756	G



- first choice
- alternate choice

KCP15A	D1		L5		seat size
	mm	in	mm	in	
KTFSS08733HPGM	8,732	.3438	1,930	.0760	G
KTFSS08800HPGM	8,800	.3465	1,940	.0764	G
KTFSS08839HPGM *	8,839	.3480	1,950	.0768	G
KTFSS08900HPGM *	8,900	.3504	1,960	.0772	G
KTFSS09000HPGM	9,000	.3543	2,010	.0791	H
KTFSS09093HPGM *	9,093	.3580	2,030	.0799	H
KTFSS09100HPGM	9,100	.3583	2,030	.0799	H
KTFSS09129HPGM *	9,129	.3594	2,030	.0799	H
KTFSS09200HPGM	9,200	.3622	2,040	.0803	H
KTFSS09300HPGM	9,300	.3661	2,060	.0811	H
KTFSS09347HPGM	9,347	.3680	2,070	.0815	H
KTFSS09400HPGM	9,400	.3701	2,080	.0819	H
KTFSS09500HPGM	9,500	.3740	2,100	.0827	I
KTFSS09525HPGM	9,525	.3750	2,110	.0831	I
KTFSS09558HPGM	9,558	.3763	2,110	.0831	I
KTFSS09600HPGM	9,600	.3780	2,120	.0835	I
KTFSS09700HPGM	9,700	.3819	2,130	.0839	I
KTFSS09800HPGM	9,800	.3858	2,150	.0846	I
KTFSS09900HPGM	9,900	.3898	2,170	.0854	I
KTFSS09921HPGM	9,921	.3906	2,170	.0854	I
KTFSS10000HPGM	10,000	.3937	2,220	.0874	J
KTFSS10023HPGM	10,023	.3946	2,220	.0874	J
KTFSS10084HPGM *	10,084	.3970	2,230	.0878	J
KTFSS10100HPGM	10,100	.3976	2,240	.0882	J
KTFSS10200HPGM	10,200	.4016	2,250	.0886	J
KTFSS10262HPGM *	10,262	.4040	2,260	.0890	J
KTFSS10300HPGM	10,300	.4055	2,270	.0894	J
KTFSS10320HPGM	10,320	.4063	2,270	.0894	J
KTFSS10400HPGM	10,400	.4094	2,290	.0902	J
KTFSS10490HPGM	10,490	.4130	2,300	.0906	J
KTFSS10500HPGM	10,500	.4134	2,310	.0909	K
KTFSS10600HPGM	10,600	.4173	2,330	.0917	K
KTFSS10700HPGM	10,700	.4213	2,340	.0921	K
KTFSS10716HPGM	10,716	.4219	2,350	.0925	K
KTFSS10800HPGM	10,800	.4252	2,360	.0929	K
KTFSS10900HPGM	10,900	.4291	2,380	.0937	K
KTFSS11000HPGM	11,000	.4331	2,430	.0957	L
KTFSS11100HPGM	11,100	.4370	2,450	.0965	L
KTFSS11113HPGM	11,112	.4375	2,450	.0965	L
KTFSS11200HPGM	11,200	.4409	2,460	.0969	L

(continued)

(KenTIP FS Inserts • HPG KCP15A™ • No Internal Coolant Channels — continued)



KCP15A	D1		L5		seat size
	mm	in	mm	in	
KTFSS11300HPGM	11,300	.4449	2,480	.0976	L
KTFSS11400HPGM	11,400	.4488	2,500	.0984	L
KTFSS11500HPGM	11,500	.4528	2,520	.0992	M
KTFSS11509HPGM	11,509	.4531	2,520	.0992	M
KTFSS11600HPGM	11,600	.4567	2,540	.1000	M
KTFSS11700HPGM	11,700	.4606	2,550	.1004	M
KTFSS11800HPGM	11,800	.4646	2,570	.1012	M
KTFSS11900HPGM	11,900	.4685	2,590	.1020	M
KTFSS11908HPGM	11,908	.4688	2,590	.1020	M
KTFSS12000HPGM	12,000	.4724	2,640	.1039	N
KTFSS12100HPGM	12,100	.4764	2,650	.1043	N
KTFSS12200HPGM	12,200	.4803	2,670	.1051	N
KTFSS12304HPGM	12,304	.4844	2,690	.1059	N
KTFSS12400HPGM	12,400	.4882	2,700	.1063	N
KTFSS12474HPGM	12,474	.4911	2,720	.1071	N
KTFSS12500HPGM	12,500	.4921	2,730	.1075	O
KTFSS12600HPGM	12,600	.4961	2,740	.1079	O
KTFSS12700HPGM	12,700	.5000	2,760	.1087	O
KTFSS12800HPGM	12,800	.5039	2,780	.1094	O
KTFSS12900HPGM	12,900	.5079	2,790	.1098	O
KTFSS13000HPGM	13,000	.5118	2,850	.1122	P
KTFSS13096HPGM	13,096	.5156	2,860	.1126	P
KTFSS13200HPGM	13,200	.5197	2,880	.1134	P
KTFSS13280HPGM	13,280	.5228	2,890	.1138	P
KTFSS13300HPGM	13,300	.5236	2,900	.1142	P
KTFSS13380HPGM	13,380	.5268	2,910	.1146	P
KTFSS13400HPGM	13,400	.5276	2,910	.1146	P
KTFSS13492HPGM	13,492	.5312	2,930	.1154	P
KTFSS13500HPGM	13,500	.5315	2,930	.1154	Q
KTFSS13600HPGM	13,600	.5354	2,950	.1161	Q
KTFSS13700HPGM	13,700	.5394	2,970	.1169	Q
KTFSS13800HPGM	13,800	.5433	2,980	.1173	Q
KTFSS13891HPGM	13,891	.5469	3,000	.1181	Q
KTFSS13896HPGM *	13,896	.5471	3,000	.1181	Q
KTFSS13940HPGM	13,940	.5488	3,010	.1185	Q
KTFSS14000HPGM	14,000	.5512	3,050	.1201	R
KTFSS14100HPGM	14,100	.5551	3,070	.1209	R
KTFSS14200HPGM	14,200	.5591	3,090	.1217	R
KTFSS14288HPGM	14,288	.5625	3,100	.1220	R
KTFSS14300HPGM	14,300	.5630	3,100	.1220	R
KTFSS14400HPGM	14,400	.5669	3,120	.1228	R
KTFSS14500HPGM	14,500	.5709	3,140	.1236	S
KTFSS14600HPGM	14,600	.5748	3,160	.1244	S
KTFSS14666HPGM *	14,666	.5774	3,170	.1248	S
KTFSS14684HPGM	14,684	.5781	3,170	.1248	S
KTFSS14700HPGM	14,700	.5787	3,170	.1248	S
KTFSS14800HPGM	14,800	.5827	3,190	.1256	S
KTFSS14900HPGM *	14,900	.5866	3,210	.1264	S
KTFSS15000HPGM	15,000	.5906	3,260	.1283	T
KTFSS15083HPGM	15,082	.5938	3,270	.1287	T
KTFSS15100HPGM	15,100	.5945	3,280	.1291	T
KTFSS15200HPGM	15,200	.5984	3,290	.1295	T
KTFSS15300HPGM	15,300	.6024	3,310	.1303	T
KTFSS15380HPGM	15,380	.6055	3,320	.1307	T
KTFSS15400HPGM	15,400	.6063	3,330	.1311	T
KTFSS15479HPGM	15,479	.6094	3,340	.1315	T



● first choice
○ alternate choice

KCP15A	D1		L5		seat size
	mm	in	mm	in	
KTFSS15500HPGM	15,500	.6102	3,340	.1315	T
KTFSS15600HPGM	15,600	.6142	3,360	.1323	T
KTFSS15700HPGM	15,700	.6181	3,380	.1331	T
KTFSS15800HPGM	15,800	.6220	3,390	.1335	T
KTFSS15875HPGM	15,875	.6250	3,410	.1343	T
KTFSS15900HPGM *	15,900	.6260	3,410	.1343	T
KTFSS16000HPGM	16,000	.6299	3,480	.1370	U
KTFSS16027HPGM *	16,027	.6310	3,490	.1374	U
KTFSS16080HPGM *	16,080	.6331	3,490	.1374	U
KTFSS16100HPGM	16,100	.6339	3,500	.1378	U
KTFSS16104HPGM	16,104	.6340	3,500	.1378	U
KTFSS16200HPGM	16,200	.6378	3,510	.1382	U
KTFSS16271HPGM	16,271	.6406	3,530	.1390	U
KTFSS16300HPGM	16,300	.6417	3,530	.1390	U
KTFSS16400HPGM	16,400	.6457	3,550	.1398	U
KTFSS16500HPGM	16,500	.6496	3,570	.1406	U
KTFSS16600HPGM	16,600	.6535	3,580	.1409	U
KTFSS16670HPGM	16,670	.6563	3,590	.1413	U
KTFSS16700HPGM	16,700	.6575	3,600	.1417	U
KTFSS16800HPGM	16,800	.6614	3,620	.1425	U
KTFSS16900HPGM	16,900	.6654	3,630	.1429	U
KTFSS17000HPGM	17,000	.6693	3,660	.1441	V
KTFSS17066HPGM	17,066	.6719	3,670	.1445	V
KTFSS17100HPGM	17,100	.6732	3,670	.1445	V
KTFSS17200HPGM	17,200	.6772	3,690	.1453	V
KTFSS17300HPGM *	17,300	.6811	3,710	.1461	V
KTFSS17400HPGM	17,400	.6850	3,720	.1465	V
KTFSS17463HPGM	17,462	.6875	3,740	.1472	V
KTFSS17480HPGM	17,480	.6882	3,740	.1472	V
KTFSS17500HPGM	17,500	.6890	3,740	.1472	V
KTFSS17600HPGM	17,600	.6929	3,760	.1480	V
KTFSS17700HPGM	17,700	.6969	3,770	.1484	V
KTFSS17800HPGM	17,800	.7008	3,790	.1492	V
KTFSS17859HPGM	17,859	.7031	3,800	.1496	V
KTFSS17900HPGM	17,900	.7047	3,810	.1500	V
KTFSS18000HPGM	18,000	.7087	3,890	.1531	W
KTFSS18100HPGM	18,100	.7126	3,910	.1539	W
KTFSS18200HPGM	18,200	.7165	3,930	.1547	W
KTFSS18258HPGM	18,258	.7188	3,940	.1551	W
KTFSS18300HPGM	18,300	.7205	3,940	.1551	W
KTFSS18400HPGM	18,400	.7244	3,960	.1559	W
KTFSS18500HPGM	18,500	.7283	3,980	.1567	W
KTFSS18600HPGM	18,600	.7323	3,990	.1571	W
KTFSS18654HPGM	18,654	.7344	4,000	.1575	W
KTFSS18700HPGM	18,700	.7362	4,010	.1579	W
KTFSS18800HPGM	18,800	.7402	4,030	.1587	W
KTFSS18900HPGM	18,900	.7441	4,040	.1591	W
KTFSS19000HPGM	19,000	.7480	4,070	.1602	X
KTFSS19050HPGM	19,050	.7500	4,080	.1606	X
KTFSS19100HPGM	19,100	.7520	4,090	.1610	X
KTFSS19200HPGM	19,200	.7559	4,100	.1614	X
KTFSS19228HPGM	19,228	.7570	4,110	.1618	X
KTFSS19253HPGM *	19,253	.7580	4,110	.1618	X
KTFSS19279HPGM	19,279	.7590	4,120	.1622	X
KTFSS19300HPGM	19,300	.7598	4,120	.1622	X
KTFSS19355HPGM *	19,355	.7620	4,130	.1626	X

(continued)

(KenTIP FS Inserts • HPG KCP15A™ • No Internal Coolant Channels — continued)

Modular Drills



	D1		L5		seat size
KCP15A	mm	in	mm	in	
KTFSS19400HPGM	19,400	.7638	4,140	.1630	X
KTFSS19446HPGM	19,446	.7656	4,140	.1630	X
KTFSS19460HPGM	19,460	.7661	4,150	.1634	X
KTFSS19500HPGM	19,500	.7677	4,150	.1634	X
KTFSS19600HPGM	19,600	.7717	4,170	.1642	X
KTFSS19700HPGM	19,700	.7756	4,190	.1650	X
KTFSS19800HPGM	19,800	.7795	4,200	.1654	X
KTFSS19845HPGM	19,845	.7813	4,210	.1657	X
KTFSS19900HPGM	19,900	.7835	4,220	.1661	X
KTFSS20000HPGM	20,000	.7874	4,310	.1697	Y
KTFSS20100HPGM	20,100	.7913	4,320	.1701	Y
KTFSS20200HPGM	20,200	.7953	4,340	.1709	Y
KTFSS20241HPGM *	20,241	.7969	4,350	.1713	Y
KTFSS20300HPGM	20,300	.7992	4,360	.1717	Y
KTFSS20500HPGM	20,500	.8071	4,390	.1728	Y
KTFSS20600HPGM	20,600	.8110	4,410	.1736	Y
KTFSS20638HPGM	20,638	.8125	4,410	.1736	Y
KTFSS20700HPGM *	20,700	.8150	4,420	.1740	Y
KTFSS20800HPGM	20,800	.8189	4,440	.1748	Y
KTFSS20900HPGM *	20,900	.8228	4,460	.1756	Y
KTFSS20990HPGM *	20,990	.8264	4,470	.1760	Y
KTFSS21000HPGM	21,000	.8268	4,480	.1764	Z
KTFSS21100HPGM *	21,100	.8307	4,500	.1772	Z
KTFSS21200HPGM	21,200	.8346	4,510	.1776	Z
KTFSS21300HPGM *	21,300	.8386	4,530	.1783	Z
KTFSS21400HPGM *	21,400	.8425	4,550	.1791	Z
KTFSS21433HPGM	21,432	.8438	4,550	.1791	Z
KTFSS21500HPGM	21,500	.8465	4,560	.1795	Z
KTFSS21700HPGM	21,700	.8543	4,600	.1811	Z
KTFSS21800HPGM *	21,800	.8583	4,610	.1815	Z
KTFSS21829HPGM	21,829	.8594	4,620	.1819	Z
KTFSS21900HPGM *	21,900	.8622	4,630	.1823	Z
KTFSS22000HPGM	22,000	.8661	4,720	.1858	ZA
KTFSS22100HPGM *	22,100	.8701	4,730	.1862	ZA
KTFSS22200HPGM *	22,200	.8740	4,750	.1870	ZA
KTFSS22225HPGM	22,225	.8750	4,750	.1870	ZA
KTFSS22400HPGM *	22,400	.8819	4,780	.1882	ZA
KTFSS22500HPGM	22,500	.8858	4,800	.1890	ZA
KTFSS22600HPGM *	22,600	.8898	4,820	.1898	ZA
KTFSS22700HPGM *	22,700	.8937	4,830	.1902	ZA



● first choice
○ alternate choice

	D1		L5		seat size
KCP15A	mm	in	mm	in	
KTFSS22800HPGM	22,800	.8976	4,850	.1909	ZA
KTFSS22900HPGM *	22,900	.9016	4,870	.1917	ZA
KTFSS23000HPGM	23,000	.9055	4,890	.1925	ZB
KTFSS23100HPGM	23,100	.9094	4,910	.1933	ZB
KTFSS23200HPGM *	23,200	.9134	4,920	.1937	ZB
KTFSS23300HPGM	23,300	.9173	4,940	.1945	ZB
KTFSS23400HPGM *	23,400	.9213	4,960	.1953	ZB
KTFSS23416HPGM	23,416	.9219	4,960	.1953	ZB
KTFSS23500HPGM	23,500	.9252	4,980	.1961	ZB
KTFSS23600HPGM *	23,600	.9291	4,990	.1965	ZB
KTFSS23700HPGM *	23,700	.9331	5,010	.1972	ZB
KTFSS23800HPGM *	23,800	.9370	5,030	.1980	ZB
KTFSS23813HPGM	23,812	.9375	5,030	.1980	ZB
KTFSS23900HPGM *	23,900	.9409	5,040	.1984	ZB
KTFSS24000HPGM	24,000	.9449	5,130	.2020	ZC
KTFSS24100HPGM *	24,100	.9488	5,140	.2024	ZC
KTFSS24200HPGM *	24,200	.9528	5,160	.2031	ZC
KTFSS24300HPGM	24,300	.9567	5,180	.2039	ZC
KTFSS24400HPGM *	24,400	.9606	5,190	.2043	ZC
KTFSS24500HPGM	24,500	.9646	5,210	.2051	ZC
KTFSS24600HPGM *	24,600	.9685	5,230	.2059	ZC
KTFSS24608HPGM	24,608	.9688	5,230	.2059	ZC
KTFSS24700HPGM *	24,700	.9724	5,240	.2063	ZC
KTFSS24800HPGM *	24,800	.9764	5,260	.2071	ZC
KTFSS24900HPGM *	24,900	.9803	5,280	.2079	ZC
KTFSS25000HPGM	25,000	.9843	5,300	.2087	ZD
KTFSS25100HPGM *	25,100	.9882	5,320	.2094	ZD
KTFSS25200HPGM *	25,200	.9921	5,330	.2098	ZD
KTFSS25250HPGM *	25,250	.9941	5,340	.2102	ZD
KTFSS25300HPGM *	25,300	.9961	5,350	.2106	ZD
KTFSS25400HPGM	25,400	1.0000	5,370	.2114	ZD
KTFSS25500HPGM *	25,500	1.0039	5,380	.2118	ZD
KTFSS25540HPGM	25,540	1.0055	5,390	.2122	ZD
KTFSS25600HPGM	25,600	1.0079	5,400	.2126	ZD
KTFSS25679HPGM	25,679	1.0110	5,410	.2130	ZD
KTFSS25700HPGM *	25,700	1.0118	5,420	.2134	ZD
KTFSS25800HPGM *	25,800	1.0157	5,440	.2142	ZD
KTFSS25806HPGM	25,806	1.0160	5,440	.2142	ZD
KTFSS25900HPGM *	25,900	1.0197	5,450	.2146	ZD
KTFSS26000HPGM	26,000	1.0236	5,470	.2154	ZD

NOTE: *Made-to-order standard item. Standard pricing, manufacturing lead time, and minimum order quantity applies.
Products with D1 ≥ 20mm will be available by January 1st, 2018.

KenTIP FS HPG Geometry

Tolerance	
D1 metric	tolerance k8
6	0,000/+0,018
>6-10	0,000/+0,022
>10-18	0,000/+0,027
>18-26	0,000/+0,033

KenTIP FS HPG Geometry

Tolerance	
D1 inch	tolerance k8
.2362	.000/+ .0007
>.2362-.3937	.000/+ .0009
>.3937-.7087	.000/+ .0011
>.7087-1.0236	.000/+ .0013

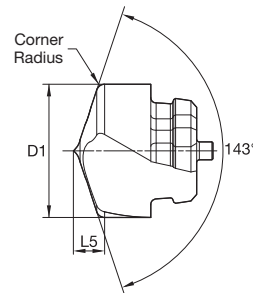
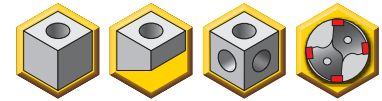
■ Modular Drill Carbide Insert Blades • KenTIP™ FS • HPG Geometry • Grade KCP15A™ •
No Internal Coolant Channels on the Insert • Through Coolant on the Body • Metric

Material Group		Cutting Speed — vc Range — m/min			Metric						
					Recommended Feed Rate per Rev						
		min	Starting Value	max		8,0	10,0	12,0	14,0	16,0	20,0
P	1	90	130	170	mm/r	0,11–0,22	0,13–0,28	0,14–0,34	0,17–0,43	0,19–0,50	0,25–0,53
	2	100	140	180	mm/r	0,11–0,26	0,13–0,32	0,14–0,36	0,17–0,40	0,19–0,50	0,25–0,53
	3	60	100	130	mm/r	0,11–0,31	0,12–0,39	0,16–0,41	0,21–0,51	0,23–0,51	0,30–0,56
	4	60	100	130	mm/r	0,11–0,31	0,12–0,39	0,16–0,41	0,17–0,51	0,18–0,51	0,23–0,51
	5	60	70	100	mm/r	0,10–0,22	0,10–0,25	0,10–0,28	0,14–0,32	0,16–0,35	0,20–0,46
	6	60	70	70	mm/r	0,10–0,22	0,10–0,25	0,10–0,28	0,14–0,32	0,16–0,35	0,20–0,46
K	1	80	120	170	mm/r	0,15–0,32	0,16–0,35	0,17–0,39	0,21–0,46	0,25–0,53	0,31–0,65
	2	80	110	120	mm/r	0,15–0,32	0,16–0,33	0,17–0,36	0,21–0,45	0,25–0,53	0,31–0,65
	3	50	80	100	mm/r	0,16–0,33	0,17–0,36	0,18–0,40	0,20–0,45	0,21–0,48	0,23–0,53

■ Modular Drill Carbide Insert Blades • KenTIP™ FS • HPG Geometry • Grade KCP15A™ •
No Internal Coolant Channels on the Insert • Through Coolant on the Body • Inch

Material Group		Cutting Speed — vc			Inch						
		Range — SFM			Recommended Feed Rate per Rev						
		min	Starting Value	max		0.315	0.394	0.472	0.551	0.630	0.787
P	1	300	430	560	IPR	0.004–0.009	0.005–0.011	0.006–0.013	0.007–0.017	0.007–0.020	0.010–0.021
	2	330	460	590	IPR	0.004–0.010	0.005–0.013	0.006–0.014	0.007–0.016	0.007–0.020	0.010–0.021
	3	200	330	430	IPR	0.004–0.012	0.005–0.015	0.006–0.016	0.008–0.020	0.009–0.020	0.012–0.022
	4	200	330	430	IPR	0.004–0.012	0.005–0.015	0.006–0.016	0.007–0.020	0.007–0.020	0.009–0.020
	5	200	230	330	IPR	0.004–0.009	0.004–0.010	0.004–0.011	0.006–0.013	0.006–0.014	0.008–0.018
	6	200	230	230	IPR	0.004–0.009	0.004–0.010	0.004–0.011	0.006–0.013	0.006–0.014	0.008–0.018
K	1	260	390	560	IPR	0.006–0.013	0.006–0.014	0.007–0.015	0.008–0.018	0.010–0.021	0.012–0.026
	2	260	360	390	IPR	0.006–0.013	0.006–0.013	0.007–0.014	0.008–0.018	0.010–0.021	0.012–0.026
	3	160	260	330	IPR	0.006–0.013	0.007–0.014	0.007–0.016	0.008–0.018	0.008–0.019	0.009–0.021

- HPC-point geometry for all cast irons.
- 4-margin lands ensure hole straightness.
- Large corner radius prevents chipping and reduces exit burs when drilling through holes.
- KC7410™ is an AlCr PVD multilayer coating.
- Superb wear resistance.
- With internal coolant.



HPC Geometry

■ KenTIP FS Inserts • HPC KC7410 • With Internal Coolant Channels



KC7410	D1		L5		seat size
	mm	in	mm	in	
KTFST06000HPCM	6,000	.2362	1,410	.0555	A
KTFST06200HPCM	6,200	.2441	1,440	.0567	A
KTFST06350HPCM	6,350	.2500	1,490	.0587	B
KTFST06500HPCM	6,500	.2559	1,510	.0594	B
KTFST06530HPCM	6,530	.2571	1,520	.0598	B
KTFST06700HPCM	6,700	.2638	1,570	.0618	C
KTFST06746HPCM	6,746	.2656	1,570	.0618	C
KTFST06800HPCM	6,800	.2677	1,580	.0622	C
KTFST07000HPCM	7,000	.2756	1,640	.0646	D
KTFST07145HPCM	7,145	.2813	1,670	.0657	D
KTFST07300HPCM	7,300	.2874	1,690	.0665	D
KTFST07500HPCM	7,500	.2953	1,760	.0693	E
KTFST07600HPCM	7,600	.2992	1,780	.0701	E
KTFST07800HPCM	7,800	.3071	1,810	.0713	E
KTFST07938HPCM	7,938	.3125	1,830	.0720	E
KTFST08000HPCM	8,000	.3150	1,880	.0740	F
KTFST08100HPCM *	8,100	.3189	1,890	.0744	F
KTFST08204HPCM *	8,204	.3230	1,910	.0752	F
KTFST08500HPCM	8,500	.3346	1,990	.0783	G
KTFST08600HPCM *	8,600	.3386	2,010	.0791	G
KTFST08700HPCM *	8,700	.3425	2,030	.0799	G
KTFST08733HPCM *	8,732	.3438	2,030	.0799	G
KTFST09000HPCM	9,000	.3543	2,110	.0831	H
KTFST09100HPCM *	9,100	.3583	2,130	.0839	H
KTFST09500HPCM	9,500	.3740	2,230	.0878	I
KTFST09525HPCM	9,525	.3750	2,230	.0878	I
KTFST09600HPCM *	9,600	.3780	2,250	.0886	I
KTFST09700HPCM *	9,700	.3819	2,260	.0890	I
KTFST09800HPCM *	9,800	.3858	2,280	.0898	I
KTFST09921HPCM	9,921	.3906	2,300	.0906	I
KTFST10000HPCM	10,000	.3937	2,350	.0925	J
KTFST10023HPCM *	10,023	.3946	2,350	.0925	J
KTFST10200HPCM	10,200	.4016	2,380	.0937	J
KTFST10300HPCM	10,300	.4055	2,400	.0945	J
KTFST10320HPCM *	10,320	.4063	2,400	.0945	J
KTFST10500HPCM	10,500	.4134	2,460	.0969	K



- first choice
- alternate choice

KC7410	D1		L5		seat size
	mm	in	mm	in	
KTFST10600HPCM *	10,600	.4173	2,480	.0976	K
KTFST10700HPCM *	10,700	.4213	2,500	.0984	K
KTFST10716HPCM	10,716	.4219	2,500	.0984	K
KTFST10800HPCM	10,800	.4252	2,510	.0988	K
KTFST11000HPCM	11,000	.4331	2,580	.1016	L
KTFST11100HPCM	11,100	.4370	2,600	.1024	L
KTFST11113HPCM	11,112	.4375	2,600	.1024	L
KTFST11400HPCM	11,400	.4488	2,650	.1043	L
KTFST11500HPCM	11,500	.4528	2,700	.1063	M
KTFST11800HPCM *	11,800	.4646	2,750	.1083	M
KTFST11908HPCM *	11,908	.4688	2,770	.1091	M
KTFST12000HPCM	12,000	.4724	2,820	.1110	N
KTFST12304HPCM *	12,304	.4844	2,870	.1130	N
KTFST12500HPCM	12,500	.4921	2,930	.1154	O
KTFST12700HPCM	12,700	.5000	2,970	.1169	O
KTFST13000HPCM	13,000	.5118	3,050	.1201	P
KTFST13096HPCM	13,096	.5156	3,070	.1209	P
KTFST13200HPCM *	13,200	.5197	3,080	.1213	P
KTFST13300HPCM	13,300	.5236	3,100	.1220	P
KTFST13492HPCM	13,492	.5312	3,130	.1232	P
KTFST13500HPCM	13,500	.5315	3,170	.1248	Q
KTFST13600HPCM	13,600	.5354	3,180	.1252	Q
KTFST13800HPCM	13,800	.5433	3,220	.1268	Q
KTFST13891HPCM	13,891	.5469	3,230	.1272	Q
KTFST14000HPCM	14,000	.5512	3,290	.1295	R
KTFST14100HPCM *	14,100	.5551	3,300	.1299	R
KTFST14288HPCM	14,288	.5625	3,330	.1311	R
KTFST14500HPCM	14,500	.5709	3,400	.1339	S
KTFST14600HPCM *	14,600	.5748	3,420	.1346	S
KTFST14684HPCM *	14,684	.5781	3,430	.1350	S
KTFST14800HPCM *	14,800	.5827	3,450	.1358	S
KTFST15000HPCM	15,000	.5906	3,520	.1386	T
KTFST15083HPCM *	15,082	.5938	3,530	.1390	T
KTFST15100HPCM	15,100	.5945	3,540	.1394	T
KTFST15200HPCM *	15,200	.5984	3,550	.1398	T
KTFST15300HPCM *	15,300	.6024	3,570	.1406	T

(continued)

(KenTIP FS Inserts • HPC KC7410™ • With Internal Coolant Channels — continued)



KC7410	D1		L5		seat size
	mm	in	mm	in	
KTFST15500HPCM	15,500	.6102	3,600	.1417	T
KTFST15600HPCM *	15,600	.6142	3,620	.1425	T
KTFST15800HPCM	15,800	.6220	3,650	.1437	T
KTFST15875HPCM *	15,875	.6250	3,670	.1445	T
KTFST16000HPCM	16,000	.6299	3,750	.1476	U
KTFST16100HPCM	16,100	.6339	3,770	.1484	U
KTFST16104HPCM *	16,104	.6340	3,770	.1484	U
KTFST16200HPCM *	16,200	.6378	3,790	.1492	U
KTFST16271HPCM *	16,271	.6406	3,800	.1496	U
KTFST16300HPCM *	16,300	.6417	3,800	.1496	U
KTFST16500HPCM	16,500	.6496	3,840	.1512	U
KTFST16550HPCM *	16,550	.6516	3,850	.1516	U
KTFST16600HPCM	16,600	.6535	3,850	.1516	U
KTFST16670HPCM	16,670	.6563	3,870	.1524	U
KTFST17000HPCM	17,000	.6693	3,990	.1571	V
KTFST17066HPCM *	17,066	.6719	4,000	.1575	V
KTFST17100HPCM *	17,100	.6732	4,010	.1579	V
KTFST17200HPCM	17,200	.6772	4,020	.1583	V
KTFST17300HPCM	17,300	.6811	4,040	.1591	V
KTFST17463HPCM *	17,462	.6875	4,070	.1602	V
KTFST17500HPCM	17,500	.6890	4,070	.1602	V
KTFST17550HPCM *	17,550	.6909	4,080	.1606	V
KTFST17600HPCM	17,600	.6929	4,090	.1610	V
KTFST17700HPCM *	17,700	.6969	4,110	.1618	V
KTFST17800HPCM	17,800	.7008	4,120	.1622	V
KTFST18000HPCM	18,000	.7087	4,220	.1661	W
KTFST18100HPCM *	18,100	.7126	4,240	.1669	W
KTFST18258HPCM *	18,258	.7188	4,270	.1681	W
KTFST18500HPCM	18,500	.7283	4,310	.1697	W
KTFST18600HPCM	18,600	.7323	4,320	.1701	W
KTFST18700HPCM *	18,700	.7362	4,340	.1709	W
KTFST19000HPCM	19,000	.7480	4,460	.1756	X



● first choice
○ alternate choice

KC7410	D1		L5		seat size
	mm	in	mm	in	
KTFST19050HPCM	19,050	.7500	4,470	.1760	X
KTFST19279HPCM *	19,279	.7590	4,500	.1772	X
KTFST19446HPCM *	19,446	.7656	4,530	.1783	X
KTFST19500HPCM	19,500	.7677	4,540	.1787	X
KTFST19800HPCM *	19,800	.7795	4,590	.1807	X
KTFST20000HPCM	20,000	.7874	4,690	.1846	Y
KTFST20241HPCM	20,241	.7969	4,730	.1862	Y
KTFST20300HPCM *	20,300	.7992	4,740	.1866	Y
KTFST20500HPCM	20,500	.8071	4,780	.1882	Y
KTFST20638HPCM	20,638	.8125	4,800	.1890	Y
KTFST21000HPCM	21,000	.8268	4,930	.1941	Z
KTFST21433HPCM *	21,432	.8438	5,000	.1969	Z
KTFST21500HPCM *	21,500	.8465	5,010	.1972	Z
KTFST22000HPCM	22,000	.8661	5,160	.2031	ZA
KTFST22225HPCM *	22,225	.8750	5,200	.2047	ZA
KTFST22440HPCM *	22,440	.8835	5,240	.2063	ZA
KTFST22500HPCM *	22,500	.8858	5,250	.2067	ZA
KTFST23000HPCM	23,000	.9055	5,400	.2126	ZB
KTFST23416HPCM *	23,416	.9219	5,470	.2154	ZB
KTFST23500HPCM *	23,500	.9252	5,480	.2157	ZB
KTFST23813HPCM *	23,812	.9375	5,530	.2177	ZB
KTFST24000HPCM	24,000	.9449	5,630	.2217	ZC
KTFST24500HPCM *	24,500	.9646	5,720	.2252	ZC
KTFST24608HPCM *	24,608	.9688	5,730	.2256	ZC
KTFST25000HPCM	25,000	.9843	5,870	.2311	ZD
KTFST25070HPCM *	25,070	.9870	5,880	.2315	ZD
KTFST25400HPCM	25,400	1.0000	5,930	.2335	ZD
KTFST25500HPCM *	25,500	1.0039	5,950	.2343	ZD
KTFST25679HPCM *	25,679	1.0110	5,980	.2354	ZD
KTFST25806HPCM *	25,806	1.0160	6,000	.2362	ZD
KTFST26000HPCM	26,000	1.0236	6,030	.2374	ZD

NOTE: *Made-to-order standard item. Standard pricing, manufacturing lead time, and minimum order quantity applies.
Products with D1 ≤ 19,999mm will be available in November 2017.
Products with D1 ≥ 20mm will be available by January 1st, 2018.

KenTIP FS HPC Geometry

Tolerance	
D1 metric	tolerance k8
6	0,000/+0,018
>6-10	0,000/+0,022
>10-18	0,000/+0,027
>18-26	0,000/+0,033

KenTIP FS HPC Geometry

Tolerance	
D1 inch	tolerance k8
.2362	.000/+0.0007
>.2362-.3937	.000/+0.0009
>.3937-.7087	.000/+0.0011
>.7087-1.0236	.000/+0.0013

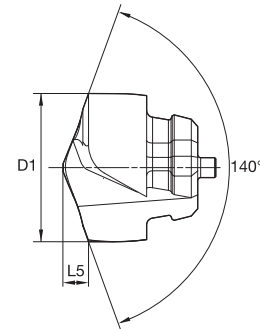
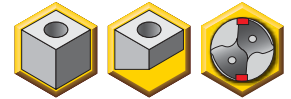
■ Modular Drill Carbide Insert Blades • KenTIP™ FS • HPC Geometry • Grade KC7410™ •
 Through Coolant • Metric

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

■ Modular Drill Carbide Insert Blades • KenTIP™ FS • HPC Geometry • Grade KC7410™ •
 Through Coolant • Inch

Material Group		Cutting Speed – vc			Inch						
		Range – SFM			Recommended Feed Rate per Rev						
		min	Starting Value	max		.315	.394	.472	.551	.630	.787
K	1	330	570	660	IPR	0.005–0.013	0.006–0.015	0.007–0.017	0.009–0.019	0.010–0.022	0.011–0.025
	2	330	520	590	IPR	0.005–0.013	0.006–0.015	0.007–0.017	0.009–0.019	0.010–0.022	0.011–0.025
	3	230	280	390	IPR	0.005–0.010	0.005–0.013	0.006–0.014	0.007–0.016	0.008–0.018	0.011–0.021

- HPL-point geometry for stainless steels.
- Forms 2 chips per cutting edge for an uninterrupted and smooth chip flow.
- KCMS15™ is an AlTiN PVD monolayer coating.
- Prevents edge built-up, which delivers superior hole quality.
- Very high metal removal rates.
- With internal coolant.



Modular Drills

■ KenTIP FS Inserts • HPL KCMS15 • With Internal Coolant Channels



KCMS15	D1		L5		seat size
	mm	in	mm	in	
KTFST06000HPLM	6,000	.2362	1,340	.0528	A
KTFST06350HPLM	6,350	.2500	1,400	.0551	B
KTFST06500HPLM	6,500	.2559	1,430	.0563	B
KTFST06629HPLM	6,629	.2610	1,460	.0575	C
KTFST06800HPLM	6,800	.2677	1,490	.0587	C
KTFST07000HPLM	7,000	.2756	1,530	.0602	D
KTFST07500HPLM	7,500	.2953	1,630	.0642	E
KTFST07800HPLM	7,800	.3071	1,680	.0661	E
KTFST07938HPLM	7,938	.3125	1,710	.0673	E
KTFST08000HPLM	8,000	.3150	1,720	.0677	F
KTFST08100HPLM *	8,100	.3189	1,740	.0685	F
KTFST08204HPLM *	8,204	.3230	1,760	.0693	F
KTFST08334HPLM *	8,334	.3281	1,790	.0705	F
KTFST08400HPLM *	8,400	.3307	1,800	.0709	F
KTFST08500HPLM	8,500	.3346	1,820	.0717	G
KTFST08600HPLM *	8,600	.3386	1,840	.0724	G
KTFST08700HPLM *	8,700	.3425	1,860	.0732	G
KTFST08800HPLM *	8,800	.3465	1,880	.0740	G
KTFST08900HPLM	8,900	.3504	1,900	.0748	G
KTFST09000HPLM	9,000	.3543	1,930	.0760	H
KTFST09100HPLM *	9,100	.3583	1,950	.0768	H
KTFST09200HPLM	9,200	.3622	1,970	.0776	H
KTFST09400HPLM *	9,400	.3701	2,000	.0787	H
KTFST09500HPLM	9,500	.3740	2,030	.0799	I
KTFST09558HPLM *	9,558	.3763	2,040	.0803	I
KTFST09600HPLM	9,600	.3780	2,050	.0807	I
KTFST09700HPLM *	9,700	.3819	2,070	.0815	I
KTFST09800HPLM	9,800	.3858	2,090	.0823	I
KTFST09900HPLM	9,900	.3898	2,110	.0831	I
KTFST10000HPLM	10,000	.3937	2,130	.0839	J
KTFST10100HPLM	10,100	.3976	2,150	.0846	J
KTFST10200HPLM	10,200	.4016	2,170	.0854	J
KTFST10300HPLM	10,300	.4055	2,190	.0862	J
KTFST10320HPLM	10,320	.4063	2,190	.0862	J
KTFST10400HPLM *	10,400	.4094	2,210	.0870	J
KTFST10500HPLM	10,500	.4134	2,230	.0878	K



- first choice
- alternate choice

KCMS15	D1		L5		seat size
	mm	in	mm	in	
KTFST10600HPLM *	10,600	.4173	2,250	.0886	K
KTFST10700HPLM	10,700	.4213	2,270	.0894	K
KTFST10800HPLM *	10,800	.4252	2,290	.0902	K
KTFST10900HPLM *	10,900	.4291	2,310	.0909	K
KTFST11000HPLM	11,000	.4331	2,340	.0921	L
KTFST11100HPLM	11,100	.4370	2,350	.0925	L
KTFST11113HPLM	11,112	.4375	2,360	.0929	L
KTFST11200HPLM *	11,200	.4409	2,370	.0933	L
KTFST11400HPLM *	11,400	.4488	2,410	.0949	L
KTFST11500HPLM	11,500	.4528	2,440	.0961	M
KTFST11600HPLM *	11,600	.4567	2,460	.0969	M
KTFST11800HPLM *	11,800	.4646	2,490	.0980	M
KTFST11908HPLM	11,908	.4688	2,520	.0992	M
KTFST12000HPLM	12,000	.4724	2,540	.1000	N
KTFST12200HPLM *	12,200	.4803	2,580	.1016	N
KTFST12304HPLM	12,304	.4844	2,600	.1024	N
KTFST12500HPLM	12,500	.4921	2,640	.1039	O
KTFST12700HPLM	12,700	.5000	2,680	.1055	O
KTFST12800HPLM *	12,800	.5039	2,700	.1063	O
KTFST12900HPLM *	12,900	.5079	2,720	.1071	O
KTFST13000HPLM	13,000	.5118	2,740	.1079	P
KTFST13096HPLM	13,096	.5156	2,760	.1087	P
KTFST13200HPLM *	13,200	.5197	2,780	.1094	P
KTFST13492HPLM *	13,492	.5312	2,840	.1118	P
KTFST13500HPLM	13,500	.5315	2,840	.1118	Q
KTFST13800HPLM *	13,800	.5433	2,900	.1142	Q
KTFST13891HPLM *	13,891	.5469	2,920	.1150	Q
KTFST13896HPLM *	13,896	.5471	2,920	.1150	Q
KTFST14000HPLM	14,000	.5512	2,950	.1161	R
KTFST14100HPLM *	14,100	.5551	2,960	.1165	R
KTFST14200HPLM *	14,200	.5591	2,980	.1173	R
KTFST14288HPLM	14,288	.5625	3,000	.1181	R
KTFST14300HPLM	14,300	.5630	3,000	.1181	R
KTFST14400HPLM *	14,400	.5669	3,020	.1189	R
KTFST14500HPLM	14,500	.5709	3,050	.1201	S
KTFST14684HPLM *	14,684	.5781	3,080	.1213	S

(continued)

(KenTIP FS Inserts • HPL KCMS15™ • With Internal Coolant Channels — continued)



Modular Drills

KCMS15	D1		L5		seat size
	mm	in	mm	in	
KTFST14800HPLM *	14,800	.5827	3,100	.1220	S
KTFST15000HPLM	15,000	.5906	3,150	.1240	T
KTFST15100HPLM *	15,100	.5945	3,170	.1248	T
KTFST15200HPLM *	15,200	.5984	3,190	.1256	T
KTFST15500HPLM	15,500	.6102	3,240	.1276	T
KTFST15875HPLM	15,875	.6250	3,310	.1303	T
KTFST16000HPLM	16,000	.6299	3,350	.1319	U
KTFST16100HPLM *	16,100	.6339	3,370	.1327	U
KTFST16104HPLM	16,104	.6340	3,370	.1327	U
KTFST16150HPLM	16,150	.6358	3,380	.1331	U
KTFST16271HPLM	16,271	.6406	3,400	.1339	U
KTFST16500HPLM	16,500	.6496	3,450	.1358	U
KTFST16670HPLM	16,670	.6563	3,480	.1370	U
KTFST17000HPLM	17,000	.6693	3,550	.1398	V
KTFST17463HPLM *	17,462	.6875	3,640	.1433	V
KTFST17480HPLM	17,480	.6882	3,640	.1433	V
KTFST17500HPLM	17,500	.6890	3,650	.1437	V
KTFST17700HPLM *	17,700	.6969	3,690	.1453	V
KTFST18000HPLM	18,000	.7087	3,760	.1480	W
KTFST18258HPLM *	18,258	.7188	3,800	.1496	W
KTFST18500HPLM	18,500	.7283	3,850	.1516	W
KTFST18654HPLM *	18,654	.7344	3,880	.1528	W
KTFST19000HPLM	19,000	.7480	3,960	.1559	X
KTFST19050HPLM	19,050	.7500	3,970	.1563	X
KTFST19200HPLM *	19,200	.7559	3,990	.1571	X
KTFST19228HPLM *	19,228	.7570	4,000	.1575	X
KTFST19253HPLM	19,253	.7580	4,000	.1575	X
KTFST19279HPLM	19,279	.7590	4,010	.1579	X



● first choice
○ alternate choice

KCMS15	D1		L5		seat size
	mm	in	mm	in	
KTFST19355HPLM *	19,355	.7620	4,020	.1583	X
KTFST19446HPLM	19,446	.7656	4,040	.1591	X
KTFST19460HPLM *	19,460	.7661	4,040	.1591	X
KTFST19500HPLM	19,500	.7677	4,050	.1594	X
KTFST19845HPLM	19,845	.7813	4,120	.1622	X
KTFST19850HPLM *	19,850	.7815	4,120	.1622	X
KTFST20000HPLM	20,000	.7874	4,160	.1638	Y
KTFST20500HPLM	20,500	.8071	4,250	.1673	Y
KTFST20638HPLM	20,638	.8125	4,280	.1685	Y
KTFST21000HPLM	21,000	.8268	4,360	.1717	Z
KTFST21150HPLM *	21,150	.8327	4,390	.1728	Z
KTFST21500HPLM	21,500	.8465	4,450	.1752	Z
KTFST22000HPLM	22,000	.8661	4,560	.1795	ZA
KTFST22225HPLM	22,225	.8750	4,600	.1811	ZA
KTFST22500HPLM	22,500	.8858	4,660	.1835	ZA
KTFST23000HPLM	23,000	.9055	4,760	.1874	ZB
KTFST23500HPLM	23,500	.9252	4,860	.1913	ZB
KTFST23813HPLM	23,812	.9375	4,920	.1937	ZB
KTFST24000HPLM	24,000	.9449	4,960	.1953	ZC
KTFST24500HPLM	24,500	.9646	5,060	.1992	ZC
KTFST25000HPLM	25,000	.9843	5,170	.2035	ZD
KTFST25400HPLM	25,400	1.0000	5,240	.2063	ZD
KTFST25500HPLM	25,500	1.0039	5,260	.2071	ZD
KTFST25600HPLM	25,600	1.0079	5,280	.2079	ZD
KTFST25650HPLM	25,650	1.0098	5,290	.2083	ZD
KTFST25679HPLM	25,679	1.0110	5,290	.2083	ZD
KTFST25806HPLM	25,806	1.0160	5,320	.2094	ZD
KTFST26000HPLM	26,000	1.0236	5,370	.2114	ZD

NOTE: *Made-to-order standard item. Standard pricing, manufacturing lead time, and minimum order quantity applies.
Products with D1 ≥ 20mm will be available by January 1st, 2018.

KenTIP FS HPL Geometry
Tolerance

D1 metric	tolerance k8
6	0,000/+0,018
>6-10	0,000/+0,022
>10-18	0,000/+0,027
>18-26	0,000/+0,033

KenTIP FS HPL Geometry
Tolerance

D1 inch	tolerance k8
.2362	.000/+ .0007
>.2362-.3937	.000/+ .0009
>.3937-.7087	.000/+ .0011
>.7087-1.0236	.000/+ .0013

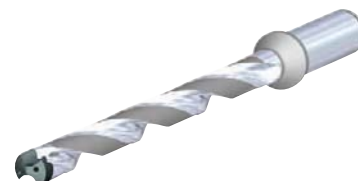
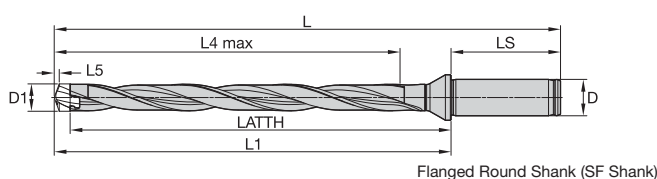
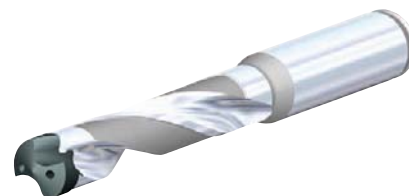
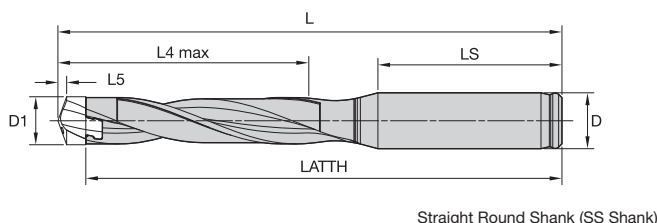
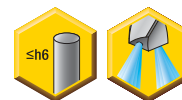
■ Modular Drill Carbide Insert Blades • KenTIP™ FS • HPL Geometry • Grade KCMS15™ • Through Coolant • Metric

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

■ Modular Drill Carbide Insert Blades • KenTIP™ FS • HPL Geometry • Grade KCMS15™ • Through Coolant • Inch

Material Group		Cutting Speed — vc Range — SFM			Inch						
					Recommended Feed Rate per Rev						
		min	Starting Value	max		.315	.394	.472	.551	.630	.787
M	1	160	200	300	IPR	0.003–0.006	0.004–0.007	0.004–0.008	0.005–0.009	0.005–0.009	0.006–0.011
	2	100	200	300	IPR	0.003–0.006	0.004–0.007	0.004–0.008	0.005–0.009	0.005–0.009	0.006–0.011
	3	70	160	200	IPR	0.003–0.006	0.004–0.007	0.004–0.008	0.005–0.009	0.005–0.009	0.006–0.011

- KenTIP FS toolholder with straight cylindrical round metric shank.
- 12 x D holders feature a flanged shank for improved stiffness.
- Multi-coolant provides an advanced coolant channel layout with four coolant exits in each holder.
- Each tool body is shipped with related insert wrench.



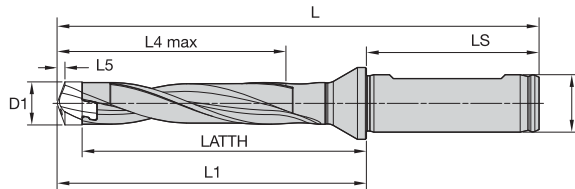
■ KenTIP FS Round Shank • 1.5 x D/3 x D/5 x D/8 x D/12 x D • Metric



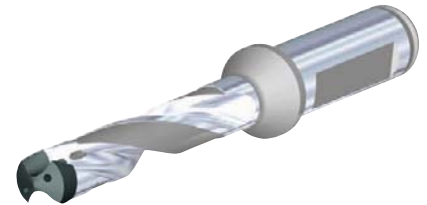
					D1		D1 max		seat size	KenTIP wrench
					mm	in	mm	in		
1.5 x D SS	3 x D SS	5 x D SS	8 x D SS	12 x D SF						
KTFS060R01SS8M	KTFS060R03SS8M	KTFS060R05SS8M	KTFS060R08SS8M	KTFS060R12SF12M	6,000	.2363	6,299	.2480	A	170.319
KTFS063R01SS8M	KTFS063R03SS8M	KTFS063R05SS8M	KTFS063R08SS8M	KTFS063R12SF12M	6,300	.2481	6,599	.2598	B	170.319
KTFS066R01SS8M	KTFS066R03SS8M	KTFS066R05SS8M	KTFS066R08SS8M	KTFS066R12SF12M	6,600	.2599	6,999	.2755	C	170.319
KTFS070R01SS8M	KTFS070R03SS8M	KTFS070R05SS8M	KTFS070R08SS8M	KTFS070R12SF12M	7,000	.2756	7,499	.2952	D	170.319
KTFS075R01SS8M	KTFS075R03SS8M	KTFS075R05SS8M	KTFS075R08SS8M	KTFS075R12SF12M	7,500	.2953	7,999	.3149	E	170.319
KTFS080R01SS10M	KTFS080R03SS10M	KTFS080R05SS10M	KTFS080R08SS10M	KTFS080R12SF12M	8,000	.3150	8,499	.3346	F	170.306
KTFS085R01SS10M	KTFS085R03SS10M	KTFS085R05SS10M	KTFS085R08SS10M	KTFS085R12SF12M	8,500	.3346	8,999	.3543	G	170.306
KTFS090R01SS10M	KTFS090R03SS10M	KTFS090R05SS10M	KTFS090R08SS10M	KTFS090R12SF12M	9,000	.3544	9,499	.3739	H	170.306
KTFS095R01SS10M	KTFS095R03SS10M	KTFS095R05SS10M	KTFS095R08SS10M	KTFS095R12SF12M	9,500	.3740	9,999	.3936	I	170.306
KTFS100R01SS12M	KTFS100R03SS12M	KTFS100R05SS12M	KTFS100R08SS12M	KTFS100R12SF16M	10,000	.3937	10,499	.4133	J	170.307
KTFS105R01SS12M	KTFS105R03SS12M	KTFS105R05SS12M	KTFS105R08SS12M	KTFS105R12SF16M	10,500	.4134	10,999	.4330	K	170.307
KTFS110R01SS12M	KTFS110R03SS12M	KTFS110R05SS12M	KTFS110R08SS12M	KTFS110R12SF16M	11,000	.4331	11,499	.4527	L	170.307
KTFS115R01SS12M	KTFS115R03SS12M	KTFS115R05SS12M	KTFS115R08SS12M	KTFS115R12SF16M	11,500	.4528	11,999	.4724	M	170.307
KTFS120R01SS14M	KTFS120R03SS14M	KTFS120R05SS14M	KTFS120R08SS14M	KTFS120R12SF16M	12,000	.4725	12,499	.4921	N	170.308
KTFS125R01SS14M	KTFS125R03SS14M	KTFS125R05SS14M	KTFS125R08SS14M	KTFS125R12SF16M	12,500	.4922	12,999	.5117	O	170.308
KTFS130R01SS14M	KTFS130R03SS14M	KTFS130R05SS14M	KTFS130R08SS14M	KTFS130R12SF16M	13,000	.5118	13,499	.5314	P	170.308
KTFS135R01SS14M	KTFS135R03SS14M	KTFS135R05SS14M	KTFS135R08SS14M	KTFS135R12SF16M	13,500	.5315	13,999	.5511	Q	170.308
KTFS140R01SS16M	KTFS140R03SS16M	KTFS140R05SS16M	KTFS140R08SS16M	KTFS140R12SF16M	14,000	.5512	14,499	.5708	R	170.309
KTFS145R01SS16M	KTFS145R03SS16M	KTFS145R05SS16M	KTFS145R08SS16M	KTFS145R12SF16M	14,500	.5709	14,999	.5905	S	170.309
KTFS150R01SS16M	KTFS150R03SS16M	KTFS150R05SS16M	KTFS150R08SS16M	KTFS150R12SF20M	15,000	.5906	15,999	.6299	T	170.309
KTFS160R01SS16M	KTFS160R03SS16M	KTFS160R05SS16M	KTFS160R08SS16M	KTFS160R12SF20M	16,000	.6300	16,999	.6692	U	170.309
KTFS170R01SS20M	KTFS170R03SS20M	KTFS170R05SS20M	KTFS170R08SS20M	KTFS170R12SF20M	17,000	.6693	17,999	.7086	V	170.314
KTFS180R01SS20M	KTFS180R03SS20M	KTFS180R05SS20M	KTFS180R08SS20M	KTFS180R12SF25M	18,000	.7087	18,999	.7479	W	170.314
KTFS190R01SS20M	KTFS190R03SS20M	KTFS190R05SS20M	KTFS190R08SS20M	KTFS190R12SF25M	19,000	.7480	19,999	.7873	X	170.314



- KenTIP FS toolholder with flanged shank and 0° flat metric shank.
- Multi-coolant provides an advanced coolant channel layout with four coolant exits in each holder.
- Each tool body is shipped with related insert wrench.



Flanged Shank with Flat (SCF Shank)



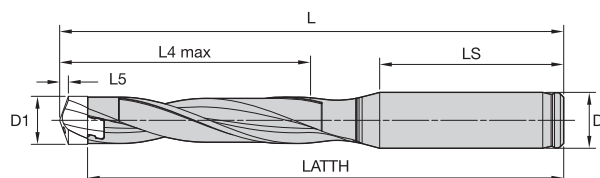
■ KenTIP FS Flanged Shank with Flat • 1.5 x D/3 x D/5 x D/8 x D/12 x D • Metric



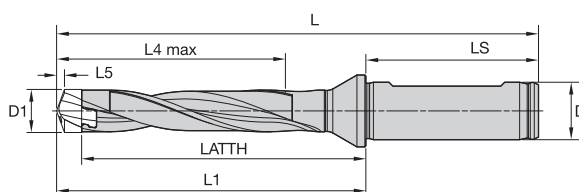
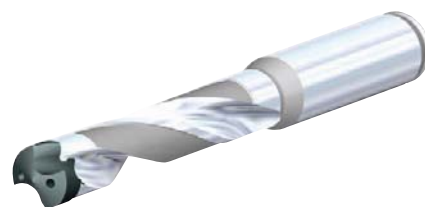
					D1		D1 max		seat size	KenTIP wrench
1.5 x D SCF	3 x D SCF	5 x D SCF	8 x D SCF	12 x D SCF	mm	in	mm	in		
-	KTFS080R03SCF12M	KTFS080R05SCF12M	KTFS080R08SCF12M	-	8,000	.3150	8,499	.3346	F	170.306
-	KTFS085R03SCF12M	KTFS085R05SCF12M	KTFS085R08SCF12M	-	8,500	.3346	8,999	.3543	G	170.306
-	KTFS090R03SCF12M	KTFS090R05SCF12M	KTFS090R08SCF12M	-	9,000	.3544	9,499	.3739	H	170.306
-	KTFS095R03SCF12M	KTFS095R05SCF12M	KTFS095R08SCF12M	-	9,500	.3740	9,999	.3936	I	170.306
-	KTFS100R03SCF16M	KTFS100R05SCF16M	KTFS100R08SCF16M	-	10,000	.3937	10,499	.4133	J	170.307
-	KTFS105R03SCF16M	KTFS105R05SCF16M	KTFS105R08SCF16M	-	10,500	.4134	10,999	.4330	K	170.307
-	KTFS110R03SCF16M	KTFS110R05SCF16M	KTFS110R08SCF16M	-	11,000	.4331	11,499	.4527	L	170.307
-	KTFS115R03SCF16M	KTFS115R05SCF16M	KTFS115R08SCF16M	-	11,500	.4528	11,999	.4724	M	170.307
-	KTFS120R03SCF16M	KTFS120R05SCF16M	KTFS120R08SCF16M	-	12,000	.4725	12,499	.4921	N	170.308
-	KTFS125R03SCF16M	KTFS125R05SCF16M	KTFS125R08SCF16M	-	12,500	.4922	12,999	.5117	O	170.308
-	KTFS130R03SCF16M	KTFS130R05SCF16M	KTFS130R08SCF16M	-	13,000	.5118	13,499	.5314	P	170.308
-	KTFS135R03SCF16M	KTFS135R05SCF16M	KTFS135R08SCF16M	-	13,500	.5315	13,999	.5511	Q	170.308
-	KTFS140R03SCF16M	KTFS140R05SCF16M	KTFS140R08SCF16M	-	14,000	.5512	14,499	.5708	R	170.309
-	KTFS145R03SCF16M	KTFS145R05SCF16M	KTFS145R08SCF16M	-	14,500	.5709	14,999	.5905	S	170.309
-	KTFS150R03SCF20M	KTFS150R05SCF20M	KTFS150R08SCF20M	-	15,000	.5906	15,999	.6299	T	170.309
-	KTFS160R03SCF20M	KTFS160R05SCF20M	KTFS160R08SCF20M	-	16,000	.6300	16,999	.6692	U	170.309
-	KTFS170R03SCF20M	KTFS170R05SCF20M	KTFS170R08SCF20M	-	17,000	.6693	17,999	.7086	V	170.314
-	KTFS180R03SCF25M	KTFS180R05SCF25M	KTFS180R08SCF25M	-	18,000	.7087	18,999	.7479	W	170.314
-	KTFS190R03SCF25M	KTFS190R05SCF25M	KTFS190R08SCF25M	-	19,000	.7480	19,999	.7873	X	170.314
KTFS200R01SCF25M	KTFS200R03SCF25M	KTFS200R05SCF25M	KTFS200R08SCF25M	KTFS200R12SCF25M	20,000	.7874	20,999	.8267	Y	170.314
KTFS210R01SCF25M	KTFS210R03SCF25M	KTFS210R05SCF25M	KTFS210R08SCF25M	KTFS210R12SCF25M	21,000	.8268	21,999	.8661	Z	170.314
KTFS220R01SCF25M	KTFS220R03SCF25M	KTFS220R05SCF25M	KTFS220R08SCF25M	KTFS220R12SCF25M	22,000	.8662	22,999	.9054	ZA	170.314
KTFS230R01SCF25M	KTFS230R03SCF25M	KTFS230R05SCF25M	KTFS230R08SCF25M	KTFS230R12SCF25M	23,000	.9055	23,999	.9448	ZB	170.314
KTFS240R01SCF25M	KTFS240R03SCF25M	KTFS240R05SCF25M	KTFS240R08SCF25M	KTFS240R12SCF25M	24,000	.9449	24,999	.9842	ZC	170.314
KTFS250R01SCF25M	KTFS250R03SCF25M	KTFS250R05SCF25M	KTFS250R08SCF25M	KTFS250R12SCF25M	25,000	.9843	25,999	1.0236	ZD	170.314

NOTE: Products with D1 ≥ 20mm will be available by January 1st, 2018.

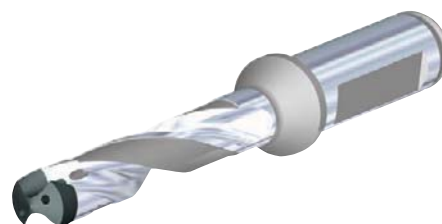
- KenTIP FS toolholder with straight cylindrical round shank.
Inch shank <20mm nominal drilling diameter.
- KenTIP FS toolholder with Flanged shank and 0° Flat.
Inch shank ≥20mm nominal drilling diameter.
- Multi-coolant provides an advanced coolant channel layout with four coolant exits in each holder.
- Each tool body is shipped with related insert wrench.



Straight Round Shank (SS Shank)



Flanged Shank with Flat (SCF Shank)

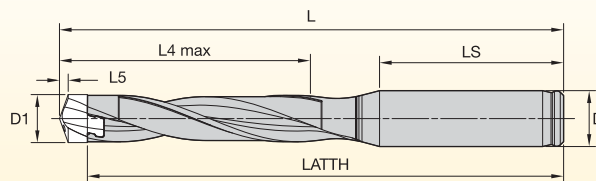
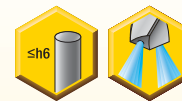


■ KenTIP FS Round and Flanged Shank with Flat • 3 x D/5 x D/8 x D • Inch



			D1		D1 max		seat size	KenTIP wrench
3 x D	5 x D	8 x D	mm	in	mm	in		
KTFS0237R03SS031	KTFS0237R05SS031	KTFS0237R08SS031	6,000	.2363	6,299	.2480	A	170.319
KTFS0249R03SS031	KTFS0249R05SS031	KTFS0249R08SS031	6,300	.2481	6,599	.2598	B	170.319
KTFS0260R03SS031	KTFS0260R05SS031	KTFS0260R08SS031	6,600	.2599	6,999	.2755	C	170.319
KTFS0276R03SS031	KTFS0276R05SS031	KTFS0276R08SS031	7,000	.2756	7,499	.2952	D	170.319
KTFS0296R03SS031	KTFS0296R05SS031	KTFS0296R08SS031	7,500	.2953	7,999	.3149	E	170.319
KTFS0315R03SS038	KTFS0315R05SS038	KTFS0315R08SS038	8,000	.3150	8,499	.3346	F	170.306
KTFS0335R03SS038	KTFS0335R05SS038	KTFS0335R08SS038	8,500	.3346	8,999	.3543	G	170.306
KTFS0355R03SS038	KTFS0355R05SS038	KTFS0355R08SS038	9,000	.3544	9,499	.3739	H	170.306
KTFS0375R03SS038	KTFS0375R05SS038	KTFS0375R08SS038	9,500	.3740	9,999	.3936	I	170.306
KTFS0394R03SS044	KTFS0394R05SS044	KTFS0394R08SS044	10,000	.3937	10,499	.4133	J	170.307
KTFS0414R03SS044	KTFS0414R05SS044	KTFS0414R08SS044	10,500	.4134	10,999	.4330	K	170.307
KTFS0434R03SS044	KTFS0434R05SS044	KTFS0434R08SS044	11,000	.4331	11,499	.4527	L	170.307
KTFS0453R03SS050	KTFS0453R05SS050	KTFS0453R08SS050	11,500	.4528	11,999	.4724	M	170.307
KTFS0473R03SS050	KTFS0473R05SS050	KTFS0473R08SS050	12,000	.4725	12,499	.4921	N	170.308
KTFS0493R03SS050	KTFS0493R05SS050	KTFS0493R08SS050	12,500	.4922	12,999	.5117	O	170.308
KTFS0512R03SS056	KTFS0512R05SS056	KTFS0512R08SS056	13,000	.5118	13,499	.5314	P	170.308
KTFS0532R03SS056	KTFS0532R05SS056	KTFS0532R08SS056	13,500	.5315	13,999	.5511	Q	170.308
KTFS0552R03SS056	KTFS0552R05SS056	KTFS0552R08SS056	14,000	.5512	14,499	.5708	R	170.309
KTFS0571R03SS063	KTFS0571R05SS063	KTFS0571R08SS063	14,500	.5709	14,999	.5905	S	170.309
KTFS0591R03SS063	KTFS0591R05SS063	KTFS0591R08SS063	15,000	.5906	15,999	.6299	T	170.309
KTFS0630R03SS063	KTFS0630R05SS063	KTFS0630R08SS063	16,000	.6300	16,999	.6692	U	170.309
KTFS0670R03SS075	KTFS0670R05SS075	KTFS0670R08SS075	17,000	.6693	17,999	.7086	V	170.314
KTFS0709R03SS075	KTFS0709R05SS075	KTFS0709R08SS075	18,000	.7087	18,999	.7479	W	170.314
KTFS0749R03SS075	KTFS0749R05SS075	KTFS0749R08SS075	19,000	.7480	19,999	.7873	X	170.314
KTFS0788R03SCF100	KTFS0788R05SCF100	KTFS0788R08SCF100	20,000	.7874	20,999	.8267	Y	170.314
KTFS0827R03SCF100	KTFS0827R05SCF100	KTFS0827R08SCF100	21,000	.8268	21,999	.8661	Z	170.314
KTFS0867R03SCF100	KTFS0867R05SCF100	KTFS0867R08SCF100	22,000	.8662	22,999	.9054	ZA	170.314
KTFS0906R03SCF100	KTFS0906R05SCF100	KTFS0906R08SCF100	23,000	.9055	23,999	.9448	ZB	170.314
KTFS0945R03SCF100	KTFS0945R05SCF100	KTFS0945R08SCF100	24,000	.9449	24,999	.9842	ZC	170.314
KTFS0985R03SCF100	KTFS0985R05SCF100	KTFS0985R08SCF100	25,000	.9843	25,999	1.0236	ZD	170.314

NOTE: Products with D1 ≥ 20mm will be available by January 1st, 2018.

Modular Drills • Dimension Tables
■ Straight Round Shank • Metric


					1.5 x D SS			3 x D SS			5 x D SS			8 x D SS		
D1 min	D1 max	Seat	LS	round D	LATTH	L	L4 max	LATTH	L	L4 max	LATTH	L	L4 max	LATTH	L	L4 max
6,000	6,299	A	37	8	53,5	57	9	63,5	67	19	76,5	80	32	94,5	98	50
6,300	6,599	B	37	8	54,3	58	10	64,3	68	20	77,3	81	33	97,3	101	53
6,600	6,999	C	37	8	55,2	59	10	66,2	70	21	80,2	84	35	101,2	105	56
7,000	7,499	D	37	8	55,9	60	11	66,9	71	22	82,9	87	38	104,9	109	60
7,500	7,999	E	37	8	56,7	61	12	68,7	73	24	84,7	89	40	108,7	113	64
8,000	8,499	F	41	10	63,4	68	13	76,4	81	26	92,4	97	42	118,4	123	68
8,500	8,999	G	41	10	64,1	69	14	77,1	82	27	95,1	100	45	122,1	127	72
9,000	9,499	H	41	10	63,8	69	14	77,8	83	28	97,8	103	48	125,8	131	76
9,500	9,999	I	41	10	64,5	70	15	79,5	85	30	99,5	105	50	129,5	135	80
10,000	10,499	J	46	12	72,2	78	16	88,2	94	32	108,2	114	52	140,2	146	84
10,500	10,999	K	46	12	71,9	78	16	88,9	95	33	110,9	117	55	143,9	150	88
11,000	11,499	L	46	12	72,6	79	17	89,6	96	34	113,6	120	58	147,6	154	92
11,500	11,999	M	46	12	73,3	80	18	91,3	98	36	115,3	122	60	151,3	158	96
12,000	12,499	N	46	14	76,0	83	19	95,0	102	38	119,0	126	62	157,0	164	100
12,500	12,999	O	46	14	76,8	84	20	95,8	103	39	121,8	129	65	160,8	168	104
13,000	13,499	P	46	14	76,5	84	20	96,5	104	40	124,5	132	68	164,5	172	108
13,500	13,999	Q	46	14	77,2	85	21	98,2	106	42	126,2	134	70	168,2	176	112
14,000	14,499	R	49	16	81,9	90	22	103,9	112	44	131,9	140	72	175,9	184	116
14,500	14,999	S	49	16	81,6	90	22	104,6	113	45	134,6	143	75	179,6	188	120
15,000	15,999	T	49	16	83,3	92	24	107,3	116	48	139,3	148	80	187,3	196	128
16,000	16,999	U	49	16	84,7	94	26	109,7	119	51	143,7	153	85	194,7	204	136
17,000	17,999	V	51	20	90,1	100	27	117,1	127	54	153,1	163	90	207,1	217	144
18,000	18,999	W	51	20	90,6	101	28	119,6	130	57	157,6	168	95	214,6	225	152
19,000	19,999	X	51	20	92,0	103	30	122,0	133	60	162,0	173	100	222,0	233	160

NOTE: Toolholder dimensions:

L: Total length of drill

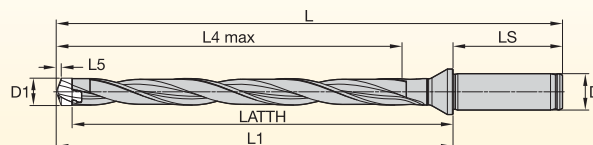
L4: Max. drilling depth

L5: Protruding length (Insert specific. See related insert pages)

LATTH: Pocket seat reference length

LS: Shank length

(continued)

Modular Drills • Dimension Tables *(continued)*
■ Flanged Round Shank • Metric


			12 x D SF					
D1 min	D1 max	Seat	LS	flanged D	LATTH	L	L1	L4 max
6,000	6,299	A	45	12	92,5	141	96	76
6,300	6,599	B	45	12	95,3	144	99	79
6,600	6,999	C	45	12	101,2	150	105	84
7,000	7,499	D	45	12	106,9	156	111	90
7,500	7,999	E	45	12	112,7	162	117	96
8,000	8,499	F	45	12	118,4	168	123	102
8,500	8,999	G	45	12	124,1	174	129	108
9,000	9,499	H	45	12	129,8	180	135	114
9,500	9,999	I	45	12	135,5	186	141	120
10,000	10,499	J	48	16	144,2	198	150	126
10,500	10,999	K	48	16	149,9	204	156	132
11,000	11,499	L	48	16	155,6	210	162	138
11,500	11,999	M	48	16	161,3	216	168	144
12,000	12,499	N	48	16	167,0	222	174	150
12,500	12,999	O	48	16	172,8	228	180	156
13,000	13,499	P	48	16	178,5	234	186	162
13,500	13,999	Q	48	16	184,2	240	192	168
14,000	14,499	R	48	16	189,9	246	198	174
14,500	14,999	S	48	16	195,6	252	204	180
15,000	15,999	T	50	20	210,3	269	219	192
16,000	16,999	U	50	20	221,7	281	231	204
17,000	17,999	V	50	20	233,1	293	243	216
18,000	18,999	W	56	25	247,6	314	258	228
19,000	19,999	X	56	25	259,0	326	270	240

NOTE: Toolholder dimensions:

L: Total length of drill

L1: Drill length including flange

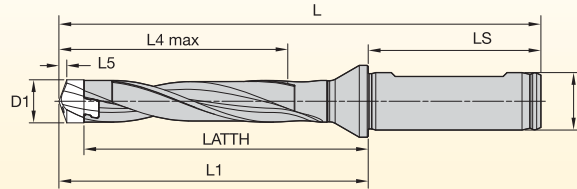
L4: Max. drilling depth

L5: Protruding length (Insert specific. See related insert pages)

LATTH: Pocket seat reference length

LS: Shank length

(continued)

Modular Drills • Dimension Tables *(continued)*
■ Flanged Shank with Flat • Metric


					1.5 x D SCF				3 x D SCF				5 x D SCF				8 x D SCF				12 x D SCF			
D1 min	D1 max	Seat	LS	flanged D	LATTH	L	L1	L4 max	LATTH	L	L1	L4 max	LATTH	L	L1	L4 max	LATTH	L	L1	L4 max	LATTH	L	L1	L4 max
8,000	8,499	F	45	12	—	—	—	—	42,4	92	2	26	58,4	108	2	42	84,4	134	4	68	—	—	—	—
8,500	8,999	G	45	12	—	—	—	—	43,1	93	2	27	61,1	111	3	45	88,1	138	4	72	—	—	—	—
9,000	9,499	H	45	12	—	—	—	—	43,8	94	2	28	63,8	114	3	48	91,8	142	4	76	—	—	—	—
9,500	9,999	I	45	12	—	—	—	—	45,5	96	2	30	65,5	116	3	50	95,5	146	4	80	—	—	—	—
10,000	10,499	J	48	16	—	—	—	—	50,2	104	2	32	70,2	124	3	52	102,2	156	4	84	—	—	—	—
10,500	10,999	K	48	16	—	—	—	—	50,9	105	2	33	72,9	127	3	55	105,9	160	4	88	—	—	—	—
11,000	11,499	L	48	16	—	—	—	—	51,6	106	2	34	75,6	130	3	58	109,6	164	5	92	—	—	—	—
11,500	11,999	M	48	16	—	—	—	—	53,3	108	2	36	77,3	132	3	60	113,3	168	5	96	—	—	—	—
12,000	12,499	N	48	16	—	—	—	—	55,0	110	2	38	79,0	134	3	62	117,0	172	5	100	—	—	—	—
12,500	12,999	O	48	16	—	—	—	—	55,8	111	2	39	81,8	137	4	65	120,8	176	5	104	—	—	—	—
13,000	13,499	P	48	16	—	—	—	—	56,5	112	3	40	84,5	140	4	68	124,5	180	5	108	—	—	—	—
13,500	13,999	Q	48	16	—	—	—	—	58,2	114	3	42	86,2	142	4	70	128,2	184	5	112	—	—	—	—
14,000	14,499	R	48	16	—	—	—	—	59,9	116	3	44	87,9	144	4	72	131,9	188	6	116	—	—	—	—
14,500	14,999	S	48	16	—	—	—	—	60,6	117	3	45	90,6	147	4	75	135,6	192	6	120	—	—	—	—
15,000	15,999	T	50	20	—	—	—	—	66,3	125	3	48	98,3	157	4	80	146,3	205	6	128	—	—	—	—
16,000	16,999	U	50	20	—	—	—	—	68,7	128	3	51	102,7	162	4	85	153,7	213	6	136	—	—	—	—
17,000	17,999	V	50	20	—	—	—	—	71,1	131	3	54	107,1	167	5	90	161,1	221	7	144	—	—	—	—
18,000	18,999	W	56	25	—	—	—	—	76,6	143	3	57	114,6	181	5	95	171,6	238	7	152	—	—	—	—
19,000	19,999	X	56	25	—	—	—	—	79,0	146	4	60	119,0	186	5	100	179,0	246	7	160	—	—	—	—
20,000	20,999	Y	56	25	50,4	118	2	32	81,4	149	4	63	123,4	191	5	105	186,4	254	8	168	270,4	338	11	252
21,000	21,999	Z	56	25	50,8	119	2	33	83,8	152	4	66	127,8	196	6	110	193,8	262	8	176	281,8	350	12	264
22,000	22,999	ZA	56	25	51,2	120	3	34	86,2	155	4	69	132,2	201	6	115	201,2	270	8	184	293,2	362	12	276
23,000	23,999	ZB	56	25	52,7	122	3	36	88,7	158	4	72	136,7	206	6	120	208,7	278	9	192	304,7	374	13	288
24,000	24,999	ZC	56	25	54,1	124	3	38	91,1	161	4	75	141,1	211	6	125	216,1	286	9	200	316,1	386	13	300
25,000	25,999	ZD	56	25	54,5	125	3	39	93,5	164	4	78	145,5	216	6	130	223,5	294	9	208	327,5	398	13	312

NOTE: Toolholder dimensions:

L: Total length of drill

L1: Drill length including flange

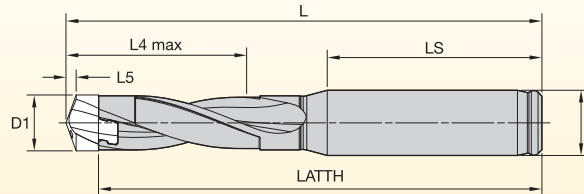
L4: Max. drilling depth

L5: Protruding length (Insert specific. See related insert pages)

LATTH: Pocket seat reference length

LS: Shank length

(continued)

Modular Drills • Dimension Tables *(continued)*
■ Straight Round Shank • Inch


D1 min	D1 max	Seat	LS	round D	3 x D SS			5 x D SS			8 x D SS		
					LATTH	L	L4 max	LATTH	L	L4 max	LATTH	L	L4 max
.3937	.4133	J	1.67	.438	3.32	3.54	1.26	4.10	4.33	2.05	5.36	5.59	3.31
.4134	.4330	K	1.67	.438	3.34	3.58	1.30	4.21	4.45	2.17	5.51	5.75	3.47
.4331	.4527	L	1.67	.438	3.37	3.62	1.34	4.32	4.57	2.28	5.65	5.91	3.62
.4528	.4724	M	1.79	.500	3.60	3.86	1.42	4.54	4.80	2.36	5.96	6.22	3.78
.4725	.4921	N	1.79	.500	3.66	3.94	1.50	4.61	4.88	2.44	6.10	6.38	3.94
.4922	.5117	O	1.79	.500	3.69	3.98	1.54	4.71	5.00	2.56	6.25	6.54	4.09
.5118	.5314	P	1.79	.563	3.76	4.06	1.58	4.86	5.16	2.68	6.44	6.73	4.25
.5315	.5511	Q	1.79	.563	3.83	4.13	1.65	4.93	5.24	2.76	6.58	6.89	4.41
.5512	.5708	R	1.79	.563	3.89	4.21	1.73	5.00	5.32	2.84	6.73	7.05	4.57
.5709	.5905	S	1.91	.625	4.12	4.45	1.77	5.30	5.63	2.95	7.07	7.40	4.72
.5906	.6299	T	1.91	.625	4.22	4.57	1.89	5.48	5.83	3.15	7.37	7.72	5.04
.6300	.6692	U	1.91	.625	4.28	4.65	2.01	5.62	5.98	3.35	7.63	7.99	5.35
.6693	.7086	V	2.00	.750	4.57	4.96	2.13	5.99	6.38	3.54	8.12	8.50	5.67
.7087	.7479	W	2.00	.750	4.67	5.08	2.24	6.16	6.57	3.74	8.41	8.82	5.98
.7480	.7873	X	2.00	.750	4.76	5.20	2.36	6.34	6.77	3.94	8.70	9.13	6.30
.2363	.2480	A	1.52	.313	2.58	2.72	.75	3.09	3.23	1.26	3.80	3.94	1.97
.2481	.2598	B	1.52	.313	2.61	2.76	.79	3.12	3.27	1.30	3.91	4.06	2.09
.2599	.2755	C	1.52	.313	2.64	2.80	.83	3.20	3.35	1.38	4.02	4.17	2.21
.2756	.2952	D	1.52	.313	2.67	2.83	.87	3.30	3.46	1.50	4.17	4.33	2.36
.2953	.3149	E	1.52	.313	2.83	3.00	.95	3.46	3.63	1.58	4.40	4.58	2.52
.3150	.3346	F	1.59	.375	2.97	3.15	1.02	3.60	3.78	1.65	4.62	4.80	2.68
.3346	.3543	G	1.59	.375	2.99	3.19	1.06	3.70	3.90	1.77	4.77	4.96	2.84
.3544	.3739	H	1.59	.375	3.02	3.23	1.10	3.81	4.02	1.89	4.91	5.12	2.99
.3740	.3936	I	1.59	.375	3.09	3.31	1.18	3.88	4.09	1.97	5.06	5.28	3.15

NOTE: Toolholder dimensions:

L: Total length of drill

L4: Max. drilling depth

L5: Protruding length (Insert specific. See related insert pages)

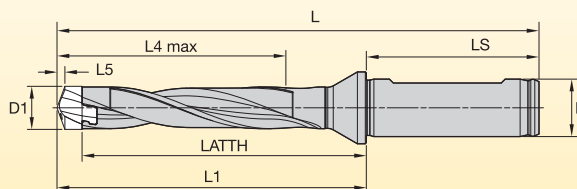
LATTH: Pocket seat reference length

LS: Shank length

(continued)

Modular Drills • Dimension Tables (continued)

■ Flanged Shank with Flat • Inch



D1 min	D1 max	Seat	LS	flanged D	3 x D SCF				5 x D SCF				8 x D SCF			
					LATTH	L	L1	L4 max	LATTH	L	L1	L4 max	LATTH	L	L1	L4 max
.7874	.8267	Y	2.20	1.000	3.20	5.87	3.66	2.48	4.86	7.52	5.32	4.13	7.34	10.00	7.80	6.61
.8268	.8661	Z	2.20	1.000	3.30	5.98	3.78	2.60	5.03	7.72	5.51	4.33	7.63	10.32	8.11	6.93
.8662	.9054	ZA	2.20	1.000	3.40	6.10	3.90	2.72	5.21	7.91	5.71	4.53	7.92	10.63	8.43	7.24
.9055	.9448	ZB	2.20	1.000	3.49	6.22	4.02	2.84	5.38	8.11	5.91	4.72	8.22	10.94	8.74	7.56
.9449	.9842	ZC	2.20	1.000	3.59	6.34	4.13	2.95	5.55	8.31	6.10	4.92	8.51	11.26	9.06	7.87
.9843	1.0236	ZD	2.20	1.000	3.68	6.46	4.25	3.07	5.73	8.50	6.30	5.12	8.80	11.57	9.37	8.19

NOTE: Toolholder dimensions:

L: Total length of drill

L1: Drill length including flange

L4: Max. drilling depth

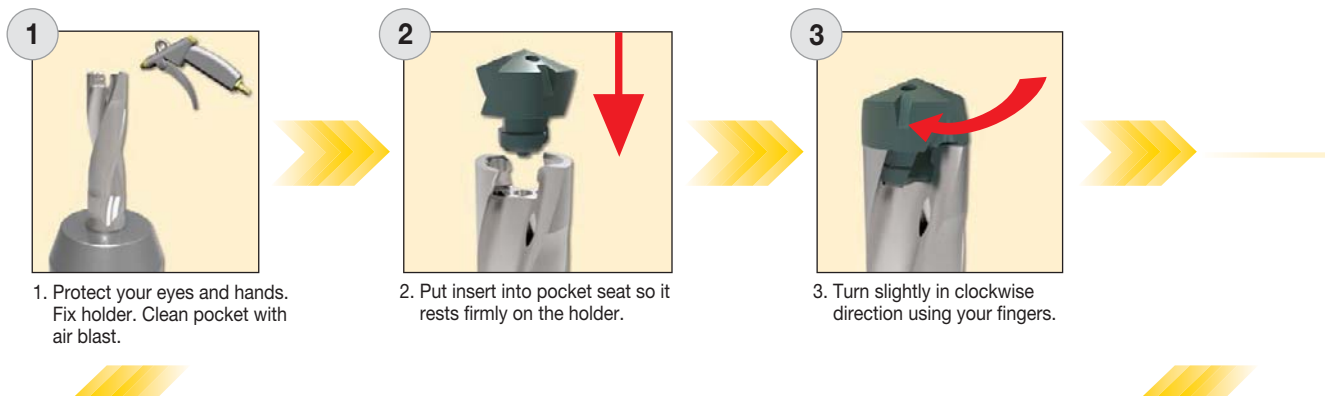
L5: Protruding length (Insert specific. See related insert pages)

LATTH: Pocket seat reference length

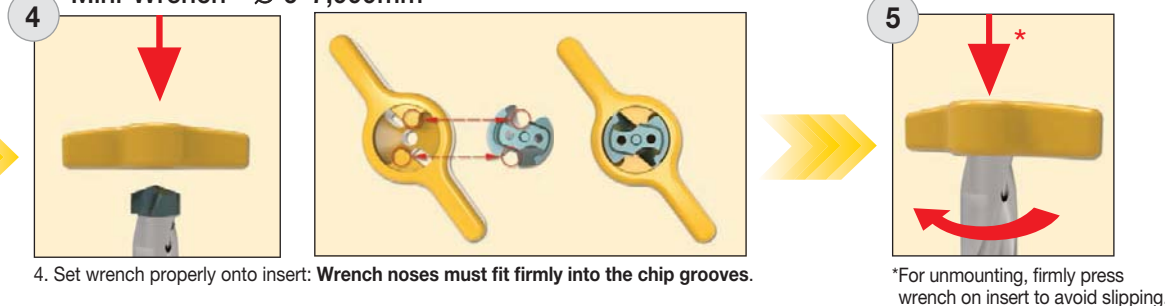
LS: Shank length



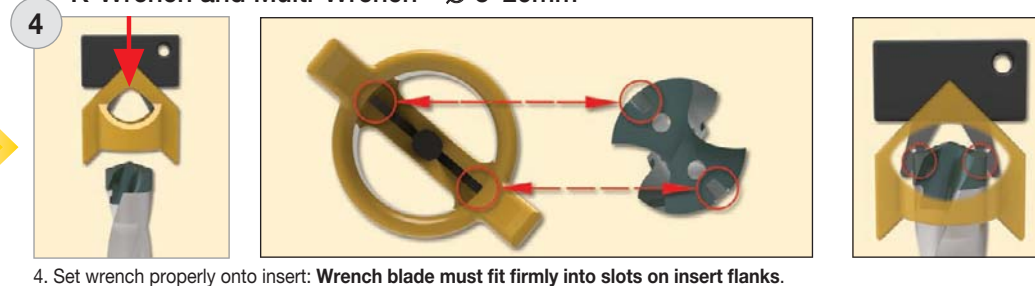
Mounting



Mini-Wrench • Ø 6–7,999mm



K-Wrench and Multi-Wrench • Ø 8–26mm



Available Smart Wrenches

Mini-Wrench

Wrench noses must fit into the chip grooves.



K-Wrench

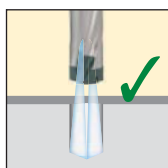
Wrench blades must fit into insert slots.



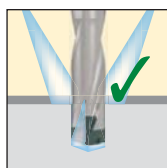
Multi-Wrench



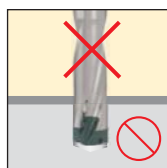
Coolant



Internal coolant is recommended for all applications.



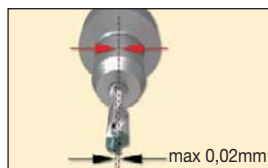
Flood coolant only for drilling depth $\leq 3 \times D$.



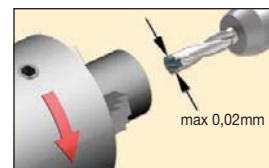
Dry cutting is not recommended. MQL ability is limited.

Core Deviation

Machining Center



Stationary Drill/Lathe



Rotating Applications

KenTIP FS holders with straight cylindrical SS and SF shanks (no flats) are designed for rotating applications where the drill rotates while the workpiece remains stationary. The shank to drill-point location of these drills is held to an extremely close tolerance. To maintain accuracy and gain maximum performance, please use the approved toolholding method shown below.



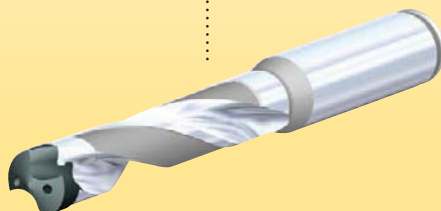
ERICKSON™ ER collet chucks



ERICKSON Hydrochuck HP Line



ERICKSON Shrink Fit toolholders for general purpose

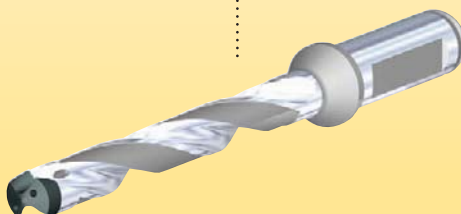


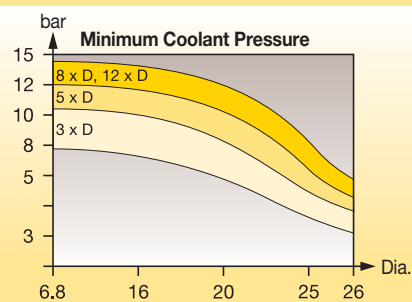
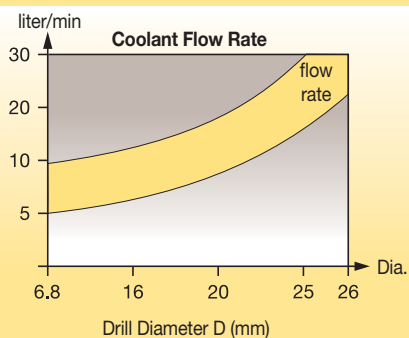
Rotating and Stationary Applications

KenTIP FS holders with SCF shanks (Cylindrical with 90° flat and flange) are reducing deflections and represent a stiffer holder solution. As the shank is compatible with end mill adapters, these holders are very flexible in use. SCF shanks can be used in any rotating applications and are suited for lathe and other settings where the tool is stationary.

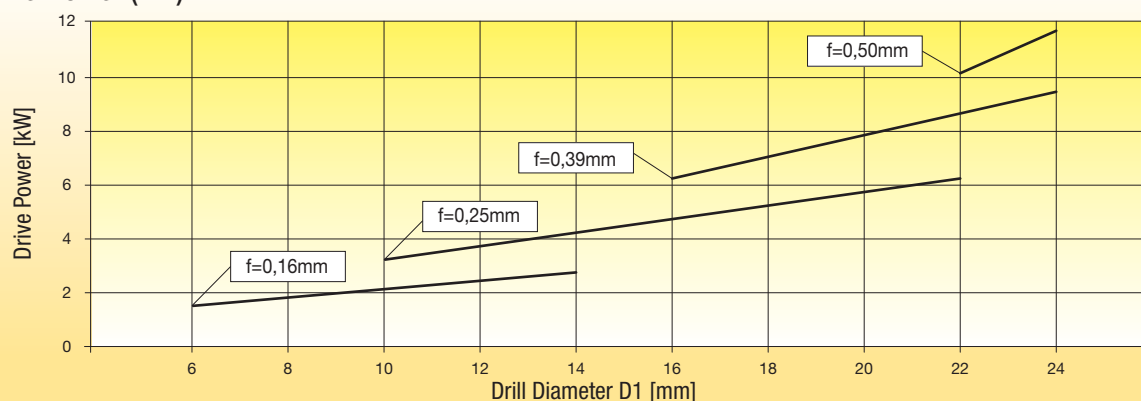


EM adapters

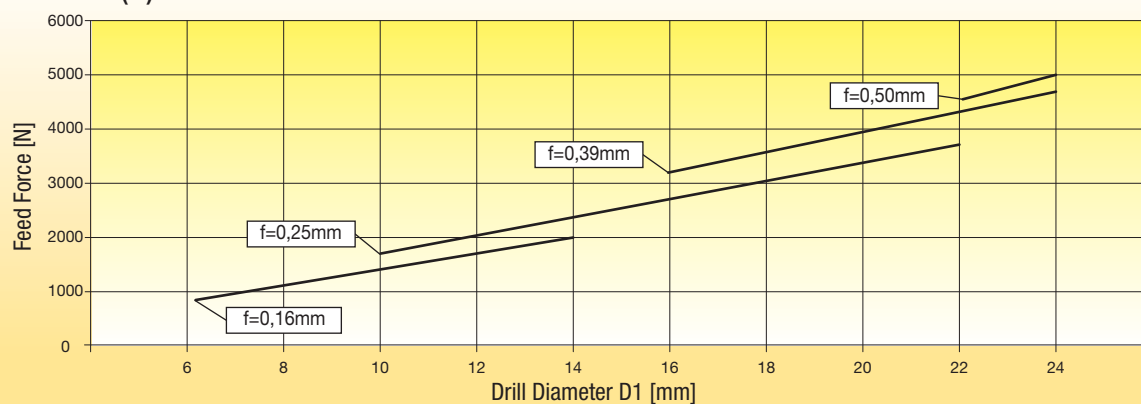




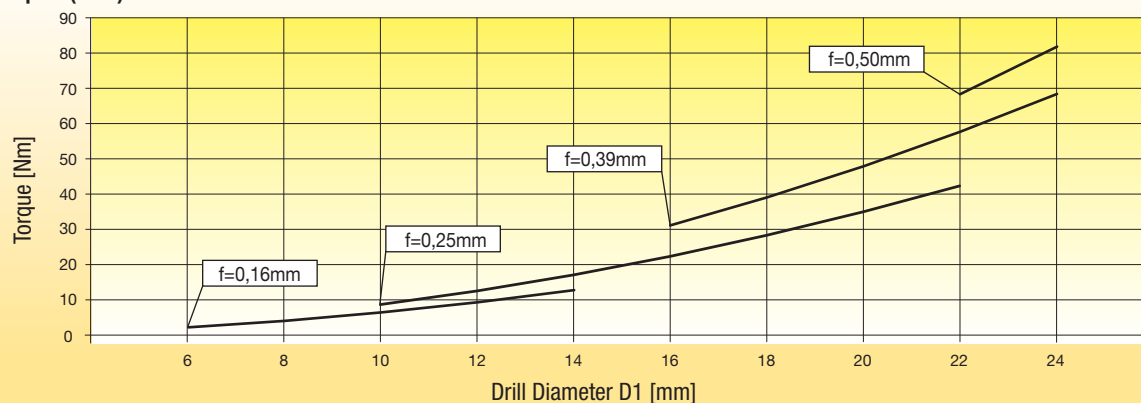
Drive Power (kW)



Feed Force (N)



Torque (Nm)



NOTE: The diagrams above are used to determine the drive power, feed force, and torque. They are based on cutting force measurement in tempered steels with a tensile strength: $R_m = 750 \text{ N/mm}^2$. The base cutting speed used is: $v_c = 80 \text{ m/min}$.

NOVO KNOWS CAD/CAM

With the addition of NOVO™ applications to your team, your CAD/CAM capabilities become much more accurate, streamlined, and productive.

Before NOVO: The programmer would be in their CAD/CAM software, programming a part. Using the tedious method of finding a tool in a catalog, and then manually inputting the tooling information from the catalog into the CAD/CAM software.

The concern is that assumptions are made, and only partial tooling information is entered.

With NOVO: The powerful digital intelligence of NOVO applications not only help the programmer find the right tool for the metalcutting job, but also automatically integrates all the tooling data into a complete CAD/CAM solution. The integration of all the tooling data increases the viability of the part being programmed, and is delivered quickly — saving you time.

NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximizes every shift. kennametal.com/novo



KenTIP™ Modular Drill System

Primary Application

The KenTIP modular drill system offers performance levels commonly achieved with solid carbide drills. The proprietary locking system enables inserts to be changed inside the machine tool. Use KenTIP in steel, cast iron, ductile iron, and stainless steel applications. KenTIP modular drills are available up to diameter 27,99mm (1.1020"). Change drilling inserts within the machine without taking the body off, saving setup time and manufacturing costs.

With our new FEG Flat bottom E-shape inserts, the KenTIP modular drill system now offers an easy and very reliable solution to drill blind holes that performs on a very wide range of difficult applications.

Features and Benefits

Advanced Interface

- Strong pocket seats on all inserts and bodies.
- Long tip and body life in unstable conditions, especially when side loads occur.

HP Drill-Point Design

- Very high feed rates possible.
- Low thrust prevents workpiece flexing.
- Excellent centering capabilities.

Easy Insert Change

- Locking method requires no screws or clamps.
- Insert blades can be changed with a simple provided tool and do not require drill body removal from the machine or holder.

Disposable Inserts

- No reconditioning costs.
- Consistent performance.
- Eliminates number of tools waiting for reconditioning, providing significant cost savings.

Tailored Grades and Geometries

- KCP15™ grade has a new PVD coating enabling longer tool life in all steel applications.
- KCPM45™ grade combines a very tough, fine-grain carbide substrate with a TiAlN PVD coating. It is used on our FEG flat-bottom inserts.
- For applications in cast iron and stainless steel, we recommend to use our new KenTIP FS modular drill. Please see page H6 for drills.
- For further availability on KC7320™ HPL and KC7410™ HPC inserts for KenTIP, please refer to NOVO™ or contact your sales representative.

NEW!

FEG Style, E-shape Flat-Bottom Inserts

KenTIP™ FEG inserts create blind holes, through holes, and countersinks. These inserts are focused on versatility and will support you in many essential drilling applications.



Drill Body Portfolio

- Standard 12 x D holders with round shanks available, inch and metric. This covers the complete KenTIP diameter range.
- Standard 3, 5, and 8 x D tool bodies with round and flanged shank available, inch and metric.
- Standard 1.5 x D bodies available, especially for piloting operations on metric drill bodies.

Customization

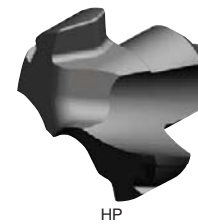
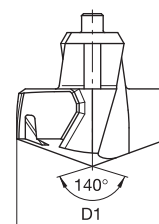
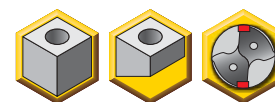
- Intermediate diameters available as semi-standards.
- Close tolerance tips available for precision holes.
- Chamfering insert pockets available.
- Multiple steps possible.
- CounterFix Micro tangential inserts for small diameter step drills.



NEW!

CounterFix Micro Tangential Inserts

- KenTIP KCP15™ HP cutting edges enable high metal removal rates and superior tool life for steel applications.
- KenTIP HP geometry works with low cutting and feed forces and provides very good centering. Reinforced cutting edges and good chip forming improve tool life due to high wear and edge chipping resistance.
- KCP15 is a fine grain carbide with a TiAlN-based PVD nanolayer coating with greatly improved layer bonding for higher tool life. Its increased Al content provides better thermal and chemical stability, which makes it more suitable for higher cutting speeds.
- KenTIP KCP15 HP cutting edges are perfectly suited to drill alloyed and high alloy steels.
- Use KenTIP KCP15 HP cutting edges as an alternative in cast iron materials.



KenTIP Inserts • HP KCP15



KCP15	D1		seat size
	mm	in	
KTIP0794HPM	7,938	.3125	F
KTIP0800HPM	8,000	.3150	F
KTIP0810HPM	8,100	.3189	F
KTIP0816HPM	8,164	.3214	F
KTIP0820HPM	8,204	.3230	F
KTIP0830HPM	8,300	.3268	F
KTIP0833HPM	8,334	.3281	F
KTIP0840HPM	8,400	.3307	F
KTIP0843HPM	8,433	.3320	F
KTIP0850HPM	8,500	.3346	G
KTIP0860HPM	8,600	.3386	G
KTIP0861HPM	8,611	.3390	G
KTIP0870HPM	8,700	.3425	G
KTIP0873HPM	8,733	.3438	G
KTIP0880HPM	8,800	.3465	G
KTIP0884HPM	8,839	.3480	G
KTIP0890HPM	8,900	.3504	G
KTIP0900HPM	9,000	.3543	H
KTIP0909HPM	9,093	.3580	H
KTIP0910HPM	9,100	.3583	H
KTIP0913HPM	9,129	.3594	H
KTIP0920HPM	9,200	.3622	H
KTIP0930HPM	9,300	.3661	H
KTIP0935HPM	9,347	.3680	H
KTIP0940HPM	9,400	.3701	H
KTIP0950HPM	9,500	.3740	I
KTIP0953HPM	9,525	.3750	I
KTIP0956HPM	9,558	.3763	I
KTIP0958HPM	9,576	.3770	I
KTIP0960HPM	9,600	.3780	I
KTIP0970HPM	9,703	.3820	I
KTIP0980HPM	9,804	.3860	I



- first choice
- alternate choice

KCP15	D1		seat size
	mm	in	
KTIP0983HPM	9,830	.3870	I
KTIP0990HPM	9,900	.3898	I
KTIP0992HPM	9,921	.3906	I
KTIP1000HPM	10,000	.3937	J
KTIP1002HPM	10,023	.3946	J
KTIP1008HPM	10,084	.3970	J
KTIP1010HPM	10,100	.3976	J
KTIP1020HPM	10,200	.4016	J
KTIP1026HPM	10,262	.4040	J
KTIP1030HPM	10,300	.4055	J
KTIP1032HPM	10,320	.4063	J
KTIP1040HPM	10,400	.4094	J
KTIP1049HPM	10,490	.4130	J
KTIP1050HPM	10,500	.4134	K
KTIP1060HPM	10,600	.4173	K
KTIP1070HPM	10,700	.4213	K
KTIP1072HPM	10,716	.4219	K
KTIP1080HPM	10,800	.4252	K
KTIP1090HPM	10,900	.4291	K
KTIP1100HPM	11,000	.4331	L
KTIP1110HPM	11,100	.4370	L
KTIP1111HPM	11,113	.4375	L
KTIP1120HPM	11,200	.4409	L
KTIP1130HPM	11,300	.4449	L
KTIP1140HPM	11,400	.4488	L
KTIP1150HPM	11,500	.4528	M
KTIP1151HPM	11,509	.4531	M
KTIP1160HPM	11,600	.4567	M
KTIP1161HPM	11,610	.4571	M
KTIP1170HPM	11,700	.4606	M
KTIP1180HPM	11,800	.4646	M
KTIP1190HPM	11,900	.4685	M

(continued)

(KenTIP inserts • HP KCP15™ — continued)



KCP15	D1		seat size
	mm	in	
KTIP1191HPM	11,908	.4688	M
KTIP1200HPM	12,000	.4724	N
KTIP1210HPM	12,100	.4764	N
KTIP1220HPM	12,200	.4803	N
KTIP1230HPM	12,304	.4844	N
KTIP1240HPM	12,400	.4882	N
KTIP1247HPM	12,474	.4911	N
KTIP1250HPM	12,500	.4921	O
KTIP1260HPM	12,600	.4961	O
KTIP1270HPM	12,700	.5000	O
KTIP1280HPM	12,800	.5039	O
KTIP1290HPM	12,903	.5080	O
KTIP1300HPM	13,000	.5118	P
KTIP1310HPM	13,096	.5156	P
KTIP1320HPM	13,200	.5197	P
KTIP1328HPM	13,280	.5228	P
KTIP1330HPM	13,300	.5236	P
KTIP1338HPM	13,380	.5268	P
KTIP1340HPM	13,400	.5276	P
KTIP1349HPM	13,494	.5313	P
KTIP1350HPM	13,500	.5315	Q
KTIP1360HPM	13,600	.5354	Q
KTIP1370HPM	13,700	.5394	Q
KTIP1380HPM	13,800	.5433	Q
KTIP1389HPM	13,891	.5469	Q
KTIP1390HPM	13,896	.5471	Q
KTIP1394HPM	13,940	.5488	Q
KTIP1400HPM	14,000	.5512	R
KTIP1410HPM	14,100	.5551	R
KTIP1420HPM	14,200	.5591	R
KTIP1429HPM	14,288	.5625	R
KTIP1430HPM	14,300	.5630	R
KTIP1440HPM	14,400	.5669	R
KTIP1450HPM	14,500	.5709	S
KTIP1460HPM	14,600	.5748	S
KTIP1467HPM	14,666	.5774	S
KTIP1468HPM	14,684	.5781	S
KTIP1470HPM	14,700	.5787	S
KTIP1480HPM	14,800	.5827	S
KTIP1490HPM	14,900	.5866	S
KTIP1500HPM	15,000	.5906	T
KTIP1508HPM	15,083	.5938	T
KTIP1510HPM	15,100	.5945	T
KTIP1520HPM	15,200	.5984	T
KTIP1530HPM	15,300	.6024	T
KTIP1538HPM	15,380	.6055	T
KTIP1540HPM	15,400	.6063	T
KTIP1548HPM	15,479	.6094	T
KTIP1550HPM	15,500	.6102	T
KTIP1560HPM	15,600	.6142	T
KTIP1570HPM	15,700	.6181	T
KTIP1580HPM	15,800	.6220	T



● first choice
○ alternate choice

KCP15	D1		seat size
	mm	in	
KTIP1588HPM	15,875	.6250	T
KTIP1600HPM	16,000	.6299	U
KTIP1603HPM	16,027	.6310	U
KTIP1608HPM	16,078	.6330	U
KTIP1610HPM	16,100	.6339	U
KTIP1620HPM	16,200	.6378	U
KTIP1627HPM	16,271	.6406	U
KTIP1630HPM	16,300	.6417	U
KTIP1640HPM	16,400	.6457	U
KTIP1650HPM	16,500	.6496	U
KTIP1660HPM	16,600	.6535	U
KTIP1667HPM	16,670	.6563	U
KTIP1670HPM	16,700	.6575	U
KTIP1680HPM	16,800	.6614	U
KTIP1690HPM	16,900	.6654	U
KTIP1700HPM	17,000	.6693	V
KTIP1707HPM	17,066	.6719	V
KTIP1710HPM	17,100	.6732	V
KTIP1720HPM	17,200	.6772	V
KTIP1730HPM	17,300	.6811	V
KTIP1740HPM	17,400	.6850	V
KTIP1748HPM	17,463	.6875	V
KTIP1750HPM	17,500	.6890	V
KTIP1760HPM	17,600	.6929	V
KTIP1770HPM	17,700	.6969	V
KTIP1780HPM	17,800	.7008	V
KTIP1786HPM	17,859	.7031	V
KTIP1790HPM	17,900	.7047	V
KTIP1800HPM	18,000	.7087	W
KTIP1810HPM	18,100	.7126	W
KTIP1820HPM	18,200	.7165	W
KTIP1826HPM	18,258	.7188	W
KTIP1830HPM	18,300	.7205	W
KTIP1840HPM	18,400	.7244	W
KTIP1850HPM	18,500	.7283	W
KTIP1860HPM	18,600	.7323	W
KTIP1865HPM	18,654	.7344	W
KTIP1870HPM	18,700	.7362	W
KTIP1880HPM	18,800	.7402	W
KTIP1890HPM	18,900	.7441	W
KTIP1900HPM	19,000	.7480	X
KTIP1905HPM	19,050	.7500	X
KTIP1910HPM	19,100	.7520	X
KTIP1920HPM	19,200	.7559	X
KTIP1923HPM	19,228	.7570	X
KTIP1925HPM	19,253	.7580	X
KTIP1930HPM	19,300	.7598	X
KTIP1935HPM	19,350	.7620	X
KTIP1940HPM	19,400	.7638	X
KTIP1946HPM	19,446	.7656	X
KTIP1950HPM	19,500	.7677	X
KTIP1960HPM	19,600	.7717	X

(continued)

(KenTIP inserts • HP KCP15™ — continued)



KCP15

	D1		seat size
	mm	in	
KTIP1970HPM	19,700	.7756	X
KTIP1980HPM	19,800	.7795	X
KTIP1984HPM	19,844	.7813	X
KTIP1990HPM	19,900	.7835	X
KTIP2000HPM	20,000	.7874	Y
KTIP2010HPM	20,100	.7913	Y
KTIP2020HPM	20,200	.7953	Y
KTIP2024HPM	20,241	.7969	Y
KTIP2030HPM	20,300	.7992	Y
KTIP2050HPM	20,500	.8071	Y
KTIP2060HPM	20,600	.8110	Y
KTIP2064HPM	20,638	.8125	Y
KTIP2070HPM	20,700	.8150	Y
KTIP2080HPM	20,800	.8189	Y
KTIP2090HPM	20,900	.8228	Y
KTIP2099HPM	20,990	.8264	Y
KTIP2100HPM	21,000	.8268	Z
KTIP2110HPM	21,100	.8307	Z
KTIP2143HPM	21,432	.8438	Z
KTIP2150HPM	21,500	.8465	Z
KTIP2200HPM	22,000	.8661	ZA
KTIP2223HPM	22,225	.8750	ZA
KTIP2250HPM	22,500	.8858	ZA
KTIP2280HPM	22,800	.8976	ZA



KCP15

	D1		seat size
	mm	in	
KTIP2300HPM	23,000	.9055	ZB
KTIP2350HPM	23,500	.9252	ZB
KTIP2381HPM	23,813	.9375	ZB
KTIP2400HPM	24,000	.9449	ZC
KTIP2450HPM	24,500	.9646	ZC
KTIP2461HPM	24,608	.9688	ZC
KTIP2500HPM	25,000	.9843	ZD
KTIP2540HPM	25,400	1.0000	ZD
KTIP2550HPM	25,500	1.0039	ZD
KTIP2567HPM	25,679	1.0110	ZD
KTIP2581HPM	25,806	1.0160	ZD
KTIP2599HPM	25,990	1.0232	ZD
KTIP2600HPM	26,000	1.0236	ZE
KTIP2619HPM	26,187	1.0310	ZE
KTIP2650HPM	26,500	1.0433	ZE
KTIP2659HPM	26,590	1.0469	ZE
KTIP2700HPM	27,000	1.0630	ZE
KTIP2750HPM	27,500	1.0827	ZE
KTIP2778HPM	27,780	1.0938	ZE
KTIP2799HPM	27,990	1.1020	ZE

- first choice
- alternate choice

KenTIP HP Geometry

Tolerance

D1 metric	tolerance k8
8–10	0,000/+0,022
>10–17	0,000/+0,027
>17–18	0,000/+0,027
>18–28	0,000/+0,033

KenTIP HP Geometry

Tolerance

D1 inch	tolerance k8
.3125–.3906	.000/+ .0009
>.3906–.6250	.000/+ .0011
>.6692–.7090	.000/+ .0010
>.7090–.8228	.000/+ .0013

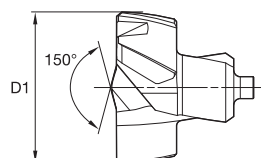
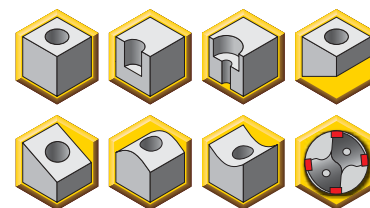
■ Modular Drill Carbide Insert Blades • KenTIP™ • HP Geometry • Grade KCP15™ •
Through Coolant • Metric

Material Group	Cutting Speed – vc			Metric									
	Range – m/min			Recommended Feed Rate (f) by Diameter									
	min	Starting Value	max		8,0	10,0	12,0	14,0	16,0	20,0	24,0	28,0	
P	1	90	130	180	mm/r	0,12–0,21	0,14–0,26	0,15–0,33	0,18–0,41	0,20–0,47	0,26–0,50	0,27–0,51	0,30–0,54
	2	110	150	190	mm/r	0,12–0,25	0,14–0,30	0,15–0,35	0,18–0,38	0,20–0,47	0,26–0,50	0,27–0,51	0,30–0,54
	3	50	80	110	mm/r	0,12–0,29	0,13–0,37	0,17–0,39	0,22–0,48	0,24–0,48	0,32–0,54	0,32–0,54	0,35–0,56
	4	50	80	110	mm/r	0,12–0,29	0,13–0,37	0,17–0,39	0,18–0,48	0,19–0,48	0,24–0,48	0,35–0,46	0,27–0,46
K	1	60	100	180	mm/r	0,16–0,30	0,17–0,34	0,18–0,37	0,22–0,44	0,26–0,50	0,33–0,62	0,35–0,65	0,40–0,70
	2	60	80	90	mm/r	0,16–0,30	0,17–0,32	0,18–0,35	0,22–0,43	0,26–0,50	0,33–0,62	0,35–0,65	0,40–0,70
	3	40	70	90	mm/r	0,17–0,32	0,18–0,35	0,19–0,38	0,21–0,43	0,22–0,46	0,24–0,50	0,25–0,51	0,40–0,70

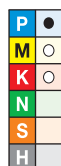
■ Modular Drill Carbide Insert Blades • KenTIP • HP Geometry • Grade KCP15 •
Through Coolant • Inch

Material Group	Cutting Speed – vc			Inch									
	Range – SFM			Recommended Feed Rate (f) by Diameter									
	min	Starting Value	max		.315	.394	.472	.551	.630	.787	.945	1.102	
P	1	295	425	590	IPR	.005–.008	.006–.010	.006–.013	.007–.016	.008–.019	.010–.020	.011–.020	.012–.021
	2	360	490	625	IPR	.005–.010	.006–.012	.006–.014	.007–.015	.008–.019	.010–.020	.011–.020	.012–.021
	3	165	260	360	IPR	.005–.011	.005–.015	.007–.015	.009–.019	.009–.019	.013–.021	.013–.021	.014–.022
	4	165	260	360	IPR	.005–.011	.005–.015	.007–.015	.007–.019	.007–.019	.009–.019	.014–.018	.011–.018
K	1	195	330	590	IPR	.006–.012	.007–.013	.007–.015	.009–.017	.010–.020	.013–.024	.014–.026	.016–.028
	2	195	260	295	IPR	.006–.012	.007–.013	.007–.014	.009–.017	.010–.020	.013–.024	.014–.026	.016–.028
	3	130	230	295	IPR	.007–.013	.007–.014	.007–.015	.008–.017	.009–.018	.009–.020	.010–.020	.016–.028

- KenTIP FEG flat-bottom inserts create 180° flat holes — only a small cavity remains in the center of the hole ground. KenTIP offers easy-to-change disposable inserts and low cutting forces for your flat-bottom applications.
- Whether it is a blind hole, a through hole, or if you need to countersink, these inserts are focused on versatility and will support you in many essential drilling applications.
- KenTIP FEG inserts feature a small centering point as well as double margin lands for improved guidance and hole straightness. A corner chamfer serves to reduce bur formation and to improve tool life.
- KCPM45™ combines a very tough, fine grain carbide substrate with an advanced multilayer TiAlN coating. It is capable of machining steel even in the most demanding conditions.
- Use KenTIP FEG KCPM45 cutting edges as an effective alternative in cast iron and stainless steel.



KenTIP Inserts • FEG (Flat Bottom)



KCPM45	D1		seat size
	mm	in	
KTIP0794FEGM	7,938	.3125	F
KTIP0800FEGM	8,000	.3150	F
KTIP0850FEGM	8,500	.3346	G
KTIP0852FEGM	8,520	.3354	G
KTIP0900FEGM	9,000	.3543	H
KTIP0913FEGM	9,130	.3594	H
KTIP0950FEGM	9,500	.3740	I
KTIP1000FEGM	10,000	.3937	J
KTIP1010FEGM	10,100	.3976	J
KTIP1050FEGM	10,500	.4134	K
KTIP1080FEGM	10,800	.4252	K
KTIP1100FEGM	11,000	.4331	L
KTIP1150FEGM	11,500	.4528	M
KTIP1170FEGM	11,700	.4606	M
KTIP1200FEGM	12,000	.4724	N
KTIP1250FEGM	12,500	.4921	O
KTIP1270FEGM	12,700	.5000	O
KTIP1300FEGM	13,000	.5118	P
KTIP1350FEGM	13,500	.5315	Q
KTIP1400FEGM	14,000	.5512	R



- first choice
- alternate choice

KCPM45	D1		seat size
	mm	in	
KTIP1450FEGM	14,500	.5709	S
KTIP1490FEGM	14,900	.5866	S
KTIP1500FEGM	15,000	.5906	T
KTIP1550FEGM	15,500	.6102	T
KTIP1595FEGM	15,950	.6280	T
KTIP1600FEGM	16,000	.6299	U
KTIP1650FEGM	16,500	.6496	U
KTIP1700FEGM	17,000	.6693	V
KTIP1750FEGM	17,500	.6890	V
KTIP1770FEGM	17,700	.6969	V
KTIP1800FEGM	18,000	.7087	W
KTIP1850FEGM	18,500	.7283	W
KTIP1900FEGM	19,000	.7480	X
KTIP1905FEGM	19,050	.7500	X
KTIP1950FEGM	19,500	.7677	X
KTIP2000FEGM	20,000	.7874	Y

KenTIP FEG Geometry Tolerance

D1 metric	tolerance s7
8-10	0,023/+0,038
>10-18	0,028/+0,046
>18-28	0,035/+0,056

KenTIP FEG Geometry Tolerance

D1 Inch	tolerance s7
.3125-.3906	.0009/+ .0015
>.3906-.7090	.0011/+ .0018
>.7090-.8228	.0014/+ .0022

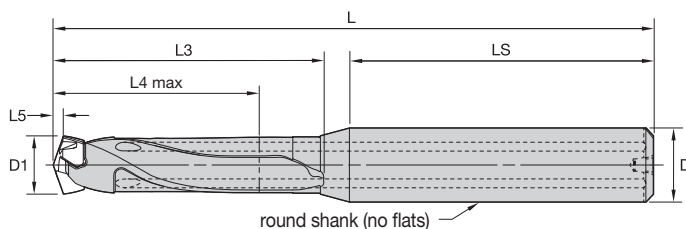
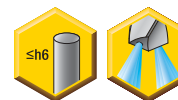
■ Modular Drill Carbide Insert Blades • KenTIP™ • FEG Geometry • Grade KCPM45™ •
Through Coolant • Metric

Material Group		Cutting Speed — vc			Metric								
		Range — m/min			Recommended Feed Rate (f) by Diameter								
		min	Starting Value	max		8,0	10,0	12,0	14,0	16,0	20,0	24,0	28,0
P	1	110	140	170	mm/r	0,14–0,23	0,14–0,23	0,14–0,23	0,14–0,23	0,17–0,25	0,19–0,29	0,23–0,38	0,23–0,38
	2	100	120	140	mm/r	0,17–0,23	0,17–0,23	0,17–0,23	0,17–0,23	0,19–0,25	0,22–0,29	0,29–0,38	0,29–0,38
	3	80	100	120	mm/r	0,14–0,20	0,14–0,20	0,14–0,20	0,14–0,20	0,15–0,23	0,17–0,25	0,23–0,34	0,23–0,34
	4	70	90	110	mm/r	0,11–0,20	0,11–0,20	0,11–0,20	0,11–0,20	0,13–0,23	0,14–0,25	0,18–0,34	0,18–0,34
M	1	40	60	80	mm/r	0,09–0,14	0,09–0,14	0,09–0,14	0,09–0,14	0,11–0,17	0,13–0,20	0,16–0,25	0,16–0,25
	2	35	55	70	mm/r	0,09–0,14	0,09–0,14	0,09–0,14	0,09–0,14	0,11–0,17	0,13–0,20	0,16–0,25	0,16–0,25
K	1	90	135	175	mm/r	0,18–0,24	0,18–0,24	0,18–0,24	0,18–0,24	0,21–0,28	0,23–0,31	0,28–0,37	0,28–0,37
	2	80	120	140	mm/r	0,18–0,24	0,18–0,24	0,18–0,24	0,18–0,24	0,21–0,28	0,23–0,31	0,28–0,37	0,28–0,37
	3	70	110	125	mm/r	0,15–0,24	0,15–0,24	0,15–0,24	0,15–0,24	0,18–0,26	0,21–0,29	0,23–0,37	0,23–0,37

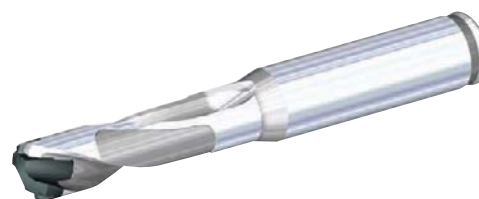
■ Modular Drill Carbide Insert Blades • KenTIP • FEG Geometry • Grade KCPM45 •
Through Coolant • Inch

Material Group		Cutting Speed — vc			Inch								
		Range — SFM			Recommended Feed Rate (f) by Diameter								
		min	Starting Value	max		0.315	0.394	0.472	0.551	0.630	0.787	0.945	1.102
P	1	360	460	560	IPR	.006–.009	.006–.009	.006–.009	.006–.009	.007–.010	.007–.011	.009–.015	.009–.015
	2	330	390	460	IPR	.007–.009	.007–.009	.007–.009	.007–.009	.007–.010	.009–.011	.011–.015	.011–.015
	3	260	330	390	IPR	.006–.008	.006–.008	.006–.008	.006–.008	.006–.009	.007–.010	.009–.013	.009–.013
	4	230	300	360	IPR	.004–.008	.004–.008	.004–.008	.004–.008	.005–.009	.006–.010	.007–.013	.007–.013
M	1	130	200	260	IPR	.004–.006	.004–.006	.004–.006	.004–.006	.004–.007	.005–.008	.006–.010	.006–.010
	2	110	180	230	IPR	.004–.006	.004–.006	.004–.006	.004–.006	.004–.007	.005–.008	.006–.010	.006–.010
K	1	300	440	570	IPR	.007–.009	.007–.009	.007–.009	.007–.009	.008–.011	.009–.012	.011–.015	.011–.015
	2	260	390	460	IPR	.007–.009	.007–.009	.007–.009	.007–.009	.008–.011	.009–.012	.011–.015	.011–.015
	3	230	360	410	IPR	.006–.009	.006–.009	.006–.009	.006–.009	.007–.010	.008–.011	.009–.015	.009–.015

- Tool body shipped with insert wrench.



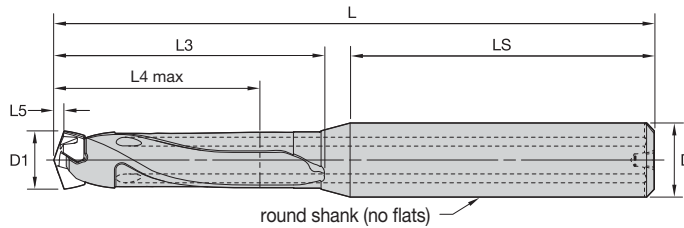
For information on L, L3, and L4 max, see the Modular Drills Dimension Tables on page H44.



■ KenTIP Round Shank • 1.5 x D/3 x D/5 x D/8 x D/12 x D • Metric

1.5 x D	3 x D	5 x D	8 x D	12 x D	D1		D1 max		seat size	KenTIP wrench
					mm	in	mm	in		
KTIP080R1SS10M	KTIP080R3SS10M	KTIP080R5SS10M	KTIP080R8SS10M	KTIP080R12SS10M	8,000	.3150	8,499	.3346	F	170.306
KTIP085R1SS10M	KTIP085R3SS10M	KTIP085R5SS10M	KTIP085R8SS10M	KTIP085R12SS10M	8,500	.3346	8,999	.3543	G	170.306
KTIP090R1SS10M	KTIP090R3SS10M	KTIP090R5SS10M	KTIP090R8SS10M	KTIP090R12SS10M	9,000	.3543	9,499	.3740	H	170.306
KTIP095R1SS10M	KTIP095R3SS10M	KTIP095R5SS10M	KTIP095R8SS10M	KTIP095R12SS10M	9,500	.3740	9,999	.3937	I	170.306
KTIP100R1SS12M	KTIP100R3SS12M	KTIP100R5SS12M	KTIP100R8SS12M	KTIP100R12SS12M	10,000	.3937	10,499	.4133	J	170.307
KTIP105R1SS12M	KTIP105R3SS12M	KTIP105R5SS12M	KTIP105R8SS12M	KTIP105R12SS12M	10,500	.4134	10,999	.4330	K	170.307
KTIP110R1SS12M	KTIP110R3SS12M	KTIP110R5SS12M	KTIP110R8SS12M	KTIP110R12SS12M	11,000	.4331	11,499	.4527	L	170.307
KTIP115R1SS12M	KTIP115R3SS12M	KTIP115R5SS12M	KTIP115R8SS12M	KTIP115R12SS12M	11,500	.4528	11,999	.4724	M	170.307
KTIP120R1SS14M	KTIP120R3SS14M	KTIP120R5SS14M	KTIP120R8SS14M	KTIP120R12SS14M	12,000	.4724	12,499	.4921	N	170.308
KTIP125R1SS14M	KTIP125R3SS14M	KTIP125R5SS14M	KTIP125R8SS14M	KTIP125R12SS14M	12,500	.4921	12,999	.5118	O	170.308
KTIP130R1SS14M	KTIP130R3SS14M	KTIP130R5SS14M	KTIP130R8SS14M	KTIP130R12SS14M	13,000	.5118	13,499	.5315	P	170.308
KTIP135R1SS14M	KTIP135R3SS14M	KTIP135R5SS14M	KTIP135R8SS14M	KTIP135R12SS14M	13,500	.5315	13,999	.5511	Q	170.308
KTIP140R1SS16M	KTIP140R3SS16M	KTIP140R5SS16M	KTIP140R8SS16M	KTIP140R12SS16M	14,000	.5512	14,499	.5708	R	170.309
KTIP145R1SS16M	KTIP145R3SS16M	KTIP145R5SS16M	KTIP145R8SS16M	KTIP145R12SS16M	14,500	.5709	14,999	.5905	S	170.309
KTIP150R1SS16M	KTIP150R3SS16M	KTIP150R5SS16M	KTIP150R8SS16M	KTIP150R12SS16M	15,000	.5906	15,999	.6299	T	170.309
KTIP160R1SS18M	KTIP160R3SS18M	KTIP160R5SS18M	KTIP160R8SS18M	KTIP160R12SS18M	16,000	.6299	16,999	.6693	U	170.309
KTIP170R1SS18M	KTIP170R3SS18M	KTIP170R5SS18M	KTIP170R8SS18M	KTIP170R12SS18M	17,000	.6693	17,999	.7086	V	170.314
KTIP180R1SS20M	KTIP180R3SS20M	KTIP180R5SS20M	KTIP180R8SS20M	KTIP180R12SS20M	18,000	.7087	18,999	.7480	W	170.314
KTIP190R1SS20M	KTIP190R3SS20M	KTIP190R5SS20M	KTIP190R8SS20M	KTIP190R12SS20M	19,000	.7480	19,999	.7874	X	170.314
KTIP200R1SS25M	KTIP200R3SS25M	KTIP200R5SS25M	KTIP200R8SS25M	KTIP200R12SS25M	20,000	.7874	20,999	.8267	Y	170.314
KTIP210R1SS25M	KTIP210R3SS25M	KTIP210R5SS25M	KTIP210R8SS25M	KTIP210R12SS25M	21,000	.8268	21,999	.8661	Z	170.314
KTIP220R1SS25M	KTIP220R3SS25M	KTIP220R5SS25M	KTIP220R8SS25M	KTIP220R12SS25M	22,000	.8661	22,999	.9055	ZA	170.314
KTIP230R1SS25M	KTIP230R3SS25M	KTIP230R5SS25M	KTIP230R8SS25M	KTIP230R12SS25M	23,000	.9055	23,999	.9448	ZB	170.314
KTIP240R1SS25M	KTIP240R3SS25M	KTIP240R5SS25M	KTIP240R8SS25M	KTIP240R12SS25M	24,000	.9449	24,999	.9842	ZC	170.314
KTIP250R1SS32M	KTIP250R3SS32M	KTIP250R5SS32M	KTIP250R8SS32M	KTIP250R12SS32M	25,000	.9843	25,999	1.0236	ZD	170.314
KTIP260R1SS32M	KTIP260R3SS32M	KTIP260R5SS32M	KTIP260R8SS32M	KTIP260R12SS32M	26,000	1.0236	26,999	1.0630	ZE	170.314
KTIP270R1SS32M	KTIP270R3SS32M	KTIP270R5SS32M	KTIP270R8SS32M	KTIP270R12SS32M	27,000	1.0630	27,999	1.1023	ZE	170.314

- Tool body shipped with insert wrench.



For information on L, L3, and L4 max, see the Modular Drills Dimension Tables on page H45.

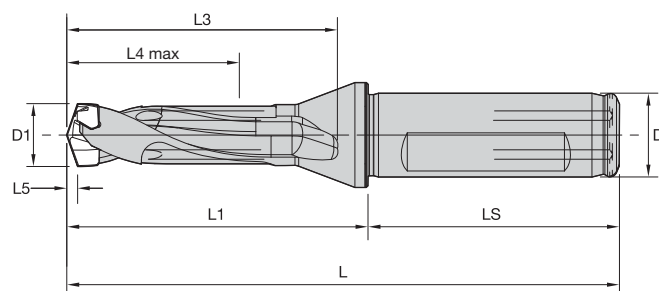


Modular Drills

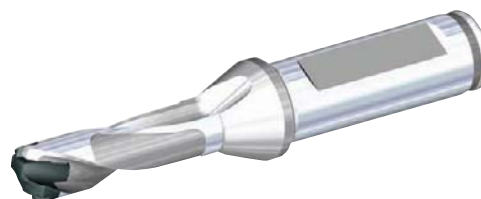
■ KenTIP Round Shank • 3 x D/5 x D/8 x D/12 x D • Inch

 3 x D	 5 x D	 8 x D	 12 x D	D1		D1 max		seat size	 KenTIP wrench
				mm	in	mm	in		
KTIP0313R3SS038	KTIP0313R5SS038	KTIP0313R8SS038	KTIP0313R12SS038	7,940	.3125	8,499	.3346	F	170.306
KTIP0335R3SS038	KTIP0335R5SS038	KTIP0335R8SS038	KTIP0335R12SS038	8,500	.3346	8,999	.3543	G	170.306
KTIP0354R3SS038	KTIP0354R5SS038	KTIP0354R8SS038	KTIP0354R12SS038	9,000	.3543	9,499	.3740	H	170.306
KTIP0374R3SS038	KTIP0374R5SS038	KTIP0374R8SS038	KTIP0374R12SS038	9,500	.3740	9,999	.3937	I	170.306
KTIP0374R3SS044	KTIP0374R5SS044	KTIP0374R8SS044	KTIP0374R12SS044	9,500	.3740	9,999	.3937	I	170.306
KTIP0394R3SS044	KTIP0394R5SS044	KTIP0394R8SS044	KTIP0394R12SS044	10,000	.3937	10,499	.4133	J	170.307
KTIP0413R3SS044	KTIP0413R5SS044	KTIP0413R8SS044	KTIP0413R12SS044	10,500	.4134	10,999	.4330	K	170.307
KTIP0433R3SS044	KTIP0433R5SS044	KTIP0433R8SS044	KTIP0433R12SS044	11,000	.4331	11,499	.4527	L	170.307
KTIP0453R3SS050	KTIP0453R5SS050	KTIP0453R8SS050	KTIP0453R12SS050	11,500	.4528	11,999	.4724	M	170.307
KTIP0472R3SS050	KTIP0472R5SS050	KTIP0472R8SS050	KTIP0472R12SS050	12,000	.4724	12,499	.4921	N	170.308
KTIP0492R3SS050	KTIP0492R5SS050	KTIP0492R8SS050	KTIP0492R12SS050	12,500	.4921	12,999	.5118	O	170.308
KTIP0492R3SS056	KTIP0492R5SS056	KTIP0492R8SS056	KTIP0492R12SS056	12,500	.4921	12,999	.5118	O	170.308
KTIP0512R3SS056	KTIP0512R5SS056	KTIP0512R8SS056	KTIP0512R12SS056	13,000	.5118	13,499	.5315	P	170.308
KTIP0532R3SS056	KTIP0532R5SS056	KTIP0532R8SS056	KTIP0532R12SS056	13,500	.5315	13,999	.5511	Q	170.308
KTIP0551R3SS056	KTIP0551R5SS056	KTIP0551R8SS056	KTIP0551R12SS056	14,000	.5512	14,499	.5708	R	170.309
KTIP0571R3SS063	KTIP0571R5SS063	KTIP0571R8SS063	KTIP0571R12SS063	14,500	.5709	14,999	.5905	S	170.309
KTIP0591R3SS063	KTIP0591R5SS063	KTIP0591R8SS063	KTIP0591R12SS063	15,000	.5906	15,999	.6299	T	170.309
KTIP0630R3SS069	KTIP0630R5SS069	KTIP0630R8SS069	KTIP0630R12SS069	16,000	.6299	16,999	.6693	U	170.309
KTIP0669R3SS069	KTIP0669R5SS069	KTIP0669R8SS069	KTIP0669R12SS069	17,000	.6693	17,999	.7086	V	170.314
KTIP0709R3SS075	KTIP0709R5SS075	KTIP0709R8SS075	KTIP0709R12SS075	18,000	.7087	18,999	.7480	W	170.314
KTIP0748R3SS075	KTIP0748R5SS075	KTIP0748R8SS075	KTIP0748R12SS075	19,000	.7480	19,999	.7874	X	170.314
KTIP0787R3SS081	KTIP0787R5SS081	KTIP0787R8SS081	KTIP0787R12SS081	20,000	.7874	20,999	.8267	Y	170.314
KTIP0827R3SS088	KTIP0827R5SS088	KTIP0827R8SS088	KTIP0827R12SS088	21,000	.8268	21,999	.8661	Z	170.314
KTIP0866R3SS088	KTIP0866R5SS088	KTIP0866R8SS088	KTIP0866R12SS088	22,000	.8661	22,999	.9055	ZA	170.314
KTIP0906R3SS094	KTIP0906R5SS094	KTIP0906R8SS094	KTIP0906R12SS094	23,000	.9055	23,999	.9448	ZB	170.314
KTIP0945R3SS100	KTIP0945R5SS100	KTIP0945R8SS100	KTIP0945R12SS100	24,000	.9449	24,999	.9842	ZC	170.314
KTIP0984R3SS100	KTIP0984R5SS100	KTIP0984R8SS100	KTIP0984R12SS100	25,000	.9843	25,999	1.0236	ZD	170.314
KTIP1024R3SS125	KTIP1024R5SS125	KTIP1024R8SS125	KTIP1024R12SS125	26,000	1.0236	26,999	1.0630	ZE	170.314
KTIP1063R3SS125	KTIP1063R5SS125	KTIP1063R8SS125	KTIP1063R12SS125	27,000	1.0630	27,999	1.1023	ZE	170.314

- Tool body shipped with insert wrench.



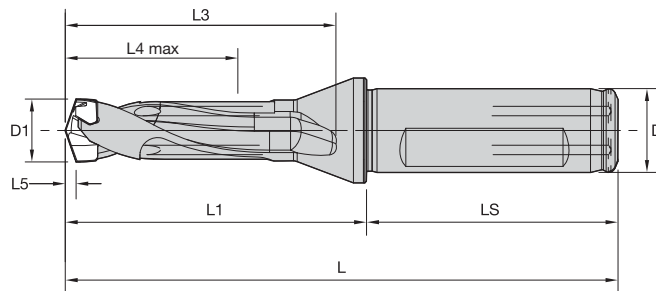
round shank (no flats)
For information on L, L3, and L4 max, see the Modular Drills
Dimension Tables on page H46.



■ KenTIP Flanged Shank • 1.5 x D/3 x D/5 x D/8 x D • Metric

1.5 x D	3 x D	5 x D	8 x D	D1		D1 max		seat size	KenTIP wrench
				mm	in	mm	in		
KTIP080R1SCF12M	KTIP080R3SCF12M	KTIP080R5SCF12M	KTIP080R8SCF12M	8,000	.3150	8,499	.3346	F	170.306
KTIP085R1SCF12M	KTIP085R3SCF12M	KTIP085R5SCF12M	KTIP085R8SCF12M	8,500	.3346	8,999	.3543	G	170.306
KTIP090R1SCF12M	KTIP090R3SCF12M	KTIP090R5SCF12M	KTIP090R8SCF12M	9,000	.3543	9,499	.3740	H	170.306
KTIP095R1SCF12M	KTIP095R3SCF12M	KTIP095R5SCF12M	KTIP095R8SCF12M	9,500	.3740	9,999	.3937	I	170.306
KTIP100R1SCF16M	KTIP100R3SCF16M	KTIP100R5SCF16M	KTIP100R8SCF16M	10,000	.3937	10,499	.4133	J	170.307
KTIP105R1SCF16M	KTIP105R3SCF16M	KTIP105R5SCF16M	KTIP105R8SCF16M	10,500	.4134	10,999	.4330	K	170.307
KTIP110R1SCF16M	KTIP110R3SCF16M	KTIP110R5SCF16M	KTIP110R8SCF16M	11,000	.4331	11,499	.4527	L	170.307
KTIP115R1SCF16M	KTIP115R3SCF16M	KTIP115R5SCF16M	KTIP115R8SCF16M	11,500	.4528	11,999	.4724	M	170.307
KTIP120R1SCF16M	KTIP120R3SCF16M	KTIP120R5SCF16M	KTIP120R8SCF16M	12,000	.4724	12,499	.4921	N	170.308
KTIP125R1SCF16M	KTIP125R3SCF16M	KTIP125R5SCF16M	KTIP125R8SCF16M	12,500	.4921	12,999	.5118	O	170.308
KTIP130R1SCF16M	KTIP130R3SCF16M	KTIP130R5SCF16M	KTIP130R8SCF16M	13,000	.5118	13,499	.5315	P	170.308
KTIP135R1SCF16M	KTIP135R3SCF16M	KTIP135R5SCF16M	KTIP135R8SCF16M	13,500	.5315	13,999	.5511	Q	170.308
KTIP140R1SCF16M	KTIP140R3SCF16M	KTIP140R5SCF16M	KTIP140R8SCF16M	14,000	.5512	14,499	.5708	R	170.309
KTIP145R1SCF16M	KTIP145R3SCF16M	KTIP145R5SCF16M	KTIP145R8SCF16M	14,500	.5709	14,999	.5905	S	170.309
KTIP150R1SCF20M	KTIP150R3SCF20M	KTIP150R5SCF20M	KTIP150R8SCF20M	15,000	.5906	15,999	.6299	T	170.309
KTIP160R1SCF20M	KTIP160R3SCF20M	KTIP160R5SCF20M	KTIP160R8SCF20M	16,000	.6299	16,999	.6693	U	170.309
KTIP170R1SCF20M	KTIP170R3SCF20M	KTIP170R5SCF20M	KTIP170R8SCF20M	17,000	.6693	17,999	.7086	V	170.314
KTIP180R1SCF25M	KTIP180R3SCF25M	KTIP180R5SCF25M	KTIP180R8SCF25M	18,000	.7087	18,999	.7480	W	170.314
KTIP190R1SCF25M	KTIP190R3SCF25M	KTIP190R5SCF25M	KTIP190R8SCF25M	19,000	.7480	19,999	.7874	X	170.314
KTIP200R1SCF25M	KTIP200R3SCF25M	KTIP200R5SCF25M	KTIP200R8SCF25M	20,000	.7874	20,999	.8267	Y	170.314
KTIP210R1SCF25M	KTIP210R3SCF25M	KTIP210R5SCF25M	KTIP210R8SCF25M	21,000	.8268	21,999	.8661	Z	170.314
KTIP220R1SCF25M	KTIP220R3SCF25M	KTIP220R5SCF25M	KTIP220R8SCF25M	22,000	.8661	22,999	.9055	ZA	170.314
KTIP230R1SCF25M	KTIP230R3SCF25M	KTIP230R5SCF25M	KTIP230R8SCF25M	23,000	.9055	23,999	.9448	ZB	170.314
KTIP240R1SCF25M	KTIP240R3SCF25M	KTIP240R5SCF25M	KTIP240R8SCF25M	24,000	.9449	24,999	.9842	ZC	170.314
KTIP250R1SCF25M	KTIP250R3SCF25M	KTIP250R5SCF25M	KTIP250R8SCF25M	25,000	.9843	25,999	1.0236	ZD	170.314
KTIP260R1SCF25M	KTIP260R3SCF25M	KTIP260R5SCF25M	KTIP260R8SCF25M	26,000	1.0236	26,999	1.0630	ZE	170.314
KTIP270R1SCF25M	KTIP270R3SCF25M	KTIP270R5SCF25M	KTIP270R8SCF25M	27,000	1.0630	27,999	1.1023	ZE	170.314

- Tool body shipped with insert wrench.



round shank (no flats)
For information on L, L3, and L4 max, see the Modular Drills
Dimension Tables on page H47.



Modular Drills

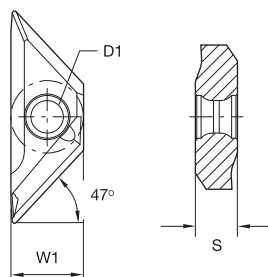
■ KenTIP Flanged Shank • 3 x D/5 x D/8 x D • Inch

 3 x D	 5 x D	 8 x D	D1		D1 max		seat size	 KenTIP wrench
			mm	in	mm	in		
KTIP0313R3SCF050	KTIP0313R5SCF050	KTIP0313R8SCF050	7,940	.3125	8,499	.3346	F	170.306
KTIP0335R3SCF050	KTIP0335R5SCF050	KTIP0335R8SCF050	8,500	.3346	8,999	.3543	G	170.306
KTIP0354R3SCF050	KTIP0354R5SCF050	KTIP0354R8SCF050	9,000	.3543	9,499	.3740	H	170.306
KTIP0374R3SCF050	KTIP0374R5SCF050	KTIP0374R8SCF050	9,500	.3740	9,999	.3937	I	170.306
KTIP0394R3SCF063	KTIP0394R5SCF063	KTIP0394R8SCF063	10,000	.3937	10,499	.4133	J	170.307
KTIP0413R3SCF063	KTIP0413R5SCF063	KTIP0413R8SCF063	10,500	.4134	10,999	.4330	K	170.307
KTIP0433R3SCF063	KTIP0433R5SCF063	KTIP0433R8SCF063	11,000	.4331	11,499	.4527	L	170.307
KTIP0453R3SCF063	KTIP0453R5SCF063	KTIP0453R8SCF063	11,500	.4528	11,999	.4724	M	170.307
KTIP0472R3SCF063	KTIP0472R5SCF063	KTIP0472R8SCF063	12,000	.4724	12,499	.4921	N	170.308
KTIP0492R3SCF063	KTIP0492R5SCF063	KTIP0492R8SCF063	12,500	.4921	12,999	.5118	O	170.308
KTIP0512R3SCF063	KTIP0512R5SCF063	KTIP0512R8SCF063	13,000	.5118	13,499	.5315	P	170.308
KTIP0532R3SCF063	KTIP0532R5SCF063	KTIP0532R8SCF063	13,500	.5315	13,999	.5511	Q	170.308
KTIP0551R3SCF063	KTIP0551R5SCF063	KTIP0551R8SCF063	14,000	.5512	14,499	.5708	R	170.309
KTIP0571R3SCF063	KTIP0571R5SCF063	KTIP0571R8SCF063	14,500	.5709	14,999	.5905	S	170.309
KTIP0591R3SCF075	KTIP0591R5SCF075	KTIP0591R8SCF075	15,000	.5906	15,999	.6299	T	170.309
KTIP0630R3SCF075	KTIP0630R5SCF075	KTIP0630R8SCF075	16,000	.6299	16,999	.6693	U	170.309
KTIP0669R3SCF075	KTIP0669R5SCF075	KTIP0669R8SCF075	17,000	.6693	17,999	.7086	V	170.314
KTIP0709R3SCF075	KTIP0709R5SCF075	KTIP0709R8SCF075	18,000	.7087	18,999	.7480	W	170.314
KTIP0748R3SCF075	KTIP0748R5SCF075	KTIP0748R8SCF075	19,000	.7480	19,999	.7874	X	170.314
KTIP0787R3SCF100	KTIP0787R5SCF100	KTIP0787R8SCF100	20,000	.7874	20,999	.8267	Y	170.314
KTIP0827R3SCF100	KTIP0827R5SCF100	KTIP0827R8SCF100	21,000	.8268	21,999	.8661	Z	170.314
KTIP0866R3SCF100	KTIP0866R5SCF100	KTIP0866R8SCF100	22,000	.8661	22,999	.9055	ZA	170.314
KTIP0906R3SCF100	KTIP0906R5SCF100	KTIP0906R8SCF100	23,000	.9055	23,999	.9448	ZB	170.314
KTIP0945R3SCF100	KTIP0945R5SCF100	KTIP0945R8SCF100	24,000	.9449	24,999	.9842	ZC	170.314
KTIP0984R3SCF100	KTIP0984R5SCF100	KTIP0984R8SCF100	25,000	.9843	25,999	1.0236	ZD	170.314
KTIP1024R3SCF100	KTIP1024R5SCF100	KTIP1024R8SCF100	26,000	1.0236	26,999	1.0630	ZE	170.314
KTIP1063R3SCF100	KTIP1063R5SCF100	KTIP1063R8SCF100	27,000	1.0630	27,999	1.1023	ZE	170.314

- Drilling and chamfering in one operation using the KenTIP drilling system.
- Low setup time — no height adjustment required.
- Use standard chamfering inserts with our universal -GD geometry style.
- Selection of two grade choices:
 - KC7215 offering the highest level of wear resistance for higher cutting speeds in stable conditions.
 - KC7015 for medium cutting speeds and normal conditions.
- Tool bodies with chamfer pockets available as custom solutions.

● first choice
○ alternate choice

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



FAS-GD • Chamfering Insert

catalog number	W1		D1		S		KC7215	KC7015
	mm	in	mm	in	mm	in		
FAS100302GD	6,35	.250	2,85	.112	3,48	.137	●	●



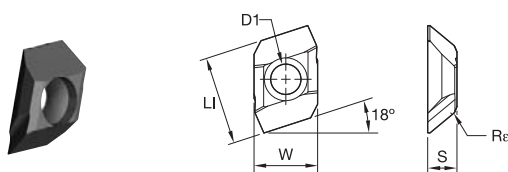
Made-to-order KenTIP holders with chamfering step using standard FAS inserts. Also available for KenTIP FS upon request.

- Very small incremental diameter changes for step drills.
- Best reliability and hole quality.
- Improved chip control and very low tendency for chattering.
- High tool life per edge; 2x indexable.
- Can be used with KenTIP and KSEM™ as well as Drill Fix™ indexable made-to-order step drills.
- CFM inserts are perfectly suited for usage on made-to-order indexable countersinking tools.

- first choice
- alternate choice

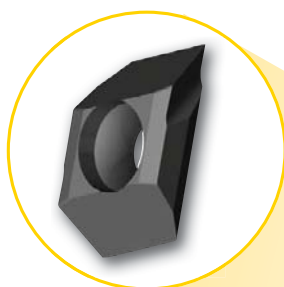
P	●
M	○
K	○
N	●
S	●
H	●

Modular Drills



CounterFix Micro • Tangential Chamfer and Counterboring Inserts

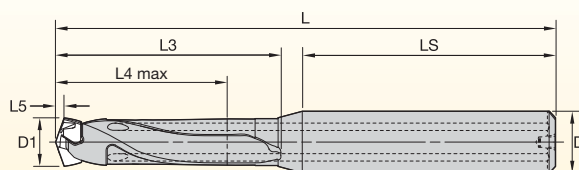
catalog number	D1		LI		W		S		Re		KCU40
	mm	in	mm	in	mm	in	mm	in	mm	in	
CFM0402R00RHP	2,05	0.081	6,000	0.24	4,25	.167	1,98	.078	0,20	.007	●
CFM0402R30RHP	2,05	0.081	6,000	0.24	4,25	.167	1,98	.078	0,20	.009	●
CFM0402R45RHP	2,05	0.081	6,000	0.24	4,25	.167	1,98	.078	0,20	.007	●



Made-to-order KenTIP holder with two very small counterboring steps using CounterFix Micro Inserts. Also available for KenTIP FS upon request.

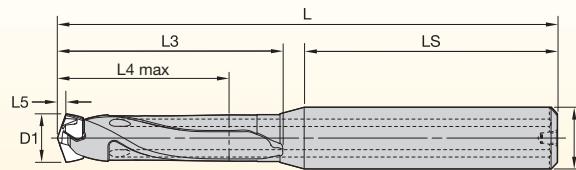
Modular Drills • Dimension Tables

■ Dimensions for KenTIP™ Modular Drills • Round Shank • Metric



D1 mm	D1 max	seat	L5	LS	round D	1.5 x D L	L3	L4 max	3 x D L	L3	L4 max	5 x D L	L3	L4 max	8 x D L	L3	L4 max	12 x D L	L3	L4 max	wrench
8,000	8,499	F	1,4	41	10	67	23	13	79	35	26	97	53	43	123	79	68	157	113	102	170.306
8,500	8,999	G	1,5	41	10	68	24	14	81	37	27	100	56	45	127	83	72	163	119	108	170.306
9,000	9,499	H	1,6	41	10	69	25	14	83	39	29	103	58	48	132	88	76	170	126	114	170.306
9,500	9,999	I	1,6	41	10	70	26	15	85	41	30	107	63	50	137	92	80	177	133	120	170.306
10,000	10,499	J	1,7	46	12	77	28	16	92	43	32	115	66	53	147	98	84	189	140	126	170.307
10,500	10,999	K	1,8	46	12	78	29	17	94	45	33	118	68	55	151	101	88	195	146	132	170.307
11,000	11,499	L	1,9	46	12	79	30	17	96	47	35	121	71	58	156	105	92	202	153	138	170.307
11,500	11,999	M	2,0	46	12	80	31	18	98	49	36	124	75	60	160	110	96	208	159	144	170.307
12,000	12,499	N	2,1	46	14	83	34	19	101	52	38	127	78	63	165	116	100	215	166	150	170.308
12,500	12,999	O	2,2	46	14	84	35	20	103	54	39	130	81	65	169	120	104	221	172	156	170.308
13,000	13,499	P	2,2	46	14	85	36	20	105	56	41	133	84	68	174	125	108	228	179	162	170.308
13,500	13,999	Q	2,3	46	14	86	37	21	107	58	42	137	88	70	179	130	112	235	186	168	170.308
14,000	14,499	R	2,4	49	16	91	39	22	112	60	44	143	91	73	187	135	116	245	193	174	170.309
14,500	14,999	S	2,5	49	16	92	40	23	114	62	45	146	94	75	191	139	120	251	199	180	170.309
15,000	15,999	T	2,6	49	16	94	42	24	118	66	48	152	100	80	200	148	128	264	212	192	170.309
16,000	16,999	U	2,8	49	18	97	45	26	122	70	51	158	106	85	209	157	136	277	225	204	170.309
17,000	17,999	V	2,9	49	18	100	48	27	127	75	54	165	113	90	219	167	144	291	239	216	170.314
18,000	18,999	W	3,1	51	20	105	51	29	133	79	57	173	119	95	230	176	152	306	252	228	170.314
19,000	19,999	X	3,3	51	20	107	53	30	137	83	60	179	125	100	239	185	160	319	265	240	170.314
20,000	20,999	Y	3,5	57	25	116	56	32	147	87	63	191	131	105	254	200	168	344	284	252	170.314
21,000	21,999	Z	3,6	57	25	118	58	33	151	91	66	198	138	110	264	204	176	352	292	264	170.314
22,000	22,999	ZA	3,8	57	25	122	62	35	156	96	69	204	144	115	273	213	184	365	305	276	170.314
23,000	23,999	ZB	4,0	57	25	124	64	36	160	100	72	210	150	120	282	222	192	378	318	288	170.314
24,000	24,999	ZC	4,1	57	25	127	67	38	164	104	75	216	156	125	291	231	200	391	331	300	170.314
25,000	25,999	ZD	4,3	61	32	133	69	39	172	108	78	227	163	130	305	241	208	409	345	312	170.314
26,000	26,999	ZE	4,5	61	32	138	74	41	178	114	81	232	168	135	315	251	216	423	359	324	170.314
27,000	27,999	ZE	4,7	61	32	139	75	42	181	117	84	239	175	140	323	259	224	435	371	336	170.314

(continued)

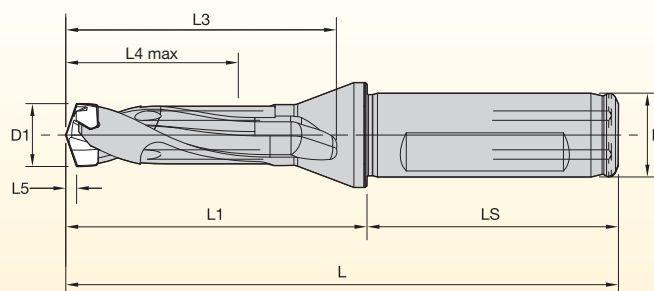
Modular Drills • Dimension Tables *(continued)*
■ Dimensions for KenTIP™ Modular Drills • Round Shank • Inch


D1 mm	D1 max	seat	L5	LS	round D	3 x D L	L3	L4 max	5 x D L	L3	L4 max	8 x D L	L3	L4 max	12 x D L	L3	L4 max	wrench
.3125	.3346	F	.055	1.59	.3750	3.13	1.29	1.00	3.88	2.05	1.67	4.88	3.17	2.67	6.25	4.54	4.02	170.306
.3346	.3543	G	.059	1.59	.3750	3.25	1.38	1.06	4.00	2.16	1.77	5.13	3.42	2.83	6.50	4.79	4.25	170.306
.3543	.3740	H	.063	1.59	.3750	3.38	1.46	1.12	4.13	2.28	1.87	5.25	3.54	2.99	6.75	5.04	4.49	170.306
.3740	.3937	I	.063	1.59	.3750	3.38	1.54	1.18	4.25	2.44	1.97	5.38	3.67	3.15	7.13	5.34	4.72	170.306
.3740	.3937	I	.063	1.67	.4375	3.38	1.54	1.18	4.38	2.44	1.97	5.38	3.59	3.15	7.00	5.29	4.72	170.306
.3937	.4133	J	.067	1.67	.4375	3.63	1.63	1.24	4.63	2.55	2.07	5.75	3.96	3.30	7.37	5.59	4.96	170.307
.4134	.4330	K	.071	1.67	.4375	3.75	1.71	1.30	4.75	2.67	2.16	6.00	4.21	3.46	7.63	5.84	5.20	170.307
.4331	.4527	L	.075	1.67	.4375	3.88	1.79	1.36	4.88	2.78	2.26	6.25	4.46	3.62	7.87	6.09	5.43	170.307
.4528	.4724	M	.079	1.79	.5000	3.88	1.87	1.42	5.00	2.90	2.36	6.50	4.59	3.78	8.25	6.34	5.67	170.307
.4724	.4921	N	.083	1.79	.5000	4.00	1.95	1.48	5.00	3.01	2.46	6.75	4.84	3.94	8.50	6.59	5.91	170.308
.4921	.5118	O	.087	1.79	.5000	4.13	2.04	1.54	5.13	3.13	2.56	7.00	5.09	4.09	8.75	6.84	6.14	170.308
.4921	.5118	O	.087	1.79	.5625	4.13	2.04	1.54	5.13	3.13	2.56	7.00	5.09	4.09	8.75	6.84	6.14	170.308
.5118	.5315	P	.087	1.79	.5625	4.25	2.11	1.60	5.25	3.24	2.66	7.13	5.22	4.25	9.00	7.09	6.38	170.308
.5315	.5511	Q	.091	1.79	.5625	4.25	2.19	1.65	5.50	3.39	2.75	7.25	5.34	4.41	9.25	7.34	6.61	170.308
.5512	.5708	R	.095	1.79	.5625	4.50	2.27	1.71	5.75	3.50	2.85	7.38	5.47	4.57	9.50	7.59	6.85	170.309
.5709	.5905	S	.098	1.91	.6250	4.50	2.34	1.77	5.75	3.61	2.95	7.50	5.47	4.72	9.87	7.85	7.09	170.309
.5906	.6299	T	.102	1.91	.6250	4.75	2.43	1.89	6.00	3.76	3.15	7.75	5.72	5.04	1.37	8.35	7.56	170.309
.6299	.6693	U	.110	1.91	.6875	4.88	2.59	2.01	6.25	4.06	3.34	8.00	5.97	5.35	11.00	8.97	8.03	170.309
.6693	.7086	V	.116	1.91	.6875	5.00	2.99	2.24	6.50	4.47	3.66	8.75	6.72	5.79	11.50	9.47	8.50	170.314
.7087	.7480	W	.122	2.00	.7500	5.25	3.13	2.25	6.88	4.76	3.86	9.25	7.13	6.11	12.13	1.01	8.98	170.314
.7480	.7874	X	.129	2.00	.7500	5.50	3.38	2.49	7.13	5.01	4.07	9.63	7.51	6.43	12.63	1.51	9.45	170.314
.7874	.8267	Y	.136	2.00	.8125	5.75	3.63	2.62	7.50	5.38	4.27	1.00	7.88	6.75	13.13	11.01	9.92	170.314
.8268	.8661	Z	.142	2.07	.8750	5.88	3.69	2.60	7.63	5.44	4.33	1.25	8.06	6.93	13.75	11.56	1.39	170.314
.8661	.9055	ZA	.150	2.07	.8750	6.00	3.81	2.72	7.88	5.69	4.53	1.63	8.44	7.24	14.25	12.06	1.87	170.314
.9055	.9448	ZB	.158	2.15	.9375	6.25	3.98	2.83	8.25	5.98	4.72	11.13	8.86	7.56	14.87	12.61	11.34	170.314
.9449	.9842	ZC	.161	3.00	1.0000	7.25	4.13	2.95	9.38	6.26	4.92	12.25	9.13	7.87	16.25	13.13	11.81	170.314
.9843	1.0236	ZD	.169	3.00	1.0000	7.38	4.26	3.07	9.63	6.51	5.12	12.63	9.51	8.19	16.75	13.63	12.28	170.314
1.0236	1.0630	ZE	.176	3.25	1.2500	7.86	4.49	3.19	9.99	6.62	5.32	13.25	9.88	8.50	17.50	14.13	12.76	170.314
1.0630	1.1023	ZE	.185	3.25	1.2500	7.98	4.61	3.31	1.18	6.81	5.51	13.57	1.20	8.82	18.00	14.63	13.23	170.314

(continued)

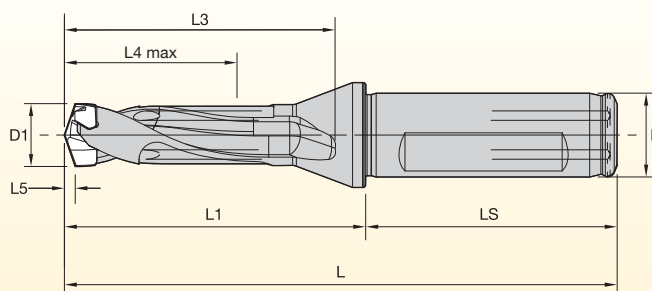
Modular Drills • Dimension Tables *(continued)*

■ **Dimensions for KenTIP™ Modular Drills • Flanged Shank • Metric**



D1 mm	D1 max	seat	L5	LS	Flanged D	1.5 x D L	L3	L4 max	3 x D L	L3	L4 max	5 x D L	L3	L4 max	8 x D L	L3	L4 max	wrench
8,000	8,490	F	1,4	45	12	73	23	13	86	35	26	104	53	43	129	79	68	170.306
8,500	8,990	G	1,5	45	12	74	24	14	88	37	27	107	56	45	134	83	72	170.306
9,000	9,490	H	1,6	45	12	76	25	14	90	39	29	110	59	48	138	88	76	170.306
9,500	9,990	I	1,6	45	12	77	26	15	92	41	30	114	63	50	144	93	80	170.306
10,000	10,490	J	1,7	48	16	81	28	16	97	43	32	120	66	53	151	97	84	170.307
10,500	10,990	K	1,8	48	16	82	29	17	99	45	33	123	69	55	156	102	88	170.307
11,000	11,490	L	1,9	48	16	84	30	17	101	47	35	126	72	58	160	107	92	170.307
11,500	11,990	M	2,0	48	16	85	31	18	103	49	36	129	75	60	165	111	96	170.307
12,000	12,490	N	2,1	48	16	87	34	19	106	52	38	132	78	63	169	116	100	170.308
12,500	12,990	O	2,2	48	16	88	35	20	108	54	39	135	81	65	174	120	104	170.308
13,000	13,490	P	2,2	48	16	90	36	20	110	56	41	138	84	68	178	124	108	170.308
13,500	13,990	Q	2,3	48	16	91	37	21	112	58	42	142	88	70	184	130	112	170.308
14,000	14,490	R	2,4	48	16	92	39	22	114	60	44	145	91	73	188	134	116	170.309
14,500	14,990	S	2,5	48	16	93	40	23	116	62	45	148	94	75	193	139	120	170.309
15,000	15,990	T	2,6	50	20	98	42	24	122	66	48	156	100	80	204	148	128	170.309
16,000	16,990	U	2,8	50	20	100	45	26	126	70	51	162	106	85	213	157	136	170.309
17,000	17,990	V	2,9	50	20	104	48	27	131	75	54	169	113	90	223	167	144	170.314
18,000	18,990	W	3,1	56	25	112	51	29	141	79	57	181	119	95	238	176	152	170.314
19,000	19,990	X	3,3	56	25	115	53	30	144	83	60	187	125	100	247	185	160	170.314
20,000	20,990	Y	3,5	56	25	117	56	32	149	87	63	193	131	105	256	194	168	170.314
21,000	21,990	Z	3,6	56	25	120	58	33	153	91	66	200	138	110	266	204	176	170.314
22,000	22,990	ZA	3,8	56	25	123	62	35	158	96	69	206	144	115	275	213	184	170.314
23,000	23,990	ZB	4,0	56	25	126	64	36	162	100	72	212	150	120	284	222	192	170.314
24,000	24,990	ZC	4,1	56	25	128	67	38	166	104	75	218	156	125	293	231	200	170.314
25,000	25,990	ZD	4,3	56	25	131	69	39	170	108	78	225	163	130	303	241	208	170.314
26,000	26,990	ZE	4,5	56	25	135	74	41	176	114	81	230	168	135	313	251	216	170.314
27,000	27,990	ZE	4,7	56	25	137	75	42	179	117	84	237	175	140	321	259	224	170.314

(continued)

Modular Drills • Dimension Tables *(continued)*
■ Dimensions for KenTIP™ Modular Drills • Flanged Shank • Inch


D1 mm	D1 max	seat	L5	LS	Flanged D	3 x D L	L3	L4 max	5 x D L	L3	L4 max	8 x D L	L3	L4 max	wrench
.3125	.3343	F	.054	1.77	.5000	3.40	1.41	1.00	4.15	2.16	1.67	5.15	3.16	2.28	170.306
.3390	.3539	G	.059	1.77	.5000	3.52	1.53	1.06	4.27	2.28	1.77	5.27	3.28	2.83	170.306
.3580	.3736	H	.062	1.77	.5000	3.65	1.66	1.12	4.40	2.41	1.87	5.52	3.53	2.99	170.306
.3750	.3933	I	.065	1.77	.5000	3.65	1.66	1.18	4.52	2.53	1.97	5.77	3.78	3.15	170.306
.3946	.4130	J	.068	1.89	.6250	3.89	1.78	1.24	4.76	2.66	2.07	6.01	3.91	3.31	170.307
.4219	.4327	K	.073	1.89	.6250	3.89	1.78	1.30	4.89	2.78	2.17	6.14	4.03	3.46	170.307
.4375	.4524	L	.076	1.89	.6250	4.01	1.91	1.36	5.01	2.91	2.26	6.39	4.28	3.62	170.307
.4531	.4720	M	.078	1.89	.6250	4.14	2.03	1.42	5.14	3.03	2.36	6.51	4.41	3.78	170.307
.4844	.4917	N	.084	1.89	.6250	4.26	2.16	1.48	5.26	3.16	2.46	6.76	4.66	3.94	170.308
.5000	.5114	O	.086	1.89	.6250	4.26	2.16	1.54	5.39	3.28	2.56	6.89	4.78	4.09	170.308
.5156	.5311	P	.089	1.89	.6250	4.39	2.28	1.59	5.51	3.41	2.66	7.01	4.91	4.25	170.308
.5469	.5508	Q	.095	1.89	.6250	4.39	2.28	1.65	5.64	3.53	2.76	7.26	5.16	4.41	170.308
.5625	.5705	R	.097	1.89	.6250	4.51	2.41	1.71	5.76	3.66	2.85	7.51	5.41	4.57	170.309
.5774	.5902	S	.100	1.89	.6250	4.64	2.53	1.77	5.89	3.78	2.95	7.64	5.53	4.72	170.309
.5938	.6295	T	.102	1.97	.7500	4.84	2.66	1.89	6.22	4.03	3.15	8.09	5.91	5.04	170.309
.6310	.6689	U	.109	1.97	.7500	4.97	2.78	2.01	6.47	4.28	3.35	8.47	6.28	5.35	170.309
.6719	.7083	V	.116	1.97	.7500	5.22	3.03	2.13	6.72	4.53	3.54	8.84	6.66	5.67	170.314
.7188	.7476	W	.124	1.97	.7500	5.34	3.16	2.24	6.97	4.78	3.74	9.22	7.03	5.98	170.314
.7500	.7870	X	.129	1.97	.7500	5.47	3.28	2.36	7.22	5.03	3.94	9.47	7.28	6.30	170.314
.7969	.8264	Y	.137	2.20	1.0000	5.95	3.53	2.48	7.58	5.16	4.13	10.08	7.66	6.61	170.314
.8440	.8657	Z	.146	2.20	1.0000	6.08	3.66	2.60	7.95	5.53	4.33	10.45	8.03	6.93	170.314
.8750	.9051	ZA	.151	2.20	1.0000	6.20	3.78	2.72	8.20	5.78	4.53	10.83	8.41	7.24	170.314
.9375	.9445	ZB	.162	2.20	1.0000	6.45	4.03	2.83	8.33	5.91	4.72	11.20	8.78	7.56	170.314
.9690	.9839	ZC	.167	2.20	1.0000	6.58	4.16	2.95	8.58	6.16	4.92	11.58	9.16	7.87	170.314
.9744	1.0232	ZD	.172	2.20	1.0000	6.70	4.28	3.07	8.95	6.53	5.12	11.95	9.53	8.19	170.314
1.0240	1.0620	ZE	.176	2.20	1.0000	6.83	4.41	3.19	9.08	6.66	5.32	11.70	9.28	8.50	170.314
1.0630	1.1020	ZE	.184	2.20	1.0000	6.95	4.53	3.30	9.20	6.78	5.51	11.95	9.53	8.69	170.314

Mounting the KenTIP Inserts



- 1) Fix drill holder on arbor. For insert exchange, fix arbor on the machine or set on tool presetter.



- 2) Remove dust using air blast.



- 3) Put insert into drill holder (use gloves to protect your hands).



- 4) Turn lightly in a clockwise direction (use gloves to protect your hands).



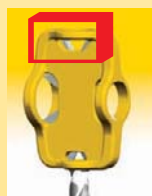
- 5) Set the wrench properly.



- 6) Make sure the wrench fits with the insert slot (check size and alignment of wrench and insert slots to avoid injury).



Slot for wrench

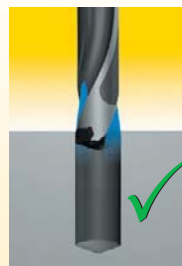


- 7) Slowly turn the wrench in a clockwise direction.

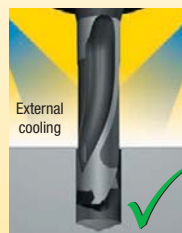


- 8) Complete.

Cooling the KenTIP Drill



- 1) Internal coolant is recommended.



- 2) In case of external coolant, cutting depth must be 3 x D or less.

Only when using the 3 x D tool bodies

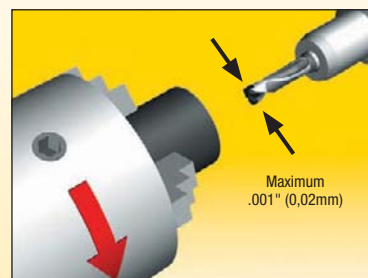


- 3) Dry cutting is not recommended. Limited applicability in cast iron materials, MQL strongly recommended.

Dry machining

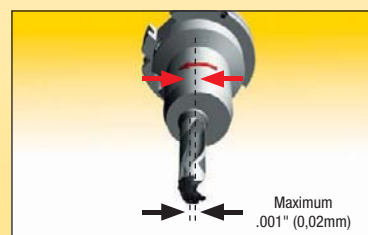
Usage Precautions Core Deviation

- 1) For Turning Machines



Set deviation amount under 0,02mm between workpiece and drill.

- 2) For Machining Centers



Do not use any arbor with a damaged attachment surface. Center of arbor deviation must be within 0,02mm.