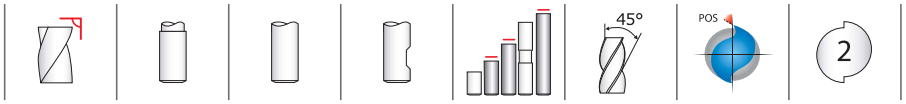
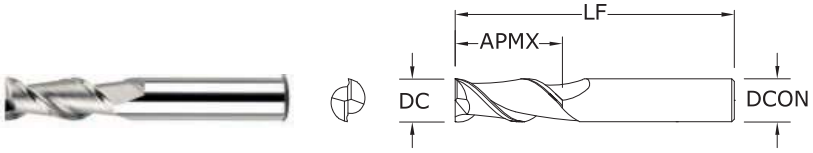


44M
METRIC SERIES



- Polished ski land with primary and secondary flute wall design minimizes chip interference by directing chips away from secondary flute
- Circular land allows for increased control at various speed and feed rates ultimately reducing chatter
- Recommended for materials ≤ 150 Bhn (≤ 7 HRc)

mm				EDP NO.			
CUTTING DIAMETER DC	LENGTH OF CUT APMX	OVERALL LENGTH LF	SHANK DIAMETER DCON	UNCOATED W/FLAT	UNCOATED	Ti-NAMITE-B (TiB_2) W/FLAT	Ti-NAMITE-B (TiB_2)
3,0	8,0	52,0	6,0	44505	49663	44506	49674
4,0	11,0	55,0	6,0	44509	49664	44510	49675
5,0	13,0	57,0	6,0	44513	49665	44514	49676
6,0	13,0	57,0	6,0	44517	49666	44518	49677
8,0	19,0	69,0	10,0	44521	49667	44522	49678
10,0	22,0	72,0	10,0	44525	49668	44526	49679
12,0	26,0	83,0	12,0	44529	49669	44530	49680
14,0	26,0	83,0	14,0	44533	49670	44534	49681
16,0	32,0	92,0	16,0	44537	49671	44538	49682
18,0	32,0	92,0	18,0	44541	49672	44542	49683
20,0	38,0	104,0	20,0	44545	49673	44546	49684

Contact your KSPT Sales Representative for more information on Corner Radius options.

TOLERANCES (mm)

≤3 DIAMETER
DC = +0,000/–0,006
DCON = h_6

>3–6 DIAMETER
DC = +0,000/–0,008
DCON = h_6

>6–10 DIAMETER
DC = +0,000/–0,009
DCON = h_6

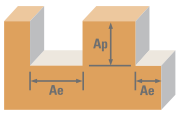
>10–18 DIAMETER
DC = +0,000/–0,011
DCON = h_6

>18–20 DIAMETER
DC = +0,000/–0,013
DCON = h_6

NON-FERROUS

PLASTICS/COMPOSITES

For patent information visit www.ksptpatents.com



	Series 44M Metric	Hardness		Ae x DC	Ap x DC	Vc (m/min)		DC • mm 3	6	10	12	16	20	25
N	ALUMINUM ALLOYS 2024, 5052, 5086, 6061, 6073, 7075	≤ 150 Bhn or ≤ 7HRc	Slot	1	≤ 1	490 (392-588)	RPM	52022	26011	15607	13005	9754	7803	6243
							Fz	0.022	0.060	0.120	0.144	0.166	0.187	0.213
							Feed (mm/min)	2247	3121	3746	3745	3246	2913	2653
			Profile	≤ 0.5	≤ 1.5	610 (488-732)	RPM	64762	32381	19429	16190	12143	9714	7771
							Fz	0.022	0.060	0.120	0.144	0.166	0.187	0.213
							Feed (mm/min)	2797	3885	4663	4662	4041	3627	3303
			HSM	≤ 0.05	≤ 2	1005 (804-1206)	RPM	106698	53349	32009	26674	20006	16005	12804
							Fz	0.050	0.132	0.280	0.336	0.384	0.440	0.488
							Feed (mm/min)	10754	14083	17925	17924	15364	14084	12484
	ALUMINUM DIE CAST ALLOYS (HIGH SILICONE) A-390, A-392, B- 390	≤ 125 Bhn or ≤ 77 HRb	Slot	1	≤ 1	185 (148-222)	RPM	19641	9820	5892	4910	3683	2946	2357
							Fz	0.022	0.060	0.120	0.144	0.166	0.187	0.213
							Feed (mm/min)	848	1178	1414	1414	1226	1100	1002
			Profile	≤ 0.5	≤ 1.5	230 (184-276)	RPM	24418	12209	7326	6105	4578	3663	2930
							Fz	0.022	0.060	0.120	0.144	0.166	0.187	0.213
							Feed (mm/min)	1055	1465	1758	1758	1524	1367	1245
			HSM	≤ 0.05	≤ 2	380 (304-456)	RPM	40343	20172	12103	10086	7564	6052	4841
							Fz	0.050	0.132	0.280	0.336	0.384	0.440	0.488
							Feed (mm/min)	4066	5325	6778	6777	5809	5325	4720
	COPPER ALLOYS Aluminum Bronze Brass Naval Brass Red Brass	≤ 140 Bhn or ≤ 3 HRc	Slot	1	≤ 1	265 (212-318)	RPM	28134	14067	8440	7034	5275	4220	3376
							Fz	0.019	0.048	0.107	0.120	0.141	0.160	0.175
							Feed (mm/min)	1080	1350	1801	1688	1485	1350	1182
			Profile	≤ 0.5	≤ 1.5	330 (264-396)	RPM	35035	17518	10511	8759	6569	5255	4204
							Fz	0.019	0.048	0.107	0.120	0.141	0.160	0.175
							Feed (mm/min)	1345	1682	2242	2102	1850	1682	1472
			HSM	≤ 0.05	≤ 2	545 (436-654)	RPM	57861	28930	17358	14465	10849	8679	6943
							Fz	0.041	0.108	0.227	0.276	0.320	0.373	0.400
							Feed (mm/min)	4721	6248	7869	7984	6943	6480	5555
	COPPER ALLOYS Beryllium Copper C110, Manganese Bronze, Tin Bronze	≤ 200 Bhn or ≤ 23 HRc	Slot	1	≤ 1	105 (84-126)	RPM	11148	5574	3344	2787	2090	1672	1338
							Fz	0.019	0.048	0.107	0.120	0.141	0.160	0.175
							Feed (mm/min)	428	535	713	669	589	535	468
			Profile	≤ 0.5	≤ 1.5	130 (104-156)	RPM	13802	6901	4141	3450	2588	2070	1656
							Fz	0.019	0.048	0.107	0.120	0.141	0.160	0.175
							Feed (mm/min)	530	662	883	828	729	662	580
			HSM	≤ 0.05	≤ 2	215 (172-258)	RPM	22826	11413	6848	5706	4280	3424	2739
							Fz	0.041	0.108	0.227	0.276	0.320	0.373	0.400
							Feed (mm/min)	1862	2465	3104	3150	2739	2556	2191
	PLASTICS ABS, Polycarbonate, PVC, Polypropylene		Slot	1	≤ 1	490 (392-588)	RPM	52022	26011	15607	13005	9754	7803	6243
							Fz	0.036	0.096	0.200	0.240	0.282	0.320	0.350
							Feed (mm/min)	3745	4994	6243	6242	5493	4994	4370
			Profile	≤ 0.5	≤ 1.5	610 (488-732)	RPM	64762	32381	19429	16190	12143	9714	7771
							Fz	0.036	0.096	0.200	0.240	0.282	0.320	0.350
							Feed (mm/min)	4662	6217	7771	7771	6839	6217	5440
			HSM	≤ 0.05	≤ 2	1005 (804-1206)	RPM	106698	53349	32009	26674	20006	16005	12804
							Fz	0.082	0.216	0.453	0.552	0.640	0.733	0.800
							Feed (mm/min)	17412	23045	29022	29446	25607	23473	20487

Bhn (Brinell) HRc (Rockwell C) HRb (Rockwell B) HSM (High Speed Machining)
rpm = (Vc x 1000) / (DC x 3.14)
mm/min = Fz x 2 x rpm
reduce speed and feed for materials harder than listed
reduce cut depth and feed by 50% for long flute and long reach tools
reduce feed and Ae when finish milling (.02 x DC maximum)
refer to the SGS Tool Wizard® for complete technical information (www.kyocera-sgstool.com)