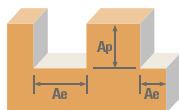


2 Flute: High Shear 4 Flute: High Shear



Series 52, 54 Fractional	Hardness	Flutes	Ae x DC	Ap x DC	Vc (sfm)	DC • in								
						1/8	1/4	3/8	1/2	3/4	1			
ALUMINUM ALLOYS 2024, 5052, 5086, 6061, 6063, 7075	≤ 150 Bhn or ≤ 7 HRc	Profile	2	≤ 0.3	≤ 1.5	1360	RPM	41562	20781	13854	10390	6927	5195	
						(1088-1632)	Fz	0.00069	0.0018	0.0034	0.0046	0.0055	0.0064	
							Feed (ipm)	57.4	74.8	94.2	95.6	76.2	66.5	
		4	≤ 0.3	≤ 1.5	1090	RPM	33310	16655	11103	8328	5552	4164		
					(872-1308)	Fz	0.00063	0.0017	0.0032	0.0042	0.0050	0.0059		
						Feed (ipm)	42.0	56.6	71.1	70.0	55.5	49.1		
	ALUMINUM DIE CAST ALLOYS (HIGH SILICON) A-390, A-392, B-390	≤ 125 Bhn or ≤ 77 HRb	Profile	2	≤ 0.3	≤ 1.5	510	RPM	15586	7793	5195	3896	2598	1948
							(408-612)	Fz	0.00069	0.0018	0.0034	0.0046	0.0055	0.0064
								Feed (ipm)	21.5	28.1	35.3	35.8	28.6	24.9
			4	≤ 0.3	≤ 1.5	410	RPM	12530	6265	4177	3132	2088	1566	
						(328-492)	Fz	0.00063	0.0017	0.0032	0.0042	0.0050	0.0059	
							Feed (ipm)	15.8	21.3	26.7	26.3	20.9	18.5	
COPPER ALLOYS Aluminum Bronze, Muntz Brass, Naval, Brass, Red Brass	≤ 140 Bhn or ≤ 3 HRc	Profile	2	≤ 0.3	≤ 1.5	590	RPM	18030	9015	6010	4508	3005	2254	
						(472-708)	Fz	0.00039	0.0010	0.0020	0.0026	0.0031	0.0037	
							Feed (ipm)	14.1	18.0	24.0	23.4	18.6	16.7	
		4	≤ 0.3	≤ 1.5	475	RPM	14516	7258	4839	3629	2419	1815		
					(380-570)	Fz	0.00036	0.0010	0.0018	0.0024	0.0029	0.0034		
						Feed (ipm)	10.5	14.5	17.4	17.4	14.0	12.3		
COPPER ALLOYS Beryllium Copper, C110, Manganese Bronze, Tin Bronze	≤ 200 Bhn or ≤ 23 HRc	Profile	2	≤ 0.3	≤ 1.5	235	RPM	7182	3591	2394	1795	1197	898	
						(188-282)	Fz	0.00039	0.0010	0.0020	0.0026	0.0031	0.0037	
							Feed (ipm)	5.6	7.2	9.6	9.3	7.4	6.6	
		4	≤ 0.3	≤ 1.5	190	RPM	5806	2903	1935	1452	968	726		
					(152-228)	Fz	0.00036	0.0010	0.0018	0.0024	0.0029	0.0034		
						Feed (ipm)	4.2	5.8	7.0	7.0	5.6	4.9		
PLASTICS ABS, Polycarbonate, PVC, Polypropylene		Profile	2	≤ 0.3	≤ 1.5	1600	RPM	48896	24448	16299	12224	8149	6112	
						(1280-1920)	Fz	0.00110	0.0030	0.0056	0.0074	0.0089	0.0100	
							Feed (ipm)	107.6	146.7	182.5	180.9	145.1	122.2	
		4	≤ 0.3	≤ 1.5	1280	RPM	39117	19558	13039	9779	6519	4890		
					(1024-1536)	Fz	0.00100	0.0027	0.0051	0.0068	0.0082	0.0095		
						Feed (ipm)	78.2	105.6	133.0	133.0	106.9	92.9		
PLASTICS Fiberglass, Glass Filled		Profile	2	≤ 0.3	≤ 1.5	720	RPM	22003	11002	7334	5501	3667	2750	
						(576-864)	Fz	0.00082	0.0022	0.0041	0.0055	0.0065	0.0076	
							Feed (ipm)	36.1	48.4	60.1	60.5	47.7	41.8	
		4	≤ 0.3	≤ 1.5	575	RPM	17572	8786	5857	4393	2929	2197		
					(460-690)	Fz	0.00075	0.0020	0.0037	0.0050	0.0060	0.0070		
						Feed (ipm)	26.4	35.1	43.3	43.9	35.1	30.8		
4	≤ 0.3	≤ 1.5	52.7	70.3	86.7	87.9	70.3	61.5						

Bhn (Brinell) HRc (Rockwell C) HRb (Rockwell B)
 rpm = (Vc x 3.82) / DC
 ipm = Fz x number of flutes x rpm
 reduce speed and feed for materials harder than listed
 reduce feed and Ae when finish milling (.02 x DC maximum)
 refer to the SGS Tool Wizard® for complete technical information (www.kyocera-sgstoool.com)