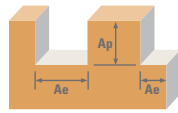


Series
43CR, 43CB, 43LC,
43, 43L, 43LCB, 43B,
43LB, 43ELB, 43EC
Fractional



43, 43L, 43LCB, 43B, 43LB, 43ELB, 43EC Fractional		Hardness	Ae Ae x DC Ap x DC		Vc (sfm)		DC • in							
			1/8	1/4			3/8	1/2	5/8	3/4	1			
ALUMINUM ALLOYS 2024, 5052, 5086, 6061, 6073, 7075	≤ 150 Bhn or ≤ 88 HRb	Slot	1	≤ 1	1600	RPM	48896	24448	16299	12224	9779	8149	6112	
					(1280-1920)	Fz	0.0009	0.0025	0.0045	0.0060	0.0065	0.0070	0.0085	
					Feed (ipm)	132	183	220	220	191	171	156		
		Profile	≤ 0.5	≤ 1.5	2000	RPM	61120	30560	20373	15280	12224	10187	7640	
					(1600-2400)	Fz	0.0009	0.0025	0.0045	0.0060	0.0065	0.0070	0.0085	
					Feed (ipm)	165	229	275	275	238	214	195		
		HSM	≤ 0.05	≤ 2	3300	RPM	100848	50424	33616	25212	20170	16808	12606	
					(2640-3960)	Fz	0.0021	0.0055	0.0105	0.0140	0.0150	0.0165	0.0195	
					Feed (ipm)	635	832	1059	1059	908	832	737		
	ALUMINUM DIE CAST ALLOYS (HIGH SILICONE) A-390, A-392, B- 390	≤ 125 Bhn or ≤ 77 HRb	Slot	1	≤ 1	600	RPM	18336	9168	6112	4584	3667	3056	2292
						(480-720)	Fz	0.0009	0.0025	0.0045	0.0060	0.0065	0.0070	0.0085
						Feed (ipm)	50	69	83	83	72	64	58	
			Profile	≤ 0.5	≤ 1.5	750	RPM	22920	11460	7640	5730	4584	3820	2865
						(600-900)	Fz	0.0009	0.0025	0.0045	0.0060	0.0065	0.0070	0.0085
						Feed (ipm)	62	86	103	103	89	80	73	
			HSM	≤ 0.05	≤ 2	1240	RPM	37894	18947	12631	9474	7579	6316	4737
						(992-1488)	Fz	0.0021	0.0055	0.0105	0.0140	0.0150	0.0165	0.0195
						Feed (ipm)	239	313	398	398	341	313	277	
	COPPER ALLOYS Aluminum Bronze Brass Naval Brass Red Brass	≤ 140 Bhn or ≤ 3 HRc	Slot	1	≤ 1	865	RPM	26434	13217	8811	6609	5287	4406	3304
						(692-1038)	Fz	0.0008	0.0020	0.0040	0.0050	0.0055	0.0060	0.0070
						Feed (ipm)	63	79	106	99	87	79	69	
			Profile	≤ 0.5	≤ 1.5	1080	RPM	33005	16502	11002	8251	6601	5501	4126
						(864-1296)	Fz	0.0008	0.0020	0.0040	0.0050	0.0055	0.0060	0.0070
						Feed (ipm)	79	99	132	124	109	99	87	
			HSM	≤ 0.05	≤ 2	1780	RPM	54397	27198	18132	13599	10879	9066	6800
						(1424-2136)	Fz	0.0017	0.0045	0.0085	0.0115	0.0125	0.0140	0.0160
						Feed (ipm)	277	367	462	469	408	381	326	
	COPPER ALLOYS Beryllium Copper C110, Malleable Bronze, Tin Bronze	≤ 200 Bhn or ≤ 23 HRc	Slot	1	≤ 1	345	RPM	10543	5272	3514	2636	2109	1757	1318
(276-414)						Fz	0.0008	0.0020	0.0040	0.0050	0.0055	0.0060	0.0070	
Feed (ipm)						25	32	42	40	35	32	28		
Profile			≤ 0.5	≤ 1.5	430	RPM	13141	6570	4380	3285	2628	2190	1643	
					(344-516)	Fz	0.0008	0.0020	0.0040	0.0050	0.0055	0.0060	0.0070	
					Feed (ipm)	32	39	53	49	43	39	34		
HSM			≤ 0.05	≤ 2	710	RPM	21698	10849	7233	5424	4340	3616	2712	
					(568-852)	Fz	0.0017	0.0045	0.0085	0.0115	0.0125	0.0140	0.0160	
					Feed (ipm)	111	146	184	187	163	152	130		
PLASTICS ABS, Polycarbonate, PVC, Polypropylene		Slot	1	≤ 1	1600	RPM	48896	24448	16299	12224	9779	8149	6112	
					(1280-1920)	Fz	0.0015	0.0040	0.0075	0.0100	0.0110	0.0120	0.0140	
					Feed (ipm)	220	293	367	367	323	293	257		
		Profile	≤ 0.5	≤ 1.5	2000	RPM	61120	30560	20373	15280	12224	10187	7640	
					(1600-2400)	Fz	0.0015	0.0040	0.0075	0.0100	0.0110	0.0120	0.0140	
					Feed (ipm)	275	367	458	458	403	367	321		
		HSM	≤ 0.05	≤ 2	3300	RPM	100848	50424	33616	25212	20170	16808	12606	
					(2640-3960)	Fz	0.0034	0.0090	0.0170	0.0230	0.0250	0.0275	0.0320	
					Feed (ipm)	1029	1361	1714	1740	1513	1387	1210		

Bhn (Brinell) HRC (Rockwell C) HRb (Rockwell B) HSM (High Speed Machining)
 $\text{rpm} = \text{Vc} \times 3.82 / \text{DC}$
 $\text{ipm} = \text{Fz} \times 3 \times \text{rpm}$
 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)