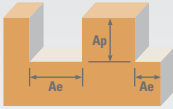


Speed & Feed Recommendations

Series 1, 3, 5, 14, 15, 16, 17, 23, 24, 59 Fractional							Diameter (D ₁) (inch)													
Hardness BRINELL		Flutes	Ae x D ₁	Ap x D ₁	Vc (SFM)															
						1/64	1/32	1/16	1/8	1/4	3/8	1/2	3/4	1						
S	SUPER ALLOYS (NICKEL, COBALT, IRON BASE) Inconel 601, 617, 625, 718, Incoly 800, Monel 400,Rene, Waspalloy		≤ 300		65	RPM	15891	7946	3973	1986	993	662	497	331	248					
						Fz	0.00002	0.00003	0.00006	0.0002	0.0004	0.0008	0.0010	0.0012	0.0014					
						Feed (IPM)	0.6	0.5	0.5	0.7	0.7	1.1	1.0	1.6	1.5	1.2	1.0			
							1.0	0.7	0.7	1.1	1.0	1.6	1.5	1.2	1.0					
							1.3	1.0	1.0	1.4	1.4	2.1	2.0	1.6	1.4					
							4	≤ 0.25	≤ 1.5											
				45	RPM	11002	5501	2750	1375	688	458	344	229	172						
					Fz	0.00002	0.00003	0.00006	0.0002	0.0004	0.0008	0.0010	0.0012	0.0014						
					Feed (IPM)	0.4	0.3	0.3	0.5	0.5	0.7	0.7	1.1	1.0	0.8	0.7				
						0.7	0.5	0.5	0.7	0.7	1.1	1.0	0.8	0.7						
						0.9	0.7	0.7	1.0	1.0	1.5	1.4	1.1	1.0						
						4	1	≤ 0.4												
S	TITANIUM ALLOYS Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si, Ti10Al2Fe3Al, Ti5Al3Mo3Cr, Ti7Al4Mo, Ti3Al8V6Cr4Zr4Mo, Ti6Al6V6Sn, Ti152 Cr3Sn3Al		≤ 350		180	RPM	44006	22003	11002	5501	2750	1834	1375	917	688					
						Fz	0.00002	0.00004	0.00008	0.0002	0.0005	0.0009	0.0012	0.0014	0.0017					
						Feed (IPM)	1.8	1.8	1.8	2.2	2.8	3.3	3.3	2.6	2.3					
							2.6	2.6	2.6	3.3	4.1	5.0	5.0	3.9	3.5					
							3.5	3.5	3.5	4.4	5.5	6.6	6.6	5.1	4.7					
							4	≤ 0.25	≤ 1.5											
				130	RPM	31782	15891	7946	3973	1986	1324	993	662	497						
					Fz	0.00002	0.00004	0.00008	0.0002	0.0005	0.0009	0.0012	0.0014	0.0017						
					Feed (IPM)	1.3	1.3	1.3	1.6	2.0	2.4	2.4	1.9	1.7						
						1.9	1.9	1.9	2.4	3.0	3.6	3.6	2.8	2.5						
						2.5	2.5	2.5	3.2	4.0	4.8	4.8	3.7	3.4						
						4	1	≤ 0.4												
N	ALUMINUM ALLOYS 2017, 2024, 356, 6061, 7075		≤ 150		880	RPM	215142	107571	53786	26893	13446	8964	6723	4482	3362					
						Fz	0.00006	0.00013	0.00025	0.0006	0.0016	0.0030	0.0040	0.0048	0.0056					
						Feed (IPM)	25.8	28.0	26.9	32.3	43.0	53.8	53.8	43.0	37.6					
							38.7	42.0	40.3	48.4	64.5	80.7	80.7	64.5	56.5					
							156467	78234	39117	19558	9779	6519	4890	3260	2445					
							4	≤ 0.25	≤ 1.5											
				640	Fz	0.00006	0.00013	0.00025	0.0006	0.0016	0.0030	0.0040	0.0048	0.0056						
					Feed (IPM)	18.8	20.3	19.6	23.5	31.3	39.1	39.1	31.3	27.4						
						28.2	30.5	29.3	35.2	46.9	58.7	58.7	46.9	41.1						
						4	1	≤ 0.5												
						N	COPPER ALLOYS Alum Bronze, C110, Muntz Brass		≤ 140		485	RPM	118573	59286	29643	14822	7411	4941	3705	2470
					Fz							0.00003	0.00006	0.00013	0.0003	0.0008	0.0015	0.0020	0.0024	0.0028
Feed (IPM)	7.1	7.1	7.7	8.9	11.9							14.8	14.8	11.9	10.4					
	10.7	10.7	11.6	13.3	17.8							22.2	22.2	17.8	15.6					
	14.2	14.2	15.4	17.8	23.7							29.6	29.6	23.7	20.8					
	4	≤ 0.25	≤ 1.5																	
		350	RPM	85568	42784			21392	10696	5348	3565	2674	1783	1337						
			Fz	0.00003	0.00006			0.00013	0.0003	0.0008	0.0015	0.0020	0.0024	0.0028						
			Feed (IPM)	5.1	5.1			5.6	6.4	8.6	10.7	10.7	8.6	7.5						
				7.7	7.7			8.3	9.6	12.8	16.0	16.0	12.8	11.2						
				10.3	10.3			11.1	12.8	17.1	21.4	21.4	17.1	15.0						
				4	1			≤ 0.4												
PLASTICS Polycarbonate, PVC, Polypropylene					880	RPM	215142	107571	53786	26893	13446	8964	6723	4482	3362					
						Fz	0.00006	0.00013	0.00025	0.0006	0.0016	0.0030	0.0040	0.0048	0.0056					
						Feed (IPM)	25.8	28.0	26.9	32.3	43.0	53.8	53.8	43.0	37.6					
							38.7	42.0	40.3	48.4	64.5	80.7	80.7	64.5	56.5					
							156467	78234	39117	19558	9779	6519	4890	3260	2445					
							4	≤ 0.25	≤ 1.5											
				640	Fz	0.00006	0.00013	0.00025	0.0006	0.0016	0.0030	0.0040	0.0048	0.0056						
					Feed (IPM)	18.8	20.3	19.6	23.5	31.3	39.1	39.1	31.3	27.4						
						28.2	30.5	29.3	35.2	46.9	58.7	58.7	46.9	41.1						
						4	1	≤ 0.5												
						GRAPHITE					660	RPM	161357	80678	40339	20170	10085	6723	5042	3362
					Fz							0.00006	0.00013	0.00025	0.0006	0.0016	0.0030	0.0040	0.0048	0.0056
Feed (IPM)	19.4	21.0	20.2	24.2	32.3							40.3	40.3	32.3	28.2					
	29.0	31.5	30.3	36.3	48.4							60.5	60.5	48.4	42.4					
	38.7	42.0	40.3	48.4	64.5							80.7	80.7	64.5	56.5					
	4	≤ 0.25	≤ 1.5																	
		480	RPM	117350	58675			29338	14669	7334	4890	3667	2445	1834						
			Fz	0.00006	0.00013			0.00025	0.0006	0.0016	0.0030	0.0040	0.0048	0.0056						
			Feed (IPM)	14.1	15.3			14.7	17.6	23.5	29.3	29.3	23.5	20.5						
				21.1	22.9			22.0	26.4	35.2	44.0	44.0	35.2	30.8						
				28.2	30.5			29.3	35.2	46.9	58.7	58.7	46.9	41.1						
				4	1			≤ 0.4												