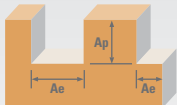


Series MK2 Metric	Hardness BRINELL			Vc (m/min)	Diameter (D ₁) (mm)						
		Ae x D ₁	Ap x D ₁		0.2	0.41	0.79	1.02	1.52		
S	SUPER ALLOYS (NICKEL, COBALT, IRON BASE) Inconel 601, 617, 625, 718, Incoly 800, Monel 400, Rene, Waspalloy		≤ 0.5	≤ 1.5	14	RPM	21812	10640	5522	4277	2870
					(11-16)	Fz	0.00023	0.0005	0.0010	0.0013	0.0018
						Feed (IPM)	10	11	11	11	10
			1	≤ 1	11	RPM	16965	8276	4295	3326	2232
					(9-13)	Fz	0.00020	0.0005	0.0008	0.0013	0.0015
						Feed (IPM)	7	8	7	9	7
S	TITANIUM ALLOYS (DIFFICULT) Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si, Ti10Al2Fe3Al, Ti5Al53Mo3Cr, Ti7Al4Mo, Ti3Al8V6Cr4Zr4Mo, Ti6Al6V6Sn, Ti152 Cr3Sn3Al		≤ 0.5	≤ 1.5	38	RPM	60589	29555	15339	11880	7972
					(30-46)	Fz	0.00028	0.0005	0.0010	0.0015	0.0023
						Feed (IPM)	34	30	31	36	37
			1	≤ 1	30	RPM	48471	23644	12271	9504	6378
					(24-37)	Fz	0.00025	0.0005	0.0010	0.0015	0.0020
						Feed (IPM)	24	24	25	29	26
N	ALUMINUM ALLOYS 2017, 2024, 356, 6061, 7075		≤ 0.5	≤ 1.5	244	RPM	387767	189154	98169	76033	51022
					(195-293)	Fz	0.00094	0.0018	0.0036	0.0056	0.0074
						Feed (IPM)	729	681	707	852	755
			1	≤ 1	195	RPM	310213	151324	78535	60826	40818
					(156-234)	Fz	0.00081	0.0015	0.0033	0.0048	0.0064
						Feed (IPM)	503	454	518	584	522
N	COPPER ALLOYS Alum Bronze, C110, Muntz Brass		≤ 0.5	≤ 1.5	73	RPM	116330	56746	29451	22810	15307
					(59-88)	Fz	0.00046	0.0010	0.0018	0.0028	0.0036
						Feed (IPM)	107	113	106	128	110
			1	≤ 1	58	RPM	92095	44924	23315	18058	12118
					(46-69)	Fz	0.00041	0.0008	0.0015	0.0023	0.0033
						Feed (IPM)	76	72	70	83	80
	PLASTICS Polycarbonate, PVC, Polypropylene		≤ 0.5	≤ 1.5	244	RPM	387767	189154	98169	76033	51022
					(195-293)	Fz	0.00094	0.0018	0.0036	0.0056	0.0074
						Feed (IPM)	729	681	707	852	755
			1	≤ 1	195	RPM	310213	151324	78535	60826	40818
					(156-234)	Fz	0.00081	0.0015	0.0033	0.0048	0.0064
						Feed (IPM)	503	454	518	584	522
	GRAPHITE		≤ 0.5	≤ 1.5	183	RPM	290825	141866	73627	57024	38266
					(146-219)	Fz	0.00094	0.0018	0.0036	0.0056	0.0074
						Feed (IPM)	547	511	530	639	566
			1	≤ 1	146	RPM	232660	113493	58901	45620	30613
					(117-176)	Fz	0.00081	0.0015	0.0033	0.0048	0.0064
						Feed (IPM)	377	340	389	438	392

$$\text{rpm} = (1000 \times \text{m/min}) / (3.14 \times D_1)$$

$$\text{mm/min} = (\text{mm/flute}) \times 2 \times \text{rpm}$$

reduce speed and feed for materials harder than listed

reduce speed to meet machine limitations

reduce feed and Ae when finish milling (.02 x D₁ maximum)

refer to the SGS Tool Wizard for complete technical information (I)