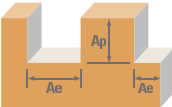


Series ZH1MCRS, ZH1MCR Metric	Hardness			Vc (m/min)	Diameter (D1) (mm)						
		Ae x D1	Ap x D1		6	10	12	20			
S	SUPER ALLOYS (NICKEL, COBALT, IRON BASE) Inconel 601, 617, 625, Incoloy, Monel 400	≤ 300 Bhn or ≤ 32 HRc	Profile	≤ 0.5	≤ 1.5	26	RPM	1373	824	687	412
						(21-31)	Fz	0.017	0.032	0.041	0.053
						Feed (mm/min)	93	105	113	87	
		Slot	1	≤ 1	21	RPM	1131	679	565	339	
						(17-26)	Fz	0.017	0.032	0.041	0.053
						Feed (mm/min)	77	87	93	72	
	SUPER ALLOYS (NICKEL, COBALT, IRON BASE) Inconel 718, X-750, Incoloy, Waspaloy, Hastelloy, Rene	≤ 400 Bhn or ≤ 43 HRc	Profile	≤ 0.5	≤ 1.5	21	RPM	1131	679	565	339
						(17-26)	Fz	0.012	0.024	0.029	0.037
						Feed (mm/min)	54	65	66	50	
		Slot	1	≤ 1	17	RPM	889	533	444	267	
						(13-20)	Fz	0.012	0.024	0.029	0.037
						Feed (mm/min)	43	51	52	39	
	TITANIUM ALLOYS Pure Titanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si	≤ 350 Bhn or ≤ 38 HRc	Profile	≤ 0.5	≤ 1.5	66	RPM	3474	2084	1737	1042
						(52-79)	Fz	0.019	0.041	0.049	0.057
						Feed (mm/min)	264	342	340	238	
		Slot	1	≤ 1	52	RPM	2747	1648	1373	824	
						(41-62)	Fz	0.019	0.041	0.049	0.057
						Feed (mm/min)	209	270	269	188	
	TITANIUM ALLOYS (DIFFICULT) Ti10Al2Fe3Al, Ti5Al5V5Mo3Cr, Ti7Al4Mo, Ti3Al8V6Cr4Zr4Mo, Ti6Al6V6Sn, Ti15V3 Cr3Sn3Al	≤ 440 Bhn or ≤ 47 HRc	Profile	≤ 0.5	≤ 1.5	23	RPM	1212	727	606	364
						(18-27)	Fz	0.019	0.041	0.049	0.057
						Feed (mm/min)	92	119	119	83	
		Slot	1	≤ 1	18	RPM	969	582	485	291	
						(15-22)	Fz	0.019	0.041	0.049	0.057
						Feed (mm/min)	74	95	95	66	

Bhn (Brinell) HRc (Rockwell C)

rpm = (Vc x 1000) / (D₁ x 3.14)

ipm = Fz x 4 x rpm

reduce speed and feed for materials harder than listed

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

refer to the KYOCERA SGS Tool Wizard[®] for complete technical information (www.kyocera-sgstool.com)