


Speeds and Feeds



HSSCo8, Sinusoidal End Mills (Hybrid AlCrN Coated)

SPEED AND FEED RECOMMENDATIONS						1.0	1.25	2.0 (uncoated)
ISO Hardness (BHN)	Work Materials	Type of Cut	Depth of Cut (ap)	Width of Cut (ae)	Parameters			
M < 250	Stainless Steel - Free Machining 303, 416, 420F, 430F, 440F	Profiling 	2xD	0.5xD	SFM (Vc)	110 (88-132)		
					RPM	420	336	210
					Fz	0.003	0.004	0.006
					Feed (IPM)	7.56	8.06	7.56
		Slotting 	1xD	1xD	SFM (Vc)	95 (76-114)		
					RPM	363	290	181
					Fz	0.0035	0.0045	0.0065
					Feed (IPM)	7.62	7.83	7.06
M < 275	Stainless Steel - Difficult 304, 304L, 316, 316L	Profiling 	1.5xD	0.5xD	SFM (Vc)	100 (80-120)		
					RPM	382	306	191
					Fz	0.003	0.004	0.006
					Feed (IPM)	6.88	7.34	6.88
		Slotting 	1xD	1xD	SFM (Vc)	80 (64-96)		
					RPM	306	244	153
					Fz	0.0035	0.0045	0.0065
					Feed (IPM)	6.43	6.59	5.97
M < 325	Stainless Steel - PH 13-8PH, 15-5PH, 17-4PH, Custom 450	Profiling 	1.5xD	0.5xD	SFM (Vc)	85 (68-102)		
					RPM	325	260	162
					Fz	0.003	0.004	0.006
					Feed (IPM)	5.85	6.24	5.83
		Slotting 	1xD	1xD	SFM (Vc)	75 (60-90)		
					RPM	287	229	143
					Fz	0.0035	0.0045	0.0065
					Feed (IPM)	6.03	6.18	5.58
S < 350	Titanium Base Alloy Pure Titanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si	Profiling 	2xD	0.5xD	SFM (Vc)	75 (60-90)		
					RPM	287	229	143
					Fz	0.0025	0.003	0.0045
					Feed (IPM)	4.3	4.12	3.86
		Slotting 	1xD	1xD	SFM (Vc)	65 (48-72)		
					RPM	248	199	124
					Fz	0.0025	0.003	0.0045
					Feed (IPM)	3.72	3.58	3.35
S < 450	Titanium Base Alloy-Difficult Ti10Al2Fe3Al, Ti5Al5V5Mo3Cr, Ti7Al4Mo, Ti3Al8V6Cr4Zr4Mo, Ti6Al6V6Sn, Ti15V3Cr3Sn3Al	Profiling 	1.5xD	0.5xD	SFM (Vc)	60 (48-72)		
					RPM	229	183	115
					Fz	0.0025	0.003	0.0045
					Feed (IPM)	3.44	3.29	3.11
		Slotting 	1xD	1xD	SFM (Vc)	40 (32-48)		
					RPM	153	122	76
					Fz	0.0025	0.003	0.0045
					Feed (IPM)	2.3	2.2	2.05

* Maximum recommended depth shown
 * Reduce speed & feed for material harder than listed
 * Above recommendations are based on ideal conditions; for smaller taper machining centers or less rigid conditions please adjust parameters accordingly