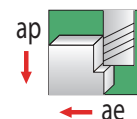


NOTE - DATA DOES NOT REFLECT CHIP THINNING.

SPINDLE INTERFACE MUST BE SCRUTINIZED WHEN USING 16mm DIAMETER AND LARGER END MILLS

ISO Material		HRC	M/Min. (Vc)	CHIPLOAD PER TOOTH (Fz)							
				6.0mm	8.0mm	10.0mm	12.0mm	16.0mm	20.0mm	25.0mm	
S	COBALT BASE ALLOYS										
	Haynes 25/188, Stellite 21, Cobalt Chrome	< 40 > 40	35 - 70 30 - 57	.015 -.030 .010 -.025	.015 -.033 .010 -.030	.015 -.036 .013 -.033	.028 -.058 .020 -.051	.028 -.058 .023 -.053	.030 -.071 .025 -.066	.056 -.117 .041 -.102	
	NICKEL BASE ALLOYS										
	Inconel-625/718, Waspaloy, Invar, Rene, Hastelloy, Monel	< 40 > 40	35 - 70 30 - 57	.015 -.033 .008 -.018	.020 -.035 .013 -.028	.020 -.041 .018 -.038	.030 -.061 .020 -.051	.030 -.064 .028 -.056	.041 -.081 .036 -.076	.061 -.122 .041 -.102	
	IRON BASE ALLOYS										
	A286, Discaloy, Haynes 556, Carpenter 22, Greek Ascology	< 40 > 40	35 - 70 30 - 57	.015 -.030 .008 -.018	.020 -.033 .010 -.025	.020 -.036 .013 -.033	.028 -.058 .018 -.048	.030 -.061 .025 -.056	.041 -.071 .025 -.066	.056 -.117 .036 -.097	
	TITANIUM ALLOYS										
	Commercially Pure, 6Al-4V, Astm 1/2/3, 6Al-25N-4Zr-2Mo-Si		75 - 140	.025 -.038	.030 -.050	.038 -.064	.051 -.076	.064 -.089	.076 -.127	.102 -.152	
5553 / Beta Titanium		57 - 110	.020 -.036	.025 -.046	.030 -.056	.041 -.071	.058 -.086	.061 -.112	.081 -.142		
M	STAINLESS STEELS										
	13/8, 15/5, 17-4, pH Types	< 40 > 40	85 - 140 65 - 105	.020 -.038 .015 -.033	.023 -.040 .020 -.038	.025 -.043 .023 -.041	.041 -.076 .030 -.066	.046 -.079 .033 -.071	.051 -.086 .046 -.081	.081 -.152 .061 -.132	
	300 Series, 304L, Nitronic 50, Duplex, Super-Austenitic	< 40 > 40	95 - 150 65 - 105	.020 -.038 .015 -.033	.023 -.040 .018 -.035	.025 -.043 .020 -.038	.041 -.076 .030 -.066	.043 -.071 .036 -.061	.051 -.086 .041 -.076	.081 -.152 .056 -.097	
	400 Series - 403, 405, 420, 455	< 40 > 40	85 - 160 65 - 125	.020 -.041 .015 -.036	.023 -.043 .020 -.040	.025 -.046 .023 -.043	.041 -.081 .030 -.071	.051 -.089 .033 -.076	.051 -.091 .046 -.086	.081 -.163 .061 -.142	
	HIGH STRENGTH TOOL STEELS										
A2, D2, P20, H13, S7, O1	< 40 > 40	85 - 150 57 - 125	.020 -.038 .015 -.033	.025 -.048 .022 -.042	.033 -.058 .030 -.051	.046 -.061 .041 -.056	.061 -.086 .051 -.071	.086 -.112 .061 -.081	.091 -.122 .076 -.102		
P	MEDIUM ALLOY TOOL STEELS										
	4140, 4340, 52100, 6150, 8620	< 40 > 40	130 - 190 95 - 140	.025 -.041 .018 -.030	.029 -.051 .025 -.041	.033 -.061 .030 -.051	.046 -.061 .041 -.056	.061 -.086 .051 -.071	.086 -.112 .061 -.081	.091 -.122 .076 -.102	
	CARBON STEELS										
	1000's - 1018, 1020, 12L14	< 40	140 - 230	.025 -.043	.029 -.053	.033 -.064	.046 -.061	.061 -.086	.086 -.112	.091 -.122	
K	CAST MATERIAL										
	Ductile Iron		130 - 200	.030 -.048	.034 -.056	.038 -.066	.061 -.097	.066 -.127	.076 -.132	.122 -.193	
	Gray Iron		170 - 225	.033 -.053	.037 -.061	.041 -.069	.066 -.107	.071 -.132	.081 -.163	.132 -.213	

	Profile/Trochoidal Milling
Axial (ap)	up to 2xD
Radial (ae)	5% - 15% of Dia.



NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.