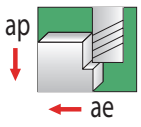
	ISO Material	HRC	M/Min. (Vc)	CHIPLOAD PER TOOTH (Fz) 12.0mm	16.0mm	20.0mm	25.0mm
S	**COBALT BASE ALLOYS**						
	Powdered Metal, Stellite, Hs-21, Haynes 25/188, X-40, L-605	< 40 > 40	37 - 75 30 - 60	.048 - .091 .036 - .079	.053 - .109 .043 - .097	.066 - .132 .051 - .122	.097 - .183 .071 - .157
	NICKEL BASE ALLOYS						
	Invar, Kovar, Inconel-625/718, Waspaloy, Rene, Hastelloy, A286	< 40 > 40	37 - 75 30 - 60	.048 - .091 .036 - .079	.053 - .109 .043 - .097	.066 - .132 .051 - .122	.097 - .183 .071 - .157
	IRON BASE ALLOYS						
	Incoloy 800-802, Multimet N-155, Timkin 16-25-6, Carpenter 22-b3	< 40 > 40	37 - 75 30 - 60	.048 - .091 .036 - .079	.053 - .109 .043 - .097	.066 - .132 .051 - .122	.097 - .183 .071 - .157
	MONEL						
	Monel - 65% Nickel		50 - 90	.048 - .091	.053 - .109	.066 - .132	.097 - .183
	TITANIUM ALLOYS						
	Commercially Pure, 6Al-4V, Astm 1/2/3, 6Al-2SN-4Zr-2Mo-Si		80 - 150	.053 - .102	.066 - .122	.071 - .142	.107 - .203
	5553 / Beta Titanium		60 - 110	.053 - .091	.066 - .109	.071 - .132	.107 - .183
M	**STAINLESS STEELS**						
	13/8, 15/5, 17-4, pH Types	< 40 > 40	90 - 150 70 - 110	.048 - .091 .036 - .079	.056 - .109 .043 - .099	.066 - .132 .051 - .122	.097 - .183 .071 - .157
	200 Series, 300 Series	< 40 > 40	110 - 170 90 - 140	.048 - .104 .036 - .079	.056 - .122 .043 - .099	.066 - .147 .051 - .122	.097 - .208 .071 - .157
	304L, 316L, Nitronic 50	< 40 > 40	100 - 160 70 - 110	.048 - .091 .036 - .079	.056 - .109 .043 - .099	.066 - .132 .051 - .122	.097 - .183 .071 - .157
	400 Series	< 40 > 40	90 - 170 70 - 130	.048 - .097 .036 - .086	.056 - .117 .043 - .104	.066 - .142 .051 - .127	.097 - .193 .071 - .173
P	**HIGH STRENGTH TOOL STEELS**						
	A2, D2, P20, H13, S7, O1	< 40 > 40	90 - 160 60 - 130	.061 - .097 .056 - .079	.066 - .117 .061 - .097	.081 - .142 .071 - .122	.122 - .193 .112 - .157
	MEDIUM ALLOY TOOL STEELS						
	4140, 4340, 52100, 6150, 8620	< 40 > 40	140 - 200 100 - 150	.061 - .102 .056 - .084	.066 - .122 .061 - .102	.081 - .147 .071 - .122	.122 - .203 .112 - .168
	CARBON STEELS						
	1000's - 1018, 1020, 12L14	< 40	150 - 240	.061 - .109	.066 - .127	.081 - .152	.122 - .218
K	**CAST MATERIAL**						
	Steel (Malleable)		140 - 210	.074 - .117	.079 - .135	.091 - .157	.147 - .234
	Ductile Iron		140 - 210	.074 - .117	.079 - .135	.091 - .157	.147 - .234
	Gray Iron		180 - 235	.079 - .122	.086 - .140	.097 - .163	.157 - .244

	Profile/Trochoidal Milling
Axial (ap)	MAX
Radial (ae)	Up to 10%



NOTE - DATA DOES NOT REFLECT CHIP THINNING.

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

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