



ISO	MATERIAL	HARDNESS	Vc (SFM)*	Fz (INCH PER TOOTH)*
P	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536	≤ 275 BHN or ≤ 28 HRC	220-650	.0032 - .0080
	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 17-4 PH	≤ 375 BHN or ≤ 40 HRC	180-500	.0030 - .0065
M	STAINLESS STEELS (FREE MACHINING) 303, 416, 420F, 430F, 440F	≤ 275 BHN or ≤ 28 HRC	200-450	.0026 - .0065
	STAINLESS STEELS (DIFFICULT) 304, 304L, 316, 316L	≤ 275 BHN or ≤ 28 HRC	120-350	.0025 - .0075
K	GRAY IRONS Class 20, 30, 40, 50, 60 ,G3000, G3500	≤ 220 BHN or ≤ 19 HRC	250-700	.0030 - .0100
	DUCTILE IRONS D&M series, 250, 300, 350, 400, 60-40-18, 65-45-12	≤ 260 BHN or ≤ 26 HRC	150-450	.0030 - .0092
N	NON-FERROUS Aluminum, Aluminum cast, Brass, Copper, Bronze, Non Metallic	≤ 271 BHN or ≤ 28 HRC	250-950	.0050 - .0130
H	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2	≤ 375 BHN or ≤ 55 HRC	80-250	.0030 - .0065
S	HR SUPER ALLOYS Inconel 718, Waspaloy, Hastelloy, Inconel 625, Stellite 31, Haynes 25, Rene 41	≤ 275 BHN or ≤ 28 HRC	50-160	.0025 - .0060
	TITANIUM 6AL-4V, ASTM 1, 2, 3,6AL-2S	≤ 275 BHN or ≤ 28 HRC	90-250	.0025 - .0075
* HIGHER Vc AND Fz APPLY TO LIGHT/FINISHING ENGAGEMENT				
* LOWER Vc AND Fz APPLY TO HEAVY/ROUGHING ENGAGEMENT				

*Speeds & feeds are starting recommendations only. Factors such as machine type, fixture, tooling rigidity, available horsepower, coolant delivery method and others will affect the performance significantly.