

Materials				Vc Cutting Speed SFM *	DC Cutting Dia. (inch)	fz Feed per Tooth (inch)	Coolant
ISO	Mat'l Group #VDI 3323	Type	Examples				
P	1-5	Non-alloy Steel	1018, A36, 1045, A572, 1070	600-1000	0.312	.015-.025	No
					0.375	.018-.028	
					0.500	.018-.028	
					0.625	.020-.030	
					0.750	.020-.030	
	6-9	Low-alloy Steel	4140, 4340, P20, 8620, 300M	500-800	0.312	.015-.025	
					0.375	.018-.028	
					0.500	.018-.028	
					0.625	.020-.030	
					0.750	.020-.030	
	10-11	High-alloy Steel	H13, A2, D2, M2, T1	450-700	0.312	.015-.025	
					0.375	.018-.028	
					0.500	.018-.028	
					0.625	.020-.030	
					0.750	.020-.030	
M	12-13	Stainless Steel (Ferritic & Martensitic)	410, 416, 440	350-600	0.312	.015-.025	Yes
					0.375	.018-.028	
					0.500	.018-.028	
					0.625	.020-.030	
					0.750	.020-.030	
	14	Stainless Steel (Austenitic)	303, 304, 316, 15-5, 17-4	300-550	0.312	.015-.025	May not be required at high speeds
					0.375	.018-.028	
					0.500	.018-.028	
K	15-16	Gray Cast Iron	CLS. 20, 30, 45	600-1000	0.312	.015-.025	No
					0.375	.018-.028	
					0.500	.018-.028	
					0.625	.020-.030	
					0.750	.020-.030	
	17-20	Nodular Cast Iron	60-40-18, 100-70-03	450-700	0.312	.015-.025	
					0.375	.018-.028	
					0.500	.018-.028	
S	31-35	High-Temp Alloys	Inconel, Hastelloy, Nimonic, Monel	65-200	0.625	.020-.030	Yes
					0.750	.020-.030	
					0.312	.008-.018	
					0.375	.012-.022	
					0.500	.012-.022	
	36-37	Titanium Alloys	6Al-4V, 5Al-5Mo-5V-3Cr	85-200	0.312	.008-.018	
					0.375	.012-.022	
					0.500	.012-.022	
H	38-39	Hardened 45-60 HRC	A2, O1, D2	150-300	0.625	.015-.025	No
					0.750	.015-.025	
					0.312	.008-.018	
					0.375	.012-.022	
					0.500	.012-.022	