

Operating Guidelines

ISO	Matl. Group No.	Material	Examples	fz Feed/Tooth (inch)	Vx Cutting Speed (SFM)	Coolant
P	1-5	Non-alloy steel	1018, A36, 1045, A572, 1070	.001 - .002	400 - 600	No
	6-9	Low alloy steel	4140, 4340, P20, 8620, 300M			
	10-11	High alloy steel	H13, A2, D2, M2, T1	.001 - .002	300 - 500	
M	12-13	Stainless Steel (ferritic & martensitic)	410, 416, 440	.001 - .002	250 - 400	Yes
	14	Stainless Steel (austenitic)	303, 304, 316, 15-5, 17-4			May not be required at high speeds
K	15-16	Grey cast iron	CLS, 20, 30, 45	.001 - .002	400 - 700	No
	17-18	Nodular cast iron	60-40-18, 100-70-03			
N	21-30	Aluminum	7075, 6061	.001 - .002	1000 - 2500	Yes
		Copper		.001 - .002	250 - 450	No

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases.