

ISO	Material Group	Workpiece Material	Tensile Strength MPa	Recommended Starting Speeds v_c (ft/min)														
				GP1225			GP3125											
				f_n (inch/rev)			f_n (inch/rev)											
				.004	.008	.016	.004	.008	.012									
P Steel	P0	Low-Carbon Steels, Long Chipping (C < .25%) Ex. A36, 1008, 1010, 1018, 1108, 1117 Brinell Hardness HB <125	<530	1400	1245	855	655	525	400									
	P1	Low-Carbon Steels, Short Chipping, Free Machining (C < .25%) Ex. 10L18, 1200 Series, 1213, 12L14 Brinell Hardness HB <125	<530	1180	1015	655	600	475	360									
	P2	Medium- and High-Carbon Steels (C > .25%) Ex. 1035, 1045, 10L45, 1080, 1137, 1144, 1525, 1572 Rockwell Hardness HRC <25	>530	920	820	590	525	445	345									
	P3	Alloy Steels and Tool Steels (C > .25%) Ex. P20, 1300, 2000, 3000, 4000, 5000, 8000, SAE A, D, H, O, S, M, T Rockwell Hardness HRC <35	600-850	790	720	490	400	300	245									
	P4	High-Strength Alloy Steels and Tool Steels (C > .25%) Ex. P20, 1300, 2000, 3000, 4000, 5000, 8000, SAE A, D, H, O, S, M, T Rockwell Hardness HRC 35 - 48	850-1400	590	525	330	310	245	180									
	P5	Ferritic, Martensitic and PH Stainless Steels Ex. 13-8 PH, 15-5 PH, 17-4 PH, 400 and 500 Series Rockwell Hardness HRC <35	600-900	855	720	560	420	320	260									
	P6	High-Strength Ferritic, Martensitic and PH Stainless Steels Ex. 13-8 PH, 15-5 PH, 17-4 PH, 400 and 500 Series Rockwell Hardness HRC 35 - 48	900-1350	425	360	300	230	190	135									

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						GM1125			GP3125									
						f_n (inch/rev)			f_n (inch/rev)									
						.004	.008	.012	.004	.008	.012							
M Stainless Steel	M1	Austenitic Stainless Steels Ex. 200 Series, 301, 302, 304, 304L, 309	130-200		<600	850	750	650	520	380	240							
	M2	High-Strength Austenitic Stainless and Cast Stainless Steels Ex. 310, 316, 316L, 321, 347, 384	150-230	<25	600-800	760	670	580	470	340	220							
	M3	Duplex Stainless Steels Ex. 323, 329, F55, 2205	135-275	<30	<800	670	600	520	420	310	200							

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						GK1115			GP3125								
						f_n (inch/rev)			f_n (inch/rev)								
						.004	.008	.016	.004	.008	.012						
K Cast Iron	K1	Gray Cast Iron Ex. Class 20, 25, 30, 35, 40, 45, 50, 55, 60, G1800, G3000, G3500, G4000	120-290	<32	125-500	1800	1180	885	625	425	360						
	K2	Ductile Cast Irons (Nodular Irons) and Compacted Graphite Irons (CGI) Ex. 60-40-18, 65-45-12, 80-55-06, SAE J434: D4018, D4512, D5506	130-260	<28	<600	1215	885	690	525	380	330						
	K3	High-Strength Ductile Irons and Austempered Ductile Irons (ADI) Ex. ASTM A536: 100-70-03, 120-90-02, SAE J434: D7003	180-350	<43	>600	885	690	560	425	360	300						