

ISO	Material Group	Workpiece Material	Tensile Strength MPa	Recommended Starting Speeds v_c (ft/min)														
				GP1105			GP1115			GP1225								
				f_n (inch/rev)			f_n (inch/rev)			f_n (inch/rev)								
				.004	.008	.012	.004	.008	.012	.004	.008	.016						
P Steel	P0	Low-Carbon Steels, Long Chipping (C < .25%) Ex. A36, 1008, 1010, 1018, 1108, 1117 Brinell Hardness HB <125	<530	1760	1550	1370	1640	1445	1280	1400	1245	855						
	P1	Low-Carbon Steels, Short Chipping, Free Machining (C < .25%) Ex. 10L18, 1200 Series, 1213, 12L14 Brinell Hardness HB <125	<530	1500	1330	1120	1400	1245	1050	1180	1015	655						
	P2	Medium- and High-Carbon Steels (C > .25%) Ex. 1035, 1045, 10L45, 1080, 1137, 1144, 1525, 1572 Rockwell Hardness HRC <25	>530	1120	1050	950	1050	985	885	920	820	590						
	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	1020	850	700	950	790	655	790	720	490						
	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	850	700	560	790	655	525	590	525	330						
	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	1050	880	700	985	820	655	855	720	560						
	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	630	530	350	590	490	330	425	360	300						

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						GS3115			GM1125								
						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	820	670	490	850	750	650						
	M2	High-Strength Austenitic Stainless and Cast Stainless Steels Ex. 310, 316, 316L, 321, 347, 384	150-230	<25	600-800	740	600	440	760	670	580						
	M3	Duplex Stainless Steels Ex. 323, 329, F55, 2205	135-275	<30	<800	655	535	390	670	600	520						

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						.004	.008	.012										
S High Temp Alloys	S1	Iron-Based Heat-Resistant Alloys Ex. A286, A608, INCOLOY 800 Series, N-155, Haynes 556, Discaloy	200-280	<30	600-1000	330	260	170										
	S2	Cobalt-Based Heat-Resistant Alloys Ex. Haynes 25 (L605), Haynes 188, Stellite, MAR-M302, MAR-M509	250-350	<35	800-1200	250	180	120										
	S3	Nickel-Based Heat-Resistant Alloys Ex. Astroloy, Hastelloy X, INCONEL 600 and 700 Series, Waspalloy	250-350	<35	800-1200	250	180	120										
	S4	Titanium and Titanium Alloys Ex. Commercially Pure Ti, Ti-5Al-2.5Sn, Ti-6Al-4V, Ti-3Al-8V-6Cr-4Zr-4Mo	300-400	33-48	900-1600	-	-	-										