

Series *XPVS & XPVSB*

Cutting Parameters

Suggested Starting Speeds & Feed Rates

Material Group	ISO Code	Material Examples	Finishing Cuts		Medium Cuts		Heavy Cuts		Slotting		Facing		Ramping	
			.1D Radial x 2D Axial		.25D Radial x 1.5D Axial		.5D Radial x 1.5D Axial		.5D Axial		.75D Radial x .25D Axial		Max. Ramp Angle - 7°	
			SFM	IPM	SFM	IPM	SFM	IPM	SFM	IPM	SFM	IPM	SFM	IPM
Steel	P	1018 thru 1095, 12L14, A-36, Hot Rolled	800	80.00	800	65.00	800	60.00	800	55.00	800	65.00	800	60.00
Steel Alloys	P	4140 thru 8820	700	70.00	700	60.00	700	55.00	700	50.00	700	60.00	700	55.00
		Steel Alloys <45 HRC, Cobalt Chrome	300	12.00	300	10.00	300	9.00	300	8.00	300	10.00	300	9.00
Tool & Mold Steels	P	H-13, O-1, A-2, D-2, S7, P20	350	45.00	350	40.00	350	30.00	350	25.00	350	40.00	350	30.00
Stainless Steel	M	303,304, 316	450	40.00	450	35.00	450	30.00	450	25.00	450	35.00	450	30.00
		410, 420, 440, 13-8, 15-5, 17-4 Ph	350	40.00	350	35.00	350	30.00	350	25.00	350	35.00	350	30.00
Cast Iron	K	Gray Cast, Malleable & Ductile Iron	800	80.00	800	65.00	800	60.00	800	55.00	800	65.00	800	60.00

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Recommended Chip Loads

Material Group	ISO Code	Material Examples	Cutting Diameter							
			1/8	3/16	1/4	3/8	1/2	5/8	3/4	1
Steel	P	1018 thru 1095, 12L14, A-36, Hot Rolled	0.0006	0.0010	0.0013	0.0020	0.0027	0.0034	0.0043	0.0052
Steel Alloys	P	4140 thru 8820	0.0007	0.0011	0.0015	0.0022	0.0030	0.0037	0.0047	0.0057
		Steel Alloys <45 HRC, Cobalt Chrome	0.0003	0.0003	0.0005	0.0008	0.0010	0.0015	0.0020	0.0030
Tool & Mold Steels	P	H-13, O-1, A-2, D-2, S7, P20	0.0010	0.0014	0.0019	0.0028	0.0037	0.0042	0.0052	0.0062
Stainless Steel	M	303,304, 316	0.0007	0.0010	0.0015	0.0020	0.0030	0.0040	0.0050	0.0060
		410, 420, 440, 13-8, 15-5, 17-4 Ph	0.0008	0.0014	0.0019	0.0028	0.0037	0.0042	0.0052	0.0062
Cast Iron	K	Gray Cast, Malleable and Ductile	0.0006	0.0010	0.0013	0.0020	0.0027	0.0034	0.0043	0.0052