

Series *SM4F & SR4F*

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	600	60.00	600	50.00	600	45.00	600	40.00	600	50.00	600	45.00
Steel Alloys	P	4140 thru 8820 Steel Alloys <45 HRC, Cobalt Chromes	500	50.00	500	45.00	500	40.00	500	35.00	500	45.00	500	40.00
Tool & Mold Steels	P	H-13, O-1, A-2, D-2, S7, P20	250	30.00	250	25.00	250	20.00	250	15.00	250	25.00	250	20.00
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	35.00	350	30.00	350	25.00	350	20.00	350	30.00	350	25.00
Cast Iron	K	Gray Cast, Malleable, Ductile	600	60.00	600	50.00	600	45.00	600	40.00	600	50.00	600	45.00

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Recommended Chip Loads

Material Group	ISO Code	Material Examples	Cutting Diameter						
			3/16	1/4	3/8	1/2	5/8	3/4	1
Steel	P	1018 thru 1095, 12L14, A-36, Hot Rolled	0.0010	0.0014	0.0020	0.0027	0.0034	0.0044	0.0055
Steel Alloys	P	4140 thru 8820, Cobalt Chromes Steel Alloys <45 HRC	0.0011	0.0015	0.0022	0.0030	0.0036	0.0048	0.0060
Tool & Mold Steels	P	H-13, O-1, A-2, D-2, S7, P20	0.0012	0.0016	0.0024	0.0032	0.0038	0.0050	0.0062
Stainless Steel	M	303,304, 316	0.0009	0.0012	0.0019	0.0025	0.0031	0.0038	0.0051
		410, 420, 440, 13-8, 15-5, 17-4 Ph	0.0010	0.0014	0.0020	0.0027	0.0034	0.0044	0.0055
Cast Iron	K	Gray Cast, Malleable, Ductile	0.0010	0.0014	0.0020	0.0027	0.0034	0.0044	0.0055