

ROUGHERS STUB AND STANDARD LENGTH INITIAL SPEEDS (SFM) AND SPEEDS (CHIP-LOAD PER/TOOTH) CHART

MATERIALS	Carbon Steels	Alloy Steel	Stainless Steels 300 Series	Stainless Steels 400 Series	Precipitation Stainless Steels	Gray Cast Iron	Ductile Cast Iron	High Temp Alloys	Titanium Pure	Titanium Cast /Wrought
DESCRIPTION	10XX,11XX,13XX,15XX	40XX,41XX,42XX,43XX,44XX,46XX,86XX, Series	304,304L,316,316L,312	420,420F,416,440C	15-5PH,16-6PH,17-4PH,AM-xx Series	Gray	Ductile	Inconel 625/718,A286 Haynes	Pure	Cast/Wrought 6AL4V,ASTM 1,2,3, Alpha-Beta
SFM < 32 RC	200-450	150-300	150-350	200-450	80-250	250-450	120-350	70-120	140-220	140-200
SFM > 32 RC	100-250	80-200	80-200	100-250	90-250	130-300	80-140	40-90	90-160	90-160
3/8 S	0.0021	0.0018	0.0020	0.0020	0.0018	0.0018	0.0018	0.0014	0.0020	0.0018
HP	0.0025	0.0021	0.0025	0.0025	0.0021	0.0021	0.0021	0.0018	0.0025	0.0025
LP	0.0029	0.0025	0.0027	0.0027	0.0025	0.0025	0.0025	0.0021	0.0027	0.0025
1/2 S	0.0030	0.0025	0.0028	0.0028	0.0025	0.0025	0.0025	0.0020	0.0028	0.0025
HP	0.0035	0.0030	0.0035	0.0035	0.0030	0.0030	0.0030	0.0025	0.0035	0.0035
LP	0.0040	.0035	0.0038	0.0038	0.0035	0.0035	0.0035	0.0030	0.0038	0.0035
5/8 S	0.0038	0.0031	0.0035	0.0035	0.0031	0.0031	0.0031	0.0025	0.0035	0.0031
HP	0.0044	0.0038	0.0044	0.0044	0.0038	0.0038	0.0038	0.0031	0.0044	0.0038
LP	0.0050	0.0044	0.0048	0.0048	0.0044	0.0044	0.0044	0.0038	0.0048	0.0044
3/4 S	0.0045	0.0038	0.0042	0.0042	0.0038	0.0038	0.0038	0.0030	0.0042	0.0038
HP	0.0053	0.0045	0.0053	0.0053	0.0045	0.0045	0.0045	0.0038	0.0053	0.0045
LP	0.0060	0.0053	0.0057	0.0057	0.0053	0.0053	0.0053	0.0045	0.0057	0.0050
1" S	0.0060	0.0050	0.0056	0.0056	0.0050	0.0050	0.0050	0.0040	0.0056	0.0060
HP	0.0070	0.0060	0.0070	0.0070	0.0060	0.0060	0.0060	0.0050	0.0070	0.0060
LP	0.0080	0.0070	0.0076	0.0076	0.0070	0.0070	0.0070	0.0060	0.0076	0.0070

S = SLOTTING
Axial Depth up to .5 x Diameter
Radial width .5 x Diameter

HP=HEAVY PERIPHERAL
Axial Depth up to Effective Length of Cut
Radial width .5 x Diameter

LP=LIGHTPERIPHERAL
Axial Depth up to Effective Length of Cut
Radial width .15 x Diameter