

Recommended Speeds and Feeds for Side Milling Cutters

- Depth of cut = .050" to .250"
- Use higher recommended speed and feed for smaller depth of cut

Material to be Machined	Hardness (BHN)	SFM range
Free Machining Carbon Steels 1212, 1108, 1213, 1116,1118,1211, 1140, 1151	100-150	120-180
Free Machining Carbon Steels - leaded 12L14	100-150	120-190
Carbon Steel wrought low carbon = 1009, 1011, 1012, 1016, 1018, 1022,1025, 1518 medium carbon = 1030, 1035,1040,1045,1049,1053,1524 high carbon = 1070, 1075, 1090, 1551	85-125	100-130
	125-200	75-90
	200-250	50-70
Alloyed steel 4110 4120 4140, 4320, 5120, 8115 8620	175-225	50-65
Ductile Cast Iron class 25, 30, 35, 40, 45 & 50	190-225	80-100
Stainless Steel	175-225	50-65
	230-300	40-60
Aluminum Alloys 2024,5050, 5056, 6061	N/A	200-400

Revolution per Minute (**RPM**)= $(3.82 \times \text{SFM}) / \text{Cutter Diameter}$

Inches per Revolution (**IPR**) feed rate = Chip load per tooth x # of teeth

Inches per Minute (**IPM**) feed rate = IPR x RPM

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Chip loads per tooth Range
.002-.006"
.002-.006"
.002-.006"
.002-.006"
.002-.005"
.002-.004"
.002-.006"
.002-.004"
.002-.004"
.002-.010"