

M8 Application Guide (metric) • Speed & Feed

ISO Classification	EM Dia.	Type of Cut	Axial DOC	Radial DOC	Speed (SFM)	RMP	IPT	IPM
S	6,0	Rough Slot	1.25 x D	.2 x D	24.38	1239	0.0190	141.2
			4.15		24.38	1239	0.0127	94.4
	8,0	Rough Slot	1.25 x D	.2 x D	24.38	970	0.0250	145.5
			5.20		24.38	970	0.0160	93.1
	10,0	Rough Slot	1.25 x D	.2 x D	24.38	776	0.0310	144.3
			6.35		24.38	776	0.0190	88.5
	12,0	Rough Slot	1.25 x D	.2 x D	24.38	647	0.0370	143.6
8.35			24.38		647	0.0254	98.5	
16,0	Rough Slot	1.25 x D	.2 x D	24.38	485	0.0500	145.5	
		10.50		24.38	485	0.0317	92.2	
20,0	Rough Slot	1.25 x D	.2 x D	24.38	388	0.0610	142.1	
		12.70		24.38	388	0.0380	88.4	
25,0	Rough Slot	1.25 x D	.2 x D	24.38	310	0.0800	148.8	
		16.90		24.38	310	0.0508	94.4	

D = Tool diameter For applications in Titanium Alloys, please see our M5 series.

Common Machining Formulas

$$\text{RPM} = \frac{\text{M/MIN} \times 318.057}{D}$$

$$\text{M/MIN} = \text{RPM} \times D \times .00314$$

$$\text{MM/MIN} = \text{RPM} \times \text{MMPT} \times Z$$

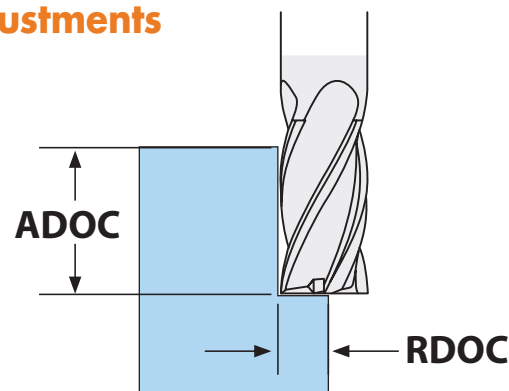
$$\text{MRR} = \text{RDOC} \times \text{ADOC} \times \text{MM/MIN}$$

- D** Tool Cutting Diameter
- R** Tool Radius
- Z** Number of Flutes
- RPM** Revolutions per Minute
- M/MIN** Meters per Minute
- MM/Min** Millimeters per Minute
- MRR** Metal Removal Rate
- RDOC** Radial Depth of Cut
- ADOC** Axial Depth of Cut

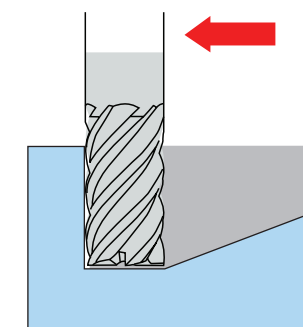
Radial Chip Thinning Adjustment

$$\text{MMPT}_{\text{adj}} = \frac{\text{MMPT} \times (D/2)}{\sqrt{(D \times \text{RDOC}) - \text{RDOC}^2}}$$

Adjustments



1. Apply chip thinning adjustment when RDOC < D



2. Ramp entry into work piece

- Ramp at 1.5°–2.5° angle
- Reduce chipload by 20% of recommended slotting rate