

GARR TOOL Aluminum Series End Mill Application Guide

Fractional

	SLOTTING		SIDE MILLING
	Axial = .5xD	Axial = 1xD	Axial ≤ 1xD Radial ≤ .5xD
	SFM = 1500 - 2000	SFM = 750 - 1500	SFM = 1500 - 2000
Diameter	CPT = 1.5% - 3.0% of diameter	CPT = 1.0% - 2.0% of diameter	CPT = 2.0% - 3.0% of diameter
3/16"	.0028" - .0056"	.0018" - .0037"	.0037" - .0056"
1/4"	.0037" - .0074"	.0025" - .0050"	.0050" - .0075"
5/16"	.0052" - .0104"	.0031" - .0062"	.0062" - .0094"
3/8"	.0055" - .0110"	.0037" - .0074"	.0075" - .0112"
1/2"	.0075" - .0150"	.0050" - .0100"	.0100" - .0150"
5/8"	.0093" - .0186"	.0062" - .0125"	.0125" - .0187"
3/4"	.0112" - .0224"	.0075" - .0150"	.0150" - .0225"
1"	.0150" - .0300"	.0100" - .0200"	.0200" - .0300"

Metric

	SLOTTING		SIDE MILLING
	Axial = 0,5xD	Axial = 1,0xD	Axial ≤ 1,0xD Radial ≤ 0,5xD
	M/Min. = 0,450 - 0,760	M/Min. = 0,225 - 0,450	M/Min. = 0,450 - 0,760
Diameter	CPT = 1,5% - 3,0% of diameter	CPT = 1,0% - 2,0% of diameter	CPT = 2,0% - 3,0% of diameter
4,0	0,060 - 0,120	0,040 - 0,080	0,080 - 0,120
6,0	0,090 - 0,180	0,060 - 0,120	0,120 - 0,180
8,0	0,120 - 0,240	0,080 - 0,160	0,160 - 0,240
10,0	0,150 - 0,300	0,100 - 0,200	0,200 - 0,300
12,0	0,180 - 0,360	0,120 - 0,240	0,240 - 0,360
16,0	0,240 - 0,480	0,160 - 0,320	0,320 - 0,480
20,0	0,300 - 0,600	0,200 - 0,400	0,400 - 0,600
25,0	0,375 - 0,750	0,250 - 0,500	0,500 - 0,750

CPT = Chipload per tooth (Fz)

END MILL NOTES: Climb milling recommended for best finish
 Figures shown are based on 6061 / 7075
 CAT 50 Taper holders are recommended for 3/4" and 1" diameter end mills
 In controlled slotting tests, 4000 SFM, 1% diameter CPT, and .5xD axial depth were obtained
 In cases for tools with slower SFM (M/Min.), reference Series 242M/842M, page 62

NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.