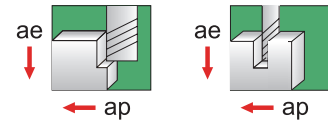


GARR TOOL Milling Guide for V4 End Mills in Titanium, Inconel, and Stainless

Fractional

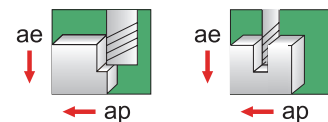
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)	Carbon Steel
	SFM = 100 - 200	SFM = 50 - 100	SFM = 100 - 225	SFM = 300 - 500
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)	CPT (Fz)
.1575" - .2755"	.0004" - .0008"	.0003" - .0006"	.0005" - .0010"	.0010" - .0025"
.2756" - .3124"	.0005" - .0010"	.0004" - .0008"	.0007" - .0012"	.0015" - .0030"
.3125" - .3749"	.0007" - .0012"	.0005" - .0010"	.0008" - .0015"	.0020" - .0035"
.3750" - .4999"	.0008" - .0015"	.0007" - .0012"	.0010" - .0018"	.0025" - .0040"
.5000" - .6249"	.0010" - .0018"	.0008" - .0015"	.0012" - .0020"	.0030" - .0035"
.6250" - .7499"	.0012" - .0020"	.0010" - .0018"	.0015" - .0022"	.0035" - .0040"
.7500" - .8749"	.0015" - .0022"	.0012" - .0020"	.0018" - .0025"	.0040" - .0045"
.8750" - 1.000"	.0018" - .0025"	.0015" - .0022"	.0022" - .0030"	.0045" - .0050"

	Profiling Side Cutting	Slotting Pocket Milling
Axial (ae)	1xD	100% of Dia.
Radial (ap)	100% of Dia.	1xD



	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)	Carbon Steel
	SFM = 150 - 250	SFM = 60 - 125	SFM = 150 - 300	SFM = 250 - 400
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)	CPT (Fz)
.1575" - .2755"	.0008" - .0011"	.0004" - .0008"	.0008" - .0012"	.0008" - .0020"
.2756" - .3124"	.0010" - .0015"	.0005" - .0010"	.0010" - .0018"	.0010" - .0020"
.3125" - .3749"	.0012" - .0018"	.0007" - .0012"	.0012" - .0020"	.0015" - .0025"
.3750" - .4999"	.0012" - .0021"	.0008" - .0015"	.0015" - .0022"	.0020" - .0030"
.5000" - .6249"	.0015" - .0025"	.0010" - .0018"	.0018" - .0030"	.0020" - .0025"
.6250" - .7499"	.0018" - .0030"	.0012" - .0020"	.0020" - .0033"	.0025" - .0030"
.7500" - .8749"	.0020" - .0032"	.0015" - .0022"	.0023" - .0037"	.0030" - .0035"
.8750" - 1.000"	.0025" - .0035"	.0018" - .0025"	.0027" - .0040"	.0035" - .0040"

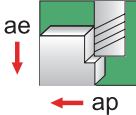
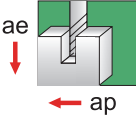
	Profiling Side Cutting	Slotting Pocket Milling
Axial (ae)	1xD	50% of Dia.
Radial (ap)	50% of Dia.	1xD

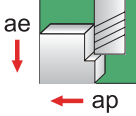
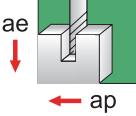


NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.

GARR TOOL Milling Guide for V4 End Mills in Titanium, Inconel, and Stainless

Metric

	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)	Carbon Steel		Profiling Side Cutting	Slotting Pocket Milling
	SMM = 30 - 60	SMM = 15 - 30	SMM = 30 - 70	SMM = 90 - 150	Axial (ae)	1xD	100% of Dia.
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)	CPT (Fz)	Radial (ap)	100% of Dia.	1xD
4.0 - 7.0	.010 - .020	.005 - .008	.010 - .025	.025 - .065			
7.0 - 8.0	.012 - .025	.010 - .020	.015 - .030	.035 - .080			
8.0 - 10.0	.015 - .030	.012 - .025	.020 - .040	.045 - .090			
10.0 - 13.0	.020 - .040	.015 - .030	.025 - .045	.055 - .100			
13.0 - 16.0	.025 - .045	.020 - .040	.030 - .050	.075 - .095			
16.0 - 19.0	.030 - .050	.025 - .045	.035 - .055	.085 - .105			
19.0 - 22.0	.035 - .055	.030 - .050	.045 - .065	.095 - .115			
22.0 - 25.0	.045 - .065	.035 - .055	.055 - .075	.105 - .125			

	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)	Carbon Steel		Profiling Side Cutting	Slotting Pocket Milling
	SMM = 45 - 75	SMM = 20 - 40	SMM = 45 - 90	SMM = 75 - 120	Axial (ae)	1xD	50% of Dia.
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)	CPT (Fz)	Radial (ap)	50% of Dia.	1xD
4.0 - 7.0	.020 - .030	.010 - .020	.020 - .030	.020 - .050			
7.0 - 8.0	.025 - .040	.013 - .025	.025 - .045	.025 - .055			
8.0 - 10.0	.030 - .045	.018 - .030	.030 - .050	.030 - .065			
10.0 - 13.0	.030 - .050	.020 - .040	.035 - .055	.050 - .080			
13.0 - 16.0	.035 - .060	.025 - .045	.045 - .075	.055 - .085			
16.0 - 19.0	.045 - .075	.030 - .050	.050 - .080	.060 - .090			
19.0 - 22.0	.050 - .080	.035 - .055	.055 - .095	.065 - .095			
22.0 - 25.0	.060 - .090	.045 - .065	.065 - .105	.070 - .100			

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