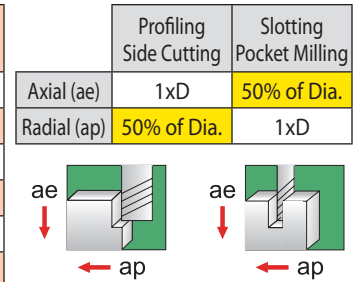


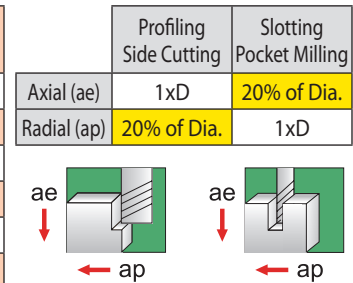
GARR TOOL Milling Guide for V5 End Mills in Titanium, Inconel, and Stainless

Fractional

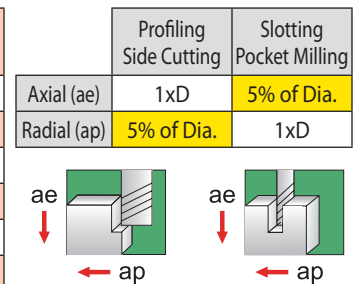
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SFM = 150 - 250	SFM = 60 - 125	SFM = 150 - 300
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
.2362" - .2755"	.0008" - .0011"	.0004" - .0008"	.0008" - .0012"
.2756" - .3124"	.0010" - .0015"	.0005" - .0010"	.0010" - .0018"
.3125" - .3749"	.0012" - .0018"	.0007" - .0012"	.0012" - .0020"
.3750" - .4999"	.0012" - .0021"	.0008" - .0015"	.0015" - .0022"
.5000" - .6249"	.0015" - .0025"	.0010" - .0018"	.0018" - .0030"
.6250" - .7499"	.0018" - .0030"	.0012" - .0020"	.0020" - .0033"
.7500" - .8749"	.0020" - .0032"	.0015" - .0022"	.0025" - .0037"
.8750" - 1.000"	.0025" - .0035"	.0018" - .0025"	.0030" - .0042"



	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SFM = 300 - 500	SFM = 100 - 200	SFM = 250 - 400
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
.2362" - .2755"	.0008" - .0012"	.0004" - .0008"	.0008" - .0012"
.2756" - .3124"	.0010" - .0018"	.0005" - .0010"	.0012" - .0018"
.3125" - .3749"	.0012" - .0020"	.0007" - .0012"	.0015" - .0022"
.3750" - .4999"	.0015" - .0022"	.0008" - .0015"	.0018" - .0025"
.5000" - .6249"	.0018" - .0030"	.0010" - .0018"	.0020" - .0030"
.6250" - .7499"	.0020" - .0033"	.0012" - .0020"	.0025" - .0035"
.7500" - .8749"	.0025" - .0037"	.0015" - .0022"	.0030" - .0040"
.8750" - 1.000"	.0030" - .0042"	.0018" - .0025"	.0035" - .0045"



	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SFM = 400 - 700	SFM = 150 - 250	SFM = 300 - 500
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
.2362" - .2755"	.0008" - .0012"	.0005" - .0010"	.0010" - .0015"
.2756" - .3124"	.0012" - .0018"	.0007" - .0012"	.0012" - .0020"
.3125" - .3749"	.0015" - .0022"	.0008" - .0015"	.0015" - .0025"
.3750" - .4999"	.0018" - .0025"	.0010" - .0018"	.0018" - .0030"
.5000" - .6249"	.0020" - .0030"	.0012" - .0020"	.0020" - .0035"
.6250" - .7499"	.0025" - .0035"	.0015" - .0022"	.0022" - .0040"
.7500" - .8749"	.0030" - .0040"	.0018" - .0025"	.0025" - .0045"
.8750" - 1.000"	.0035" - .0045"	.0022" - .0030"	.0030" - .0050"



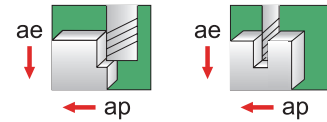
NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.

GARR TOOL Milling Guide for V5 End Mills in Titanium, Inconel, and Stainless

Metric

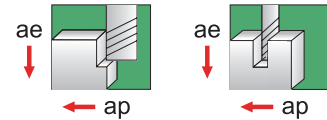
DIAMETER	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SMM = 45 - 75	SMM = 20 - 40	SMM = 45 - 90
	CPT (Fz)	CPT (Fz)	CPT (Fz)
6.0 - 8.0	.020 - .030	.010 - .020	.020 - .030
8.0 - 10.0	.025 - .040	.013 - .025	.025 - .045
10.0 - 12.0	.030 - .045	.018 - .030	.030 - .050
12.0 - 14.0	.030 - .050	.020 - .040	.035 - .055
14.0 - 16.0	.035 - .060	.025 - .045	.045 - .075
16.0 - 18.0	.045 - .075	.030 - .050	.050 - .080
18.0 - 20.0	.050 - .080	.035 - .055	.055 - .095
22.0 - 25.0	.060 - .090	.045 - .065	.065 - 0.105

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



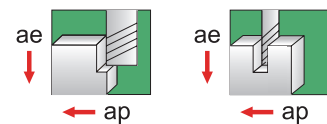
DIAMETER	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SMM = 90 - 150	SMM = 30 - 60	SMM = 75 - 120
	CPT (Fz)	CPT (Fz)	CPT (Fz)
6.0 - 8.0	.020 - .030	.010 - .020	.020 - .030
8.0 - 10.0	.025 - .045	.013 - .025	.030 - .045
10.0 - 12.0	.035 - .055	.020 - .035	.045 - .060
12.0 - 14.0	.045 - .060	.025 - .040	.050 - .070
14.0 - 16.0	.050 - .075	.030 - .045	.055 - .075
16.0 - 18.0	.055 - .080	.035 - .055	.065 - .085
18.0 - 20.0	.060 - .085	.040 - .065	.070 - .090
22.0 - 25.0	.065 - .090	.045 - .075	.080 - .100

	Profiling Side Cutting	Slotting Pocket Milling
Axial (ae)	1xD	20% of Dia.
Radial (ap)	20% of Dia.	1xD



DIAMETER	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SMM = 120 - 210	SMM = 45 - 75	SMM = 90 - 150
	CPT (Fz)	CPT (Fz)	CPT (Fz)
6.0 - 8.0	.020 - .040	.010 - .020	.025 - .045
8.0 - 10.0	.040 - .055	.013 - .025	.040 - .060
10.0 - 12.0	.050 - .060	.020 - .040	.050 - .070
12.0 - 14.0	.055 - .065	.025 - .045	.055 - .075
14.0 - 16.0	.060 - .075	.030 - .050	.065 - .085
16.0 - 18.0	.070 - .090	.035 - .060	.080 - .100
18.0 - 20.0	.085 - .100	.040 - .070	.090 - .110
22.0 - 25.0	.090 - .110	.045 - .080	.095 - .120

	Profiling Side Cutting	Slotting Pocket Milling
Axial (ae)	1xD	5% of Dia.
Radial (ap)	5% of Dia.	1xD



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