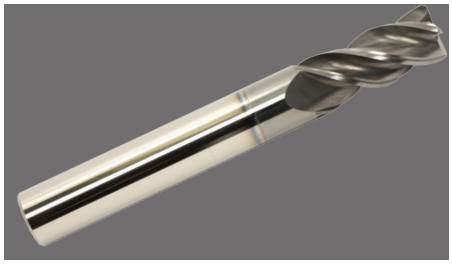
V4-R *Corner Radius*

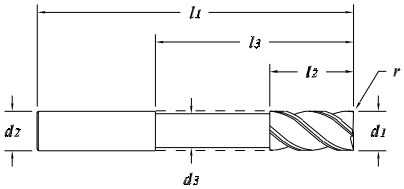
.2362" - 1.000"
(6.000mm - 25.400mm)

TOLERANCES	
d_1	+.000" –.002" (+.000mm –.050mm)
d_2	–.0001" –.0004" (–.0025 –.0100mm)
r	+.001" –.001" (+.025 –.025mm)

Variable Helix 4 Flute End Mill - ALCRONA Coated



Solid submicron grain carbide end mill - center cutting
Recommended for Titanium, Inconel, and Steels (< 40Rc)
PCT (Polish Carbide Treatment) enhances tool life by 20%
Minimizes burr on part
Helix geometry varies over length of flutes
Variable flute design helps with chip evacuation in slots and pockets
Variable rake aids in chip formation
Can be modified with a flat within 48 hours



EDP#	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
50204	.2362"		6.000	6.0	65	19	0.3	-	-
50205	.2362"		6.000	6.0	65	19	0.5	-	-
50206	.2362"		6.000	6.0	65	19	1.0	-	-
50207	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	.010"	-	-
50208	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	.015"	-	-
50209	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	.030"	-	-
50210	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	.060"	-	-
50211	.2500"	1/4"	6.350	1/4"	4"	3/8"	.015"	1-1/4"	.230"
50212	.3125"	5/16"	7.938	5/16"	2-1/2"	13/16"	.020"	-	-
50213	.3125"	5/16"	7.938	5/16"	2-1/2"	13/16"	.030"	-	-
50214	.3150"		8.000	8.0	65	22	0.5	-	-
50215	.3150"		8.000	8.0	65	22	1.0	-	-
50216	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.010"	-	-
50217	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.020"	-	-
50218	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.030"	-	-
50219	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.060"	-	-
50220	.3750"	3/8"	9.525	3/8"	4"	1/2"	.020"	1-7/8"	.350"
50221	.3937"		10.000	10.0	70	22	0.5	-	-
50222	.4724"		12.000	12.0	75	32	0.5	-	-
50223	.4724"		12.000	12.0	75	32	1.0	-	-
50224	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.010"	-	-
50225	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.020"	-	-
50226	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.030"	-	-
50227	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.060"	-	-
50228	.5000"	1/2"	12.700	1/2"	4"	5/8"	.020"	2-1/4"	.470"
50229	.6250"	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.020"	-	-
50230	.6250"	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.120"	-	-
50231	.6299"		16.000	16.0	88	32	0.5	-	-
50232	.7500"	3/4"	19.050	3/4"	4"	1-1/2"	.030"	-	-
50233	1.000"	1"	25.400	1"	4"	1-1/2"	.030"	-	-
50234	1.000"	1"	25.400	1"	5"	2-1/8"	.030"	-	-

† *Metric equivalents are for reference only*

V4-S *Square End*

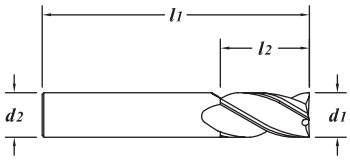
.2362" - 1.000"
(6.000mm - 25.400mm)

TOLERANCES

d_1	+.000" –.002" (+.000mm –.050mm)
d_2	–.0001" –.0004" (–.0025 –.0100mm)

Variable Helix 4 Flute End Mill - ALCRONA Coated

Solid submicron grain carbide end mill - center cutting
Recommended for Titanium, Inconel, and Steels (< 40Rc)
PCT (Polish Carbide Treatment) enhances tool life by 20%
Minimizes burr on part
Helix geometry varies over length of flutes
Variable flute design helps with chip evacuation in slots and pockets
Variable rake aids in chip formation
Can be modified with a flat within 48 hours



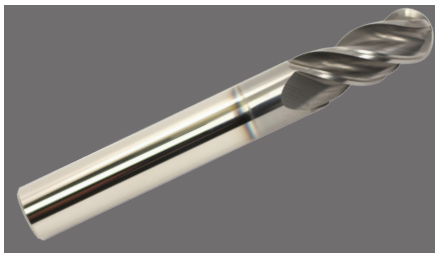
EDP#	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length
50237	.2362"		6.000	6.0	65	19
50238	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"
50239	.3125"	5/16"	7.937	5/16"	2-1/2"	13/16"
50240	.3150"		8.000	8.0	65	22
50241	.3750"	3/8"	9.525	3/8"	2-1/2"	1"
50242	.3937"		10.000	10.0	70	22
50243	.4724"		12.000	12.0	75	32
50244	.5000"	1/2"	12.700	1/2"	3"	1-1/4"
50245	.5000"	1/2"	12.700	1/2"	4"	2-1/8"
50246	.6250"	5/8"	15.875	5/8"	3-1/2"	1-1/4"
50247	.6299"		16.000	16.0	88	32
50248	.7500"	3/4"	19.050	3/4"	4"	1-1/2"
50249	.7874"		20.000	20.0	100	38
50250	1.000"	1"	25.400	1"	4"	1-1/2"

V4-B *Ball End*

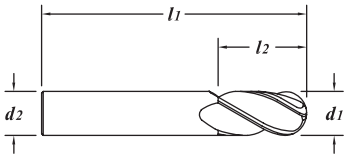
.2362" - 1.000"
(6.000mm - 25.400mm)

TOLERANCES	
d_1	+.000" –.002" (+.000mm –.050mm)
d_2	–.0001" –.0004" (–.0025 –.0100mm)
ball radius	+.000" –.001" (+.000 –.025mm)

Variable Helix 4 Flute End Mill - ALCRONA Coated



Solid submicron grain carbide end mill - center cutting
Recommended for Titanium, Inconel, and Steels (< 40Rc)
PCT (Polish Carbide Treatment) enhances tool life by 20%
Minimizes burr on part
Helix geometry varies over length of flutes
Variable flute design helps with chip evacuation in slots and pockets
Variable rake aids in chip formation
Can be modified with a flat within 48 hours



EDP#	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length
50253	.2362"		6.000	6.0	65	19
50254	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"
50255	.3125"	5/16"	7.937	5/16"	2-1/2"	13/16"
50256	.3150"		8.000	8.0	65	22
50257	.3750"	3/8"	9.525	3/8"	2-1/2"	1"
50258	.3937"		10.000	10.0	70	22
50259	.4724"		12.000	12.0	75	32
50260	.5000"	1/2"	12.700	1/2"	3"	1-1/4"
50261	.5000"	1/2"	12.700	1/2"	4"	2-1/8"
50262	.6250"	5/8"	15.875	5/8"	3-1/2"	1-1/4"
50263	.6299"		16.000	16.0	88	32
50264	.7500"	3/4"	19.050	3/4"	4"	1-1/2"
50265	.7874"		20.000	20.0	100	38
50266	1.000"	1"	25.400	1"	4"	1-1/2"

† *Metric equivalents are for reference only*

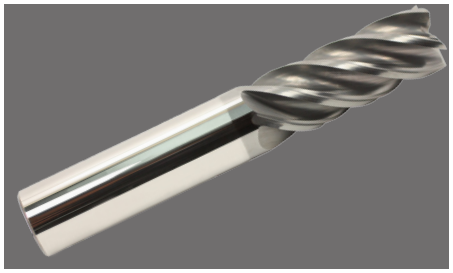
V5 - 5 Flute

.2362" - .3150"
(6.000mm - 8.000mm)

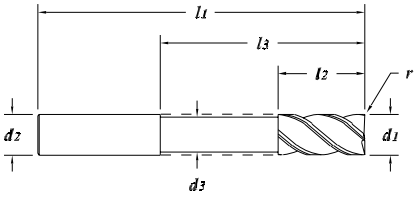
TOLERANCES

d_1	+.000" –.002" (+.000mm –.050mm)
d_2	–.0001" –.0004" (–.0025 –.0100mm)
r	+.001" –.001" (+.025 –.025mm)

Variable Helix 5 Flute End Mill - ALCRONA Coated



Solid submicron grain carbide end mill - center cutting
Recommended for Titanium, Inconel, and Stainless Steel
PCT (Polish Carbide Treatment) enhances tool life by 20%
Minimizes burr on part
Helix geometry varies over length of flutes
Staggered flutes to control harmonics
Variable flute design to help with chip evacuation in slots and pockets
Variable rake to help chip formation
Can be modified with a flat within 48 hours



EDP#	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
50000	.2362"		6.000	6.0	50	13	-	-	-
50001	.2362"		6.000	6.0	50	13	0.5	-	-
50002	.2362"		6.000	6.0	65	19	-	-	-
50003	.2362"		6.000	6.0	65	19	0.5	-	-
50004	.2362"		6.000	6.0	65	13	-	20	5.4
50005	.2362"		6.000	6.0	65	13	0.5	20	5.4
50006	.2362"		6.000	6.0	65	13	1.0	20	5.4
50007	.2500"	1/4"	6.350	1/4"	2"	3/8"	-	-	-
50008	.2500"	1/4"	6.350	1/4"	2"	3/8"	.015"	-	-
50009	.2500"	1/4"	6.350	1/4"	2"	3/8"	.030"	-	-
50011	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	-	-	-
50012	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	.015"	-	-
50013	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	.020"	-	-
50014	.2500"	1/4"	6.350	1/4"	2-1/2"	3/4"	.030"	-	-
50015	.2500"	1/4"	6.350	1/4"	3"	1"	-	-	-
50016	.2500"	1/4"	6.350	1/4"	3"	1"	.030"	-	-
50017	.2500"	1/4"	6.350	1/4"	4"	1/2"	.015"	1-1/4"	.235"
50018	.3125"	5/16"	7.938	5/16"	2-1/2"	13/16"	-	-	-
50019	.3125"	5/16"	7.938	5/16"	2-1/2"	13/16"	.015"	-	-
50021	.3125"	5/16"	7.938	5/16"	2-1/2"	13/16"	.020"	-	-
50022	.3125"	5/16"	7.938	5/16"	2-1/2"	13/16"	.030"	-	-
50023	.2756"		7.000	8.0	65	22	0.2	-	-
50024	.3150"		8.000	8.0	65	22	0.2	-	-
50025	.3150"		8.000	8.0	65	22	0.5	-	-
50026	.3150"		8.000	8.0	75	19	-	26	7.2
50027	.3150"		8.000	8.0	75	19	0.5	26	7.2
50028	.3150"		8.000	8.0	75	19	1.0	26	7.2

continued →

V5 - 5 Flute *(continued)*

.3750" - .7087"
(9.525mm - 18.000mm)

EDP#	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
50029	.3750"	3/8"	9.525	3/8"	2"	1/2"	-	-	-
50031	.3750"	3/8"	9.525	3/8"	2"	1/2"	.015"	-	-
50032	.3750"	3/8"	9.525	3/8"	2"	1/2"	.020"	-	-
50033	.3750"	3/8"	9.525	3/8"	2"	1/2"	.030"	-	-
50034	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	-	-	-
50035	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.015"	-	-
50036	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.020"	-	-
50037	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.030"	-	-
50038	.3750"	3/8"	9.525	3/8"	2-1/2"	1"	.060"	-	-
50039	.3750"	3/8"	9.525	3/8"	4"	2"	-	-	-
50041	.3750"	3/8"	9.525	3/8"	4"	2"	.030"	-	-
50042	.3750"	3/8"	9.525	3/8"	4"	7/8"	.015"	1-7/8"	.355"
50043	.3937"		10.000	10.0	70	22	-	-	-
50044	.3937"		10.000	10.0	70	22	0.5	-	-
50045	.3937"		10.000	10.0	75	22	-	32	9.0
50046	.3937"		10.000	10.0	75	22	0.5	32	9.0
50047	.3937"		10.000	10.0	75	22	1.0	32	9.0
50048	.4724"		12.000	12.0	75	32	-	-	-
50049	.4724"		12.000	12.0	75	32	0.5	-	-
50051	.4724"		12.000	12.0	100	26	-	38	10.8
50052	.4724"		12.000	12.0	100	26	0.5	38	10.8
50053	.4724"		12.000	12.0	100	26	1.0	38	10.8
50054	.5000"	1/2"	12.700	1/2"	2-1/2"	5/8"	-	-	-
50106	.5000"	1/2"	12.700	1/2"	2-1/2"	5/8"	.010"	-	-
50055	.5000"	1/2"	12.700	1/2"	2-1/2"	5/8"	.020"	-	-
50107	.5000"	1/2"	12.700	1/2"	2-1/2"	5/8"	.030"	-	-
50056	.5000"	1/2"	12.700	1/2"	3"	1"	-	-	-
50108	.5000"	1/2"	12.700	1/2"	3"	1"	.010"	-	-
50057	.5000"	1/2"	12.700	1/2"	3"	1"	.020"	-	-
50109	.5000"	1/2"	12.700	1/2"	3"	1"	.030"	-	-
50058	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	-	-	-
50111	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.010"	-	-
50059	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.015"	-	-
50061	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.020"	-	-
50062	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.030"	-	-
50063	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.045"	-	-
50064	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.060"	-	-
50065	.5000"	1/2"	12.700	1/2"	3"	1-1/4"	.090"	-	-
50066	.5000"	1/2"	12.700	1/2"	4"	1-1/4"	.030"	2-1/4"	.475"
50067	.5000"	1/2"	12.700	1/2"	4"	2-1/8"	-	-	-
50068	.5000"	1/2"	12.700	1/2"	4"	2-1/8"	.030"	-	-
50069	.6250"	5/8"	15.875	5/8"	3-1/2"	1-1/4"	-	-	-
50071	.6250"	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.030"	-	-
50072	.6250"	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.060"	-	-
50073	.6250"	5/8"	15.875	5/8"	4"	1-1/4"	.030"	2-1/4"	.590"
50074	.6299"		16.000	16.0	88	32	-	-	-
50075	.6299"		16.000	16.0	88	32	0.5	-	-
50076	.6299"		16.000	16.0	100	32	-	50	14.4
50077	.6299"		16.000	16.0	100	32	0.5	50	14.4
50078	.7087"		18.000	18.0	100	32	0.75	-	-

† *Metric equivalents are for reference only*

V5 - 5 Flute *(continued)*

.7500" - 1.000"
(19.050mm - 25.400mm)

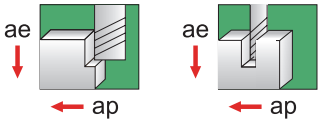
EDP#	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
50079	.7500"	3/4"	19.050	3/4"	3"	7/8"	-	-	-
50081	.7500"	3/4"	19.050	3/4"	3"	7/8"	.030"	-	-
50082	.7500"	3/4"	19.050	3/4"	4"	1-1/2"	-	-	-
50083	.7500"	3/4"	19.050	3/4"	4"	1-1/2"	.030"	-	-
50084	.7500"	3/4"	19.050	3/4"	4"	1-1/2"	.060"	-	-
50085	.7500"	3/4"	19.050	3/4"	4"	1-1/2"	.120"	-	-
50086	.7500"	3/4"	19.050	3/4"	5"	2-1/8"	-	-	-
50087	.7500"	3/4"	19.050	3/4"	5"	2-1/8"	.030"	-	-
50088	.7500"	3/4"	19.050	3/4"	5-1/2"	1-1/2"	.030"	3-1/4"	.705"
50089	.7500"	3/4"	19.050	3/4"	6"	3-1/4"	-	-	-
50091	.7500"	3/4"	19.050	3/4"	6"	3-1/4"	.030"	-	-
50092	.7874"		20.000	20.0	100	38	-	-	-
50093	.7874"		20.000	20.0	100	38	0.75	-	-
50094	1.000"	1"	25.400	1"	4"	1-1/4"	-	-	-
50095	1.000"	1"	25.400	1"	4"	1-1/4"	.030"	-	-
50096	1.000"	1"	25.400	1"	4"	1-1/4"	.060"	-	-
50097	1.000"	1"	25.400	1"	4"	1-3/4"	-	-	-
50098	1.000"	1"	25.400	1"	4"	1-3/4"	.030"	-	-
50099	1.000"	1"	25.400	1"	4"	1-3/4"	.060"	-	-
50101	1.000"	1"	25.400	1"	5-1/2"	1-3/4"	.030"	3-1/4"	.940"
50102	1.000"	1"	25.400	1"	5-1/2"	1-3/4"	.060"	3-1/4"	.940"
50103	1.000"	1"	25.400	1"	5-1/2"	1-3/4"	.120"	3-1/4"	.940"
50104	1.000"	1"	25.400	1"	6"	3-1/4"	-	-	-
50105	1.000"	1"	25.400	1"	6"	3-1/4"	.030"	-	-

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

FRACTIONAL

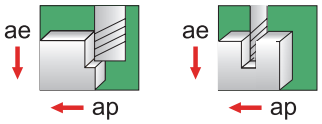
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SFM = 150 - 250	SFM = 60 - 125	SFM = 150 - 300
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
.1575" - .2755"	.0004" - .0008"	.0004" - .0008"	.0005" - .0010"
.2756" - .3124"	.0005" - .0010"	.0005" - .0010"	.0007" - .0012"
.3125"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

	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)
	SFM = 150 - 250	SFM = 60 - 125	SFM = 150 - 300
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
.1575" - .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"	.0023" - .0037"
.8750" - 1.000"	.0025" - .0035"	.0018" - .0025"	.0027" - .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.

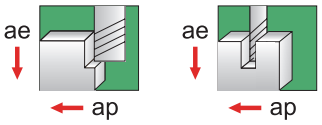
† *Metric equivalents are for reference only*

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

METRIC

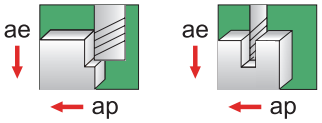
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SMM = 45 - 75	SMM = 20 - 40	SMM = 45 - 90
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
4.0 - 7.0	0.010 - 0.020	0.010 - 0.020	0.010 - 0.025
7.0 - 8.0	0.012 - 0.025	0.012 - 0.025	0.015 - 0.030
8.0 - 10.0	0.015 - 0.030	0.015 - 0.030	0.020 - 0.040
10.0 - 13.0	0.020 - 0.040	0.020 - 0.040	0.025 - 0.045
13.0 - 16.0	0.025 - 0.045	0.025 - 0.045	0.030 - 0.050
16.0 - 19.0	0.030 - 0.050	0.030 - 0.050	0.035 - 0.055
19.0 - 22.0	0.035 - 0.055	0.035 - 0.055	0.045 - 0.065
22.0 - 25.0	0.045 - 0.065	0.045 - 0.065	0.055 - 0.075

	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)
	SMM = 45 - 75	SMM = 20 - 40	SMM = 45 - 90
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
4.0 - 7.0	0.020 - 0.030	0.010 - 0.020	0.020 - 0.030
7.0 - 8.0	0.025 - 0.040	0.013 - 0.025	0.025 - 0.045
8.0 - 10.0	0.030 - 0.045	0.018 - 0.030	0.030 - 0.050
10.0 - 13.0	0.030 - 0.050	0.020 - 0.040	0.035 - 0.055
13.0 - 16.0	0.035 - 0.060	0.025 - 0.045	0.045 - 0.075
16.0 - 19.0	0.045 - 0.075	0.030 - 0.050	0.050 - 0.080
19.0 - 22.0	0.050 - 0.080	0.035 - 0.055	0.055 - 0.095
22.0 - 25.0	0.060 - 0.090	0.045 - 0.065	0.065 - 0.105

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



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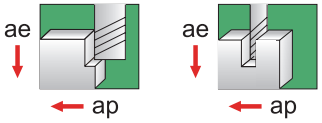
GARR TOOL High Speed Milling Guide for V5 End Mills in Titanium, Inconel, and Stainless

FRACTIONAL

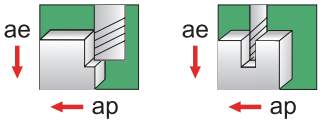
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SFM = 150 - 250	SFM = 60 - 125	SFM = 150 - 300
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
.2362" - .2755"	.0008" - .0011"	.0004" - .0008"	.0008" - .0012"
.2756" - .3124"	.0010" - .0015"	.0005" - .0010"	.0010" - .0018"
.3125" - .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"

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



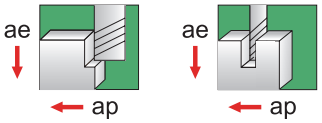
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SFM = 300 - 500	SFM = 100 - 200	SFM = 250 - 400
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
.2362" - .2755"	.0008" - .0012"	.0004" - .0008"	.0008" - .0012"
.2756" - .3124"	.0010" - .0018"	.0005" - .0010"	.0012" - .0018"
.3125" - .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"

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



	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"

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



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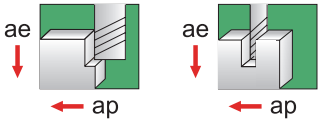
GARR TOOL High Speed Milling Guide for V5 End Mills in Titanium, Inconel, and Stainless

METRIC

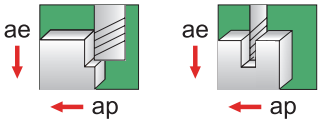
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SMM = 45 - 75	SMM = 20 - 40	SMM = 45 - 90
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
6.0 - 8.0	0.020 - 0.030	0.010 - 0.020	0.020 - 0.030
8.0 - 10.0	0.025 - 0.040	0.013 - 0.025	0.025 - 0.045
10.0 - 12.0	0.030 - 0.045	0.018 - 0.030	0.030 - 0.050
12.0 - 14.0	0.030 - 0.050	0.020 - 0.040	0.035 - 0.055
14.0 - 16.0	0.035 - 0.060	0.025 - 0.045	0.045 - 0.075
16.0 - 18.0	0.045 - 0.075	0.030 - 0.050	0.050 - 0.080
18.0 - 20.0	0.050 - 0.080	0.035 - 0.055	0.055 - 0.095
22.0 - 25.0	0.060 - 0.090	0.045 - 0.065	0.065 - 0.105

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



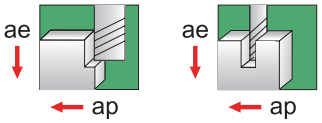
	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SMM = 90 - 150	SMM = 30 - 60	SMM = 75 - 120
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
6.0 - 8.0	0.020 - 0.030	0.010 - 0.020	0.020 - 0.030
8.0 - 10.0	0.025 - 0.045	0.013 - 0.025	0.030 - 0.045
10.0 - 12.0	0.035 - 0.055	0.020 - 0.035	0.045 - 0.060
12.0 - 14.0	0.045 - 0.060	0.025 - 0.040	0.050 - 0.070
14.0 - 16.0	0.050 - 0.075	0.030 - 0.045	0.055 - 0.075
16.0 - 18.0	0.055 - 0.080	0.035 - 0.055	0.065 - 0.085
18.0 - 20.0	0.060 - 0.085	0.040 - 0.065	0.070 - 0.090
22.0 - 25.0	0.065 - 0.090	0.045 - 0.075	0.080 - 0.100

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



	Titanium Alloys	Nickel or Cobalt-based Material	Stainless (400 Series, pH Series)
	SMM = 120 - 210	SMM = 45 - 75	SMM = 90 - 150
DIAMETER	CPT (Fz)	CPT (Fz)	CPT (Fz)
6.0 - 8.0	0.020 - 0.040	0.010 - 0.020	0.025 - 0.045
8.0 - 10.0	0.040 - 0.055	0.013 - 0.025	0.040 - 0.060
10.0 - 12.0	0.050 - 0.060	0.020 - 0.040	0.050 - 0.070
12.0 - 14.0	0.055 - 0.065	0.025 - 0.045	0.055 - 0.075
14.0 - 16.0	0.060 - 0.075	0.030 - 0.050	0.065 - 0.085
16.0 - 18.0	0.070 - 0.090	0.035 - 0.060	0.080 - 0.100
18.0 - 20.0	0.085 - 0.100	0.040 - 0.070	0.090 - 0.110
22.0 - 25.0	0.090 - 0.110	0.045 - 0.080	0.095 - 0.120

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



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