

V4R - 4 Flute

Technical information: page 234-235

NEW SERIES



TOLERANCES	
d_1	+0.000" - .002" (+.000mm - .050mm)
d_2	-.0001" - .0004" (-.0025 - .0100mm)
r	+0.001" - .001" (+.025 - .025mm)

.2362" - .3937"
(6.000mm - 10.000mm)

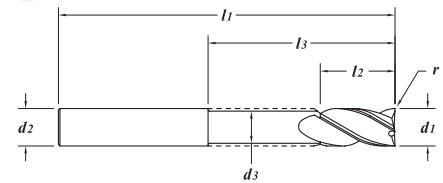
Variable Helix End Mill - Corner Radius - ALCRONA PRO Coated

- 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
- 12mm and larger tools offered with weldon flat
- Smaller diameters can be modified with a flat within 48 hours

V4 Square End - page 131

V4 Ball End - page 132

The combination of an extended flute length with a weldon flat may cause the flute washout to reach inside some end mill holders



HIGH PERFORMANCE END MILLS

EDP#	<i>d1</i> †	<i>d2</i>	<i>l1</i>	<i>l2</i>	<i>r</i>	<i>l3</i>	<i>d3</i>						
								1-11	12-24	25-49	50-100		
(plain) (weldon)	Decimal Diameter Metric	Shank Diameter	Overall Length	Flute Length	Corner Radius	Reach Length	Neck Diameter						
50199	-	.2362"	6.000	6.0	65	12	0.3	-	-	25.74	24.62	23.50	22.38
50200	-	.2362"	6.000	6.0	65	12	0.5	-	-	25.74	24.62	23.50	22.38
50201	-	.2362"	6.000	6.0	65	12	0.75	-	-	25.74	24.62	23.50	22.38
50202	-	.2362"	6.000	6.0	65	12	1.0	-	-	25.74	24.62	23.50	22.38
50203	-	.2362"	6.000	6.0	65	12	1.5	-	-	25.74	24.62	23.50	22.38
50204	-	.2362"	6.000	6.0	65	19	0.3	-	-	25.74	24.62	23.50	22.38
50205	-	.2362"	6.000	6.0	65	19	0.5	-	-	25.74	24.62	23.50	22.38
50206	-	.2362"	6.000	6.0	65	19	1.0	-	-	25.74	24.62	23.50	22.38
50207	-	.2500"	6.350	1/4"	2-1/2"	3/4"	.010"	-	-	24.75	23.67	22.60	21.52
50208	-	.2500"	6.350	1/4"	2-1/2"	3/4"	.015"	-	-	24.75	23.67	22.60	21.52
50209	-	.2500"	6.350	1/4"	2-1/2"	3/4"	.030"	-	-	24.75	23.67	22.60	21.52
50210	-	.2500"	6.350	1/4"	2-1/2"	3/4"	.060"	-	-	24.75	23.67	22.60	21.52
50211	-	.2500"	6.350	1/4"	4"	3/8"	.015"	1-1/4"	.230"	47.96	45.87	43.79	41.70
50212	-	.3125"	7.938	5/16"	2-1/2"	13/16"	.020"	-	-	33.52	32.07	30.61	29.15
50213	-	.3125"	7.938	5/16"	2-1/2"	13/16"	.030"	-	-	33.52	32.07	30.61	29.15
50214	-	.3150"	8.000	8.0	65	22	0.5	-	-	34.79	33.28	31.76	30.25
50356	-	.3150"	8.000	8.0	65	22	0.75	-	-	34.79	33.28	31.76	30.25
50215	-	.3150"	8.000	8.0	65	22	1.0	-	-	34.79	33.28	31.76	30.25
50357	-	.3150"	8.000	8.0	65	22	1.5	-	-	34.79	33.28	31.76	30.25
50358	-	.3150"	8.000	8.0	65	22	2.0	-	-	34.79	33.28	31.76	30.25
50216	-	.3750"	9.525	3/8"	2-1/2"	1"	.010"	-	-	39.16	37.46	35.75	34.05
50217	-	.3750"	9.525	3/8"	2-1/2"	1"	.020"	-	-	39.16	37.46	35.75	34.05
50218	-	.3750"	9.525	3/8"	2-1/2"	1"	.030"	-	-	39.16	37.46	35.75	34.05
50219	-	.3750"	9.525	3/8"	2-1/2"	1"	.060"	-	-	39.16	37.46	35.75	34.05
50220	-	.3750"	9.525	3/8"	4"	1/2"	.020"	1-7/8"	.350"	69.21	66.20	63.19	60.18
50221	-	.3937"	10.000	10.0	70	22	0.5	-	-	47.28	45.22	43.17	41.11
50359	-	.3937"	10.000	10.0	70	22	0.75	-	-	47.28	45.22	43.17	41.11
50360	-	.3937"	10.000	10.0	70	22	1.0	-	-	47.28	45.22	43.17	41.11
50361	-	.3937"	10.000	10.0	70	22	1.5	-	-	47.28	45.22	43.17	41.11
50362	-	.3937"	10.000	10.0	70	22	2.0	-	-	47.28	45.22	43.17	41.11

continued →

V4R - 4 Flute (continued)

.4724" - 1.000"
(12.000mm - 25.400mm)

HIGH PERFORMANCE
END MILLS

EDP#		d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter	1-11	12-24	25-49	50-100
(plain)	(weldon)	Decimal	Metric										
50363	50369	.4724"	12.000	12.0	75	26	0.3	-	-	69.64	66.62	63.59	60.56
50364	50370	.4724"	12.000	12.0	75	26	0.5	-	-	69.64	66.62	63.59	60.56
50365	50366	.4724"	12.000	12.0	75	26	0.75	-	-	69.64	66.62	63.59	60.56
50367	50371	.4724"	12.000	12.0	75	26	1.0	-	-	69.64	66.62	63.59	60.56
50372	50373	.4724"	12.000	12.0	75	26	1.5	-	-	69.64	66.62	63.59	60.56
50374	50375	.4724"	12.000	12.0	75	26	2.0	-	-	69.64	66.62	63.59	60.56
50222	50270	.4724"	12.000	12.0	75	32	0.5	-	-	69.64	66.62	63.59	60.56
50223	50271	.4724"	12.000	12.0	75	32	1.0	-	-	69.64	66.62	63.59	60.56
50379	50380	.5000"	12.700	1/2"	3"	1"	.010"	-	-	66.80	63.90	60.99	58.09
50381	50382	.5000"	12.700	1/2"	3"	1"	.020"	-	-	66.80	63.90	60.99	58.09
50383	50384	.5000"	12.700	1/2"	3"	1"	.030"	-	-	66.80	63.90	60.99	58.09
50385	50386	.5000"	12.700	1/2"	3"	1"	.060"	-	-	66.80	63.90	60.99	58.09
50224	50272	.5000"	12.700	1/2"	3"	1-1/4"	.010"	-	-	66.80	63.90	60.99	58.09
50225	50273	.5000"	12.700	1/2"	3"	1-1/4"	.020"	-	-	66.80	63.90	60.99	58.09
50226	50274	.5000"	12.700	1/2"	3"	1-1/4"	.030"	-	-	66.80	63.90	60.99	58.09
50227	50275	.5000"	12.700	1/2"	3"	1-1/4"	.060"	-	-	66.80	63.90	60.99	58.09
50228	50276	.5000"	12.700	1/2"	4"	5/8"	.020"	2-1/4"	.470"	90.13	86.21	82.29	78.37
50229	50277	.6250"	15.875	5/8"	3-1/2"	1-1/4"	.020"	-	-	106.35	101.73	97.10	92.48
50230	50278	.6250"	15.875	5/8"	3-1/2"	1-1/4"	.120"	-	-	106.35	101.73	97.10	92.48
50231	50279	.6299"	16.000	16.0	88	32	0.5	-	-	110.99	106.16	101.34	96.51
50409	50410	.6299"	16.000	16.0	88	32	0.75	-	-	110.99	106.16	101.34	96.51
50411	50412	.6299"	16.000	16.0	88	32	1.0	-	-	110.99	106.16	101.34	96.51
50413	50414	.6299"	16.000	16.0	88	32	1.5	-	-	110.99	106.16	101.34	96.51
50415	50416	.6299"	16.000	16.0	88	32	2.0	-	-	110.99	106.16	101.34	96.51
50417	50418	.6299"	16.000	16.0	88	32	3.0	-	-	110.99	106.16	101.34	96.51
50232	50280	.7500"	19.050	3/4"	4"	1-1/2"	.030"	-	-	152.51	145.88	139.25	132.62
50233	50281	1.000"	25.400	1"	4"	1-1/2"	.030"	-	-	260.38	249.06	237.74	226.42
50234	50282	1.000"	25.400	1"	5"	2-1/8"	.030"	-	-	320.38	306.45	292.52	278.59