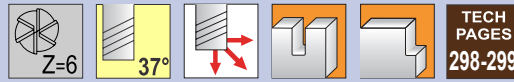


Series VRX-6 **NEW ITEMS** HIGH EFFICIENCY MILLING

.2362" - .4724"
(6.000mm - 12.000mm)

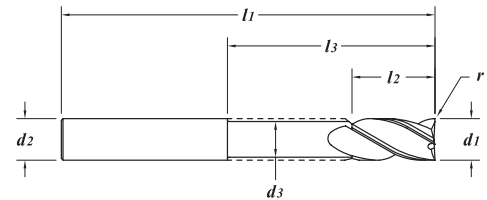


TOLERANCES	
d_1	+0.001" -0.002" (+0.000mm -0.050mm)
d_2	h6
r	+0.001" -0.001" (+0.025 -0.025mm)

Recommended for inconel, pH materials, titanium and tool steels >40Rc

Square End, Corner Radius
AlTiN Coating

Solid submicron grain carbide end mill - center cutting
6 flutes for better finish and longer tool life
Reduces vibration for more aggressive machining resulting in less cycle times and greater productivity
Staggered flute geometry
Engineered for High Efficiency Milling



70
35
0
MATERIAL HARDNESS (Rc)

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
	Decimal	Metric										
60101	.2362	6.000	6.0	65	20	-	-	-	21.60	20.66	19.72	18.78
60103	.2362	6.000	6.0	65	20	0.50	-	-	26.48	25.33	24.18	23.03
60100	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	-	-	20.85	19.94	19.04	18.13
60102	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.010"	-	25.52	24.41	23.30	22.19
60104	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.015"	-	25.52	24.41	23.30	22.19
60105	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.020"	-	25.52	24.41	23.30	22.19
60106	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.030"	-	25.52	24.41	23.30	22.19
60162	.3150	8.000	8.0	65	22	-	-	-	30.82	29.48	28.14	26.80
60107	.3150	8.000	8.0	65	22	0.50	-	-	35.83	34.27	32.71	31.16
60109	.3750	3/8"	9.525	3/8"	2"	1/2"	-	-	30.03	28.72	27.42	26.11
60111	.3750	3/8"	9.525	3/8"	2"	1/2"	.020"	-	36.54	34.95	33.36	31.77
60108	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	-	-	35.09	33.56	32.04	30.51
60110	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.015"	-	40.18	38.43	36.69	34.94
60113	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.020"	-	40.18	38.43	36.69	34.94
60112	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.030"	-	40.18	38.43	36.69	34.94
60114	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.060"	-	40.18	38.43	36.69	34.94
60184	.3750	3/8"	9.525	3/8"	3"	1-1/4"	.030"	-	52.88	50.58	48.28	45.98
60164	.3937	10.000	10.0	70	22	-	-	-	42.08	40.25	38.42	36.59
60115	.3937	10.000	10.0	70	22	0.50	-	-	48.58	46.47	44.36	42.24
60117	.3937	10.000	10.0	70	22	1.00	-	-	48.58	46.47	44.36	42.24
60119	.4724	12.000	12.0	65	20	-	-	-	51.22	48.99	46.77	44.54
60121	.4724	12.000	12.0	65	20	0.50	-	-	63.68	60.91	58.14	55.37
60123	.4724	12.000	12.0	75	26	-	-	-	54.65	52.27	49.90	47.52
60125	.4724	12.000	12.0	75	26	0.75	-	-	71.04	67.95	64.86	61.77
60166	.4724	12.000	12.0	75	32	-	-	-	54.65	52.27	49.90	47.52
60127	.4724	12.000	12.0	75	32	0.50	-	-	71.04	67.95	64.86	61.77
60129	.4724	12.000	12.0	75	32	1.00	-	-	71.04	67.95	64.86	61.77

EDP#	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter	1-11	12-24	25-49	50-100	
	Decimal	Metric											
NEW 60131	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	-	-	-	49.12	46.98	44.85	42.71
60185	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.010"	-	-	61.07	58.41	55.76	53.10
60157	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.015"	-	-	61.07	58.41	55.76	53.10
60133	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.020"	-	-	61.07	58.41	55.76	53.10
NEW 60159	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.030"	-	-	61.07	58.41	55.76	53.10
NEW 60189	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.060"	-	-	61.07	58.41	55.76	53.10
60186	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.125"	-	-	61.07	58.41	55.76	53.10
60135	.5000	1/2"	12.700	1/2"	3"	1"	-	-	-	52.47	50.19	47.91	45.63
60201	.5000	1/2"	12.700	1/2"	3"	1"	.030"	-	-	68.16	65.20	62.23	59.27
60116	.5000	1/2"	12.700	1/2"	3"	1-1/4"	-	-	-	52.47	50.19	47.91	45.63
60118	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.010"	-	-	68.16	65.20	62.23	59.27
60120	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.015"	-	-	68.16	65.20	62.23	59.27
60122	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.020"	-	-	68.16	65.20	62.23	59.27
60124	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.030"	-	-	68.16	65.20	62.23	59.27
60126	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.060"	-	-	68.16	65.20	62.23	59.27
60128	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.125"	-	-	68.16	65.20	62.23	59.27
60137	.5000	1/2"	12.700	1/2"	4"	1-1/2"	-	-	-	71.01	67.93	64.84	61.75
60139	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.030"	-	-	80.74	77.23	73.72	70.21
60190	.5000	1/2"	12.700	1/2"	4"	1-5/8"	-	-	-	71.01	67.93	64.84	61.75
60194	.5000	1/2"	12.700	1/2"	4"	1-5/8"	.030"	-	-	80.74	77.23	73.72	70.21
60196	.5000	1/2"	12.700	1/2"	4"	1-5/8"	.060"	-	-	80.74	77.23	73.72	70.21
60130	.5000	1/2"	12.700	1/2"	4"	2-1/8"	-	-	-	71.01	67.93	64.84	61.75
60132	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.010"	-	-	80.74	77.23	73.72	70.21
60134	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.020"	-	-	80.74	77.23	73.72	70.21
60136	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.030"	-	-	80.74	77.23	73.72	70.21
60200	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.060"	-	-	80.74	77.23	73.72	70.21
NEW 60141	.6250	5/8"	15.875	5/8"	3"	3/4"	-	-	-	94.08	89.99	85.90	81.81
NEW 60143	.6250	5/8"	15.875	5/8"	3"	3/4"	.020"	-	-	105.46	100.87	96.29	91.70
60138	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	-	-	-	96.83	92.62	88.41	84.20
60140	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.015"	-	-	108.40	103.69	98.97	94.26
60145	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.020"	-	-	108.40	103.69	98.97	94.26
60142	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.030"	-	-	108.40	103.69	98.97	94.26
60144	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.060"	-	-	108.40	103.69	98.97	94.26
60146	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.125"	-	-	108.40	103.69	98.97	94.26
60148	.6250	5/8"	15.875	5/8"	4"	1-5/8"	-	-	-	103.41	98.91	94.42	89.92
60150	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.030"	-	-	115.76	110.73	105.69	100.66
60168	.6299		16.000	16.0	88	32	-	-	-	101.02	96.62	92.23	87.84
60170	.6299		16.000	16.0	88	32	0.50	-	-	113.03	108.12	103.20	98.29
60174	.6299		16.000	16.0	100	40	-	-	-	107.41	102.74	98.07	93.40
60176	.6299		16.000	16.0	100	40	0.50	-	-	120.19	114.96	109.74	104.51
NEW 60180	.6299		16.000	16.0	100	32	-	50	14.50	117.59	112.48	107.36	102.25
NEW 60182	.6299		16.000	16.0	100	32	0.50	50	14.50	130.36	124.69	119.02	113.36
60152	.7500	3/4"	19.050	3/4"	4"	1-1/2"	-	-	-	138.22	132.21	126.20	120.19
60154	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.015"	-	-	155.12	148.38	141.63	134.89
60147	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.020"	-	-	155.12	148.38	141.63	134.89
60156	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.030"	-	-	155.12	148.38	141.63	134.89
60158	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.060"	-	-	155.12	148.38	141.63	134.89
60160	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.125"	-	-	155.12	148.38	141.63	134.89
60149	.7500	3/4"	19.050	3/4"	6"	3"	-	-	-	217.11	207.67	198.23	188.79
60151	.7500	3/4"	19.050	3/4"	6"	3"	.030"	-	-	252.52	241.54	230.56	219.58
NEW 60188	1.000	1"	25.400	1"	4"	1-1/2"	.125"	-	-	264.26	252.77	241.28	229.79
60153	1.000	1"	25.400	1"	6"	3"	.030"	-	-	419.84	401.59	383.33	365.08
60155	1.000	1"	25.400	1"	7"	1-1/4"	-	4-1/8"	.980"	453.36	433.65	413.94	394.23

70

35

0

MATERIAL HARDNESS (Rc)