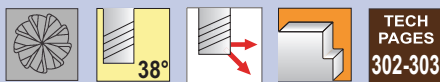


TOLERANCES	
d_1	+0.00" -0.002" (+.000mm -.050mm)
d_2	h6
r	+0.001" -0.001" (+.025mm -.025mm)

.4724"
(12.000mm)

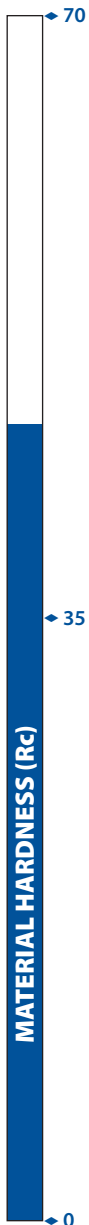
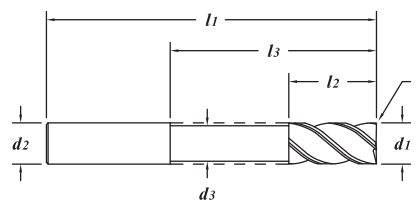


Recommended for titanium and steels under 40Rc

Multi-Flute End Mill - Corner Radius

AlCrN Coating

- Solid submicron grain carbide end mill - non-center cutting
- Multiple flutes for increased feed rates
- Odd number of flutes to naturally break up harmonics
- Engineered for High Efficiency Milling
- Up to 8% Radial (ap) engagement
- Can be used to finish most steels under 40Rc, as well as aluminum
- Conventional grind for better finish cutting and less push off when finishing
- Regrindable



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	Number Flutes	1-11	12-24	25-49	50-100
	Decimal	Metric											
98502	.4724	12.000	12.0	75	26	0.30	-	-	7	89.04	85.17	81.30	77.43
98504	.4724	12.000	12.0	75	26	0.50	-	-	7	89.04	85.17	81.30	77.43
98508	.4724	12.000	12.0	75	26	1.00	-	-	7	89.04	85.17	81.30	77.43
98516	.4724	12.000	12.0	75	26	4.00	-	-	7	89.04	85.17	81.30	77.43
98518	.4724	12.000	12.0	75	32	0.50	-	-	7	89.04	85.17	81.30	77.43
98522	.4724	12.000	12.0	75	32	1.00	-	-	7	89.04	85.17	81.30	77.43
98524	.4724	12.000	12.0	75	32	1.50	-	-	7	89.04	85.17	81.30	77.43
98528	.4724	12.000	12.0	75	32	3.00	-	-	7	89.04	85.17	81.30	77.43
98532	.4724	12.000	12.0	100	42	0.50	-	-	7	105.48	100.89	96.31	91.72
98538	.4724	12.000	12.0	100	42	1.50	-	-	7	105.48	100.89	96.31	91.72
98544	.4724	12.000	12.0	100	42	4.00	-	-	7	105.48	100.89	96.31	91.72
98546	.4724	12.000	12.0	100	52	0.50	-	-	7	105.48	100.89	96.31	91.72
98550	.4724	12.000	12.0	100	52	1.00	-	-	7	105.48	100.89	96.31	91.72
98552	.4724	12.000	12.0	100	52	1.50	-	-	7	105.48	100.89	96.31	91.72
98556	.4724	12.000	12.0	100	52	3.00	-	-	7	105.48	100.89	96.31	91.72
98560	.4724	12.000	12.0	150	19	0.50	105	11.4	7	146.34	139.98	133.61	127.25
98564	.4724	12.000	12.0	150	19	1.00	105	11.4	7	146.34	139.98	133.61	127.25
98570	.4724	12.000	12.0	150	19	3.00	105	11.4	7	146.34	139.98	133.61	127.25

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	Number Flutes	1-11	12-24	25-49	50-100	
	Decimal	Metric												
98574	.5000	1/2"	12.700	1/2"	3"	1"	.010"	-	-	7	85.42	81.71	77.99	74.28
98576	.5000	1/2"	12.700	1/2"	3"	1"	.020"	-	-	7	85.42	81.71	77.99	74.28
98578	.5000	1/2"	12.700	1/2"	3"	1"	.030"	-	-	7	85.42	81.71	77.99	74.28
98580	.5000	1/2"	12.700	1/2"	3"	1"	.060"	-	-	7	85.42	81.71	77.99	74.28
98582	.5000	1/2"	12.700	1/2"	3"	1"	.090"	-	-	7	85.42	81.71	77.99	74.28
98584	.5000	1/2"	12.700	1/2"	3"	1"	.120"	-	-	7	85.42	81.71	77.99	74.28
98586	.5000	1/2"	12.700	1/2"	3"	1"	.125"	-	-	7	85.42	81.71	77.99	74.28
98588	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.010"	-	-	7	85.42	81.71	77.99	74.28
98590	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.020"	-	-	7	85.42	81.71	77.99	74.28
98592	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.030"	-	-	7	85.42	81.71	77.99	74.28
98594	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.060"	-	-	7	85.42	81.71	77.99	74.28
98598	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.120"	-	-	7	85.42	81.71	77.99	74.28
98600	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.125"	-	-	7	85.42	81.71	77.99	74.28
98602	.5000	1/2"	12.700	1/2"	4"	5/8"	.010"	2-1/8"	.470"	7	104.52	99.98	95.43	90.89
98604	.5000	1/2"	12.700	1/2"	4"	5/8"	.020"	2-1/8"	.470"	7	104.52	99.98	95.43	90.89
98606	.5000	1/2"	12.700	1/2"	4"	5/8"	.030"	2-1/8"	.470"	7	104.52	99.98	95.43	90.89
98608	.5000	1/2"	12.700	1/2"	4"	5/8"	.060"	2-1/8"	.470"	7	104.52	99.98	95.43	90.89
98610	.5000	1/2"	12.700	1/2"	4"	5/8"	.120"	2-1/8"	.470"	7	104.52	99.98	95.43	90.89
98612	.5000	1/2"	12.700	1/2"	4"	5/8"	.125"	2-1/8"	.470"	7	104.52	99.98	95.43	90.89
98614	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.010"	-	-	7	100.95	96.56	92.17	87.78
98616	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.020"	-	-	7	100.95	96.56	92.17	87.78
98618	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.030"	-	-	7	100.95	96.56	92.17	87.78
98620	.5000	1/2"	12.700	1/2"	4"	1-1/2"	.060"	-	-	7	100.95	96.56	92.17	87.78
98622	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.010"	-	-	7	100.95	96.56	92.17	87.78
98626	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.030"	-	-	7	100.95	96.56	92.17	87.78
98628	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.060"	-	-	7	100.95	96.56	92.17	87.78
98630	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.120"	-	-	7	100.95	96.56	92.17	87.78
98632	.5000	1/2"	12.700	1/2"	4"	2-1/8"	.125"	-	-	7	100.95	96.56	92.17	87.78
98634	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.010"	-	-	7	151.78	145.18	138.58	131.98
98636	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.020"	-	-	7	151.78	145.18	138.58	131.98
98638	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.030"	-	-	7	151.78	145.18	138.58	131.98
98640	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.060"	-	-	7	151.78	145.18	138.58	131.98
98642	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.120"	-	-	7	151.78	145.18	138.58	131.98
98644	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.125"	-	-	7	151.78	145.18	138.58	131.98
98646	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.010"	-	-	7	164.98	157.81	150.63	143.46
98648	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.020"	-	-	7	164.98	157.81	150.63	143.46
98652	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.060"	-	-	7	164.98	157.81	150.63	143.46
98654	.6250	5/8"	15.875	5/8"	4"	1-5/8"	.120"	-	-	7	164.98	157.81	150.63	143.46
98658	.6250	5/8"	15.875	5/8"	6"	3-1/4"	.010"	-	-	7	227.11	217.24	207.36	197.49
98660	.6250	5/8"	15.875	5/8"	6"	3-1/4"	.020"	-	-	7	227.11	217.24	207.36	197.49
98662	.6250	5/8"	15.875	5/8"	6"	3-1/4"	.030"	-	-	7	227.11	217.24	207.36	197.49
98666	.6250	5/8"	15.875	5/8"	6"	3-1/4"	.120"	-	-	7	227.11	217.24	207.36	197.49
98670	.6250	5/8"	15.875	5/8"	6"	3/4"	.010"	4-1/8"	.590"	7	230.71	220.68	210.65	200.62
98672	.6250	5/8"	15.875	5/8"	6"	3/4"	.020"	4-1/8"	.590"	7	230.71	220.68	210.65	200.62
98674	.6250	5/8"	15.875	5/8"	6"	3/4"	.030"	4-1/8"	.590"	7	230.71	220.68	210.65	200.62
98678	.6250	5/8"	15.875	5/8"	6"	3/4"	.120"	4-1/8"	.590"	7	230.71	220.68	210.65	200.62

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MATERIAL HARDNESS (Rc)

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continued →

Series TMR (continued)

.6299" - .7874"
(16.000mm - 20.000mm)

EDP#	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter	Number Flutes	1-11	12-24	25-49	50-100	
	Decimal	Metric												
98680	.6299	16.000	16.0	88	32	0.50	-	-	7	158.38	151.49	144.61	137.72	
98690	.6299	16.000	16.0	88	32	3.00	-	-	7	158.38	151.49	144.61	137.72	
98696	.6299	16.000	16.0	100	42	0.50	-	-	7	168.42	161.10	153.77	146.45	
98700	.6299	16.000	16.0	100	42	1.00	-	-	7	168.42	161.10	153.77	146.45	
98704	.6299	16.000	16.0	100	42	2.00	-	-	7	168.42	161.10	153.77	146.45	
98706	.6299	16.000	16.0	100	42	3.00	-	-	7	168.42	161.10	153.77	146.45	
98708	.6299	16.000	16.0	100	42	4.00	-	-	7	168.42	161.10	153.77	146.45	
98710	.6299	16.000	16.0	100	42	5.00	-	-	7	168.42	161.10	153.77	146.45	
98712	.6299	16.000	16.0	150	60	0.50	-	-	7	236.19	225.92	215.65	205.38	
98716	.6299	16.000	16.0	150	60	1.00	-	-	7	236.19	225.92	215.65	205.38	
98720	.6299	16.000	16.0	150	60	2.00	-	-	7	236.19	225.92	215.65	205.38	
98722	.6299	16.000	16.0	150	60	3.00	-	-	7	236.19	225.92	215.65	205.38	
98724	.6299	16.000	16.0	150	60	4.00	-	-	7	236.19	225.92	215.65	205.38	
98726	.6299	16.000	16.0	150	60	5.00	-	-	7	236.19	225.92	215.65	205.38	
98732	.6299	16.000	16.0	150	80	1.00	-	-	7	236.19	225.92	215.65	205.38	
98738	.6299	16.000	16.0	150	80	3.00	-	-	7	236.19	225.92	215.65	205.38	
98744	.6299	16.000	16.0	150	22	0.50	102	15.4	7	239.78	229.35	218.93	208.50	
98752	.6299	16.000	16.0	150	22	2.00	102	15.4	7	239.78	229.35	218.93	208.50	
98754	.6299	16.000	16.0	150	22	3.00	102	15.4	7	239.78	229.35	218.93	208.50	
98760	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.010"	-	9	226.37	216.52	206.68	196.84	
98764	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.030"	-	9	226.37	216.52	206.68	196.84	
98766	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.060"	-	9	226.37	216.52	206.68	196.84	
98770	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.190"	-	9	226.37	216.52	206.68	196.84	
98772	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.250"	-	9	226.37	216.52	206.68	196.84	
98774	.7500	3/4"	19.050	3/4"	4"	1-5/8"	.010"	-	9	226.37	216.52	206.68	196.84	
98778	.7500	3/4"	19.050	3/4"	4"	1-5/8"	.030"	-	9	226.37	216.52	206.68	196.84	
98784	.7500	3/4"	19.050	3/4"	4"	1-5/8"	.190"	-	9	226.37	216.52	206.68	196.84	
98788	.7500	3/4"	19.050	3/4"	5"	2-1/8"	.010"	-	9	313.98	300.33	286.68	273.03	
98790	.7500	3/4"	19.050	3/4"	5"	2-1/8"	.020"	-	9	313.98	300.33	286.68	273.03	
98794	.7500	3/4"	19.050	3/4"	5"	2-1/8"	.060"	-	9	313.98	300.33	286.68	273.03	
98796	.7500	3/4"	19.050	3/4"	5"	2-1/8"	.120"	-	9	313.98	300.33	286.68	273.03	
98800	.7500	3/4"	19.050	3/4"	5"	2-1/8"	.250"	-	9	313.98	300.33	286.68	273.03	
98802	.7500	3/4"	19.050	3/4"	6"	3-1/4"	.010"	-	9	372.96	356.74	340.53	324.31	
98804	.7500	3/4"	19.050	3/4"	6"	3-1/4"	.020"	-	9	372.96	356.74	340.53	324.31	
98806	.7500	3/4"	19.050	3/4"	6"	3-1/4"	.030"	-	9	372.96	356.74	340.53	324.31	
98808	.7500	3/4"	19.050	3/4"	6"	3-1/4"	.060"	-	9	372.96	356.74	340.53	324.31	
98814	.7500	3/4"	19.050	3/4"	6"	3-1/4"	.250"	-	9	372.96	356.74	340.53	324.31	
98816	.7500	3/4"	19.050	3/4"	6"	1"	.010"	4-1/8"	.720"	9	376.54	360.17	343.80	327.43
98820	.7500	3/4"	19.050	3/4"	6"	1"	.030"	4-1/8"	.720"	9	376.54	360.17	343.80	327.43
98822	.7500	3/4"	19.050	3/4"	6"	1"	.060"	4-1/8"	.720"	9	376.54	360.17	343.80	327.43
98830	.7874	20.000	20.0	100	26	0.50	-	-	9	308.06	294.67	281.27	267.88	
98834	.7874	20.000	20.0	100	26	1.00	-	-	9	308.06	294.67	281.27	267.88	
98864	.7874	20.000	20.0	100	38	6.00	-	-	9	308.06	294.67	281.27	267.88	
98866	.7874	20.000	20.0	150	60	0.50	-	-	9	378.70	362.23	345.77	329.30	
98876	.7874	20.000	20.0	150	60	3.00	-	-	9	378.70	362.23	345.77	329.30	
98882	.7874	20.000	20.0	150	60	6.00	-	-	9	378.70	362.23	345.77	329.30	
98884	.7874	20.000	20.0	150	80	0.50	-	-	9	378.70	362.23	345.77	329.30	

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MATERIAL HARDNESS (Rc)

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EDP#	$d1^+$ Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter	Number Flutes	1-11	12-24	25-49	50-100	
	Decimal	Metric												
98920	1.000	1"	25.400	1"	4"	1-1/2"	.015"	-	-	11	356.72	341.21	325.70	310.19
98924	1.000	1"	25.400	1"	4"	1-1/2"	.060"	-	-	11	356.72	341.21	325.70	310.19
98928	1.000	1"	25.400	1"	4"	1-1/2"	.120"	-	-	11	356.72	341.21	325.70	310.19
98934	1.000	1"	25.400	1"	5"	2-1/4"	.015"	-	-	11	438.92	419.84	400.75	381.67
98936	1.000	1"	25.400	1"	5"	2-1/4"	.030"	-	-	11	438.92	419.84	400.75	381.67
98942	1.000	1"	25.400	1"	5"	2-1/4"	.120"	-	-	11	438.92	419.84	400.75	381.67
98944	1.000	1"	25.400	1"	5"	2-1/4"	.190"	-	-	11	438.92	419.84	400.75	381.67
98946	1.000	1"	25.400	1"	5"	2-1/4"	.250"	-	-	11	438.92	419.84	400.75	381.67
98948	1.000	1"	25.400	1"	6"	3-1/4"	.030"	-	-	11	572.46	547.57	522.68	497.79
98950	1.000	1"	25.400	1"	6"	3-1/4"	.060"	-	-	11	572.46	547.57	522.68	497.79
98954	1.000	1"	25.400	1"	6"	3-1/4"	.190"	-	-	11	572.46	547.57	522.68	497.79
98958	1.000	1"	25.400	1"	7"	4-1/4"	.030"	-	-	11	750.54	717.90	685.27	652.64
98966	1.000	1"	25.400	1"	7"	4-1/4"	.250"	-	-	11	750.54	717.90	685.27	652.64

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MATERIAL HARDNESS (Rc)

