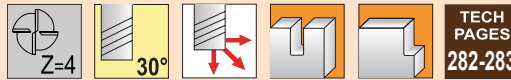


Series 170RA, 870RA

.0625" - .3150"
(1.588mm - 8.000mm)



TOLERANCES	
d_1	+0.000" - .002" (+.000 - .050mm)
d_2	h6
r	+0.001" - .001" (+.025 - .025mm)

Stub Length - Corner Radius

TiAlN Coating

Solid submicron grain carbide end mill - center cutting

Dry or semi-dry machining

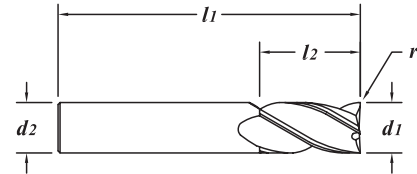
For stronger corners and part radius

Extremely versatile

Uncoated - page 210

Standard Length - page 225

Extended Length - page 244



EDP#	d_1 †		d_2	l_1	l_2	r	1-11	12-24	25-49	50-100	
	Decimal	Diameter									Metric
30702	.0625	1/16"	1.588	1/8"	1-1/2"	1/8"	.010"	13.14	12.57	12.00	11.43
30704	.0625	1/16"	1.588	1/8"	1-1/2"	1/8"	.015"	13.14	12.57	12.00	11.43
30706	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	.010"	12.57	12.02	11.48	10.93
30708	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	.015"	12.57	12.02	11.48	10.93
30710	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	.020"	12.57	12.02	11.48	10.93
30712	.1181		3.000	3.0	38	6	0.20	12.81	12.25	11.70	11.14
30714	.1181		3.000	3.0	38	6	0.50	12.81	12.25	11.70	11.14
30716	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.010"	12.32	11.78	11.25	10.71
30718	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.015"	12.32	11.78	11.25	10.71
30720	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.020"	12.32	11.78	11.25	10.71
30722	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.030"	12.32	11.78	11.25	10.71
30906	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.040"	12.32	11.78	11.25	10.71
30910	.1562	5/32"	3.967	3/16"	2"	5/16"	.015"	16.16	15.46	14.75	14.05
30912	.1562	5/32"	3.967	3/16"	2"	5/16"	.030"	16.16	15.46	14.75	14.05
30914	.1562	5/32"	3.967	3/16"	2"	5/16"	.060"	16.16	15.46	14.75	14.05
30724	.1575		4.000	4.0	50	8	0.30	16.15	15.44	14.74	14.04
30726	.1575		4.000	4.0	50	8	0.50	16.15	15.44	14.74	14.04
30728	.1875	3/16"	4.763	3/16"	2"	3/8"	.010"	15.48	14.81	14.13	13.46
30730	.1875	3/16"	4.763	3/16"	2"	3/8"	.015"	15.48	14.81	14.13	13.46
30732	.1875	3/16"	4.763	3/16"	2"	3/8"	.020"	15.48	14.81	14.13	13.46
30734	.1875	3/16"	4.763	3/16"	2"	3/8"	.030"	15.48	14.81	14.13	13.46
30736	.1969		5.000	5.0	50	10	0.30	20.95	20.04	19.13	18.22
30738	.1969		5.000	5.0	50	10	0.50	20.95	20.04	19.13	18.22
24117	.1969		5.000	5.0	50	16	0.30	25.05	23.97	22.88	21.79
30740	.2362		6.000	6.0	50	12	0.50	21.79	20.85	19.90	18.95
30742	.2362		6.000	6.0	50	12	0.80	21.79	20.85	19.90	18.95
30744	.2362		6.000	6.0	50	12	1.00	21.79	20.85	19.90	18.95
30746	.2362		6.000	6.0	50	12	1.50	21.79	20.85	19.90	18.95
30748	.2362		6.000	6.0	50	12	2.00	21.79	20.85	19.90	18.95
30750	.2500	1/4"	6.350	1/4"	2"	1/2"	.010"	20.91	20.00	19.09	18.18
30752	.2500	1/4"	6.350	1/4"	2"	1/2"	.015"	20.91	20.00	19.09	18.18
30754	.2500	1/4"	6.350	1/4"	2"	1/2"	.020"	20.91	20.00	19.09	18.18
30756	.2500	1/4"	6.350	1/4"	2"	1/2"	.030"	20.91	20.00	19.09	18.18
30758	.2500	1/4"	6.350	1/4"	2"	1/2"	.045"	20.91	20.00	19.09	18.18
30760	.2500	1/4"	6.350	1/4"	2"	1/2"	.060"	20.91	20.00	19.09	18.18
30762	.3125	5/16"	7.938	5/16"	2"	1/2"	.015"	28.82	27.57	26.31	25.06
30764	.3125	5/16"	7.938	5/16"	2"	1/2"	.020"	28.82	27.57	26.31	25.06
30766	.3125	5/16"	7.938	5/16"	2"	1/2"	.030"	28.82	27.57	26.31	25.06
30768	.3125	5/16"	7.938	5/16"	2"	1/2"	.045"	28.82	27.57	26.31	25.06
30770	.3125	5/16"	7.938	5/16"	2"	1/2"	.060"	28.82	27.57	26.31	25.06
30772	.3150		8.000	8.0	50	12	0.50	30.03	28.72	27.42	26.11
30774	.3150		8.000	8.0	50	12	0.80	30.03	28.72	27.42	26.11
30776	.3150		8.000	8.0	50	12	1.00	30.03	28.72	27.42	26.11
30778	.3150		8.000	8.0	50	12	1.50	30.03	28.72	27.42	26.11
30780	.3150		8.000	8.0	50	12	2.00	30.03	28.72	27.42	26.11
30782	.3150		8.000	8.0	50	12	2.50	30.03	28.72	27.42	26.11
30784	.3150		8.000	8.0	50	12	3.00	30.03	28.72	27.42	26.11

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MATERIAL HARDNESS (Rc)

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EDP#	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	1-11	12-24	25-49	50-100	
	Decimal	Metric									
30786	.3750	3/8"	9.525	3/8"	2"	5/8"	.010"	34.19	32.70	31.22	29.73
30788	.3750	3/8"	9.525	3/8"	2"	5/8"	.015"	34.19	32.70	31.22	29.73
30790	.3750	3/8"	9.525	3/8"	2"	5/8"	.020"	34.19	32.70	31.22	29.73
30792	.3750	3/8"	9.525	3/8"	2"	5/8"	.030"	34.19	32.70	31.22	29.73
30794	.3750	3/8"	9.525	3/8"	2"	5/8"	.045"	34.19	32.70	31.22	29.73
30796	.3750	3/8"	9.525	3/8"	2"	5/8"	.060"	34.19	32.70	31.22	29.73
30798	.3937		10.000	10.0	50	16	0.50	39.59	37.87	36.15	34.43
30800	.3937		10.000	10.0	50	16	0.80	39.59	37.87	36.15	34.43
30802	.3937		10.000	10.0	50	16	1.00	39.59	37.87	36.15	34.43
30804	.3937		10.000	10.0	50	16	1.50	39.59	37.87	36.15	34.43
30806	.3937		10.000	10.0	50	16	2.00	39.59	37.87	36.15	34.43
30808	.3937		10.000	10.0	50	16	2.50	39.59	37.87	36.15	34.43
30810	.3937		10.000	10.0	50	16	3.00	39.59	37.87	36.15	34.43
30812	.3937		10.000	10.0	50	16	3.20	39.59	37.87	36.15	34.43
30814	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.010"	44.34	42.42	40.49	38.56
30816	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.015"	44.34	42.42	40.49	38.56
30818	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.020"	44.34	42.42	40.49	38.56
30820	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.030"	44.34	42.42	40.49	38.56
30822	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.045"	44.34	42.42	40.49	38.56
30824	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.060"	44.34	42.42	40.49	38.56
30826	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.090"	44.34	42.42	40.49	38.56
30828	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	.125"	44.34	42.42	40.49	38.56
30830	.4724		12.000	12.0	65	19	0.50	58.41	55.87	53.33	50.79
30832	.4724		12.000	12.0	65	19	0.80	58.41	55.87	53.33	50.79
30834	.4724		12.000	12.0	65	19	1.00	58.41	55.87	53.33	50.79
30836	.4724		12.000	12.0	65	19	1.50	58.41	55.87	53.33	50.79
30838	.4724		12.000	12.0	65	19	2.00	58.41	55.87	53.33	50.79
30840	.4724		12.000	12.0	65	19	2.50	58.41	55.87	53.33	50.79
30842	.4724		12.000	12.0	65	19	3.00	58.41	55.87	53.33	50.79
30844	.4724		12.000	12.0	65	19	3.20	58.41	55.87	53.33	50.79
30846	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.010"	55.96	53.53	51.09	48.66
30848	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.015"	55.96	53.53	51.09	48.66
30850	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.020"	55.96	53.53	51.09	48.66
30852	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.030"	55.96	53.53	51.09	48.66
30854	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.045"	55.96	53.53	51.09	48.66
30856	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.060"	55.96	53.53	51.09	48.66
30858	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.090"	55.96	53.53	51.09	48.66
30860	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	.125"	55.96	53.53	51.09	48.66
30862	.6250	5/8"	15.875	5/8"	3"	3/4"	.015"	99.94	95.59	91.25	86.90
30864	.6250	5/8"	15.875	5/8"	3"	3/4"	.020"	99.94	95.59	91.25	86.90
30866	.6250	5/8"	15.875	5/8"	3"	3/4"	.030"	99.94	95.59	91.25	86.90
30868	.6250	5/8"	15.875	5/8"	3"	3/4"	.045"	99.94	95.59	91.25	86.90
30870	.6250	5/8"	15.875	5/8"	3"	3/4"	.060"	99.94	95.59	91.25	86.90
30872	.6250	5/8"	15.875	5/8"	3"	3/4"	.090"	99.94	95.59	91.25	86.90
30874	.6299		16.000	16.0	75	19	0.50	104.56	100.01	95.47	90.92
30876	.6299		16.000	16.0	75	19	1.00	104.56	100.01	95.47	90.92
30878	.6299		16.000	16.0	75	19	2.00	104.56	100.01	95.47	90.92
30880	.6299		16.000	16.0	75	19	2.50	104.56	100.01	95.47	90.92
30882	.6299		16.000	16.0	75	19	3.00	104.56	100.01	95.47	90.92
30884	.6299		16.000	16.0	75	19	4.00	104.56	100.01	95.47	90.92
30886	.6299		16.000	16.0	75	19	5.00	104.56	100.01	95.47	90.92
30888	.7500	3/4"	19.050	3/4"	3"	1"	.015"	141.11	134.97	128.84	122.70
30890	.7500	3/4"	19.050	3/4"	3"	1"	.020"	141.11	134.97	128.84	122.70
30892	.7500	3/4"	19.050	3/4"	3"	1"	.030"	141.11	134.97	128.84	122.70
30894	.7500	3/4"	19.050	3/4"	3"	1"	.045"	141.11	134.97	128.84	122.70
30896	.7500	3/4"	19.050	3/4"	3"	1"	.060"	141.11	134.97	128.84	122.70
30898	.7500	3/4"	19.050	3/4"	3"	1"	.090"	141.11	134.97	128.84	122.70
30900	.7500	3/4"	19.050	3/4"	3"	1"	.125"	141.11	134.97	128.84	122.70
30902	.7500	3/4"	19.050	3/4"	3"	1"	.250"	141.11	134.97	128.84	122.70

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MATERIAL HARDNESS (Rc)

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