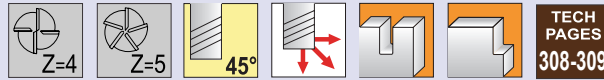


TOLERANCES

<i>d1</i>	+0.000" -0.002" (+.000mm -.050mm)
<i>d2</i>	h6
<i>r</i>	+0.001" -0.001" (+.025 -.025mm)

HIGH ROCKWELL END MILLS

Series 545RA



Recommended for inconel, tool steels, hardened die mold >40Rc

Corner Radius

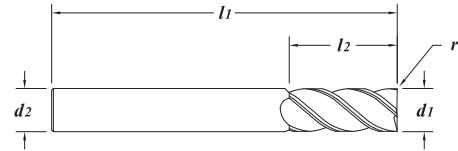
BALINIT® Durana Coating

Solid submicron grain carbide end mill - center cutting

High performance tool for use in high Rockwell and difficult to machine materials

Square End - page 194

Ball End - page 196



HIGH PERFORMANCE END MILLS

70

35

MATERIAL HARDNESS (Rc)

0

EDP#	<i>d1</i> † Diameter		<i>d2</i> Shank Diameter	<i>l1</i> Overall Length	<i>l2</i> Flute Length	<i>r</i> Corner Radius	Number of Flutes	1-11	12-24	25-49	50-100	
	Decimal	Metric										
21202	.1181	3.000	3.0	38	12	0.20	4	17.07	16.32	15.58	14.84	
21212	.1181	3.000	3.0	38	12	0.50	4	17.07	16.32	15.58	14.84	
21232	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.010"	4	16.22	15.51	14.81	14.10
21242	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.020"	4	16.22	15.51	14.81	14.10
21262	.1575	4.000	6.0	50	12	0.30	4	27.52	26.32	25.13	23.93	
21292	.1875	3/16"	4.763	3/16"	2"	9/16"	.010"	4	20.38	19.49	18.61	17.72
21302	.1875	3/16"	4.763	3/16"	2"	9/16"	.020"	4	20.38	19.49	18.61	17.72
21322	.1969	5.000	6.0	65	15	0.30	4	30.02	28.71	27.41	26.10	
21342	.2362	6.000	6.0	65	19	0.20	4	29.07	27.81	26.54	25.28	
21352	.2362	6.000	6.0	65	19	0.50	4	29.07	27.81	26.54	25.28	
21372	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.010"	4	28.01	26.80	25.58	24.36
21382	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.015"	4	28.01	26.80	25.58	24.36
21392	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	.030"	4	28.01	26.80	25.58	24.36
21412	.2756	7.000	8.0	65	22	0.50	5	43.93	42.02	40.11	38.20	
21432	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.010"	5	37.93	36.28	34.63	32.98
21442	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.015"	5	37.93	36.28	34.63	32.98
21452	.3125	5/16"	7.938	5/16"	2-1/2"	13/16"	.030"	5	37.93	36.28	34.63	32.98
21462	.3150	8.000	8.0	65	22	0.20	5	39.93	38.19	36.46	34.72	
21472	.3150	8.000	8.0	65	22	0.50	5	39.93	38.19	36.46	34.72	
21502	.3543	9.000	10.0	65	22	0.50	5	59.00	56.43	53.87	51.30	
21522	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.010"	5	44.14	42.22	40.30	38.38
21532	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.015"	5	44.14	42.22	40.30	38.38
21542	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	.030"	5	44.14	42.22	40.30	38.38
21552	.3937	10.000	10.0	70	22	0.20	5	53.31	51.00	48.68	46.36	
21562	.3937	10.000	10.0	70	22	0.50	5	53.31	51.00	48.68	46.36	
21612	.4724	12.000	12.0	75	32	0.50	5	78.76	75.34	71.91	68.49	
21622	.4724	12.000	12.0	75	32	1.00	5	78.76	75.34	71.91	68.49	
21642	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.010"	5	74.82	71.57	68.31	65.06
21652	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.015"	5	74.82	71.57	68.31	65.06
21662	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.030"	5	74.82	71.57	68.31	65.06
21672	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.060"	5	74.82	71.57	68.31	65.06
21692	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.010"	5	119.00	113.83	108.65	103.48
21702	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.015"	5	119.00	113.83	108.65	103.48
21712	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.030"	5	119.00	113.83	108.65	103.48
21722	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.060"	5	119.00	113.83	108.65	103.48
21732	.6299	16.000	16.0	88	32	0.50	5	125.27	119.82	114.38	108.93	
21742	.6299	16.000	16.0	88	32	1.00	5	125.27	119.82	114.38	108.93	
21772	.7087	18.000	18.0	100	38	0.50	5	178.78	171.01	163.23	155.46	
21802	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.015"	5	171.07	163.64	156.20	148.76
21812	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.030"	5	171.07	163.64	156.20	148.76
21822	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.060"	5	171.07	163.64	156.20	148.76
21832	.7874	20.000	20.0	100	38	0.50	5	241.86	231.34	220.83	210.31	
21922	1.000	1"	25.400	1"	4"	1-1/2"	.015"	5	292.38	279.66	266.95	254.24
21932	1.000	1"	25.400	1"	4"	1-1/2"	.030"	5	292.38	279.66	266.95	254.24
21942	1.000	1"	25.400	1"	4"	1-1/2"	.060"	5	292.38	279.66	266.95	254.24