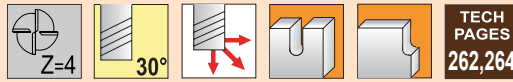


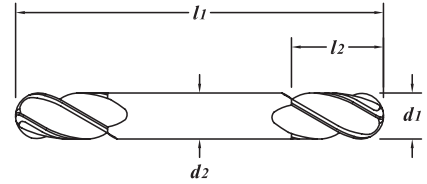
# Series 195M, 995M



TOLERANCES	
$d_1$	+0.000" -0.002" (+0.000 -0.050mm)
$d_2$	h6
ball radius	+0.000" -0.001" (+0.000 -0.025mm)

## Stub Length - Ball End - Double End

Solid submicron grain carbide end mill - center cutting  
 Shorter flute length for rigidity  
 Extremely versatile  
 TiAlN Coating - page 193  
 Standard Length - page 218



MATERIAL HARDNESS (Rc)

70

35

0

EDP#	$d_1$ † Diameter		$d_2$ Shank Diameter	$l_1$ Overall Length	$l_2$ Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Metric								
08010	.0312	1/32"	0.792	1/8"	1-1/2"	1/16"	21.63	20.69	19.75	18.81
08510	.0394		1.000	3.0	38	2	22.77	21.78	20.79	19.80
08020	.0469	3/64"	1.191	1/8"	1-1/2"	3/32"	21.63	20.69	19.75	18.81
08520	.0591		1.500	3.0	38	3	22.77	21.78	20.79	19.80
08030	.0625	1/16"	1.588	1/8"	1-1/2"	1/8"	21.63	20.69	19.75	18.81
08530	.0787		2.000	3.0	38	4	22.77	21.78	20.79	19.80
08040	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	21.63	20.69	19.75	18.81
08550	.1181		3.000	3.0	38	6	14.13	13.52	12.90	12.29
08050	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	13.42	12.84	12.25	11.67
08560	.1378		3.500	4.0	50	7	25.09	24.00	22.91	21.82
08060	.1562	5/32"	3.967	3/16"	2"	5/16"	23.83	22.79	21.76	20.72
08570	.1575		4.000	4.0	50	8	20.50	19.61	18.72	17.83
08070	.1875	3/16"	4.763	3/16"	2"	3/8"	19.48	18.63	17.79	16.94
08590	.1969		5.000	5.0	65	10	25.99	24.86	23.73	22.60
08080	.2188	7/32"	5.558	1/4"	2-1/2"	1/2"	27.83	26.62	25.41	24.20
08600	.2362		6.000	6.0	65	12	26.68	25.52	24.36	23.20
08090	.2500	1/4"	6.350	1/4"	2-1/2"	1/2"	25.33	24.23	23.13	22.03
08100	.3125	5/16"	7.938	5/16"	2-1/2"	1/2"	31.53	30.16	28.79	27.42
08620	.3150		8.000	8.0	65	12	33.21	31.77	30.32	28.88
08630	.3543		9.000	9.0	75	14	36.71	35.11	33.52	31.92
08110	.3750	3/8"	9.525	3/8"	2-1/2"	1/2"	33.53	32.08	30.62	29.16
08640	.3937		10.000	10.0	75	14	48.82	46.70	44.57	42.45
08120	.4375	7/16"	11.113	7/16"	2-3/4"	9/16"	47.99	45.90	43.82	41.73
08130	.5000	1/2"	12.700	1/2"	3"	5/8"	56.98	54.51	52.03	49.55