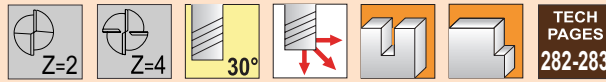


TOLERANCES

d_1	+0.000" -0.002" (+0.000 -0.050mm)
d_2	h6

Series 160MA, 170MA, 860MA, 870MA



**GENERAL PURPOSE
END MILLS**

Stub Length - Square End

TiAlN Coating

Solid submicron grain carbide end mill - center cutting

Shorter flute length for rigidity

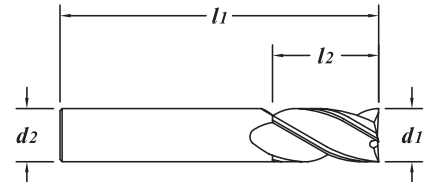
Dry or semi-dry machining

Extremely versatile

Uncoated - page 207

Standard Length - page 220

Extended length - page 239



(160MA/860MA) 2 Flute EDP#	(170MA/870MA) 4 Flute 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								
01017	02017	.0312	1/32"	0.792	1/8"	1-1/2"	1/16"	13.88	13.28	12.67	12.07
01517	02517	.0394		1.000	3.0	38	2	14.47	13.84	13.21	12.58
01027	02027	.0469	3/64"	1.191	1/8"	1-1/2"	3/32"	13.88	13.28	12.67	12.07
01527	02527	.0591		1.500	3.0	38	3	14.47	13.84	13.21	12.58
01037	02037	.0625	1/16"	1.588	1/8"	1-1/2"	1/8"	11.58	11.08	10.57	10.07
01537	02537	.0787		2.000	3.0	38	4	12.04	11.52	10.99	10.47
01047	02047	.0938	3/32"	2.383	1/8"	1-1/2"	3/16"	11.10	10.62	10.13	9.65
01547	02547	.0984		2.500	3.0	38	5	11.53	11.03	10.53	10.03
01557	02557	.1181		3.000	3.0	38	6	11.30	10.81	10.32	9.83
01057	02057	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	10.86	10.38	9.91	9.44
01567	02567	.1378		3.500	4.0	50	7	14.75	14.11	13.47	12.83
01067	02067	.1562	5/32"	3.967	3/16"	2"	5/16"	14.16	13.54	12.93	12.31
01577	02577	.1575		4.000	4.0	50	8	14.12	13.51	12.89	12.28
01587	02587	.1772		4.500	5.0	50	9.5	19.35	18.51	17.67	16.83
01077	02077	.1875	3/16"	4.763	3/16"	2"	3/8"	13.56	12.97	12.38	11.79
01597	02597	.1969		5.000	5.0	50	10	18.31	17.51	16.72	15.92
01087	02087	.2188	7/32"	5.558	1/4"	2"	7/16"	18.61	17.80	16.99	16.18
01607	02607	.2362		6.000	6.0	50	12	19.15	18.32	17.48	16.65
01097	02097	.2500	1/4"	6.350	1/4"	2"	1/2"	18.40	17.60	16.80	16.00
01617	02617	.2756		7.000	7.0	50	12	25.44	24.33	23.23	22.12
01107	02107	.3125	5/16"	7.938	5/16"	2"	1/2"	25.42	24.31	23.21	22.10
01627	02627	.3150		8.000	8.0	50	12	26.43	25.28	24.13	22.98
01637	02637	.3543		9.000	9.0	50	14	31.21	29.85	28.50	27.14
01117	02117	.3750	3/8"	9.525	3/8"	2"	5/8"	29.97	28.67	27.36	26.06
01647	02647	.3937		10.000	10.0	50	16	34.67	33.17	31.66	30.15
01657	02657	.4331		11.000	11.0	65	19	42.03	40.21	38.38	36.55
01127	02127	.4375	7/16"	11.113	7/16"	2-1/2"	5/8"	39.11	37.41	35.71	34.01
01667	02667	.4724		12.000	12.0	65	19	51.08	48.86	46.64	44.42
01137	02137	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	49.01	46.88	44.75	42.62
01147	02147	.6250	5/8"	15.875	5/8"	3"	3/4"	86.58	82.82	79.05	75.29
-	02677	.6299		16.000	16.0	75	19	90.52	86.58	82.65	78.71
01157	02157	.7500	3/4"	19.050	3/4"	3"	1"	121.88	116.58	111.28	105.98
-	02687	.7874		20.000	20.0	75	25	168.16	160.85	153.54	146.23
-	02167	1.000	1"	25.400	1"	3"	1"	207.82	198.78	189.75	180.71

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MATERIAL HARDNESS (Rc)

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