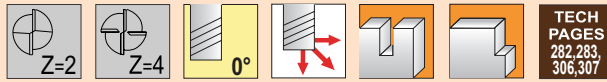
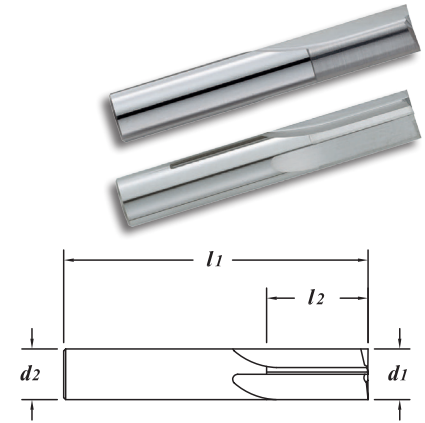


Series 222M, 234M, 334MA



TOLERANCES

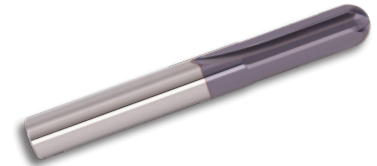
d_1	+0.000" -0.002" (+0.000 -0.050mm)
d_2	h6
ball radius	+0.000" -0.001" (+0.000 -0.025mm)



Standard Length - Straight Flute - Square End

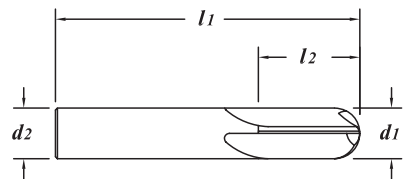
Solid submicron grain carbide end mill - center cutting
For cutting high Rc materials
Helps to hold perpendicularity

(222M) 2 Flute EDP#	(234M) 4 Flute EDP#	d_1 †		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100	
		Decimal	Diameter Metric								
81070	82070	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	10.07	9.64	9.20	8.76
81110	82110	.1875	3/16"	4.763	3/16"	2"	5/8"	14.12	13.51	12.89	12.28
81150	82150	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	17.03	16.29	15.55	14.81
81190	82190	.3125	5/16"	7.938	5/16"	2-1/2"	7/8"	23.87	22.84	21.80	20.76
81230	82230	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	29.74	28.45	27.15	25.86
81270	82270	.4375	7/16"	11.113	7/16"	2-3/4"	1"	36.29	34.72	33.14	31.56
81310	82310	.5000	1/2"	12.700	1/2"	3"	1"	47.60	45.53	43.46	41.39
81330	82330	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	91.87	87.88	83.88	79.89
81350	82350	.7500	3/4"	19.050	3/4"	4"	1-1/2"	134.69	128.83	122.98	117.12
81370	82370	1.000	1"	25.400	1"	4"	1-1/2"	221.62	211.98	202.35	192.71



Standard Length - Straight Flute - Ball End TiAlN Coating

Solid submicron grain carbide end mill - center cutting
For cutting high Rc materials
Helps to hold perpendicularity



(334MA) 4 Flute EDP#	d_1 †		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	1-11	12-24	25-49	50-100	
	Decimal	Diameter Metric								
84077	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	14.89	14.25	13.60	12.95
84115	.1875	3/16"	4.763	3/16"	2"	5/8"	19.02	18.19	17.37	16.54
84157	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	25.19	24.09	23.00	21.90
84237	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	40.01	38.27	36.53	34.79

MATERIAL HARDNESS (Rc) 70
35
0