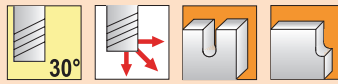


520M (540M metric) - 2 Flute
530M (550M metric) - 4 Flute

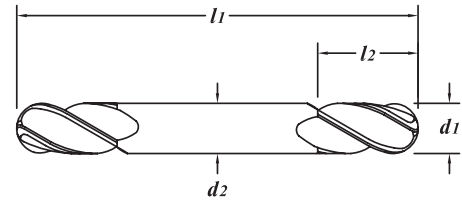
Technical information:
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TOLERANCES		
d_1	+0.000" -0.002" (+0.000 -0.050mm)	
d_2	1/8" - 3/16"	+0.0000" -0.0003" (-0.0000 -0.0075mm)
	1/4" - 1/2"	-0.0001" -0.0004" (-0.0025 -0.0100mm)
Ball radius	+0.000" -0.001" (+0.000 -0.025mm)	

Standard Length - Double End - Ball End

Solid submicron grain carbide end mill - center cutting
 Extremely versatile
 TiALN Coated - page 185



2 Flute EDP#	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								
31010	32010	.0312	1/32"	0.792	1/8"	2"	3/32"	25.16	24.07	22.97	21.88
31510	32510	.0394		1.000	3.0	50	4	26.47	25.32	24.17	23.02
31020	32020	.0469	3/64"	1.191	1/8"	2"	1/8"	25.16	24.07	22.97	21.88
31520	32520	.0591		1.500	3.0	50	5	26.47	25.32	24.17	23.02
-	32030	.0625	1/16"	1.588	1/8"	2"	3/16"	25.16	24.07	22.97	21.88
31530	-	.0787		2.000	3.0	50	6	26.47	25.32	24.17	23.02
31040	32040	.0938	3/32"	2.383	1/8"	2"	1/4"	25.16	24.07	22.97	21.88
31540	32540	.0984		2.500	3.0	50	7	26.47	25.32	24.17	23.02
31550	32550	.1181		3.000	3.0	50	8	19.12	18.29	17.46	16.63
31050	32050	.1250	1/8"	3.175	1/8"	2"	3/8"	18.16	17.37	16.58	15.79
31560	32560	.1378		3.500	4.0	65	9.5	27.35	26.16	24.97	23.78
31060	32060	.1562	5/32"	3.967	3/16"	2-1/2"	7/16"	25.98	24.85	23.72	22.59
31570	32570	.1575		4.000	4.0	65	10	23.41	22.40	21.38	20.36
31580	32580	.1772		4.500	5.0	65	12	30.48	29.15	27.83	26.50
31070	32070	.1875	3/16"	4.763	3/16"	2-1/2"	1/2"	22.24	21.27	20.31	19.34
31590	32590	.1969		5.000	5.0	65	12	26.75	25.59	24.42	23.26
31080	32080	.2188	7/32"	5.558	1/4"	2-1/2"	9/16"	28.92	27.67	26.41	25.15
-	32600	.2362		6.000	6.0	65	16	27.80	26.59	25.38	24.17
31090	32090	.2500	1/4"	6.350	1/4"	2-1/2"	5/8"	26.39	25.25	24.10	22.95
31610	32610	.2756		7.000	7.0	88	19	35.05	33.53	32.00	30.48
31100	32100	.3125	5/16"	7.938	5/16"	3-1/2"	3/4"	34.40	32.90	31.41	29.91
31620	32620	.3150		8.000	8.0	88	19	36.23	34.65	33.08	31.50
31630	32630	.3543		9.000	9.0	88	19	46.81	44.77	42.74	40.70
31110	32110	.3750	3/8"	9.525	3/8"	3-1/2"	3/4"	44.46	42.53	40.59	38.66
31640	32640	.3937		10.000	10.0	88	19	62.72	59.99	57.27	54.54
31650	-	.4331		11.000	11.0	100	22	66.45	63.56	60.67	57.78
31120	32120	.4375	7/16"	11.113	7/16"	4"	7/8"	63.14	60.39	57.65	54.90
31660	32660	.4724		12.000	12.0	100	25	74.67	71.42	68.18	64.93
31130	32130	.5000	1/2"	12.700	1/2"	4"	1"	70.94	67.86	64.77	61.69
-	32140	.5625	9/16"	14.288	9/16"	6"	1-1/4"	135.01	129.14	123.27	117.40
31150	-	.6250	5/8"	15.875	5/8"	6"	1-1/4"	173.40	165.86	158.32	150.78
31160	-	.7500	3/4"	19.050	3/4"	6"	1-1/2"	239.75	229.33	218.90	208.48
31170	32170	.8750	7/8"	22.225	7/8"	6"	1-1/2"	391.89	374.85	357.81	340.77
-	32690	.9843		25.000	25.0	150	38	450.88	431.28	411.67	392.07
31180	32180	1.000	1"	25.400	1"	6"	1-1/2"	428.34	409.72	391.09	372.47