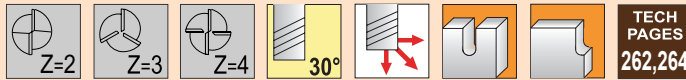


Series 320MC, 323MC, 330MC

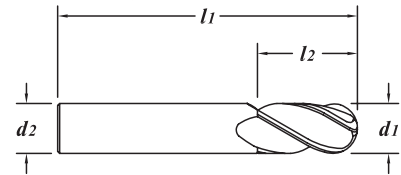


TOLERANCES	
$d_1$	+0.000" -0.002" (+0.000 -0.050mm)
$d_2$	h6
ball radius	+0.000" -0.001" (+0.000 -0.025mm)

Standard Length - Ball End

TiCN Coating

- Solid submicron grain carbide end mill - center cutting
- Improved abrasion resistance and lubricity
- Extremely versatile
- Uncoated - page 205
- TiN Coating - page 207
- TiALN Coating - page 209
- Extended length - page 233



MATERIAL HARDNESS (Rc)

70

35

0

(320MC) 2 Flute EDP#	(323MC) 3 Flute EDP#	(330MC) 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								
16014	17014	18014	.0312	1/32"	0.792	1/8"	1-1/2"	3/32"	15.17	14.51	13.85	13.19
16024	17024	18024	.0469	3/64"	1.191	1/8"	1-1/2"	1/8"	15.17	14.51	13.85	13.19
16034	17034	18034	.0625	1/16"	1.588	1/8"	1-1/2"	1/4"	14.44	13.82	13.19	12.56
16044	17044	18044	.0781	5/64"	1.984	1/8"	1-1/2"	1/4"	14.44	13.82	13.19	12.56
16054	17054	18054	.0938	3/32"	2.383	1/8"	1-1/2"	3/8"	13.90	13.30	12.69	12.09
16064	17064	18064	.1094	7/64"	2.779	1/8"	1-1/2"	3/8"	13.90	13.30	12.69	12.09
16074	17074	18074	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	12.81	12.25	11.70	11.14
16084	17084	18084	.1406	9/64"	3.571	3/16"	2"	9/16"	17.81	17.04	16.26	15.49
16094	17094	18094	.1562	5/32"	3.967	3/16"	2"	9/16"	17.81	17.04	16.26	15.49
16104	-	18104	.1719	11/64"	4.366	3/16"	2"	9/16"	17.81	17.04	16.26	15.49
16114	17114	18114	.1875	3/16"	4.763	3/16"	2"	5/8"	16.20	15.50	14.79	14.09
16124	17124	18124	.2031	13/64"	5.159	1/4"	2-1/2"	5/8"	22.57	21.59	20.61	19.63
16134	17134	18134	.2188	7/32"	5.558	1/4"	2-1/2"	5/8"	22.57	21.59	20.61	19.63
16144	17144	18144	.2344	15/64"	5.954	1/4"	2-1/2"	3/4"	22.57	21.59	20.61	19.63
16154	17154	18154	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	21.83	20.88	19.93	18.98
-	17164	18164	.2656	17/64"	6.746	5/16"	2-1/2"	7/8"	33.17	31.72	30.28	28.84
16174	17174	18174	.2812	9/32"	7.142	5/16"	2-1/2"	7/8"	33.17	31.72	30.28	28.84
-	-	18184	.2969	19/64"	7.541	5/16"	2-1/2"	7/8"	33.17	31.72	30.28	28.84
16194	17194	18194	.3125	5/16"	7.938	5/16"	2-1/2"	7/8"	28.77	27.52	26.27	25.02
16204	-	-	.3281	21/64"	8.334	3/8"	2-1/2"	7/8"	38.55	36.87	35.20	33.52
-	17214	18214	.3438	11/32"	8.733	3/8"	2-1/2"	7/8"	38.55	36.87	35.20	33.52
16224	-	18224	.3594	23/64"	9.129	3/8"	2-1/2"	7/8"	38.55	36.87	35.20	33.52
16234	17234	18234	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	33.86	32.38	30.91	29.44
16244	-	18244	.3906	25/64"	9.921	7/16"	2-3/4"	7/8"	47.23	45.18	43.12	41.07
16254	17254	18254	.4062	13/32"	10.317	7/16"	2-3/4"	7/8"	47.23	45.18	43.12	41.07
-	-	18264	.4219	27/64"	10.716	7/16"	2-3/4"	7/8"	47.23	45.18	43.12	41.07
16274	17274	18274	.4375	7/16"	11.113	7/16"	2-3/4"	1"	41.49	39.69	37.88	36.08
-	17284	18284	.4531	29/64"	11.509	1/2"	3"	1"	64.63	61.82	59.01	56.20
-	17294	18294	.4688	15/32"	11.908	1/2"	3"	1"	64.63	61.82	59.01	56.20
16304	17304	18304	.4844	31/64"	12.304	1/2"	3"	1"	64.63	61.82	59.01	56.20
16314	17314	18314	.5000	1/2"	12.700	1/2"	3"	1"	59.14	56.57	54.00	51.43
16324	17324	18324	.5625	9/16"	14.288	9/16"	3-1/2"	1-1/4"	86.81	83.04	79.26	75.49
16334	17334	18334	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	95.21	91.07	86.93	82.79
-	17344	-	.6875	11/16"	17.463	3/4"	4"	1-1/2"	152.72	146.08	139.44	132.80
16354	17354	18354	.7500	3/4"	19.050	3/4"	4"	1-1/2"	136.48	130.55	124.61	118.68
16364	17364	18364	.8750	7/8"	22.225	7/8"	4"	1-1/2"	217.40	207.94	198.49	189.04
16374	17374	18374	1.000	1"	25.400	1"	4"	1-1/2"	233.82	223.65	213.49	203.32