

4-Flute Ball Nose Long Length

Added flute and overall length combine for greater reach when deep slotting or milling. These end mills have the capability to mill thicker material in one pass, eliminating the interrupted cut that may be present with regular length end mills.

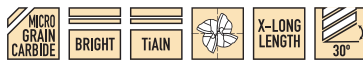


Bright: Speeds & Feeds > P. A33
TiAIN: Speeds & Feeds > P. A36

Cutting Dia.	Shank Dia.	Flute Length	Overall Length	Bright Code No.	Price \$	TiAIN Code No.	Price \$
Inch							
1/8	1/8	3/4	2-1/4	102991	20.37	102942	23.84
3/16	3/16	3/4	2-1/2	102992	19.94	102944	23.44
1/4	1/4	1-1/8	3	102993	40.13	102946	47.37
5/16	5/16	1-1/8	3	102994	49.57	102948	60.41
3/8	3/8	1-1/8	3	102995	55.76	102950	66.59
7/16	7/16	2	4	102996	84.23	102952	100.22
1/2	1/2	2	4	102997	86.05	102954	102.00
5/8	5/8	2-1/4	5	102998	179.21	102956	205.62
3/4	3/4	2-1/4	5	102999	294.10	102958	324.68
1	1	2-1/4	5	103000	373.56	102960	393.23
Metric							
3	3	19	57	101620	33.80	101764	37.38
4	4	19	57	101621	34.53	101765	40.11
5	5	25	64	101622	37.29	101766	44.66
6	6	28	76	101623	43.17	101767	50.53
8	8	29	76	101624	53.32	101768	64.36
10	10	32	76	101625	61.58	101769	74.18
12	12	51	102	101626	92.66	101770	108.92
14	14	57	127	101627	173.80	-	-
16	16	57	127	101628	183.11	101772	210.13
18	18	57	127	101629	281.69	-	-
20	20	57	127	101630	309.73	101774	350.38
25	25	57	127	101631	491.47	-	-

4-Flute Ball Nose Extra Long Length

Extra Long Length End mills combine added flute and overall length for greater reach when deep slotting or milling. These end mills have the capability to mill much thicker material in a single pass, thereby eliminating the interrupted cut that may be present with regular length end mills.



Bright: Speeds & Feeds > P. A33
TiAIN: Speeds & Feeds > P. A36

Cutting Dia.	Shank Dia.	Flute Length	Overall Length	Bright Code No.	Price \$	TiAIN Code No.	Price \$
Inch							
1/8	1/8	1	3	102480	31.44	102580	35.71
3/16	3/16	1-1/8	3	102482	34.66	102582	40.11
1/4	1/4	1-1/2	4	102484	42.21	102584	50.71
5/16	5/16	1-5/8	4	102486	55.30	102586	69.06
3/8	3/8	1-3/4	4	102488	61.18	102588	74.94
7/16	7/16	3	6	102490	109.50	102590	131.90
1/2	1/2	3	6	102492	121.88	102592	144.25
5/8	5/8	3	6	102494	179.21	102594	183.42
3/4	3/4	3	6	102496	294.10	102596	324.68
1	1	3	6	102498	500.11	102598	539.85

Tolerances - Inch

Size	Diameter	Shank Diameter
3/32 thru 1"	+0.0000"-0.002"	+0.0000"-0.0005"

Tolerances - Metric

Size	Diameter	Shank Diameter
1mm-25mm	+0.000mm-0.051mm	+0.000mm-0.013mm

Steel

Stainless Steel

Cast Iron/Hardened

Aluminum

4-Flute Ball Nose Double End Regular Length

The ball nose 4-flute centre cut design allows for excellent finish while contour milling.



Bright: Speeds & Feeds > P. A33
TiAIN: Speeds & Feeds > P. A36

Cutting Dia.	Shank Dia.	Flute Length	Overall Length	Bright Code No.	Price \$	TiAIN Code No.	Price \$
Inch							
1/8	3/8	3/8	3-1/16	101360	61.73	101708	62.64
5/32	3/8	7/16	3-1/8	101361	61.73	-	-
3/16	3/8	1/2	3-1/4	101362	61.73	101726	78.31
7/32	3/8	9/16	3-3/8	101363	61.73	-	-
1/4	3/8	5/8	3-3/8	101364	61.73	101728	78.31
9/32	3/8	11/16	3-3/8	101365	62.53	-	-
5/16	3/8	3/4	3-1/2	101366	62.53	101739	91.97
11/32	3/8	3/4	3-1/2	101367	62.53	-	-
3/8	3/8	3/4	3-1/2	101368	62.53	101748	91.97
7/16	1/2	7/8	4	101369	86.09	-	-
1/2	1/2	1	4	101370	68.87	101763	104.24

4-Flute Ball Nose Double End Stub Length

These end mills have a shorter flute length which provides greater rigidity with less deflection for shallow milling or slotting. This series is ideal for use on high tensile alloys and heat treated steels.



Bright: Speeds & Feeds > P. A33
TiAIN: Speeds & Feeds > P. A36

Cutting Dia.	Shank Dia.	Flute Length	Overall Length	Bright Code No.	Price \$	TiAIN Code No.	Price \$
Inch							
1/32	1/8	5/64	1-1/2	101355	31.42	101776	29.44
3/64	1/8	3/32	1-1/2	101356	31.42	101777	36.80
1/16	1/8	1/8	1-1/2	101357	25.13	101778	29.44
3/32	1/8	3/16	1-1/2	101358	31.42	101779	36.80
1/8	1/8	1/4	1-1/2	101359	15.59	101802	24.87
5/32	3/16	5/16	2	101371	27.70	101803	31.99
3/16	3/16	3/8	2	101372	22.64	101804	33.66
7/32	1/4	1/2	2-1/2	101373	36.80	101805	39.84
1/4	1/4	1/2	2-1/2	101374	29.44	101806	47.87
5/16	5/16	1/2	2-1/2	101375	56.52	101807	62.38
3/8	3/8	1/2	2-1/2	101376	62.53	101808	65.28
7/16	7/16	9/16	2-3/4	101377	86.09	101809	101.65
1/2	1/2	5/8	3	101378	70.35	101832	101.65



NOGA

Deburring Systems

See Pages J19-28