



The industry standard for a variety of applications including profile milling, slot milling and production milling in a variety of materials. TiAlN coated for increased speed and feed capabilities and enhanced tool life.

4 FL. REGULAR LENGTH TiAlN COATED-INCH					
Cutting Diameter (in.)	Shank Diameter (in.)	Flute Length (in.)	Overall Length (in.)	Code No.	Price \$
3/64	1/8	9/64	1-1/2	102-831	18.00
1/16	1/8	3/16	1-1/2	102-832	13.50
5/64	1/8	1/4	1-1/2	102-833	16.30
3/32	1/8	5/16	1-1/2	102-834	13.50
7/64	1/8	7/16	1-1/2	102-835	16.30
1/8	1/8	1/2	1-1/2	102-836	13.10
9/64	3/16	1/2	2	102-837	16.30
5/32	3/16	9/16	2	102-839	25.30
11/64	3/16	5/8	2	102-841	25.40
3/16	3/16	5/8	2	102-838	15.90
13/64	1/4	5/8	2-1/2	102-843	33.20
7/32	1/4	5/8	2-1/2	102-845	30.70
1/4	1/4	3/4	2-1/2	102-840	18.50
9/32	5/16	3/4	2-1/2	102-847	38.10
5/16	5/16	13/16	2-1/2	102-842	26.70
11/32	3/8	7/8	2-1/2	102-849	49.50
3/8	3/8	1	2-1/2	102-844	31.70
13/32	7/16	1	2-3/4	102-851	67.20
7/16	7/16	1	2-3/4	102-846	43.50
1/2	1/2	1	3	102-848	52.80
9/16	9/16	1-1/8	3-1/2	102-850	72.60
5/8	5/8	1-1/4	3-1/2	102-852	82.90
11/16	3/4	1-3/8	4	102-854	118.60
3/4	3/4	1-1/2	4	102-856	126.60
7/8	7/8	1-1/2	4	102-858	173.30
1	1	1-1/2	4	102-860	196.90

cutting conditions				
Materials				Cutting Speed (SFM)
Main Group	Sub-Group	Condition	Hardness (HRC)	
Stainless Steels	300 Series,	Annealed	<29	200-350
	400 Series	Annealed	<29	200-350
Tool steels	01, A-2,D-2 H-13,P-20	Annealed	<35	150-250
Medium Carbon	1030, 1035 1038,1040 1045, 1050	Normalized	<28	190-275
Alloyed high carbon	1065, 1070, 1080, 1090 1095, 1561, 1572	Normalized	<32	150-250
High strength	4140, 4340	Normalized	<32	150-250
Titanium	Commercially pure	Annealed	<32	150-250

cutting speed (sfm)	
	100 150 200 250 300 350 400 450 500 550
Stainless Steel	150-350
Tool Steels	150-350
Medium Carbon	150-275
Alloyed High Carbon	150-250
High Strength	150-250
Titanium	150-250

  

hardness (hrc)	
	0 5 10 15 20 25 30 35 35 40
Stainless Steel	up to 29
Tool Steels	up to 35
Medium Carbon	up to 28
Alloyed High Carbon	up to 32
High Strength	up to 32
Titanium	up to 32

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tolerances		
Size	Diameter	Shank Diameter
3/32 thru 1"	+ .000"-.002"	+ .0000"-.0005"

