

Roughers

Solid Carbide – Uncoated & TiAlN Coated – 4 Flute – Center Cut



Cutter Diameter (Inch)	Shank Diameter (Inch)	Length of Cut (Inch)	Overall Length (Inch)	Uncoated	TiAlN Coated
				Code	Code
1/4	1/4	3/4	2-1/2	934584	934615
5/16	5/16	3/4	2-1/2	934587	934618
3/8	3/8	7/8	2-1/2	934590	934621
1/2	1/2	1	3	934593	934624

Cutter Diameter (Inch)	Shank Diameter (Inch)	Length of Cut (Inch)	Overall Length (Inch)	Uncoated	TiAlN Coated
				Code	Code
5/8	5/8	1-1/4	3-1/2	934596	934627
3/4	3/4	1-1/2	4	934599	934630
1	1	1-3/4	4	934602	934633

End Mills

Micrograin Solid Carbide – Uncoated & TiAlN Coated – 2 Flute – Center Cut

TITANIUM ALUMINUM NITRIDE (TiAlN): A titanium based PVD coating having a high content of aluminum. About 30% harder than TiN, this coating provides a unique ability to work well in extremely high temperatures as it has the highest oxidation threshold temperature of any coating available today for solid round tools. TiAlN coated tools run extremely well in dry milling applications, potentially saving the user significant dollars from reduced coolant costs and related environmental issues.

TiAlN coated end mills produce excellent results in:

- Stainless steels
- Hardened materials
- Titanium alloys
- Cast irons
- Dry milling applications
- Applications with interrupted cutting
- High speed machining applications (HSM)

Regular Length



Cutter Diameter (Inch)	Shank Diameter (Inch)	Length of Cut (Inch)	Overall Length (Inch)	Uncoated	TiAlN Coated
				Code	Code
1/32	1/8	5/64	1-1/2	932920	933075
3/64	1/8	7/64	1-1/2	932921	933078
1/16	1/8	3/16	1-1/2	932922	933081
5/64	1/8	3/16	1-1/2	932923	933084
3/32	1/8	3/8	1-1/2	932924	933087
7/64	1/8	3/8	1-1/2	932925	933090
1/8	1/8	1/2	1-1/2	932926	933093
9/64	3/16	1/2	2	932927	933096
5/32	3/16	9/16	2	932928	933099
11/64	3/16	5/8	2	932929	933102
3/16	3/16	5/8	2	932930	933105
13/64	1/4	5/8	2-1/2	932931	933108
7/32	1/4	5/8	2-1/2	932932	933111
15/64	1/4	3/4	2-1/2	932933	933114
1/4	1/4	3/4	2-1/2	932934	933117
17/64	5/16	3/4	2-1/2	932935	933120
9/32	5/16	3/4	2-1/2	932936	933123
19/64	5/16	13/16	2-1/2	932937	933126

Cutter Diameter (Inch)	Shank Diameter (Inch)	Length of Cut (Inch)	Overall Length (Inch)	Uncoated	TiAlN Coated
				Code	Code
5/16	5/16	13/16	2-1/2	932938	933129
21/64	3/8	7/8	2-1/2	932939	933132
11/32	3/8	7/8	2-1/2	932940	933135
23/64	3/8	7/8	2-1/2	932941	933138
3/8	3/8	1	2-1/2	932942	933141
25/64	7/16	1	2-3/4	932943	933144
13/32	7/16	1	2-3/4	932944	933147
27/64	7/16	1	2-3/4	932945	933150
7/16	7/16	1	2-3/4	932946	933153
29/64	1/2	1	3	932947	933156
15/32	1/2	1	3	932948	933159
31/64	1/2	1	3	932949	933162
1/2	1/2	1	3	932950	933165
9/16	9/16	1-1/4	3	932951	933168
5/8	5/8	1-1/4	3-1/2	932952	933171
11/16	3/4	1-1/2	4	932953	933174
3/4	3/4	1-1/2	4	932954	933177
7/8	7/8	1-1/2	4	932955	933180
1	1	1-1/2	4	932956	933183