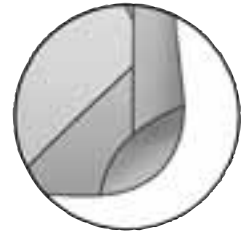




Niagara Cutter

Solid Carbide End Mills With
Microshield™ TiAlN Coating and

Corner Radius



Niagara Cutter

General Purpose Solid Carbide End Mills with Corner Radius and Microshield™ TiAlN coating

- General Purpose Design
- Center-Cutting
- Microshield™ HM TiAlN Coating
- Extra-Fine Grain Carbide

- Ultra High Transverse Rupture Strength
- Ideal for Most Milling Applications
- Full CNC Ground
- Radius Tolerance $\pm .002$



C230R TiAlN Coated Two Flute with Radius



Price Code C

Dia.	Shank	LOC	OAL	.015 Radius		.020 Radius		.030 Radius		.045 Radius		
				Tool #	List Price	Tool #	List Price	Tool #	List Price	Tool #	List Price	
1/8	1/8	1/2	1 1/2	85343-015	\$11.00	85343-020	\$11.00					
3/16	3/16	5/8	2	85347-015	\$13.80	85347-020	\$13.80					
1/4	1/4	3/4	2 1/2	85351-015	\$18.80	85351-020	\$18.80	85351-030	\$18.80	85351-045	\$18.80	
5/16	5/16	13/16	2 1/2	85355-015	\$25.50	85355-020	\$25.50	85355-030	\$25.50	85355-045	\$25.50	
3/8	3/8	1	2 1/2	85359-015	\$29.80	85359-020	\$29.80	85359-030	\$29.80	85359-045	\$29.80	
7/16	7/16	1	2 3/4	85363-015	\$34.90	85363-020	\$34.90	85363-030	\$34.90	85363-045	\$34.90	
1/2	1/2	1	3	85367-015	\$50.80	85367-020	\$50.80	85367-030	\$50.80	85367-045	\$50.80	
5/8	5/8	1 1/4	3 1/2	85369-015	\$80.90	85369-020	\$80.90	85369-030	\$80.90	85369-045	\$80.90	
3/4	3/4	1 1/2	4	85371-015	\$116.00	85371-020	\$116.00	85371-030	\$116.00	85371-045	\$116.00	
1	1	1 1/2	4	85373-015	\$165.00	85373-020	\$165.00	85373-030	\$165.00	85373-045	\$165.00	
Flute Dia.		+.000" - .002"		Overall Length				+/- .060"		Helix Angle		30°
Shank Dia.		-.0001" - .0004"		Length of Cut				1/16 to 5/16" +.030/- .000"				

C430R TiAlN Coated Four Flute with Radius



Price Code C

Dia.	Shank	LOC	OAL	.015 Radius		.020 Radius		.030 Radius		.045 Radius		
				Tool #	List Price	Tool #	List Price	Tool #	List Price	Tool #	List Price	
1/8	1/8	1/2	1 1/2	85586-015	\$11.00	85586-020	\$11.00					
3/16	3/16	5/8	2	85590-015	\$13.80	85590-020	\$13.80					
1/4	1/4	3/4	2 1/2	85594-015	\$18.80	85594-020	\$18.80	85594-030	\$18.80	85594-045	\$18.80	
5/16	5/16	13/16	2 1/2	85598-015	\$25.50	85598-020	\$25.50	85598-030	\$25.50	85598-045	\$25.50	
3/8	3/8	1	2 1/2	85602-015	\$29.80	85602-020	\$29.80	85602-030	\$29.80	85602-045	\$29.80	
7/16	7/16	1	2 3/4	85606-015	\$34.90	85606-020	\$34.90	85606-030	\$34.90	85606-045	\$34.90	
1/2	1/2	1	3	85610-015	\$50.80	85610-020	\$50.80	85610-030	\$50.80	85610-045	\$50.80	
5/8	5/8	1 1/4	3 1/2	85612-015	\$80.90	85612-020	\$80.90	85612-030	\$80.90	85612-045	\$80.90	
3/4	3/4	1 1/2	4	85614-015	\$116.00	85614-020	\$116.00	85614-030	\$116.00	85614-045	\$116.00	
1	1	1 1/2	4	85616-015	\$165.00	85616-020	\$165.00	85616-030	\$165.00	85616-045	\$165.00	
Flute Dia.		+.000" - .002"		Overall Length				+/- .060"		Helix Angle		30°
Shank Dia.		-.0001" - .0004"		Length of Cut				1/16 to 5/16" +.030/- .000"				



All **Niagara Cutter** Solid Carbide end mills are manufactured from specially selected extra-fine grade cemented carbide material. This allows for faster speeds and feeds, reduced chipping and decreased wear.

Microshield™ Coating	TiAlN (HM)
Microhardness (HV 0.05)	3500
Coefficient of Friction Against Dry Steel	0.4
Coating Thickness (Micron-µm)	2 - 4(µm)
Max. Working Temp.	1470° F
Coating Color	Purple/Gray

Table of Niagara Cutter Carbide Properties					
CO	Grain Size	Hardness (Hv)	(Hra)	TRS (PSI)	USA Class
10%	0.8µm	1600	92.1	623,000	C2-3

Niagara Microshield™ TiAlN coating provides lubricity and resistance to wear. TiAlN also has excellent thermal stability making it the ideal choice for dry or low lubricant machining applications.

C230R TiAlN Coated Two Flute with Radius



Price Code C

Dia.	Shank	LOC	OAL	.060 Radius		.090 Radius		.125 Radius		.190 Radius		
				Tool #	List Price	Tool #	List Price	Tool #	List Price	Tool #	List Price	
1/8	1/8	1/2	1 1/2									
3/16	3/16	5/8	2									
1/4	1/4	3/4	2 1/2									
5/16	5/16	13/16	2 1/2									
3/8	3/8	1	2 1/2									
7/16	7/16	1	2 3/4	85363-060	\$34.90	85363-090	\$34.90	85363-125	\$34.90			
1/2	1/2	1	3	85367-060	\$50.80	85367-090	\$50.80	85367-125	\$50.80			
5/8	5/8	1 1/4	3 1/2	85369-060	\$80.90	85369-090	\$80.90	85369-125	\$80.90			
3/4	3/4	1 1/2	4	85371-060	\$116.00	85371-090	\$116.00	85371-125	\$116.00	85371-190	\$116.00	
1	1	1 1/2	4	85373-060	\$165.00	85373-090	\$165.00	85373-125	\$165.00	85373-190	\$165.00	
Flute Dia.		+.000"		-.002"		Overall Length		+/- .060"		Helix Angle		30°
Shank Dia.		-.0001"		-.0004"		Length of Cut		1/16 to 5/16"		+.030/- .000"		21/64 to 1" +.060/- .000"

C430R TiAlN Coated Four Flute with Radius



Price Code C

Dia.	Shank	LOC	OAL	.060 Radius		.090 Radius		.125 Radius		.190 Radius		
				Tool #	List Price	Tool #	List Price	Tool #	List Price	Tool #	List Price	
1/8	1/8	1/2	1 1/2									
3/16	3/16	5/8	2									
1/4	1/4	3/4	2 1/2									
5/16	5/16	13/16	2 1/2									
3/8	3/8	1	2 1/2									
7/16	7/16	1	2 3/4	85606-060	\$34.90	85606-090	\$34.90	85606-125	\$34.90			
1/2	1/2	1	3	85610-060	\$50.80	85610-090	\$50.80	85610-125	\$50.80			
5/8	5/8	1 1/4	3 1/2	85612-060	\$80.90	85612-090	\$80.90	85612-125	\$80.90			
3/4	3/4	1 1/2	4	85614-060	\$116.00	85614-090	\$116.00	85614-125	\$116.00	85614-190	\$116.00	
1	1	1 1/2	4	85616-060	\$165.00	85616-090	\$165.00	85616-125	\$165.00	85616-190	\$165.00	
Flute Dia.		+.000"		-.002"		Overall Length		+/- .060"		Helix Angle		30°
Shank Dia.		-.0001"		-.0004"		Length of Cut		1/16 to 5/16"		+.030/- .000"		21/64 to 1" +.060/- .000"