

Recommended Parameters for Graphite Machining by End Mills

End mill diameter (in)	Machine speed (rpm)	Cutting speed (sfm)	Feed rate (fpt)	Operation
1/64	20,000 – 60,000	80 – 245	.0002 – .0005	Finish
1/32	16,000 – 60,000	130 – 500	.0005 – .001	Finish
1/16	10,000 – 60,000	160 – 1,000	.001 – .002	General
			.0005 – .001	Finish
1/8	6,000 – 60,000	200 – 2,000	.001 – .002	General
			.0005 – .001	Finish
3/16	4,000 – 60,000	200 – 3,000	.001 – .002	General
			.0005 – .001	Finish
1/4	3,000 – 50,000	200 – 3,300	.002 – .004	General
			.001 – .002	Finish
5/16	2,500 – 42,000	200 – 3,400	.002 – .004	General
			.001 – .002	Finish
3/8	2,000 – 36,000	200 – 3,500	.003 – .005	General
			.001 – .003	Finish
1/2	1,500 – 30,000	200 – 4,000	.003 – .005	General
			.001 – .003	Finish

Diamond – the hardest, most wear resistant material in the world – and since the 1960's, a preferred material for the tool manufacturing industry.

Toolmakers have taken advantage of the properties of using Poly-Crystalline Diamond (PCD) tool inserts. However, they are limited because PCD can only be made into flat shapes.

CVD Diamond Corporation addresses this limitation using a Chemical Vapor Deposition (CVD) technique to coat tungsten carbide with pure diamond.

We are now offering a newly expanded line of end mills for machining non-ferrous materials, available in sizes from 1/64" to 1/2" cutting diameters with standard and extra long lengths. Also available are the new Long Reach Micro Tools.

CVD Diamond's tools are of the highest quality. They provide increased tool life, and hold tolerance on the workpiece much longer than any other tools. This means increased productivity and lower tooling cost; in short, a better product.

For more information on how CVD Diamond Corporation can meet your need for long lasting tools, please call 1-877-457-9903 or visit our website www.cvddiamond.com



CVD Diamond Corporation

2061 Piper Lane, London
 ON Canada N5V 3S5
 Phone: (519) 457-9903
 1-877-457-9903
 Fax: (519) 457-9958
www.cvddiamond.com

Diamond Coated End Mills

CVD Diamond Corporation makes diamond coated end mills of the highest quality. Testing has shown and customers have verified that our end mills last longer than any other tools available on the market today.

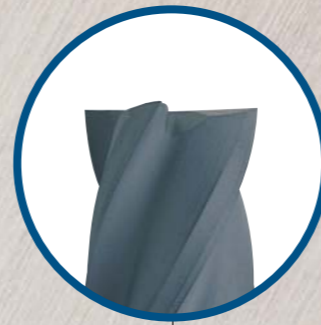
We offer a complete range of end mills in Ball Nose, Square End, and Square End With a radius, in cutting diameters as small as 1/64", and up to 1/2" in diameter.



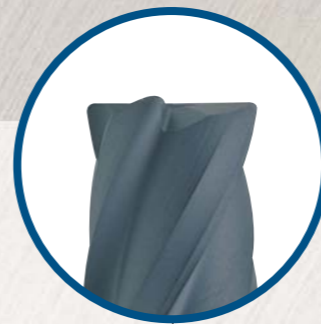
Standard Length End Mills						ORDER NUMBER		
Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Flutes	Radius	Ball Nose	Square End	Square with Radius
1/8"	1/8"	1/2"	1-1/2"	4		B0808-08244	S0808-08244	
					.015"		R0808-08244-15	
3/16"	3/16"	5/8"	2"	4		B1212-10324	S1212-10324	
					.020"		R1212-10324-20	
1/4"	1/4"	3/4"	2-1/2"	4		B1616-12404	S1616-12404	
					.020"		R1616-12404-20	
3/8"	3/8"	7/8"	2-1/2"	4		B2424-14404	S2424-14404	
					.020"		R2424-14404-20	
1/2"	1/2"	1"	3"	4		B3232-16484	S3232-16484	
					.020"		R3232-16484-20	



Ball Nose



Square End



Radius



Extra Long End Mills						ORDER NUMBER		
Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Flutes	Radius	Ball Nose	Square End	Square with Radius
1/8"	1/8"	1"	3"	4		B0808-16484	S0808-16484	
					.015"		R0808-16484-15	
3/16"	3/16"	1"	4"	4		B1212-16644	S1212-16644	
					.020"		R1212-16644-20	
1/4"	1/4"	1-1/2"	6"	4		B1616-24964	S1616-24964	
					.020"		R1616-24964-20	
3/8"	3/8"	1-1/2"	6"	4		B2424-24964	S2424-24964	
					.020"		R2424-24964-20	
1/2"	1/2"	3"	6"	4		B3232-48964	S3232-48964	
					.020"		R3232-48964-20	



Micro Tools						ORDER NUMBER		
Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Flutes	Radius	Ball Nose	Square End	Square with Radius
1/64"	1/8"	3/64"	1-1/2"	2		B0108-01242	S0108-01242	
					.005"		R0208-02242-05	
1/32"	1/8"	3/32"	1-1/2"	2		B0208-02242	S0208-02242	
					.010"		R0308-03242-10	
3/64"	1/8"	3/16"	1-1/2"	2		B0308-03242	S0308-03242	
					.010"		R0408-03244-10	
1/16"	1/8"	3/16"	1-1/2"	4		B0408-03244	S0408-03244	
					.010"		R0408-03244-10	
5/64"	1/8"	1/4"	1-1/2"	4		B0508-04244	S0508-04244	
					.010"		R0508-04244-10	
3/32"	1/8"	3/8"	1-1/2"	4		B0608-06244	S0608-06244	
					.010"		R0608-06244-10	



Long Reach Micro Tools								ORDER NUMBER		
Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Flutes	Reach	Relief Diameter	Radius	Ball Nose	Square End	Square with Radius
1/64"	1/8"	3/64"	1-1/2"	2	.156"	.013"		B0108-01242L	S0108-01242L	
							.005"		R0208-02242-05L	
1/32"	1/8"	3/32"	1-1/2"	2	.312"	.028"		B0208-02242L	S0208-02242L	
							.010"		R0308-03322-10L	
3/64"	1/8"	3/16"	2"	2	.500"	.042"		B0308-03322L	S0308-03322L	
							.010"		R0408-03324-10L	
1/16"	1/8"	3/16"	2"	4	.750"	.057"		B0408-03324L	S0408-03324L	
							.010"		R0408-03324-10L	
5/64"	1/8"	1/4"	2"	4	.800"	.072"		B0508-04324L	S0508-04324L	
							.010"		R0508-04324-10L	
3/32"	1/8"	3/8"	2"	4	.900"	.088"		B0608-06324L	S0608-06324L	
							.010"		R0608-06324-10L	