

In Stock superabrasive tooling
EXPRESS LINE[®]



Welcome to Abrasive Technology's Express Line® Catalog

This catalog is a listing of standard products that we carry in stock for next day delivery. In addition to the products listed on these pages, we have experienced customer service associates and application engineers ready to assist you in determining the best tool for your grinding needs.

If you do not find what you need within these pages, please call us at **1.800.964.8324**; for information about our company and its resources available to you, visit our website at **www.abrasive-tech.com**. E-mail your name and number to us and we'll call you!

Some basic information regarding our P.B.S.® and Electroplated tooling:

P.B.S.® Process

The P.B.S.® bond is a unique, state-of-the-art diamond bonding system. With the P.B.S.® bond, diamonds are individually brazed in place. This process promotes high diamond exposure and virtually eliminates the loss of diamond particles through pull-out. Plus, with the P.B.S.® bond the abrasive section will not strip or peel. This translates into increased productivity and part consistency with an aggressive tool that is longer lasting, faster cutting, less loading, and cooler running. Our P.B.S.® grinding tools are excellent for machining tough-to-cut, non-metallic materials where fast stock removal and deep cutting is preferred.

Electroplated

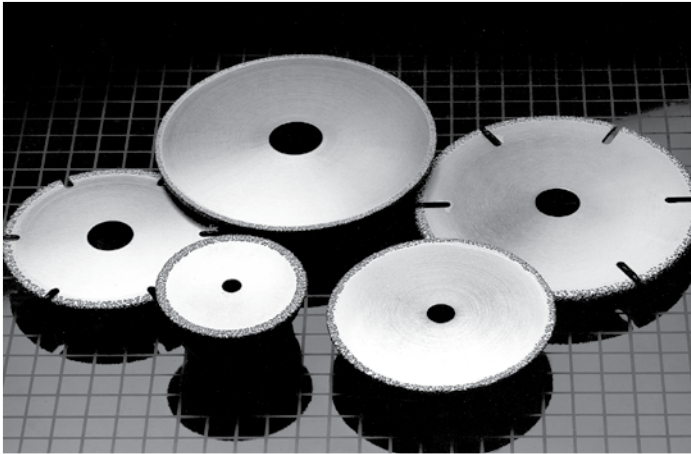
In addition to the in-stock tools on pg. 5, we manufacture a complete line of custom-engineered electroplated tools. Our electroplating processes and equipment can produce extremely complex forms with close tolerances. We also have the necessary equipment to measure and document these precision capabilities.

Recommended usage for P.B.S.® bonded and electroplated products:

Low wheel speed is one of the major causes of poor performance in superabrasive grinding. Low speeds will cause loading and excessive heat build-up. We recommend that our products operate in the range of 5,000 to 12,000 SFPM. 9,000 SFPM is optimum. To prolong wheel life, use adequate coolant whenever possible.

Resin

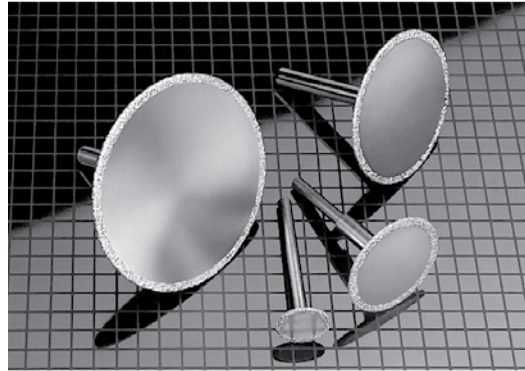
We manufacture a complete line of resin wheels for a wide range of grinding applications. Our resin wheels are made using the highest quality superabrasive and raw materials to ensure superior performance. The wheels presented in this catalog are designed to satisfy the basic needs of tool room grinding applications where a cost effective wheel is required for sharpening carbide tipped tools. In addition, we have experienced engineers and the equipment necessary to design and manufacture wheels to suit other specific needs.



P.B.S.® Saw Blades

- P.B.S.® bond, 40 mesh diamond, 1/8" return
- Radiused edge
- Additional sizes, arbors and custom orders are available
- Kerf dimension represents the width of the cutting edge
- Return dimension represents the distance the abrasive extends along the side

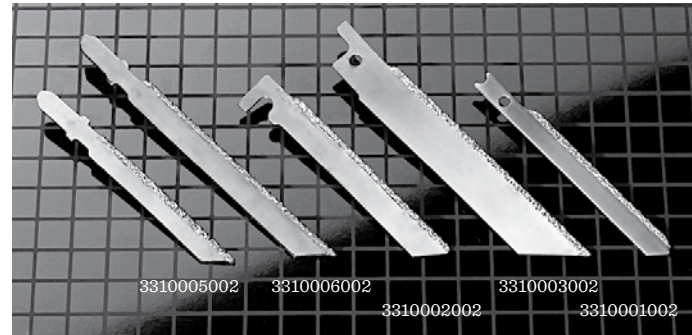
Dia.	Kerf	Core	Arbor	Continuous Stock No.	Slotted Stock No.
2"	1/16"	3/64"	1/4"	3330202001	
	1/16"	3/64"	3/8"	3330202002	
3"	1/16"	3/64"	1/4"	3330302001	
	1/16"	3/64"	3/8"	3330302002	
	3/32"	1/16"	3/8"	3330304002	
4"	1/16"	3/64"	3/8"	3330402002	
	3/32"	1/16"	3/8"	3330404002	3340404002
	3/32"	1/16"	5/8"	3330404005	
	3/32"	1/16"	3/4"	3330404006	3340404006
6"	3/32"	1/16"	5/8"	3330604005	
	3/32"	1/16"	3/4"		3340604006



P.B.S.® Mounted Saw Blades

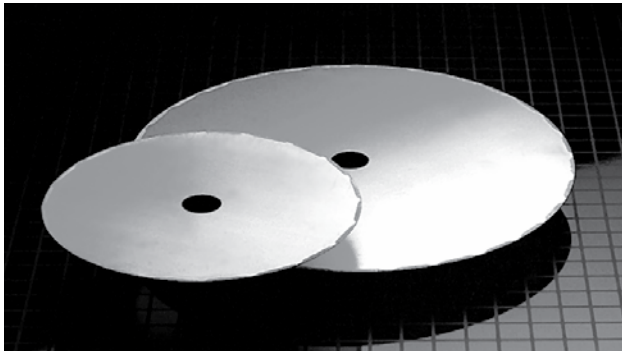
- P.B.S.® bond, 40 mesh diamond, 1/8" return
- 3/32" kerf, 1/16" core

Dia.	Shank	OAL	Stock No.
1/2"	1/4"	3"	3380101018
3/4"	1/4"	3"	3380102018
1"	1/4"	3"	3380103018
2"	1/4"	3"	3380201020
2"	3/8"	3"	3380201008
3"	1/2"	3"	3380301011
4"	3/8"	3"	3380401021



P.B.S.® Jig Saw Blades

Jig Saws	OAL	Stock No.
Black & Decker Saw - will fit most competitive saws	3"	3310001002
Bosch Style	3"	3310005002
Bosch Style	4"	3310006002



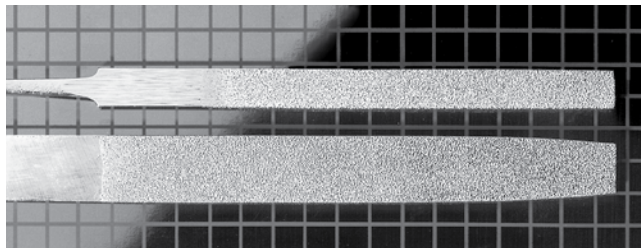
Thin Kerf Saw Blades

- 150 or 220 mesh diamond, 1/16" return

These electroplated saws have an interrupted edge for greater swarf clearance and aggressive cutting action. The saws are excellent for green carbide, ceramic and lapidary stone applications.

Dia.	Mesh	Kerf†	Core	Arbor	Stock No.
4"	220	.011"	.004"	5/8"	2310407036
	150	.022"	.012"	5/8"	2310408033

† Approximate Kerf



P.B.S.® Diamond Hand Files

- 6" files = 4 1/2" abrasive length
- 10" files = 6" abrasive length

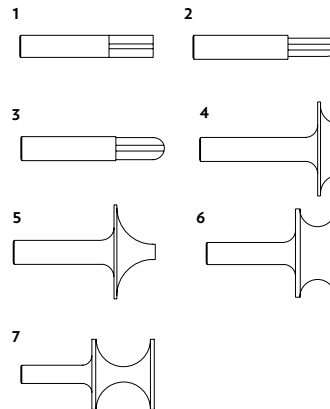
Style	Dimension	Diamond Mesh		
		30	60	100
Flat	6" x 1 1/2"		372002060	3720002100
Flat	10" x 3/4"	3720001001	3720001003	3720001004



P.B.S.® Router Bits

- P.B.S.® bond, 40 mesh diamond
- 1" abrasive length except on demi-bull and full bull shapes
- Two straight flutes on 3/8" diameter and larger
- Additional sizes and custom routers are available

Dia.	Shank	OAL	Stock No.
1/4"	1/4"	3"	3200202003
3/8"	1/4"	3"	3200302003
3/8"	3/8"	3"	3200302007
1/2"	1/4"	3"	3200402003
1/2"	3/8"	3"	3200402007
3/4"	3/8"	3"	3200602007
1"	3/8"	3"	3200802007



No.	Routers	Shaft Dia. & Length	Radius	O.D.	Stock No.
1	Straight	1/2" x 2"	Flat	1/2"	3209999002
2	Straight	1/2" x 2"	Round	3/8"	3209999004
3	Straight	1/2" x 2"	Round	1/2"	3209999005
4	Demi-Bull	1/2" x 2"	3/8"	2"	3289999001
5	Demi-Bull	1/2" x 2"	3/4"	2"	3289999002
6	Full-Bull	1/2" x 2"	3/8"	2"	3289999003
7	Full-Bull	1/2" x 2"	3/4"	2"	3289999004

Accu•Point® Diamond and CBN Mandrels

5-PACK, 1/8" SHANK, 2 1/4" OVERALL LENGTH						
Dimension (inches)			Diamond		CBN	
A	B	C	220	100	220	100
.030	.079	1/4	C2010030006Z		C2010030001Z	
.030	.118	1/4	C2010031006Z		C2010031001Z	
.040	.079	1/4	C2010040006Z		C2010040001Z	
.040	.118	1/4	C2010041006Z		C2010041001Z	
.050	.079	1/2	C2010050006Z		C2010050001Z	
.050	.118	1/2	C2010051006Z		C2010051001Z	
.060	.079	1/2		C2010060008Z		C2010060003Z
.060	.118	1/2		C2010061008Z		C2010061003Z
.070	.157	1/2		C2010070008Z	C2010070001Z	C2010070003Z
.080	.157	1/2		C2010080008Z		C2010080003Z
.090	.157	1/2		C2010090008Z	C2010090001Z	C2010090003Z
.100	.157	1/2		C2010100008Z		C2010100003Z
.110	.157	1/2		C2010110008Z	C2010110001Z	C2010110003Z
.118	.157	5/8		C2010118008Z		C2010118003Z
.135	.197	5/8		C2010135008Z	C2010135001Z	C2010135003Z
.157	.236	NONE		C2010157008Z	C2010157001Z	C2010157003Z
.177	.236	NONE		C2010177008Z	C2010177001Z	C2010177003Z
.197	.236	NONE		C2010197008Z	C2010197001Z	C2010197003Z

2-PACK, 1/4" SHANK, 3" OVERALL LENGTH						
Dimension (inches)			Diamond		CBN	
A	B	C	100	220	100	60
.203	.275	1.0	C2020203008Z	C2020203001Z	C2020203003Z	C2020203005Z
.230	.275	1.0	C2020230008Z	C2020230001Z	C2020230003Z	C2020230005Z
.275	.315	NONE	C2020275008Z	C2020275001Z	C2020275003Z	C2020275005Z
.315	.315	NONE	C2020315008Z	C2020315001Z	C2020315003Z	C2020315005Z
.335	.315	NONE	C2020335008Z		C2020335003Z	C2020335005Z
.394	.197	NONE	C2020394008Z	C2020394001Z	C2020394003Z	C2020394005Z
.394	.394	NONE	C2020395008Z	C2020395001Z	C2020395003Z	C2020395005Z
.437	.394	NONE	C2020437008Z		C2020437003Z	C2020437005Z
.500	.394	NONE	C2020500008Z	C2020500001Z	C2020500003Z	C2020500005Z

SINGLES, 3/8" SHANK, 3 1/2" OVERALL LENGTH						
Dimension (inches)			Diamond		CBN	
A	B	C	100	220	100	60
.394	.394	NONE	C2030394008Z	C2030394001Z	C2030394003Z	C2030394005Z
.473	.394	NONE	C2030473008Z	C2030473001Z	C2030473003Z	C2030473005Z
.500	.500	NONE	C2030500008Z		C2030500003Z	C2030500005Z
.591	.394	NONE	C2030591008Z		C2030591003Z	C2030591005Z
.730	.394	NONE	C2030730008Z		C2030730003Z	C2030730005Z
1.000	.394	NONE	C2031000008Z		C2031000003Z	C2031000005Z
1.250	.394	NONE	C2031250008Z		C2031250003Z	C2031250005Z
1.500	.394	NONE	C2031500008Z		C2031500003Z	C2031500005Z

Precision Diamond and CBN Mandrels

2-PACK, 1/4" SHANK, 3" OVERALL LENGTH					
Dimension (inches)			Diamond		CBN
A	B	C	80	60	60
.177	.197	5/8	C2051018Z		C2052018Z
.197	.236	5/8	C2051019Z		C2052019Z
.217	.236	5/8	C2051020Z		C2052020Z
.236	.276	5/8	C2051021Z		C2052021Z

SINGLES, 1/4" SHANK, 3" OVERALL LENGTH					
Dimension (inches)			Diamond		CBN
A	B	C	80	60	60
.256	.276	5/8	C2051022Z		C2052022Z
.276	.315	NONE	C2051023Z		C2052023Z
.315	.315	NONE	C2051024Z		C2052024Z
.374	.374	NONE	C2051025Z		C2052025Z
.433	.374	NONE	C2051026Z		C2052026Z
.512	.394	NONE	C2051027Z		C2052027Z
.630	.394	NONE	C2051028Z		C2052028Z

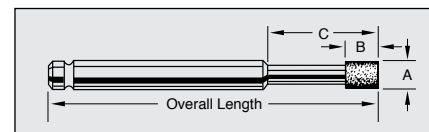
SINGLES, 3/8" SHANK, 4" OVERALL LENGTH					
Dimension (inches)			Diamond		CBN
A	B	C	80	60	60
.374	.394	NONE	C2051029Z		C2052029Z
.394	.394	NONE	C2051030Z		C2052030Z
.433	.394	NONE	C2051031Z		C2052031Z
.512	.394	NONE	C2051032Z		C2052032Z
.630	.394	NONE	C2051033Z		C2052033Z
.745	.394	NONE	C2051034Z		C2052034Z
1.00	.394	NONE	C2051035Z		C2052035Z

2 PACK, 1/8" SHANK, 2 1/4" OVERALL LENGTH					
Dimension (inches)			Mesh	Diamond Stock No.	CBN Stock No.
A	B	C			
.016	.079	1/8	220	C2051000Z	N/A
.020	.079	1/8	220	C2051001Z	C2052001Z
.024	.079	1/4	220	C2051002Z	C2052002Z
.032	.079	1/4	180	C2051003Z	C2052003Z
.035	.118	1/4	180	C2051004Z	C2052004Z
.040	.118	1/4	150	C2051005Z	C2052005Z
.050	.118	1/2	150	C2051006Z	C2052006Z
.060	.158	1/2	120	C2051007Z	C2052007Z
.070	.158	1/2	100	C2051008Z	C2052008Z
.079	.158	1/2	100	C2051009Z	C2052009Z
.090	.158	1/2	100	C2051010Z	C2052010Z
.100	.158	1/2	100	C2051011Z	C2052011Z
.110	.158	1/2	100	C2051012Z	C2052012Z
.118	.158	5/8	100	C2051013Z	C2052013Z
.138	.197	NONE	100	C2051014Z	C2052014Z
.158	.197	NONE	80	C2051015Z	C2052015Z
.197	.236	NONE	80	C2051016Z	C2052016Z
.236	.276	NONE	80	C2051017Z	C2052017Z

Item	Grit	Stock No.
Precision Dressing Stick (10 pack)	100	C2059999Z

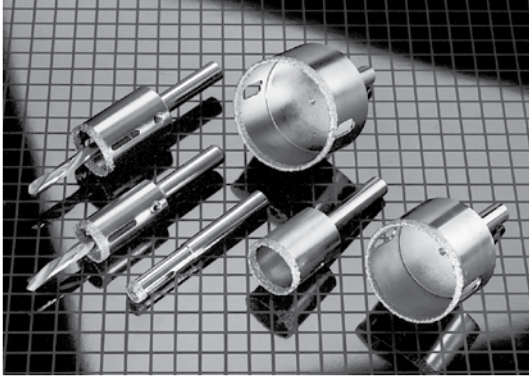
Accu•Point® Diamond and CBN Mandrels

1. Accu•Point® mandrels maintain a shank tolerance of +.0000" to -.0006"
2. Use the largest mandrel size that fits the rough hole
3. Accu•Point® mandrels are made from one piece steel, hardened for rigidity



Precision Diamond and CBN Mandrels

1. Precision mandrels with diameters of 0.1182" to 0.2364" maintain a tolerance of +0/-0.00031"
2. Precision mandrels with diameters of 0.2365" to 0.394" maintain a tolerance of +0/-0.00035"
3. Due to grain exposure and an open bond structure, precision mandrels require very little pressure; an important factor in drilling small holes
4. Precision mandrels may be dressed using our Precision Dressing Stick (Lower right - Stock No. C2059999)



P.B.S.® Core Drills

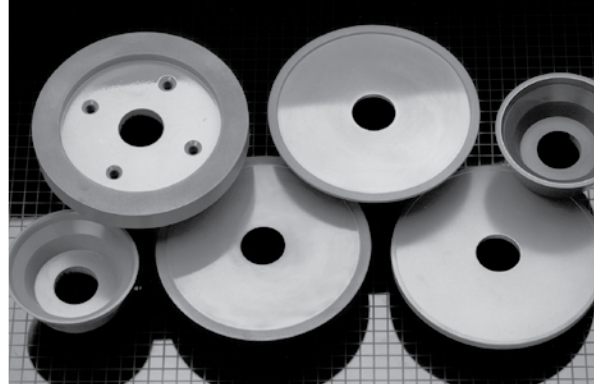
- P.B.S.® bond, 40 or 80 mesh diamond, 1/8" return
- 1" cutting depth
- 40 mesh diamond for FRP/composites
- 80 mesh diamond for glass
- Additional sizes and custom core drills available
- Pilot guides available. Call for information.

Dia.	Shank	40 Mesh Stock No.	80 Mesh Stock No.
1/4"	3/8"	3220301007	3220202020
3/8"	3/8"	3220302020	3220302020
1/2"	3/8"	3220401007	3220402020
3/4"	3/8"	†3220601014	3220602020
1"	3/8"	†3220801014	3220802020
1 1/4"	3/8"	†3221001014	3221002020
1 1/2"	3/8"	†3221201014	3221202020
2"	3/8"	†3221601014	3221602020

†Pilot ready-1/4" (order pilot separately)

Core Drill Pilot (order separately)

Dia.	Type	Stock No.
1/4"	Carbide tipped drill	3992500001



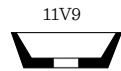
Resin Bonded Wheels

- Express Line® wheels are designed for general purpose carbide and steel grinding.
- For additional products and information, please call our customer service team or refer to our resin bonded diamond and CBN catalog.

Note:

To maximize wheel life and productivity, resin bonded superabrasive wheels should be operated within a range of 3500 to 7000 SFPM, using an adequate coolant flow. Maximum in-feed depths of .002" per pass are recommended and resin wheels must be running true before use. An occasional dressing will enhance wheel performance.

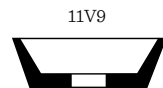
CBN



Custom Products Available

Wheel Size	Grit	Con	Depth	Stock No.
3 3/4 x 1 1/2 x 1 1/4	100	75	1/8"	C429004001
5 x 1 3/4 x 1 1/4	100	75	1/8"	C429006001

DIAMOND



1A1

1A1R

Wheel Size	Grit	Con	Depth	Stock No.
3 3/4 x 1 1/2 x 1 1/4	120	100	1/8"	C429004003
	150	100	1/8"	C429004004
	180	100	1/8"	C429004005
	120	100	1/16"	C429005003
			1/8"	C429006003
5 x 1 3/4 x 1 1/4	120	100	1/16"	C429005004
	150	100	1/8"	C429006004
4 x 1 1/4 x 1 1/4	120	100	1/8"	C401033001
6 x 1 1/4 x 1 1/4	120	100	1/8"	C401049002
6 x .039 x 1 1/4	120	100	1/4"	C402016001

Dry Grinding (Diamond)

- Rough and finish grind with the same wheel
- Freer cutting, better finish
- Excellent wheel for carbide die grinders

1A1

Wheel Size	Grit	Con	Depth	Stock No.
6 x 1 1/4 x 1 1/4	100	100	1/4"	C401050100
5 x 1 1/2 x 1 1/4	100	100	1/4"	C401050101

Bur Fluting (Diamond)

- Superior corner holding characteristics
- Extended run time without redressing
- Heavy stock removal

1V1

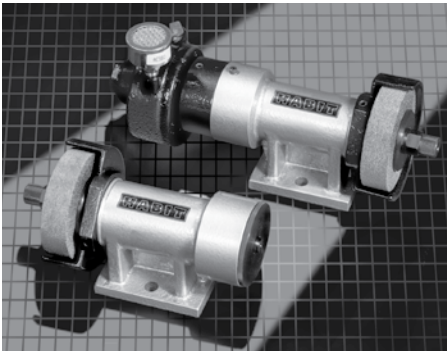
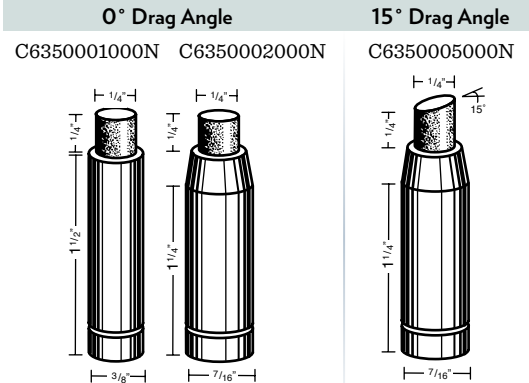
Wheel Size	Grit	Con	Depth	Stock No.	Cut Depth
6 x .094 x 1 1/4	400	125	1/2"	C415011061	0 - .010"
	325	125	1/2"	C415011062	.010" - .025"

ACCU•TRU®

CBN wheel truing and dressing kit



- Note:**
- Each kit contains one truing tool and one dressing stick. They can be used on resin metal or vitrified CBN grinding wheels. For 7" diameter wheels and larger, 3/8" x 1/8" nibs are recommended. These are available in a 7/16" shank. For wheel diameters smaller than 7", 1/4" x 1/4" nib with either a 3/8" or 7/16" shank is recommended.
 - Shank dia.** **Machine Application**
 7/16" Brown and Sharp, Cincinnati, G & L, Heald, Norton, Thompson
 3/8" Excello, Barber Coleman, Fellows, K. O. Lee



Rotatrim™ Brand Devices for Dressing & Truing

For a fast, easy and cost effective way to restore, dress and true Diamond & CBN wheels.

Item	Stock No.
Centrifugal Braking - For general purpose use	C4710001
Air Driven - For large and very small diameter wheels (For more information, please contact our customer service team at 1.800.964.8324)	C4720001
Replacement Wheels 60 SIC (5 pak)	C4730001

Aluminum Oxide Dressing Stick

Size	Grit	Stock No.
1/2" x 1/2" x 4" (12 pk)	220	C6330008
1" x 1" x 8" (12 pk)	220	C6330010
1/2" x 1/2" x 4" (12 pk)	320	C6330009
1/2" x 1/2" x 4" (12 pk)	1000	C6330011

SERVICES

Additional Products

We manufacture diamond and CBN, electroplated, P.B.S.* bonded, metal, resin, and vitrified bonded grinding wheels, as well as single-point diamond and PCD/PCBN tools.

Custom-Engineered Tooling

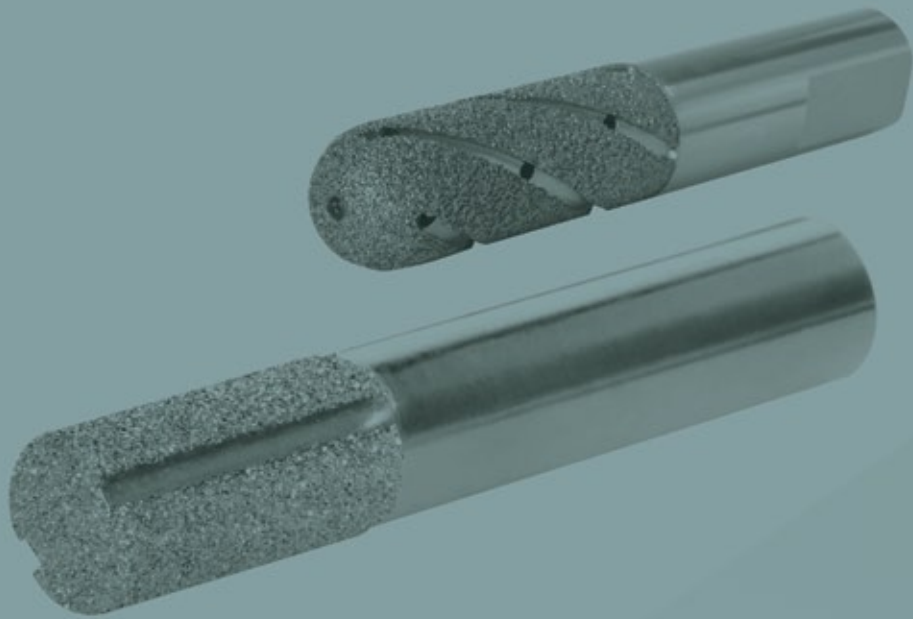
We welcome the opportunity to quote on any special grinding tools you may need. Please send complete drawings and tool specifications when requesting a quote. Call 1.800.964.8324 to talk with one of our experienced application engineers about any special requests.

Delivery

All items in this catalog are in stock and available for same day shipment. Orders received by 12:00 Noon EST can be shipped the same day.

Terms

Mastercard, Visa, Discover, American Express, C.O.D., prepayment or net 30 days from the date of invoice with approved credit. All prices are F.O.B. Lewis Center, OH for domestic shipments and EXW Lewis Center, OH USA for international shipments. All shipping and related charges will be added to the invoice.



WORLD HEADQUARTERS

United States

P: 1.740 548.4100

F: 1.740 548.7617

EUROPEAN HEADQUARTERS

United Kingdom

P: 44.20.7471.0200

F: 44.20.7471.0202

ASIAN HEADQUARTERS

Singapore

P: 65.6270.6878

F: 65.6270.6877



Go to www.abrasive-tech.com to order online or find a distributor near you.

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