



CONTINENTAL DIAMOND TOOL
CORPORATION

ELECTROPLATED DIAMOND AND CBN PRODUCTS



We're setting the new standard.

ELECTROPLATED DIAMOND AND CBN PRODUCTS

AEROSPACE AUTOMOTIVE COMPOSITES POWER GENERATION MEDICAL



Electroplated Diamond or Cubic Boron Nitride (CBN) products have a single layer of abrasive held by a tough, durable nickel alloy. Unlike sintered (metal bond) or resin bond Diamond or CBN products, where the abrasive particles are buried in a bond and held together by a metal or resin binder, electroplated products have the maximum abrasive particle exposure.

Electroplated Diamond or CBN products are able to retain their original shape and dimensions throughout their working life. Electroplating allows abrasive particles to protrude from the bond matrix, providing a free, faster cutting action with minimum heat generation.

ELECTROPLATED DIAMOND PRODUCTS PROVIDE:

Free Cutting Action

better removal rates and less thermal damage to the part

Excellent Form Holding Characteristics

hold simple and intricate forms for the entire life of the tool or wheel, from first grind to last

Maximum Abrasive Particle Exposure

High Stock/Material Removal Rates

lower long-term cost with the potential reduction or elimination of time associated with setup, dressing, and tool changes

Reusable

strip and replat services available with potential savings of 40% over new electroplated products *(See back page for details.)* >

Who is CDT?

CDT is a family owned company located in New Haven, Indiana. Continental Diamond Tool's reputation as a leading-edge manufacturer of Diamond and CBN wheels is the result of a disciplined commitment to excellence that has led the company since 1973.

Quality

Our engineers are specialists in their field and take pride in maintaining the highest quality standards. We produce all of our wheels in-house under a stringent quality control system. We manufacture our wheels using CNC machines to make sure we maintain a consistent product at the highest quality, wheel after wheel.

Custom Manufacturing

Continental Diamond Tool custom manufactures products tailored to our customers' specific needs. We boast a full machine shop with skilled technicians and an extensive inventory of raw materials. This enables us to supply an assortment of superabrasive products with the industry's best lead time.

Precision Products

Our industry expertise gives our superabrasive wheels and tools their unique precision. Our state-of-the-art equipment and highly skilled experts are supported by decades of experience. The result is a finished product unmatched in quality and consistency.

Personalized Tech Support

From prototype to production, replacement tooling to improving your existing operations, our cutting-edge tech staff can help you overcome the obstacles to increase productivity and success.

Competitive Pricing

We've maintained our position in the marketplace by meeting our customers' needs and producing the highest quality superabrasive products at competitive prices.



ABRASIVE UTILIZATION

Although Diamond and CBN (Cubic Boron Nitride) are both superabrasives, the use of Diamond and CBN varies, depending upon the materials to be ground.

Diamond Grinds:

- Cemented carbide
- Glass
- Ceramics
- Fiberglass
- Plastics
- Composites
- Abrasives
- Stone
- Electronic components and materials

CBN Grinds:

- High-speed tool steels
- Die steel
- Hardened carbon steels
- Hardened stainless steels
- Alloy steels
- Aerospace alloys
- Abrasion-resistant ferrous materials

AVAILABLE GRIT SIZES FOR PLATED PRODUCTS

CDT stocks a complete range of electroplating grit sizes in both Diamond & CBN.

GRIT SIZE	RMS FINISH	GRIT SIZE	RMS FINISH
20/30		140/170	32-48
30/40		170/200	24-32
40/50		200/230	20-24
60/80		230/270	16-20
80/100	90-125	270/325	14-16
100/120	64-90	325/400	13-14
120/140	48-64	400/500	12-13

Use this chart as a general guide ONLY. Surface finish is affected by a number of variables, including machine type and condition, type of material, coolant, wheel speed, bond system, etc.

APPLICATIONS

- Grinding
- Scoring
- Centerless
- ID & OD
- Creepfeed
- Cutting

MATERIALS

- Steel
- Ductile and Cast Irons
- High Temperature Alloys
- Fiberglass
- Inconel
- Composites
- Ceramics
- Glass
- Carbide

- Saw Blades
- Custom Tooling
- Hole Saws
- Mounted Saws
- Grinding Wheels



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STRIP AND REPLATE PROGRAM

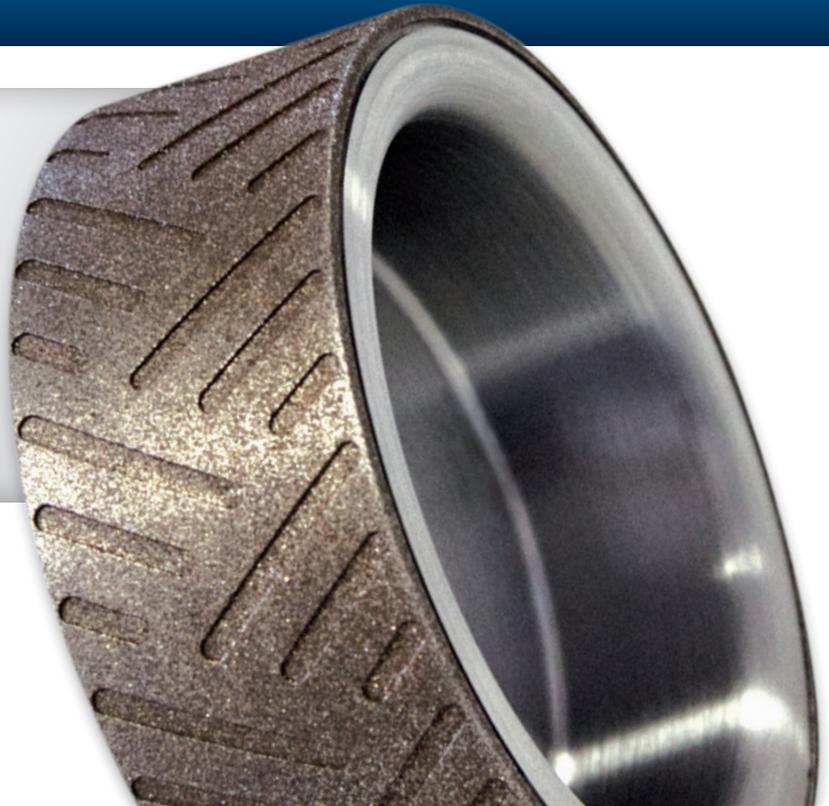
Continental Diamond Tool is committed to developing custom and cost effective plans with our customers for their superabrasive grinding applications. CDT's strip and replate program can help reduce tooling cost by removing the remaining Diamond or CBN from the existing tool, regardless of the manufacturer. CDT will replate with new Diamond or CBN, returning your tool to "like new" condition.

PERFORMANCE PAYOFF GUARANTEE

CDT will guarantee that your tooling will be manufactured to your requested dimensional and abrasive specifications.

You define the application requirements, the definition of a successful test, and the length of time of the test.

If CDT cannot match the quality or life of your current tooling, you will only be charged according to it's value to you, based upon your current tooling cost.



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