



SUPERABRASIVES

CBN AND DIAMOND PRODUCTS

VITRIFIED CBN FOR CENTERLESS GRINDING-THROUGH FEED

For over 30 years, SuperAbrasives has focused on providing our customers with top quality, high performance products all while delivering a high level of responsiveness and customer service. We pride ourselves on our Continuous Improvement Program and effectively providing our customers with the most cost-efficient solutions for the job.

What can we do for your business? Help bring your grinding processes to the next level while lowering your grinding costs!

CBN VITRIFIED PRODUCTS

High Concentration and Maximizer CBN wheels for Through Feed and Plunge Centerless Grinding

Vitrified CBN wheels for grinding material such as 52100, Powered Metal, Cast-Iron, Inconel, D2, M2 and M42 are a specialty at SuperAbrasives. We have developed numerous bond systems designed for these high precision applications and we provide options for CNC and conventional grinding applications where CBN wheels can also be dressed with stationary dressers (prism style). Ask about our experience with these centerless applications and specifically about our solutions for grinding soft materials.

- Camshaft Journals
- Bearings
- High Precision Mechanical Parts
- Fuel Injection Components
- Punch OD Grinding
- Valve Seats
- Round Tools
- Timing Chain Pins

TECHNICAL SUPPORT AND CUSTOM SERVICES

Application Support for Gear Grinding

At SuperAbrasives we also provide application support to our customers by working with you to optimize your grinding process. We use the following steps to walk through your applications to achieve the success you require.

- Application Evaluation
- Application Analysis
- Application Recommendations
- Product Development
- Product Implementation

If you would like to learn more please call our Application Specialists at 248-348-7670 or email us at sales@superabrasives.com.





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VITRIFIED CBN FOR CENTERLESS GRINDING-THROUGH FEED

THROUGH FEED GRINDING APPLICATION:

Conversion from conventional abrasive to VITRIFIED CBN

Machine: Cincinnati 230-10

Material: 100 CR6/52100

Stock: 0.30 over the Diameter

Finish Requirement: 0.1 Ra or Better

Wheel Size: 500 x 250 x 304.8mm Multi-Grit CBN

Wheel Cutting Speed: 42 – 50 m/s.

Coolant: Synthetic

TOOL LIFE OF INCUMBENT WHEEL VS SUPERABRASIVES WHEEL:

<u>PARAMETERS</u>	INCUMBENT WHEEL	<u>SUPERABRASIVES WHEEL</u>
Parts per dress	Simultaneous	Every 40 mins
Truing/Dressing Process	Total In feed per Dress =0.010"/pass	Total In feed per Dress =0.002"x 2passes
Throughput Rate	120 hours	2100 hours

SUMMARY AND ADDED APPLICATION BENEFITS:

Tool Life Increased by 17 times
Increased Daily Production by 40%
Size/Roundness <0.001mm

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