

# VITRIFIED CBN for CAMSHAFT and CRANKSHAFT GRINDING

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 CBN wheels for Camshaft and Crankshaft Grinding

Vitrified CBN wheels for camshaft and crankshaft grinding are a specialty at SuperAbrasives. We have developed numerous bond systems designed for these high precision applications and have options to fit you're cam or crank application. Ask about our newest bond technology - it produces superior results!

- Produce Surface Finish as low as 0.25Ra
- Increase parts per dress
- High In-Feed Rates up to 1.25 Q Prime
- Grind both Steel and Cast Iron with the same spec
- Both Rough and Finish Grind
- Adaptable in Wheel Sets and Multi-Laver Depths

Ask about our experience with these cam and crank applications...

- Lobe
- Pin Bearing
- Journal
- Main Bearing
- Bearings
- Thrust Face
- Fuel Pump Drives •
- Post Wall Flange End

## TECHNICAL SUPPORT AND CUSTOM SERVICES

**Application Support for Camshaft and Crankshaft 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



Ask us about the techniques we use for each step along the way

If you would like to learn more please call our Application Specialists at 248-348-7670 or email us at <a href="mailto:sales@superabrasives.com">sales@superabrasives.com</a>.

## **CRANKSHAFT FLANGE GRINDING CASE STUDY**

Our Experience with all aspects of Crankshaft grinding is extensive and our product performance and technical support are superior. Contact us to get more details on our product offerings and support programs.

#### **CRANKSHAFT FLANGE GRINDING APPLICATION:**

Machine: Fives Landis Wheel Size: 660mm OD, Style 1V1 – Profile Grinding

Part: Flange End Wheel Cutting Speed: 50 m/s

Material: Steel Coolant: Synthetic (Water Based)

Stock: 0.4mm per Side

Finish Requirement: 12 – 16 Ra

### **Tool Life of Incumbent Wheel:** Ceramic Aluminum Oxide Wheel

Parts per Dress: 6 – 8 parts

**Truing /Dressing Process:** Total In-Feed per Dress = 0.025mm

Total Parts per Wheel: 20,000 parts

**CPU:** \$0.09

Wheel Changes: 40 annually

#### **Tool Life of SuperAbrasives Wheel:**

**Usable Depth:** 6mm

Parts per Dress: 50 parts

**Truing /Dressing Process**: Total In-Feed per Dress = 0.075mm

**Total Parts per Wheel:** 100,000 – 125,000 parts

**CPU:** \$0.06

Wheel Changes: 6 annually

#### **Summary and Added Application Benefits:**

- Increased Productivity
- Reduced CPU 33%
- Annual Savings of \$14,253.00



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