Instant global communication and integration between manufacturing plants results in reduced delivery time, efficient customer communication, and time and money saved for our customers.
WHY ABRASIVE TECHNOLOGY?

Since 1971, Abrasive Technology has developed, manufactured and marketed state-of-the-art diamond and CBN wheels for a variety of grinding applications. Our commitment to quality, on-time delivery and customer communication enables us to provide world-class service. We welcome the opportunity to create novel solutions for your specific business needs.

COMMUNICATION CAPABILITIES
• 15 worldwide locations seamlessly connected to one database for consistent voice and data communications.
• Order online, track shipments, find products and technical information, download literature, access your quotations, order history and invoices. E-mail us your questions and comments.
www.abrasive-tech.com
• AutoCAD and SolidWorks capabilities for electronic exchange of part prints and specifications.
• Barcoding for precise job tracking.
• Sales force electronically linked for updated order information.

SUPPORT CAPABILITIES
• Application engineering and design expertise.
• Field engineering.
• Contract machining research.

PROCESS CAPABILITIES
• CAD/CAM equipment providing full design and CNC based programming capability and repeatability.
• CNC machinery able to produce precision blanks from 1/32" to 50" in diameter.
• A broad selection of diamond & CBN abrasives and customized plating bonds.
• QC inspection equipment including laser micrometer, coordinate measuring machine (CMM), form scan geometry gauge, optical comparators and a broad array of digital gauging equipment.
• Process control to maintain consistent, high quality standards.

WHY SUPERABRASIVES?

The physical characteristics of diamond and CBN allow you to increase your productivity by taking larger depths of cut (increased throughput) with less metallurgical workpiece damage (increased quality). When compared to conventional abrasives they also give longer wheel life, lowering your overall costs.

WHY PLATED?

Precision plated form wheels have several advantages over standard bonded wheels. The typical benefits of plated form wheels include:
• The ability to manufacture tight-tolerance complex forms.
• Lower initial cost, compared to vitrified and metal bonded superabrasive wheels.
• Freer cutting, resulting in higher material removal rates, less power required, and reduced thermal damage to the workpiece.
• The ability to hold form or profile from first to last cut.
• Reduction or elimination of time associated with dressing, set-ups and wheel changes.
• Safe, high-speed operation due to a steel core.
• The ability to strip and replate the core.

WHY ABRASIVE TECHNOLOGY PLATED?

In the past, oil coolants have been exclusively recommended for CBN machining. However, many companies are now evaluating the use of water-based coolants because of rising health and environmental concerns associated with straight oil coolants. To address these issues, we developed a process for precision plated products to improve plated grinding wheel performance in water-based coolants. This process has been statistically proven over years of testing through design-of-experiment methods to significantly extend wheel life. This testing also showed the superior performance of Abrasive Technology bonds when used with oil coolants.

CONVERSION PROGRAMS

Examples of successfully converted applications include:
• From Aluminum Oxide/Silicon Carbide to plated CBN/Diamond.
• From oil coolants to water-based coolants.
• From bonded wheels to plated wheels.

APPLICATIONS

Abrasive Technology’s precision plated products are recommended for grinding the following materials in creep feed or high speed grinding applications:
• Nickel based superalloys
• Cobalt based superalloys
• Engineered ceramics
• Ferrous alloys

PHYSICAL CHARACTERISTICS

Knoop Hardness of Abrasives

Thermal Conductivity of Abrasives

PRECISION GRINDING

WHY SUPERABRASIVES?

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