

Engineering Your
Competitive Edge



KenTIP[®] Drills and Carbide Inserts

A Complete Solution for Rock Bit Manufacturers

KenTIP is a custom solution specifically designed for tight-tolerance rock bit applications – eliminates variations in hole size and quality!



Kennametal grade KC7315 insert blades are engineered for optimum performance in workpiece materials commonly found in rock bit manufacturing.

KenTIP® Modular Drilling System

Superior hole quality with no reconditioning costs!

No matter how challenging your holemaking operation, Kennametal's high-performance KenTIP modular drilling system will boost your productivity – and profitability.

KenTIP produces superior hole quality and is more cost-effective than solid carbide drills. The uniquely engineered point geometry reduces thrust, while the drill body, made from quality tool steel, provides outstanding pocket life.

The KenTIP System delivers repeatable hole size consistency and is especially effective in steel holemaking applications such as rock bit manufacturing, where total tolerances of .0015" (0,038mm), and ovality and taper of .0005" (0,013mm) or less are a must to ensure proper press fitting of carbide inserts.

KenTIP is also easy to use. When the drill tip becomes worn, simply remove it with the included changeout tool and insert a new tip, without removing the drill from the machine or holder. This approach provides consistency from tip to tip, unlike reconditioned drills. Plus, you can throw the worn tip away — or recycle it using Kennametal's Carbide Recycling Service for even greater cost savings.



KenTIP offers measurable benefits to rock bit manufacturers:

- **Save money** – more cost-effective than solid carbide drills – with longer life and no reconditioning costs!
- **Save time** – change worn tips without removing the drill from the machine or holder!
- **Superior hole quality** – drill accurately sized holes every time!

Kennametal – delivering consistent high-performance carbide inserts to

Premium Carbide Inserts

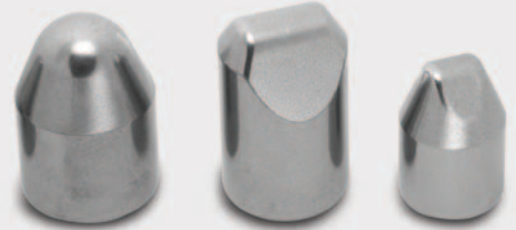
Our metallurgical expertise sets us apart!

Kennametal has unsurpassed capability in helping rock bit manufacturers worldwide gain a competitive edge with their energy, mining, and construction customers. Not only do we offer the KenTIP modular drilling system to help you drill accurate holes with proven consistency, but we also offer the industry's premier line of carbide inserts.

When insert life is key to your customers' drilling success, you can rely on Kennametal's metallurgical expertise to outperform the competition even in the most extreme drilling conditions. Our carbide inserts, or buttons or compacts as they are often called, feature advanced carbide grades and enhanced cutting structures to maximize rate of penetration (ROP) and maximize total bit footage.

Manufactured to the tightest available tolerances, Kennametal carbide inserts are specifically designed to withstand the punishment of drilling through any rock formation. By minimizing shear and prolonging wear life, we enable your roller cone and percussion bits to not only last longer but also deliver a more consistent number of feet drilled each time.

Kennametal carbide inserts are available in a wide range of styles and advanced grades – all offering excellent wear life with a greater rate of penetration (ROP)!



While every rock bit application has its own special requirements, you can meet those challenges with confidence using Kennametal carbide inserts.

Kennametal carbide inserts offer measurable benefits to rock bit manufacturers:

- **Extend wear life** – Kennametal advanced grades mean our carbide inserts cut better and last longer!
- **Save money** – standard hole and insert sizes mean reduced inventory!
- **Gain versatility** – meet the needs of all your customers in Oil, Gas, Water Wells, Directional Drilling, Blast Holes, Dimensional Stone, Precious Metals... and more!

*...t, close-tolerance hole sizes and
...o reduce your inventory and costs!*



CUSTOMER APPLICATION SUPPORT
USA and Canada: **800/835-3668**
Outside USA and Canada: **724/539-6921**
Monday-Friday: 7am-7pm
Saturday: 9am-3pm

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MACHINE UTILIZATION
Optimize your machine through:

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- tool pre-gauging
- advanced cutting tool materials
- tool location management
- tool sensors

TOOL MANAGEMENT SYSTEM
ToolBoss®... to reduce your tool-buying, tool-inventory, and tool-supply costs.



*For more information about the KenTIP Modular Drilling System or other Kennametal Metalworking products, please contact your Kennametal Representative or Authorized Distributor, or call **800/446-7738**.*



*For more information about Premium Carbide Inserts for rock and percussion bit applications, or to request a quote, please call **800/433-7295**.*

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