



PDC DRILL BIT FEATURES

Dear Customer,

Thank you for your interest in our innovative PDC drill bit designs. We're excited to share information about our company, features of this product, and how we can work together. We look forward to collaborating soon!

About Us

South Corp International Inc. (SCI) is an innovative PDC (Polycrystalline Diamond Compact) Drill Bit manufacturer located in Mansfield, Texas, and Duncan, Oklahoma, with our Canadian Branch, South Corp International Inc. (SCI) located in Calgary, Alberta.

SCI designs and sells patented Diamond Drilling Industries (DDI) PDC Bits to various drilling industries. We have an in-house design team to oversee all projects and use state-of-the-art 3D engineering for product development and analysis. We have multiple product lines of matrix and steel body PDC bits for Horizontal Directional Drilling, Boring underneath roads and rivers, Urbanized Drilling, Water Well, Geothermal, Geotechnical, Mining, and Construction industries and can work with customers to design and build customized PDC bits for specialized applications.

We manufacture PDC drill bits domestically to bring you the next generation of drilling technology. With their Polycrystalline Diamond Compact (PDC) cutters, PDC bits use torque to shear rock and drill further, faster, and smoother than roller cone bits. These bits reduce maintenance costs and save time and money.

We lead the industry in responsiveness and customer service because we understand and provide the level of support required to get the job done. With SCI, you get more than a drilling bit, you get a drilling team that wants you to succeed on your every job.

PDC Bits Vs. Tricone Bits

Our PDC bits are designed to drill further and faster through the toughest and most abrasive formations. These new-generation PDC bits are now drilling hard and abrasive hole sections historically saved for TCI bits. As a result, operators are drilling these formations faster, with fewer bits, and at a lower cost-per-foot.

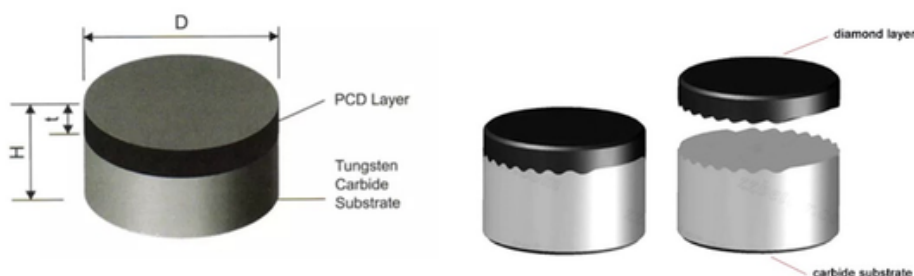
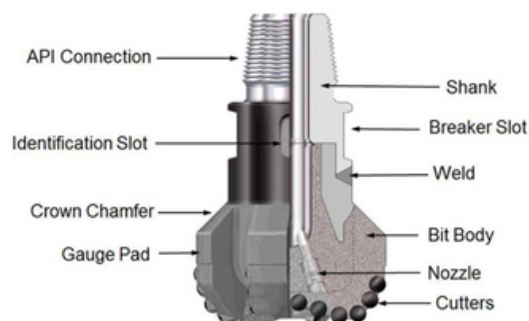
Tricone bits consist of three "cones," which must all rotate on lubricated bearings. This lubrication, in turn, requires a grease reservoir and, for any medium or large-scale project, some sort of bearing seal to prevent debris from entering the Tricone and stopping rotation.



The most straightforward difference is that there are no moving parts in a PDC bit. This allows it to have triple the rate of penetration, which means less wear and tear on the rig.

Cutters

Patented depth-of-cut control technology ensures that cutter-damaging peak loads are minimized by balancing the workload over more cutters. This technology limits bit reactive torque response without limiting bit aggressiveness. Computational fluid dynamics provide an optimized balance of fluid or air flow, cutter cooling, and erosion resistance. PDC fixed cutter bits are solid and consist of no moving parts. PDC bits are made by combining fine-grained artificial diamonds and tungsten carbide under extremely high heat and pressure.



Advantages of PDC Bits

- **Cost-Savings:** PDC bits can be very cost-effective. Unlike Tricone bits, there are no moving parts on a PDC bit to wear out. The synthetic diamond facing can chip, but the PDC cutter can be extracted, and a new one can be put in its place. Rebuilding a PDC bit is normally around one-half the price of buying a new bit. PDC bits drill at a lower cost-per-foot with tough abrasion-resistant cutters. These tough bits have advanced PDC drilling into interbedded formations typically drilled by roller cone bits. Because PDC bits drill so much faster, there is a lot of time saved. Time saved allows the driller to complete more jobs in a shorter period. On a small job, it's hours and days saved. On a larger job, it's weeks and months saved. The benefits of completing the job faster include saving on man-hours and fuel, meeting and/or exceeding deadlines, and using fewer bits and consumables.
- **Safety:** With no moving parts to fail, PDC bits last longer and reduce the number of bit swaps. You stay focused on drilling, not maintenance, from the safety of the driller's cab.



- **Rate of Penetration:** PDC bits, in the correct formations, have an incredible rate of penetration. Formations that PDC bits do well in include, but are not limited to, shale, limestone, sandstone, and clay. When run properly, a PDC bit can increase your penetration rate from anywhere between 50-250%.
- **A Higher Quality Hole for Consistent Blasting:** PDC bits drill less violently and more precisely for better hole quality. For blast holes, this directly translates into higher-quality collaring for the mining industry, which makes blasting more predictable and safer. The blasted rock is also more uniform, reducing the overall time spent working to clear a blasted bench.

Example of 6 ½” DDI PDC Bit

