Talon high-efficiency PDC drill bits
Drill faster and farther in challenging environments
Improve drilling performance, reduce days on well, and minimize costs and risk

The Hughes Christensen Talon™ platform of PDC bits, from Baker Hughes consistently performs in virtually any environment while giving you superior directional control, longer run life, improved rates of penetration (ROP), and enhanced durability.

Talon bit technology delivers consistent performance through:

- Hydraulic efficiency—optimized hydraulic energy at the bit ensures maximum cuttings evacuation
- Cutting efficiency—advanced diamond technology helps cutters to stay sharper longer to increase ROP and durability
- Mechanical efficiency—stable, efficient, and durable designs deliver superior performance

The DART process maximizes drilling efficiency

Every Talon bit begins with the Baker Hughes DART™ drill bit design process. This collaborative process combines new and existing technology, extensive knowledge, and innovative designs to find exactly the right drill bit for your specific application. In every case, the goal is to develop solutions that improve performance while minimizing drilling and completion costs and reducing nonproductive time (NPT).

Armed with an in-depth understanding of your objectives and reservoir challenges, a cross-functional team of Baker Hughes drilling experts brings more than 100 years of experience and exclusive Baker Hughes technical resources to the project. These resources include proprietary software applications, a comprehensive knowledge database, an advanced drilling technology laboratory, and a sophisticated research rig and downhole simulator—all focused on improving the individual performance of your bit.

Bit designs for every drilling need

The Talon high-efficiency PDC bit is ideal for first-bit-under-the-surface applications, intermediate, vertical, and near-vertical drilling, as well as hard-to-drill and abrasive formations. It can also handle challenging environments, delivering superior directional control, and high buildup and penetration rates.

The Talon™ 3D vector-accurate bit extends this outstanding performance to unconventional gas applications, including shale plays, and is ideal for conventional directional drilling. The bit’s one-piece steel body with a short bit-to-bend dimension allows improved hydraulic efficiency, greater buildup aggressiveness, and longer life, often enabling curves and lateral sections to be drilled in a single run.

Talon bits are fully compatible with the Baker Hughes AutoTrak™ Curve rotary steerable system. Working together, these two solutions meet the challenges of drilling unconventional plays with exceptional accuracy, reliability, and speed.

Stay in the hole longer with new StaySharp cutters and StayTough hardfacing

All Talon PDC bits include Baker Hughes StaySharp™ PDC cutters with sophisticated diamond technology and premium polished faces. With its innovative, extra-tough design, this proprietary technology dramatically stays sharper longer and maximizes cuttings evacuation to keep bits cleaner while delivering higher ROP, improved run life, and lower cost per foot.

This new cutter design is exceptionally erosion- and chip-resistant, which helps maximize run life and further improve ROP. StaySharp cutters also diminish friction, which reduces heat buildup on the cutter face to further minimize wear. Polished cutters also generate smaller cuttings, aiding in overall cutting evacuation.

For extra protection, every Talon 3D bit also includes new Baker Hughes StayTough™ hardfacing, which combines advanced materials with the most precise oxyacetylene welding procedures to impart maximum levels of strength and durability. This combination reduces bit erosion in virtually any drilling environment, protecting the bit body from damaging rock formations and debris while improving wear resistance.

The platform of Talon bits, with new StaySharp cutter technology and proprietary StayTough hardfacing, gives you superior bit choices for virtually every application and formation.
Talon high-efficiency PDC bit

1. Shaped gauge pad
   Tungsten carbide and thermally stable polycrystalline diamond materials protect gauge pads and keep bits in gauge longer.

2. Short shank
   Decrease make-up length for higher levels of control in conventional directional drilling and increased bit side force on rotary steerable systems.

Shared features

3. StaySharp cutter technology
   The industry's only polished cutters stay sharp longer and increase ROP and chip resistance to maximize life, reduce cutter balling, and improve cuttings evacuation.

4. Mapped junk slots
   Optimized diverging junk-slot designs maximize hydraulic efficiency and ROP, keeping bit cleaner for outstanding cuttings evacuation.

5. Talon bit profile
   Application-specific bit profile boosts ROP and run life, improving mechanical efficiency and durability while minimizing vibration.

6. Low-torque gauge
   The leading edge of the blade is redesigned to minimize interaction with the borehole and minimize torque fluctuations.

Features exclusive to Talon 3D bits

7. Proprietary alloy steel
   One-piece steel construction provides superior integrity and reliability.

8. High blade standoff
   Improves cleaning in low horsepower-per-square-inch applications, increasing aggressiveness and junk-slot volume.

9. StayTough hardfacing
   Innovative technology uses proprietary materials and application techniques to maximize durability and reliability, reducing bit erosion and abrasion in most environments.

9. Short bit-to-bend
   Provides greater steer ability and buildup rate aggressiveness on conventional directional equipment.

Talon 3D high-efficiency vector-accurate bit

Talon bit nomenclature

- Standard product: Blank
- D-Technology: D
- Steel body: S
- Matrix: Blank
- Talon: T
- Cutter size: 2 - 5/16 in. (8 mm), 3 - 7/16 in. (11 mm), 4 - 9/16 in. (13 mm), 5 - 11/16 in. (16 mm), 6 - 13/16 in. (19 mm)
- Blade count: X
- Backup cutters: X