

StrikeForce™ Drill Bits

PERFORMANCE ROLLER CONE

FEATURES

- » Optimized pressure contact seals
- » Enhanced hydraulic forgings
- » Directed nozzles
- » Advanced compensation system
- » High capacity load bearings
- » Force and energy balancing
- » Design at the customer interface (DatCI™) process

BENEFITS

- » Bearing and seal reliability
- » Fast rate of penetration
- » Increased bit revolutions (kRev)
- » Application specific solution
- » Increased bit cleaning

OVERVIEW

The StrikeForce™ drill bit is an advanced roller cone bit platform designed and developed through the DatCI process to deliver reliability, performance and improved cost per foot. Through technological advancements in seal, bearing, compensation, cutting structure, and hydraulics coupled with proprietary bit design capabilities this advanced roller cone provides industry leading reliability and drilling performance

DatCI starts with the local team that utilizes application specific knowledge to apply the correct bit solution to the application. By deploying this competency out to the locations next to the customers, allows for the correct bit design to be used for a specific application. This capability is powered through the IBitS™ software platform enabling 3D CAD/CAM in the design of roller cone bits.

Optimized Contact Pressure Seal: By re-engineering the seal shape, seal reliability increased by 53% consequent to a 24%

reduction in torque friction with an associated 16% reduction in tolerance improvement over the previous design. These achievements were accomplished by moving the highest contact pressures to the edge of the sealing interface where it is needed most. In turn, the lower contact pressures at the center of the sealing face reduce wear and frictional torque.

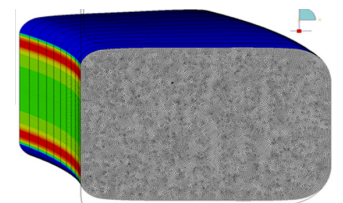
Directed Hydraulic Forging: Advanced CFD modeling has helped create a unique arm design with lifting surfaces that better guide the fluid flow. The bit profile is designed to generate an optimum mud flow that entrains and lifts formation cuttings. This profile (with the directed hydraulics towards the leading edge of the cone) helps ensure efficient cuttings evacuation, enabling optimal penetration rates to be achieved.

The patented Mechanical Pressure Compensator (MPC) is now available on all StrikeForce drill bits. The rubber diaphragm quickly equalizes the pressure on the inside and outside of the seals. This equalization greatly enhances the durability of the bearing and seal system by reducing the seal stress.

Only Halliburton Drill Bits and Services offers the patented Energy Balanced® Bit Technology, a cutting structure which is balanced to equalize load, and rock removal among all three cones. This is accomplished by optimizing cutter placement, orientation, and analyzing the depth of cut on adjacent cutters. The result minimizes vibration, which enhances service life of sensitive instrumentation and equipment while increasing ROP and durability.



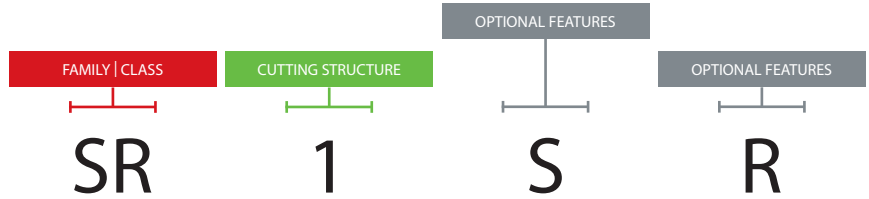
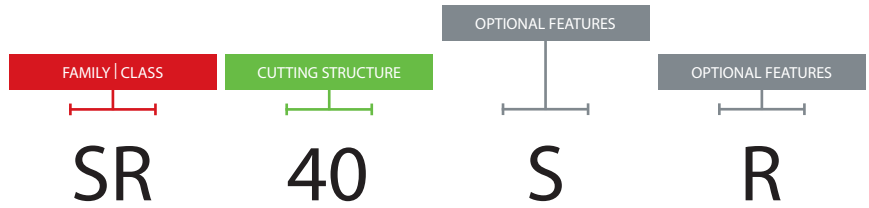
StrikeForce™ Roller cone Drill Bit



Optimized Pressure Contact Seal

**Tungsten Carbide
Insert Bits**

Milled Tooth Bits



FAMILY | CLASS

SR = StrikeForce™ Drill Bit

CUTTING STRUCTURE

For Tooth Bits Single Numeric Variant from 1 to 7
For Insert Bits Dual Numeric Variant from 00 to 99

OPTIONAL FEATURES

For more information, please contact your local representative.

- A = Air Application
- C = Center Jet
- D = Diamond Surf Row (33%)
- D2 = Diamond Surf Row (50%)
- D3 = Diamond Surf Row (100%)
- DF = Gauge/Face Diamond Insert on TCI
- G = Non Standard Gauge Row
- LD = Diamond Insert Lug Pads
- P = Protective Carbide Coating
- R = Raised Enhanced Shirttail Protection
- SD = Shirttail Diamond-Enhanced Protection
- RD = Shirttail Diamond-Raised Protection

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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