Well Construction

Cementing Technologies

High-Speed Reaming Tool (HSRT)

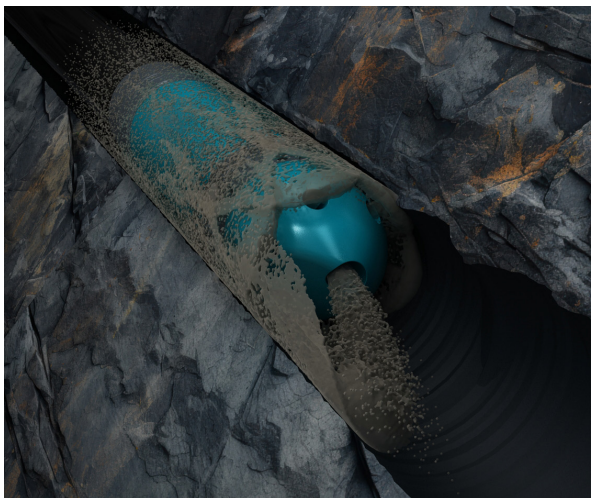
The High-Speed Reaming Tool (HSRT) is a fluid-activated casing and tubing deployment technology designed to overcome challenging wellbore conditions where conventional casing running practices are limited.

The HSRT is a next-generation completions shoe engineered to deliver multiple critical functions in a single, high-performance system, independent of casing rotation. By using hydraulic energy to rotate a jetted shoe at very high rotational speeds, the HSRT enables smooth passage through tortuous, unstable, or spiralled wellbores without the need to rotate the casing string.

The highly reliable HSRT supports casing and tubular deployment while delivering superior well-bore clean-up.

During cementing, the HSRT adds a second shear to the slurry, improving cement placement and bond quality around casing. Powered by our unique reverse impeller drive, the Hsrt operates at a debris-shattering RPM resulting in exceptional fluid carrying capacity making it an ideal solution for casing and liner deployments.

Surpassing conventional guide shoes, the HSRT provides enhanced hole cleaning capabilities, efficiently clearing formation bridges and debris with greater success and reliability than alternative products on the market today.



Features and benefits

- High-Speed Rotation: Greater than 1,500 RPM (bearings rated over 3,000 RPM)
- Fluid Activated: Nose rotates with fluid circulation
- Compact Design: Approx. 1 m tool length
- Fully-drillable internal drive
- Compatible with drift ID
- No mechanical casing rotation required
- Available in all casing sizes and API or premium connections
- Free-rotating nose for smooth wellbore tracking without circulation
- Provides an important second shear to the cement slurry as it is pumped through the tool
- Reduces NPT during casing deployment
- Increased efficiency when encountering wellbore obstructions
- Increased safety for floor personnel and reduced potential damage to assets
- Enhanced wellbore conditioning prior to cementing giving a better cement bond

Applications

- Excessive wellbore tortuosity and higher-than-planned doglegs
- Formation instability or plastic formations
- Extended open-hole exposure times
- Well paths crossing faulted formations
- Low TVD-to-MD ratios (Extended Reach Drilling)
- Liners run on hanger systems that cannot be rotated