Schlumberger

SOFT TORQUE

Surface-controlled rotary drilling software plug-in for the PRECISE automated drilling system

APPLICATIONS

- Land drilling operations

BENEFITS

- Reduces stick-slip, extending bit life and limiting bit trips
- Eases risk of bit deviation and hole enlargement from unbalanced rotation
- Minimizes tool joint damage from extreme torque
- Protects downhole motors from damaging torque
- Increases ROP
- Decreases MWD failures
- Reduces downhole motor stalls
- Integrates into AC variable frequency drive (VFD) control systems

FEATURES

- Includes 24/7 support
- Includes high speed data historian

Intelligence Behind Rig Performance

Used in PRECISE* automated drilling system operations, the SOFT TORQUE surface-controlled rotary drilling software plug-in is an easy-to-use and intuitive add-on feature for mitigating stick-slip vibrations while rotary drilling. This plug-in provides numerous advantages that enable customers to consistently drill longer and more aggressively.

The SOFT TORQUE software plug-in protects downhole tools by reducing excessive and erratic torsional vibration. This helps maintain a more consistent torque across all sections of the drill string, lessening wear and tear on the bit and other downhole equipment, increasing ROP, and limiting bit trips. As a result, this plug-in allows for longer, uninterrupted bit runs.

The SOFT TORQUE software plug-in integrates seamlessly into Schlumberger AC variable frequency drive (VFD) control systems. Additionally, it has the potential to be integrated into a standalone HMI or operated from an existing HMI. The plug-in modifies the speed loop gains in the top drive controller (VFD) to match the characteristics of the top drive motor to the stiffness of the drill pipe.

The rig will receive a high speed data historian that samples at 200 times/sec and 24/7 support from Schlumberger as part of the system package.

The SOFT TORQUE software plug-in integrates seamlessly into AC VFD systems to mitigate stick-slip while rotary drilling.