

The RotoSteer® tool is positioned above an existing steerable BHA to drive the BHA independently from the drill string. Developing torque from drill string rotation, RotoSteer enables the continuous rotation of the drill string during all drilling operations.



RotoSteer eliminates the need for agitation tools while attaining the benefits of a rotary steerable in extended reach applications. This tool produces hydraulic torque from drill string rotation which is used to counteract the reactive torque generated from the drilling motor, allowing for continuous rotation while sliding. The RotoSteer in conjunction with the steerable BHA acts as a "Point the Bit" system and is a cost-effective option for drilling longer reach horizontal wells.

How RotoSteer Works

During drilling ahead operations (higher string RPM), RotoSteer allows the BHA to rotate in conjunction with the drill string. During sliding operations (lower drill string RPM), RotoSteer counteracts the drilling motor reactive torque, holding the BHA stationary with small changes in drill string RPM or WOB adjustments.

Benefits

- Reduced cost in steerable BHA applications through improved ROP by reducing torque and drag and improved hole cleaning
- Further cost savings in the completion of the well with reduced doglegs and improved borehole quality
- Simple installation and operation: the RotoSteer is installed above the BHA in the drill string and requires no special handling or orientation
- Easily adjustable for a variety of mud motors and drilling conditions
- Limits torque output while preventing the damaging effects of "stalling" the PDM
- Uses familiar conventional drilling methods;
 Controlled by balancing RPM and WOB

Technical Specifications

Tool Size	5.00"	6.50" & 6.75"
Outer Diameter	5.00"	6.50" & 6.75"
Overall Length	39.5'	33.1'
Weight	1500 lbs.	2000 lbs.
Recommended Flow Rates	150-350 gpm	300-650 gpm
Temperature Range	325°F	325°F
Operational Pressure Drop Generated	400-700 psi	400-700 psi
Max Pull*	328,000 lbs.	406,900 lbs.
Connections	XT 39 Pin & Box	NC 50 Pin & Box

*If exceeded laydown tool

Strength. Innovation. Performance.

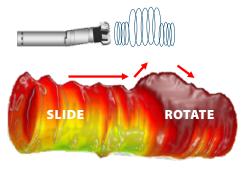
RotoSteer[™]

The Next Generation of Extended Reach Drilling



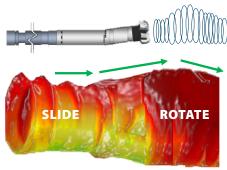


Abrupt Ledges



Conventional Ledging

Transition Ledges



RotoSteer Ledging

Case Studies

Tioga County, Pennsylvania

Applications in two different formations proved significant ROP increase for slide and rotate intervals combined

- March 2023
 8,737'MD run was a 37° mark in curve section to
 TD in lateral with a 350% increase in ROP in slide
- July 2023
 8,340'MD run drilled in 84.22 D&C hours in 2nd half of lateral section, maintained 54'/hr. Slide ROP AVG. to TD of 27,687'MD
- Nov 2023
 1st OH S/T performed in lateral in tandem with RotoSteer, 7'000'MD drilled after S/T to TD of 27,737'MD

Eddy County, New Mexico

Lateral section intervals of 8,700′MD+ are accomplished in 3 bit runs, decreased from 8-10 bit runs with applications prior to RotoSteer

Roger Mills County, Oklahoma

Lateral section of 7,349'MD drilled in only two runs

Cass County, Texas

Multiple run laterals become one-run laterals with RotoSteer in the drillstring

Reeves County, Texas

After failed RSS run and failed vibratory tool run attempt, RotoSteer finished the last 3,170′MD of same wellbore to TD of lateral section

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Drilling Tools International, Inc. is a leading provider of downhole tools to the land and offshore drilling markets. For 40 years our company has been guided by the principles of Strength, Innovation and Performance. Our world-class employees consistently deliver unsurpassed customer service while providing quality products that meet the demanding drilling applications of today's market.

