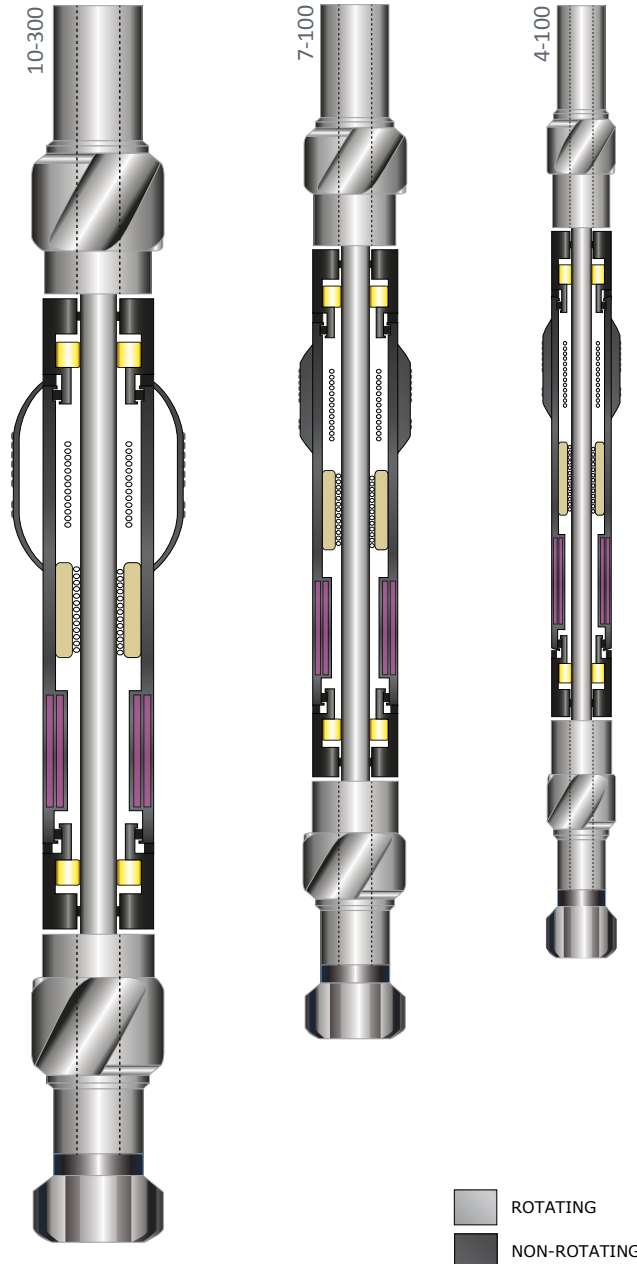


Features

- » **Closed-loop, fully automated inclination & azimuth directional control**
 - Minimal surface input needed to achieve and maintain course
 - Allows for low inclination directional control
 - Manual override control available
- » **Non-Mag Construction**
 - Allows for a full directional sensor array placed near the bit (inc/azi)
- » **Point-the-Bit**
 - 3 point geometry set up between the bit, NBS and Well-Guide upper stabilizer
 - Gives smooth borehole with low tortuosity
 - Bit drills on its front face, with no side cutting action required
 - Independent of formation
 - Low side forces are generated
- » **Versatility**
 - Wide range of bit types can be used
 - Standard operation can be used independent of MWD provider
 - Capable of drilling any directional profile – Vertical, “S” Well, Curve, Horizontal, 3-D Profile
- » **Rotating Stabilizers**
 - Minimizing stuck pipe situations
- » **Normal drilling parameters can be used**
 - No limit on mud pressure, sand content, or LCM
 - No pressure drop required to operate tool allows for optimized bit hydraulics
- » **Compatible with all types of drilling fluids**
- » **Re-programmable downhole**
 - 12 minutes of varying RPM sequences re-program Well-Guide’s Inc/Azi targets
- » **Uplink Sub Connects to MWD**
 - Connects to MWD for real-time surface communication
 - Integrated gamma module 6’ from the bit

Operating Principle

- » Well-Guide takes a survey every 90 seconds using its own directional sensor package, and automatically calculates the correct toolface required to achieve its programmed course
- » This toolface is achieved by hydraulically deflecting the central rotating shaft to point the bit
- » The tool is initially programmed with a target course (inclination & azimuth) on surface and can be re-programmed downhole by using a series of fast and slow drillstring rotations (no pressure variance required)
- » Tool surveys, downhole temperatures, vibrations and tool operating parameters are logged and can be downloaded on the surface



Specifications Well-Guide RSS

Well-Guide 10-300

Borehole Sizes	12 ¼" - 17 ½"
Tool Length	31ft / 9.5m
Tool Weight	5,621 lb
Maximum indicated WOB	70,000 lb
Maximum Dogleg	3.0° / 100ft
Maximum Rotary Speed	150 RPM
Maximum Temperature	150°C / 302°F
Maximum Overpull	1,000,000 lb

Well-Guide 7-100

Borehole Sizes	8 ¾" - 9 ¾"
Tool Length	25ft / 7.6m
Tool Weight	2,204 lb
Maximum indicated WOB	53,000 lb
Maximum Dogleg	6° / 100ft
Maximum Rotary Speed	200 RPM
Maximum Temperature	150°C / 302°F
Maximum Overpull	500,000 lb

Well-Guide 4-100

Borehole Sizes	5 ½" - 6 ¾"
Tool Length	24ft / 7.3m
Tool Weight	1,212 lb
Maximum indicated WOB	30,000 lb
Maximum Dogleg	12.5° / 100ft
Maximum Rotary Speed	250 RPM
Maximum Temperature	150°C / 302°F
Maximum Overpull	350,000 lb