

Vector Series 50 Drilling Motor

The Vector™ Series 50 drilling motor provides strength and reliability with a short bit-to-bend, allowing superior directional performance and the ability to drill a curve and lateral in a single run. Engineered to be 35% stronger than our previous generation of motor technology, the motor can be run on our strongest ERT™ power sections.

The motor incorporates the next generation universal joint design, which features torque transferring faces and a driveshaft that is up to 25% larger in diameter. The larger driveshaft enables the motor to provide exceptional torque capability and reliability. Combined with 100% flow through-the-bit technology, this allows for maximum drilling efficiency.

The short bit-to-bend bearing pack features an oil life equivalent to our previous full length assemblies, providing the ability to reach TD. A locking feature prevents the adjustable assembly from being set incorrectly on the rig floor, reducing down time at the rig.



Technical Specifications

Size	5¼ in.	7⅞ in.
Bit to center of stabilizer	18 in.	24 in.
Bit to bend (ADJ)	50.5 in.	61 in.
Bit to bend (Fixed)	46.9 in.	53.1 in.
Bit to stator	68.9 in.	81.6 in.
Max WOB @ 100 RPM	56,000 lbf	119,000 lbf
Pull to re-run	161,000 lbf	339,000 lbf
Pull to yield	356,000 lbf	948,200 lbf
Bottom connection	3½ REG	4½ in REG

Features

- Sealed, oil-lubricated bearing assembly
- 100% flow to bit – no bypass
- Increased capacity on the bearing mandrel and patent pending driveshaft for higher torque power sections
- Shorter bit-to-bend
- Connections minimized and components mechanically locked

Benefits

- 100% flow through the bit yields better 100% flow through the bit yields better bit life and-hole cleaning
- Faster drilling – Designed to achieve high ROP
- Increased strength – 35% stronger than our previous generation motor technology
- Superior directional performance
- Extreme durability – Redesigned internally, no flow-restrictor wear
- Adjustable assembly cannot be set incorrectly on the rig floor

Applications

- Curve drilling
- Lateral drilling
- Vertical drilling
- Rotary steerable motor assist
- Air drilling