

DynaPower XR

Extreme-wear-resistant motor elastomer

APPLICATIONS

- Highly abrasive drilling environments
- High-power drilling operations
- Long drilling motor runs

BENEFITS

- Maintains elastomer properties in high operating temperatures and abrasive environments
- Reduces number of motor trips by extending motor life 20% compared with conventional hard elastomers
- Improves ROP by enabling high torque output throughout the run

FEATURES

- Durable rubber compound with 8 times more abrasion resistance for long-lasting performance
- Formula compatible with a wide range of water-based and synthetic oil-based muds
- Superior bond strength
- Maximized fatigue resistance

The DynaPower XR* extreme-wear-resistant motor elastomer is a high-abrasion-resistant elastomer that provides both high power and long-lasting durability.

Enhanced performance in harsh drilling environments

The most common drilling motor failures are related to elastomers. For decades, elastomer science has faced the same dilemma: Hard elastomers provide the rigidity necessary for high-torque applications but fail to provide the longevity that soft elastomers can. Soft elastomers are more durable but cannot deliver the power for high-torque operations. To overcome this issue, the DynaPower XR elastomer delivers a high level of power and durability—over longer periods of time, in elevated temperatures, and through highly abrasive environments.

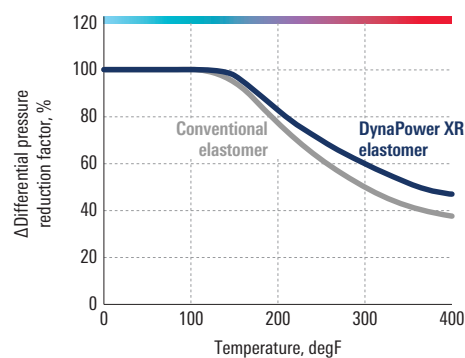
State-of-the-art elastomer properties

The DynaPower XR elastomer formula combines the chemical properties of both hard and soft rubber, resulting in a new proprietary chemical formula that is 8 times more abrasion resistant than current elastomers while not compromising the potential torque output. In combination with a recently developed adhesive, it provides higher bond strength between the elastomer and stator. The thermoelastic properties of the elastomer were enhanced to function in temperatures greater than 250 degF, resulting in a wider operating window.

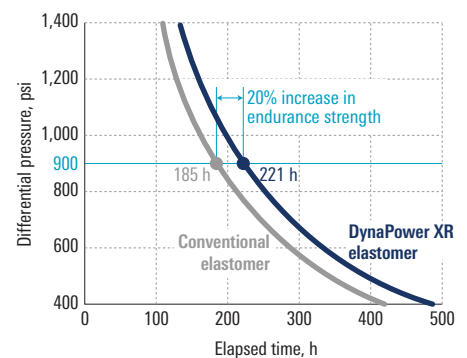
Longer performance

Even at high differential pressure, the DynaPower XR elastomer performs 20% longer than conventional hard elastomers. This translates to greater ROP, longer life, and greater confidence that you can reach TD without motor failure.

Temperature Compatibility



Endurance Strength



Data in the endurance strength graph was computed using Dyna-Drill proprietary 3D modeling software that took the following parameters into account: elastomer properties, stator and rotor geometries, downhole pressures and temperatures, mud properties, flow rate, and differential pressures.