

# Designed for all drilling environments.

The Mission Blue Lightning piston is today's solution for tomorrow's drilling conditions. It is a super-premium bonded piston designed for operating in all drilling environments.

This piston is manufactured from an engineered elastomeric compound that delivers excellent resistance to tear, abrasion and extrusion while maintaining high mechanical properties. A unique anti-extrusion feature, coupled with the premium elastomer, improves service life, reduces downtime and allows for reduced pump maintenance. The Blue Lightning piston is capable of operating in fluid temperatures up to 200°F (93°C).

#### Features and benefits:

- Consistent run times, reduced per cost operating hour, and reduced maintenance and downtime
- Can be operated in pressures up to 7,500 psi

#### Anti-Extrusion

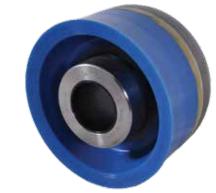
- Manufactured from proprietary bearing material that expands upon installation reducing friction by reducing contact between the steel piston body and the liner wall
- Reduced extrusion of elastomer
- Increased run times, even in pressures above 5,000 psi
- Bearing reduces liner wear and damage

### Super Premium Elastomer

- Provides increased resistance to water based, oil based, and synthetic based drilling fluids
- Provides increased temperature, abrasion, and particle embedment resistance

## Application:

- Capable of operating in fluid temperature up to 200°F
- Fluids can be water based, oil based, or synthetic based
- Can be operated in pressures up to 7,500 psi







National Oilwell Varco has produced this brochure for general information only, and it is not intended for design purposes. Although every effort has been made to maintain the accuracy and reliability of its contents, National Oilwell Varco in no way assumes responsibility for liability for any loss, damage or injury resulting from the use of information and data herein. All applications for the material described are at the user's risk and are the user's responsibility.

Corporate Headquarters

7909 Parkwood Circle Drive Houston, Texas 77036 Rig Systems Headquarters

10353 Richmond Avenue Houston, Texas 77042 USA

© 2016 National Oilwell Varco All Rights Reserved 97125788

