



DRILLING Products

MUD PUMP PARTS

We are specialized in manufacturing & supply of interchangeable mud pump parts and accessories.

Our team are engaged in this industry for more than 20 years, professional and experienced in manufacturing and aftermarket services.

We guarantee that our parts are completely interchangeable with those offered by the OEMs with no modification of existing equipment, meeting and exceeding the OEM standards.

Our mission is to supply quality aftermarket spare parts and service to international drilling contractors all over the world.

We offer a full line of mud pump parts for most popular mud pumps in the world.

LINERS:

➡ Chrome-Iron Liners

Features, Advantages and Benefits

- » Tight quality control ensures consistent durability and value.
- » The hybrid design offers strength and toughness of a steel outer hull with the durability and corrosion resistance of a chrome-iron inner sleeve.
- » The chrome-iron liner has a precision-honed ID with a hardness of 58 to 62 Rc.
- » The bore surface finish promotes a long piston life up to 1,000 hours.

➡ Zirconia-Ceramic Liners

Features, Advantages and Benefits

- » Mg partially stabilized Zirconia is harder and tougher and can be more highly polished than standard Alumina ceramics.
- » This liner offers unmatched durability and overall life up to 10,000 hours.
- » The tough, impact-resistant material is resistant to corrosion.
- » During high-temperature drilling, this liner provides excellent performance.



- » Zirconia offers the lowest overall cost of ownership of any liner style.
- » Zirconia liners are much more resistant to glazing after contact with the piston hub than the lower grade Alumina ceramics.

PISTONS:

➡ Replaceable Nitrile Pistons

Features, Advantages and Benefits

- » This piston is an economical choice for all types of water-based drilling fluids.
- » Piston rubber can be easily replaced, and the piston hub can be reused.
- » The piston assembly comes complete with hub O-ring and sleeve.
This piston offers overall life up to 300 hours.

➡ Bonded-Urethane Pistons

Our bonded-polyurethane piston offers superior design and the highest-quality materials available—enabling us to outperform the leading competitor. The bonded design provides this piston with the strength to handle drilling pressures to 7,500 psi (51.7 MPa) and resists damage and fatigue during millions of operating cycles.

Features, Advantages and Benefits

- » This piston is the best choice for oil-based and synthetic drilling fluids.
- » The piston is bonded to the hub for optimal strength and extrusion resistance.
- » The improved seal design centers the piston and promotes longer piston life with reduced liner wear.
- » The cut-back hub protects the liner from damage.
- » The dual-durometer elastomeric compound resists extrusion while ensuring a tight seal and improved wiping action.
- » The piston comes complete with a hub O-ring and sleeve.



VALVES:

➡ Four-Web, Center-Guided Valves

Features, Advantages and Benefits

- » The threaded retainer plate with knock-off lugs enables fast insert change-out.
- » The large bearing area on the valve promotes a long service life up to 300 hours.
- » Various insert materials are available to meet standard and high-temperature drilling conditions.
- » Carbon-steel valve springs are standard, with a long-life, stainless-steel upgrade available.

➡ Full-Open Valves

Features, Advantages and Benefits

- » The forged, solid valve-body construction, of this valve, with thick, rigid seat, provides durability at high pressures.
- » The streamlined valve guide legs reduce turbulent flow through the valve for improved performance.
- » The seat design simplifies maintenance and evenly distributes pressure loads around the fluid-cylinder valve taper.
- » Various insert styles and materials are available to suit any drilling condition.
- » Carbon-steel valve springs are standard. A long-life, stainless-steel upgrade is available.
- » Large metal-bearing area on the valve seat seal surface promotes longer service life up to 600 hours.

➡ Three-Web, Center-Guided Valves

Features, Advantages and Benefits

- » The forged, solid-body construction provides durability at high pressures.



- » The large bearing area on the valve seat webs promotes a long service life.
- » Various insert styles and materials are available to suit any drilling condition.
- » Carbon-steel valve springs are standard. A long-life, stainless-steel upgrade is available.

PISTON RODS:

Features, Advantages and Benefits

- » Fabricated with quality alloy steel.
- » Numerically controlled machining.
- » Long-lasting service life.
- » Clamped and threaded.

EXTENSION RODS:

Features, Advantages and Benefits

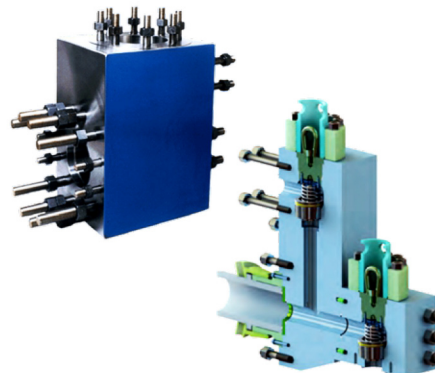
- » Fabricated with high quality steel.
- » Numerically controlled machining.
- » Long-lasting service life.
- » Clamped and threaded.

FLUID END MODULE:

We offer premium fluid-end modules for all well-known makes and models of mud pumps in service today. Our modules are fully interchangeable with standard OEM modules from most major pump manufacturers; however, our modules offer improved performance and durability that results from our specialized heat treatment and machining process.

Features, Advantages and Benefits

- » Premium heat treatment and machining process ensure durability.
- » The fluid-end modules feature 4130 alloy-steel construction and can be field repaired in certified machine shops, if necessary.



- » Fully interchangeable with OEM equipment.
- » Designs for 5,000 psi (34.5 MPa) and for 7,500 psi (51.7 MPa) are available.
- » Valve-over-valve and two-piece L-shaped modules are available to suit a range of needs.

FLUID END ACCESSORIES:

Features, Advantages and Benefits

- » Complete line of fluid end accessories for all styles of fluid end modules.
- » Manufactured from high allow steel forgings.
- » High strength and longer service life.
- » Lower costs with precision fits.
- » Our Fluid End Conversion Kits offer additional value over OEM designs with larger threaded rings and threaded caps.
- » Available for Valve over Valve and L shaped modules.

Associated items:

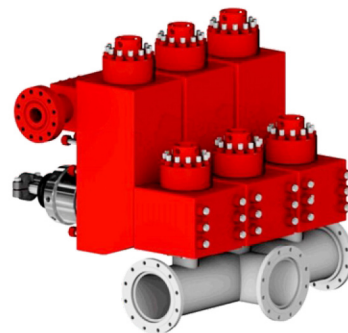
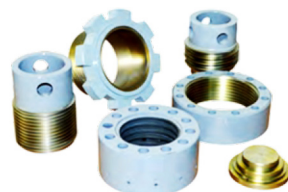
1. Valve and cylinder head plug.
2. Valve and cylinder head thread ring.
3. Valve and cylinder head lock.
4. Liner Lock and flange
5. Valve guide.
6. Stud and nut.
7. Specialty items.

7500 psi FLUID END UPGRADES:

We have the experience, technical know-how and right products to guide you through the 7,500 psi conversion maze.

Features, Advantages and Benefits

- » Fluid energizing seal
- » Metal-to-metal seal on valve cover
- » 2 pitch acme style threads on valve cover & liner retention systems
- » Engineered to reduce internal loads on valve cover and mud flow areas



- » Replaceable liner wear plate Designed with rear mount manifold for easy module replacement
- » 2-piece design allows replacement of suction module*
- » Direct valve guide alignment with replaceable bushing*

PULSATION DAMPENER:

We supply forged and casted steel pulsation dampeners which are interchangeable and compatible with Hydril series "K" dampeners, Emsco series "PD" dampeners and Bomco series "KB" dampeners. These units are dependable and reliable with API connections.

SUCTION & DISCHARGE MANIFOLD:

We supply forged and casted steel manifold and blocks for all major mud pumps, 5,000 to 7,500 psi, either OEM fluid end or 2-piece L-shaped fluid end.

REFURBISHMENT & OVERHAUL:

We offer a full line of aftermarket power end parts designed to fit all major brands of mud pumps currently in service today. All our parts are fully interchangeable with the original parts and offer high performance and value that meet and exceed OEM standards.

Our aftermarket power end components that we regularly supply includes:

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|-------------------------------|----------------------------|
| » Crankshaft assembly parts | » Retainers |
| » Gear ring | » Crosshead assembly parts |
| ➤ Crankshaft | ➤ Crosshead |
| » Connecting rod | ➤ Crosshead pin |
| ➤ Bearing carrier | ➤ Crosshead guide |
| ➤ Retainers | » Bearings |
| » Pinion shaft assembly parts | » Belt pulley |
| » Pinion shaft | » Other power end parts |
| » Bearing carrier | |

