

Drilling Equipment Manufacturer Improves Mud Pump Performance

THE PROBLEM

A leading equipment manufacturer in the drilling industry was experiencing rapid wear on valve components used in their high-pressure mud systems. Operating under abrasive conditions with drilling fluids, pressures up to 7500 PSI, and temperatures up to 250°F led to frequent replacements, unplanned downtime, and rising maintenance costs.

“We needed a valve partner who could help us ensure consistent, reliable performance for our customers.”

PRODUCT MANAGER

THE SOLUTION

The manufacturer partnered with MPC to implement custom polyurethane valve components engineered for demanding drilling environments. Key features included:

- High-performance polyurethane materials for abrasion resistance and stability up to 250°F
- Custom geometry for precise sealing and reliable flow control under high pressure
- Precision manufacturing for consistent, durable operation in harsh condition

THE RESULT

The implementation of MPC’s custom valves improved operations by:

- Doubling component lifespan, reducing replacement frequency and warranty claims
- Decreasing downtime by 40%, maximizing uptime and profitability
- Lowering maintenance costs by 30%, allowing budget reallocation to critical projects

The customer now utilizes MPC valves across their product lines, enhancing system reliability and customer satisfaction.

MARKET

Energy

Onshore

SOLUTION

Sealing

PRODUCT

Mud Pump Valves & Pistons

TECHNICAL SPECIFICATIONS

COMPONENT

Custom polyurethane valve components

PRESSURE

Up to 7500 PSI

TEMPERATURE

Up to 250°F

PROCESS

Refined mold designs, precision manufacturing

Tell us what you’re working on.

One partner — from concept to production — for performance that can’t stop.

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