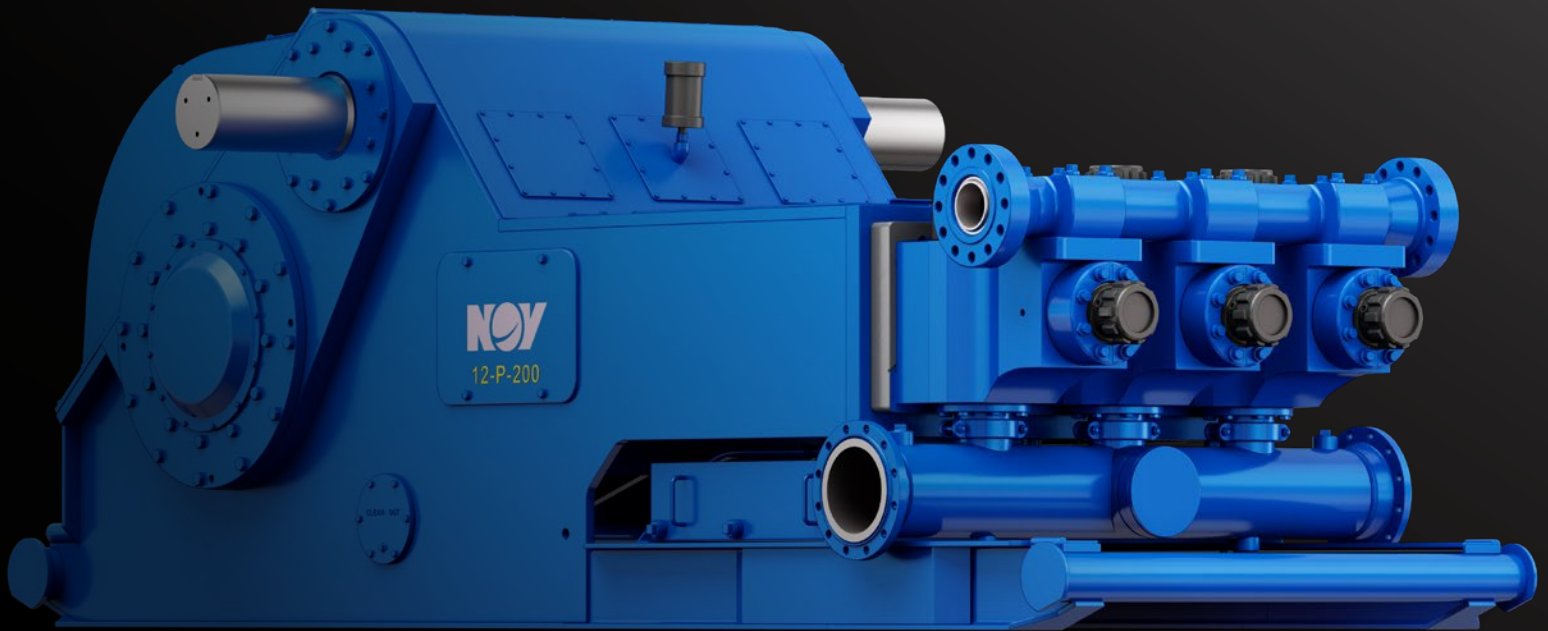


Upgrade Your 12-P-160 Mud Pump to 2,000 hp



Increase horsepower and pressure capability with the 12-P-200 upgrade package featuring the Blak-JAK PowerLast™ fluid end.

Longer laterals and higher-pressure drilling programs are pushing mud pumps harder than ever. We developed the 12-P-200 upgrade package to help contractors increase performance from existing 12-P-160 mud pumps while extending operational capability for demanding applications.

The upgrade package combines proven mechanical enhancements, software updates, and the Blak-JAK PowerLast fluid end to deliver higher horsepower and pressure capability in a compact footprint.

From 1,600 hp to 2,000 hp

Upgrade your existing 12-P-160 mud pump to:

- 2,000 hp capability
- Pressure ratings up to 10,000 psi
- Improved performance for extended-reach drilling applications
- Enhanced fluid-end efficiency at higher pressures

Applicable to 12-P-160 mud pumps only.

12-P-160 Mud Pump Upgrade

Upgrade package

The 12-P-200 upgrade package includes key enhancements to support higher horsepower operation:

- Software upgrade
- Bearing upgrades
- Lubrication and liner wash system updates
- Increased cooling capability for higher horsepower operation
- Updated 12-P-200 nameplate
- Blak-JAK PowerLast fluid end

Blak-JAK PowerLast fluid end

The Blak-JAK PowerLast fluid end is a critical part of achieving the full performance benefits of the 12-P-200 upgrade package.

Key benefits include:

- Rated up to 10,000 psi in a smaller, lighter design
- Improved volumetric efficiency at elevated pressures
- Easier handling and maintenance access
- Reduced stress on the fluid-end assembly through Valve Integrated Dampener (VID) technology
- More stable pump performance at high pressure

Field-proven performance:

In a Marcellus Shale field trial, the Blak-JAK PowerLast fluid end delivered measurable improvements over 24 plus months of operation:

- Volumetric efficiency improved by 10% to 20% at higher pressures
- Reduced nonproductive time (NPT)
- Improved crew safety
- 67% reduction in valve consumption
- 70% reduction in seat consumption
- 55% reduction in piston consumption
- 17% reduction in zirconia liner consumption

Crankshaft evaluation

Customers with forged crankshafts may not require crankshaft replacement. Older cast crankshafts require replacement as part of the upgrade package.

For more information about these upgrades, contact your sales representative.