



Power Chokes®

Pressure Relief Valve (PRV) MAX

Power Chokes® patented mud pump / Managed Pressure Drilling (MPD) Pressure Relief Valve MAX operates with a significantly faster response time compared to competitive models and is unparalleled in accuracy, repeatability, and reliability.

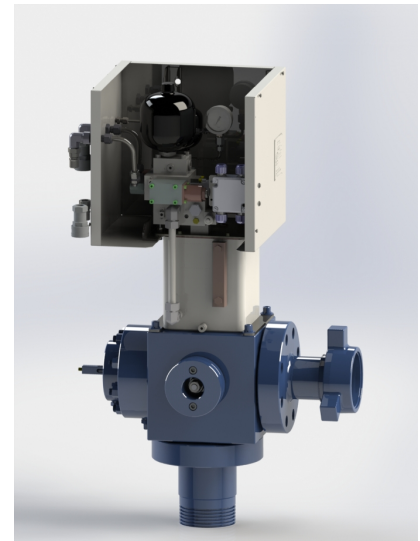
The PRV is used to control pressure within a given system to prevent pressure build-up and potential damage to equipment. The system has an optional reset in which the valve will close without any user intervention. This feature increases safety, reduces Non-Productive Time (NPT) but also more importantly protects against under pressure, which is critical to operations that are connected to live wells.

APPLICATIONS

- PRVs are used in a wide range of specifications where pressure levels are critical for smooth operations
- Managed Pressure Drilling
- Underbalanced Drilling
- Frac/flowback application
- Drilling (mud pump and surface equipment)
- Buffer manifolds
- Coiled tubing drilling
- Riser protection

FEATURES & BENEFITS

- Can be reset after each trip with no maintenance or rebuilding
- May be manually or automatically reset after each trip
- Opens in less than 375 msec upon pressure reaching the setpoint allowing lower pressure to be trapped
- Extends the life of your equipment
- Maintains pressure in a system to avoid under pressure
- Provides redundancy data logging and enhanced safety features
- Uses field-proven Power Chokes® technology and software for positioning accuracy, stability, and repeatability
- PRV Failure Modes configurable with proprietary Power Chokes® software
- Position feedback sensor PRV status
- 3rd Party Data Communication
- Panel mount hydraulic & rig air pressure gauges on the HPU enclosure
- Panel mount color-coded filter differential pressure gauge
- Reduce downtime for maintenance (like replace pumps, filters, etc.)
- Improvement in Manual override accessibility
- Low maintenance system
- Lifting eye brackets for ease of safe field installation



- PLC/HMI system allows for additional features and automation

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Touch screen Human Machine Interface (HMI) mounting anywhere on the rig for complete control.

The Programmable Logic Controller (PLC) with 12" touch screen Human Machine Interface (HMI) can control up to 6 PRVs separately. The interface provides much-needed redundancy for each Pressure Relief Valve (PRV) that has open/close events, valve pressures, and sequence during valve pop-off.



Additional audio/visual alarms capability signals the operator of abnormal conditions and events. Power Chokes® offers an optional battery backup so the system is never down as well as dual setpoints. One open setpoint to prevent overpressure and one reset setpoint to prevent low pressures feature is optional. Additional dynamic setpoints are also available which update on the operational requirement, and optional remote communication for both control and monitoring of valves.

The Pressure Relief Valve (PRV) is system configurable which allows for multiple valves with multiple failure mechanisms from one system. It has a fail open, fail close, and fail in position. Using a PLC system allows custom automation-based solutions for various applications.

TECHNICAL SPECIFICATIONS

| | | | |
|-----------------------------|--|-------------------------------|---|
| Conforms to: | API 6A, PSL3, PR1, PX | Utility requirements | Control panel power requirements: 120,230 VAC, 1-Phase, 50Hz/60hz, 10A |
| | API, 5000, 10,000, and 15,000 psi pressure ratings | | HPU: Rig air 110 psi |
| | ABS and DNV type approved | Additional information | Visual and digital position indicator |
| | Pressure Equipment Directive (PED) CE mark | | High CV value to allow large flow rates to be accommodated |
| | Pressure-assisted sealing in a closed position | | Drop tight seal |
| | Control panel ATEX certified - suitable for Zone 2, CE mark | | Piston actuated |
| | Hydraulic Power Unit (HPU) and PRV valve ATEX certified suitable for Zone 1, CE mark | | 1 1/2", 2" and 3" trim |
| Material information | H2S services - NACE MR0175 | | Dual pump options available |
| | API material class EE-NL or better | | Hard and dynamic setpoints available |
| | The valve body of forged construction, API 75k material, impact tested | | In-house software allows modifications |
| | Metal to metal sealing, provide extended service life between maintenance periods | | Additional certification available on request |
| | 316SS enclosure, IP 65 ingress protection | | |

For further questions or quotation requests, contact PowerChokes-Sales@adsmpd.com.

Visit www.powerchokes.co for chokes, controls, and PRV solutions and www.adsmpd.com for RCDs and MPD solutions.

