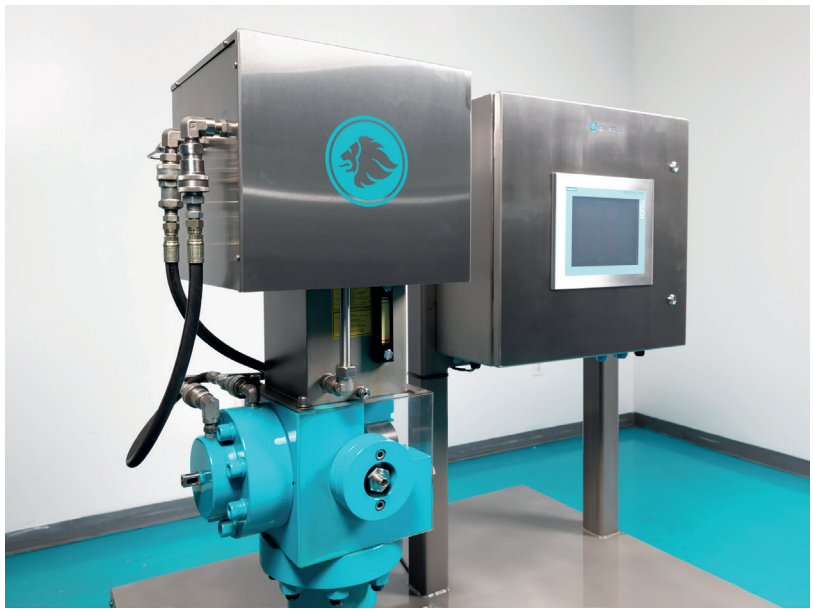
# PowerChokes®

## Pressure Relief Valve (PRV) MAX

**PowerChokes new and improved 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 increases safety, reduces Non-Productive Time (NPT) but also importantly protects against under pressure, which is critical to operations which are connected to live wells.




### Features and benefits

- Can be re-set after each trip with no maintenance or rebuilding
- May be manually or automatically re-set 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 in order to avoid underpressure
- Provides redundancy data logging and enhanced safety features
- Uses field-proven PowerChokes® technology and software for positioning accuracy, stability and repeatability

### 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 (mudpump and surface equipment)
- Buffer manifolds
- Coil tube drilling
- Riser protection

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**Touch screen HMI capable of mounting anywhere on the rig for complete control:**

- PLC with 12” touch screen HMI can control up to 6 PRVs separately
- Provides much needed redundancy, each PRV open/close events, valve pressures and sequence during valve pop off
- Intelligent maintenance indicator alerting the operator when the valve maintenance may be required
- Additional audio/visual alarms capability to signal the operator of abnormal conditions and events
- Optional battery backup so the system is never down
- Optional dual setpoints. One open setpoint to prevent overpressure and one re-set setpoint to prevent low pressures. Additional dynamic setpoints are also available which update on operational requirements
- Optional remote communication for both control and monitoring of valves
- System configurable which allows for multiple valves with multiple failure mechanisms from one system. Fail open, fail close and fail in position

**Conforms to:**

- API 6A, PSL3, PR1, PX
- API, 5000, 10,000 and 15,00 psi pressure ratings
- ABS and DNV type approved
- Pressure Equipment Directive (PED), CE mark
- Pressure-assisted sealing in closed position
- Control Panel ATEX Certified suitable for Zone 2, CE mark
- HPU and PRV valve ATEX Certified suitable for Zone 1, CE mark

**Material information:**

- H2S services – NACE MR0175
- API material class EE-NL or better
- Valve body of forged construction, API 75K material, impact-tested
- Metal to metal sealing (no elastomers in gate and seat seal), provide extended service life between maintenance periods
- 316SS enclosure, IP 65 ingress protection

**Utility requirements:**

- Control panel power requirements: 120/230 VAC, 1-Phase , 50Hz/60Hz, 10 A
- HPU: Rig air 110 PSI

**Additional Information:**

- Visual and digital position indicator
- High CV value to allow large flow rates to be accommodated
- Drop tight seal
- Piston actuated
- 1⁵/₈”, 2” and 3” trim
- Dual pump options available
- Hard and dynamic setpoints available
- In-house software allows software modification
- Additional certification available on request