

# PowerChokes®

## Automatic Back Pressure (ABP) System

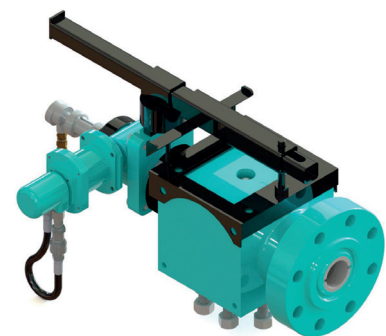
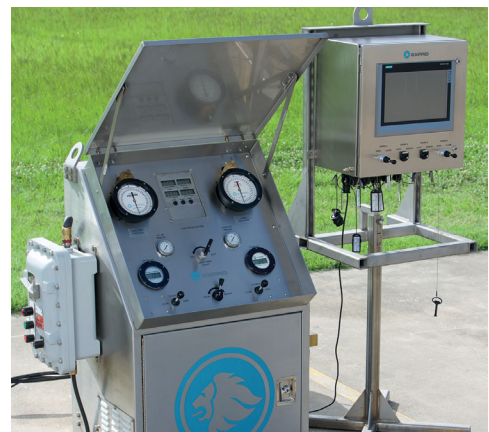
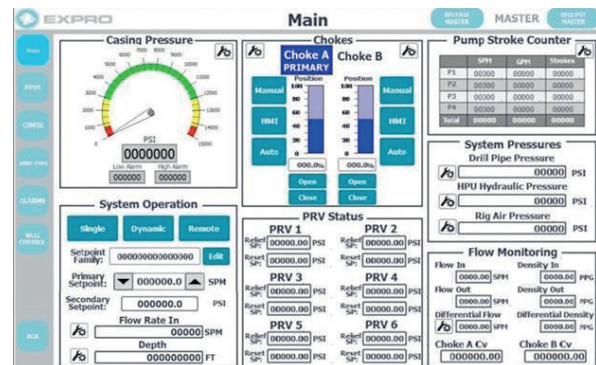
PowerChokes® ABP system uses field-proven Expro PowerChokes® technology and proprietary software for positioning accuracy, stability and reliability.

### Features

- Touch screen Human Machine Interface (HMI). Capable of mounting anywhere on the rig for complete control
- Drilling connection mode feature for maintaining a constant pressure profile on the reservoir
- Automatic Back Pressure (ABP) can be used with Expro's PowerChokes – 1" to 4"
- Integration to rig systems and well modelling software
- Dual pressure sensor technology for safe operations
- Configurable with rig-up without the requirements for software updates
- Expro Pressure Relief Valve (PRV) system integration
- Electric and hydraulic choke options
- Flow meter integration
- Permanent installation or portable system design options
- Ramp tables available to automate drilling processes
- Manual or auto choke control

### Benefits

- Faster connection time
- Reduces mud costs
- Mitigates and detects influxes and kicks
- Can increase the rate of penetration
- Fast response to system pressure fluctuations
- Accurate control over the entire flow range
- Extended drill equipment life (bit)
- Avoids well control issues
- Can reduce choke plugging during sand and debris producing wells
- Can manage surging and swab effects
- Training available for the end user to work with the system on their own
- Field proven technology since 2012 with an ethos of continuous improvement of the system



# PowerChokes®

## Automatic Back Pressure (ABP) System

| Technical specifications                    |  |   |
|---|--|---|
| <b>Automatic Back Pressure (ABP) system</b> | ATEX, Zone 2   | IECEX, US and Canada, Zone 1 / class 1 division 1 available on request  |
| <b>Choke models</b>                         | Size: 1-4" trim<br>Application Programme Interface 6A 16C<br>ABS, DNV type approved and PED<br>ATEX and IECEX, Zone 1<br>API 5,000 - 20,000 pdi<br>Electric or hydraulic actuation available   |   |
| <b>Conforms to:</b>                         | <b>Hydraulic controls</b>  | Electric or hydraulic pump<br>Designed for use in extreme high and low temperatures<br>Blind panels, local gauge, push button and level control and Human Machine Interface (HMI) control available<br>Zone 1 certification |
|   | <b>Electric controls</b>   | Compact and low maintenance<br>Minimum IP65<br>Zone 1 certification<br>Local and remote electrical controls available   |
| <b>Material information</b>                 | Chokes - H2S service - NACE MR0175<br>Application Programme Interface (API) material class up to EE-NL and temperature class PX<br>625 Inconel clad ring grooves and seal areas (optional solid tungsten carbide trim and wear sleeve) |   |
|   | Hydraulic Power Unit (HPU) and electric control panels 316SS enclosure, NEMA 4X, IP65 ingress protection   |   |

Note: Other sizes, configurations and pressure ratings are available to meet most applications, for more information contact your local Expro representative or email [expro.powerchokes@exprogroup.com](mailto:expro.powerchokes@exprogroup.com)