

CHURCH UPSTREAM TECHNOLOGIES

TYPE C31 CHOKE

The Type C31 Choke is a flow control choke valve is a field proven design used in surface oilfield choke and kill manifolds, production, workover, and fracking operations. It is ideally suited for all upstream oil and gas activities. This flow control choke valve provides precise flow metering and positive closure for operation up to 15,000 psi (103.4 MPa) working pressure. The C31 choke is available in a manual or hydraulically operated actuator. Actuators can be changed from manual to hydraulic operation. The choke has a remote position indicator which shows equivalent orifice or “bean” size for flow rate calculations. Control panels, provided for remote operation, can operate multiple chokes with mud pump flow rate, choke position and upstream pressure readout.

A threaded actuator housing allows trapped pressure to be released prior to thread disengagement from the choke body. An external relief valve also ensures any internal pressure is released prior to actuator removal or from installation.

The type C31 choke design uses a solid tungsten carbide gate and seat to provide flow control and a positive shutoff. Linear hydraulic or manual actuation the gate into the seat allows precise flow control. Downstream tungsten carbide wear sleeves, provides protection from erosion and wear on fluids exiting the choke. A variable pneumatic pressure signal from the choke actuator to the remote-control panel provides the trim position and equivalent orifice size.

Type C31 chokes can be furnished in API flanged or studded end connections.

An all forged construction provides uniform and defect free materials for stringent quality requirements as required by API Specification 6A and ISO 10423.

Church Upstream Technologies uses materials of the finest quality in the manufacture of the C31 Choke.

Design features:

- Designed and manufactured to API Specification 6A (ISO 10423)
- Working pressures up to 15,000 psi (103.4 MPa)
- Manual or hydraulic operation less than 1500 psi (10.34 MPa)
- Remote control panels provide trim position, flow, and pressure readings
- Inlet and outlet flange sizes from 1.81” to 4.06” (46-103 mm)
- 1.75” (44.5mm) equivalent diameter maximum orifice
- Tungsten carbide trim provide precise flow control
- Complete pressure assisted shutoff of flow
- Wear sleeves in downstream spool for wear and erosion protection
- Pneumatic position indicator gives remote or visual orifice reading
- External relief valve vents internal pressure during actuator removal or from installation
- API Flanged or studded end connections
- All API 6A PSL, PR, material, and temperature classes available
- Forged construction for H2S service per NACE MR-0175 (ISO 15156-1)

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Control Panel design features:

- Pneumatic operated hydraulic pump
- Manually operated hand pump back up operation
- Gauges for drill pipe and casing pressures
- Choke position indicator gauge
- Battery powered digital pump stroke counter
- Hydraulic pump pressure gauge
- Rig air supply pressure gauge
- Hydraulic fluid reservoir
- Connecting hoses and electrical cables for pump stroke counter switches
- Enclosed control panel
- Protective panel face cover
- Remote pressure transmitters

