Well Flow Management

Well Testing | Well control

Choke Manifold

The choke manifold is used to maintain back pressure on the well formation and control the flow rate before produced fluids enter the main elements of the processing package.

The Expro standard choke manifolds are component designs consisting of four, five or eight manual valves. Positioned on one side of the flow path, an adjustable choke allows variable flow control for flexibility during clean-up. On the other side, a fixed orifice allows a more accurate flow control for pre-determined flow rates.

The choke allows the operator to control the well flow by enabling progressive manual, powered, or fixed control of the well stream by opening, closing or selecting a fixed orifice. Well parameters such as pressure and temperature can be monitored through ports positioned upstream and downstream of the manifold.

A number of choke manifold configurations and sizes are available for different pressures and temperatures to suite specific requirements and well conditions. Both single and dual isolation valve arrangements can be supplied.

Expro recommends, however, a double barrier policy between process fluids and the atmosphere when changing chokes in harsh environments, such as sand clean-up and high pressure applications.

There are also variations to the adjustable choke make and type. Larger bore units and high pressure manifolds have a production choke installed rather than the traditional needle and seat type.

Expro are also able to provide or incorporate within our choke planning, the provision of Expro PowerChokes®, which are specifically designed for severe service environments.

Applications

- Onshore and offshore oil and gas well testing and clean-up operations
- Flow back after stimulation operations and work-overs
- High pressure, high temperature operations

Features and benefits

- Incorporates the latest adjustable choke technology
- Meets applicable industry standards
- Two flow paths: one adjustable and one fixed
- Allows fast choke changes without interrupting the flow
- Pressure and temperature rated to meet hostile environments
- Small footprint

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Technical specifications						
Nominal ID inches (mm)	**Working pressure psi (bar)**	**Temperature rating °F (°C)**	**Inlet/outlet connection**	**Weight (dry) lbs (kgs)**	**Dimensions (L x W x H) ft. (m)**	**Special features**
3 (76.2)	5,000 (345)	-20 to 250 (-29 to 121)	3” fig 602	2,250 (1,020)	5.2 x 9 x 3 (1.6 x 2.7 x 0.9)	4 or 5 valve
3 (76.2)	10,000 (690)	-20 to 250 (-29 to 121)	3” fig 1502	5,550 (2,517)	5.7 x 10 x 3.4 (1.7 x 3.1 x 1)	4 or 5 valve
3 (76.2)	10,000 (690)	-20 to 250 (-29 to 121)	3” fig 1502	8,158 (3,700)	4.7 x 7 x 3.5 (1.4 x 2.1 x 1)	5 valve solid block
3 (76.2)	10,000 (690)	-20 to 250 (-29 to 121)	3” fig 1502	7,716 (3,500)	6 x 11.5 x 3.1 (1.8 x 3.5 x 0.9)	8 valve dual isolation
4 (101.6)	10,000 (690)	-20 to 250 (-29 to 121)	4” fig 1502	5,550 (2,517)	5.6 x 10 x 3.3 (1.7 x 3.1 x 1)	4 valve
5 (127)	10,000 (690)	-20 to 250 (-29 to 121)	5-1/8” API Flange	11,000 (13,700)	8.5 x 8 x 8.5 (2.6 x 2.44 x 2.6)	8 valve dual isolation‘C’ layout
3 (76.2)	15,000 (1,035)	-20 to 250 (-29 to 121)	Cameron hubs	11,000 (5,000)	4.3 x 16.3 x 5 (1.3 x 4.9 x 1.5)	5 valve 2-9/16” gate valves
3 (76.2)	15,000 (1,035)	-20 to 250 (-29 to 121)	3” C-25 Graylok	11,025 (5,000)	5.6 x 8 x 4.7 (1.7 x 2.5 x 1.4)	5 valve 2-9/16” gate valves
3 (76.2)	15,000 (1,035)	-50 to 400 (-45 to 204)	H4-27R Techlok	7,600 (2,500)	13.85 x 6.5 x 5.6 (4.22 x 1.98 x 1.71)	8 valve dual isolation 2-3/4” max choke

Note: All Choke Manifolds are designed and fabricated to API 6A, ANSI B31.3 and NACE MR-01-75 as our minimum standard and for guideline purposes only

For choke specific information and additional codes applicable to comply with region specific standards, please contact your local Expro representative or email **welltesting@expro.com**