

# MPowerD Choke Manifold: 1500M/1500S

The MPowerD choke manifold is designed to provide primary finite control for balanced/underbalanced fluid return rates and wellhead pressure during managed pressure drilling (MPD) operations. Our choke manifold has been proven for use in common MPD applications and is most suitable for land drilling operations.

## Safety

### Isolation valves with suitable pressure rating

- Safety for personnel

### Integrated pressure relief valve (PRV)

- Safety for the operation

### Inconel nickel-chromium alloy 625 for high strength and outstanding corrosion resistance

- Lower ownership costs

### Collection unit for capturing and holding drilling fluids when servicing the choke

- Reduces environmental contamination

## Technical Specifications

### Choke Manifold Specifications

Working pressure.....	1,500 psi
Flange inlet and outlet.....	API 4 1/16 in.
Service.....	Sour NACE MR0175
API standards.....	API 6A and API 16C monogrammed
Ring groove inlay.....	CRA 625
Temp class.....	'P+T' (-29 to 180°F)
Choke model.....	HXE-G3
Choke actuator.....	Hydraulic
Choke size.....	3 in.
Relief valve.....	Titan C PRV (400 to 1,500 psi)
Isolation valves.....	Shaffer™ 2300 SFC
Performance standard.....	PSL-3
Dimensions (L x W x H).....	7.5 x 7 x 4.5 ft
Weight.....	6,600 lbm
Lifting certification.....	DNV 2.7-1
Area classification.....	Class 1, Div.1, Groups A, B, C, and D hazardous locations
Manufacturing certification.....	ISO 9001-2008 and API Q1 9th edition

## Features and Benefits

Our easy-to-install choke manifold offers simple operation and maintenance within a small footprint, which provides a cost-effective option for your MPD applications and overall ownership costs. Each of our MPowerD systems features robust designs, and the choke manifold includes these proven subcomponents:

### HXE-G3 choke

#### Reversible gate and seat designed to direct high-velocity wear away from the positive sealing surface

- Extends choke life
- Reduces cost of ownership

### Customizable

- Offers manual, hydraulic, or servo-driven actuator options
- Features 3-in. max orifice size (can be converted in the field to 2-in. or 1 1/2-in. orifice)

### Shaffer 2300 SFC manual gate valves

- Through-conduit gate valves are robust, easy to maintain
- Forged steel body and bonnet, bidirectional sealing, low operating torque, manual operated (non-rising stem)

### Titan C PRV

- Manual reset relief valves automatically snap to a full open position when the set pressure is reached
- Position release button indicates, at a glance, whether the valve is open or closed

### Integrated bypass line

- Directs pressure and fluids safely away from personnel and allows the operation to continue while servicing the choke online
- Reduces or eliminates nonproductive time

### Ruggedized, simple control systems

#### Setpoint PLC local control panel

- Monitors key drilling parameters such as pump strokes, standpipe pressure, wellhead pressure, and choke position simultaneously and continuously without fatigue
- Automatically adjusts the choke as needed to maintain optimal annular pressure

#### Manual hydraulic local control panel

- Enables the operator to quickly respond to changing drilling conditions

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