



OIL STATES PIPER VALVE

# Series DC Valves



**Piper**<sup>™</sup>

# OIL STATES PIPER VALVE Series DC Valves

## Series DC Drilling Diverter Valves

### DRILLING DIVERTER SOLUTIONS

#### High Performance in a Compact Size | Valves Designed for Drilling Fluid Service

Oil States Piper Valve Series DC Drilling Diverter ball valves are designed to provide superior performance and allow for extended life in corrosive and abrasive drilling fluid service. This design philosophy is not found in traditional trunnion mounted pipeline ball valves. The compact design allows for easier handling and installation in tight areas found in rig substructures. Series DC valves are available in sizes from 10" thru 18" in ANSI Class 300, 600 and 900.

- **External stroke adjustment** allows easy timing for the full open position, without disassembly of the actuator.
- **Unique seat assembly** design provides excellent low pressure sealing capability.
- **All valve bodies and retainers are internally Xylan® coated** as a standard to provide corrosion resistance for ease of disassembly and extended life.
- **Valve bores are sized to match Schedule 80, 100 or 120 inside diameters** to eliminate any transitions that could be an erosion point during flow.
- **Visual position indication** is standard. Optional position indication includes electric, pneumatic and hydraulic.
- **Hydraulic double-acting actuators** are standard. Pneumatic operation and spring return options are available.
- **Floating ball design** results in fewer parts, lower repair kit costs and a truly field-repairable valve.
- **Seat insert** is not captured and can be replaced without replace the entire seat assembly.

#### SERIES DC FEATURES

- **Field Repairable:** Floating ball design allows for true field repair that can be accomplished in hours, not days.
- **Interchangeable Parts:** Internal parts are completely interchangeable between ANSI 300, 600 & 900 series valves of the same bore size.
- **Compact Size:** Compact valve design is almost half the size and weight of a standard API 6D trunnion mounted ball valve.
- **Fewer Parts:** The number of internal parts on a "DC" ball valve is less than half of the parts in conventional trunnion ball valves, resulting in less expensive repair kits.
- Available in 10" thru 18" sizes.
- ANSI Class 300, 600 and 900.
- Wide range of materials available to suit a variety of application requirements.
- Offered in 2" thru 8" sizes for fill-up, trip tank and booster line applications.
- Actuator packages available with a variety of position indicator options.
- Materials available for H<sub>2</sub>S service.

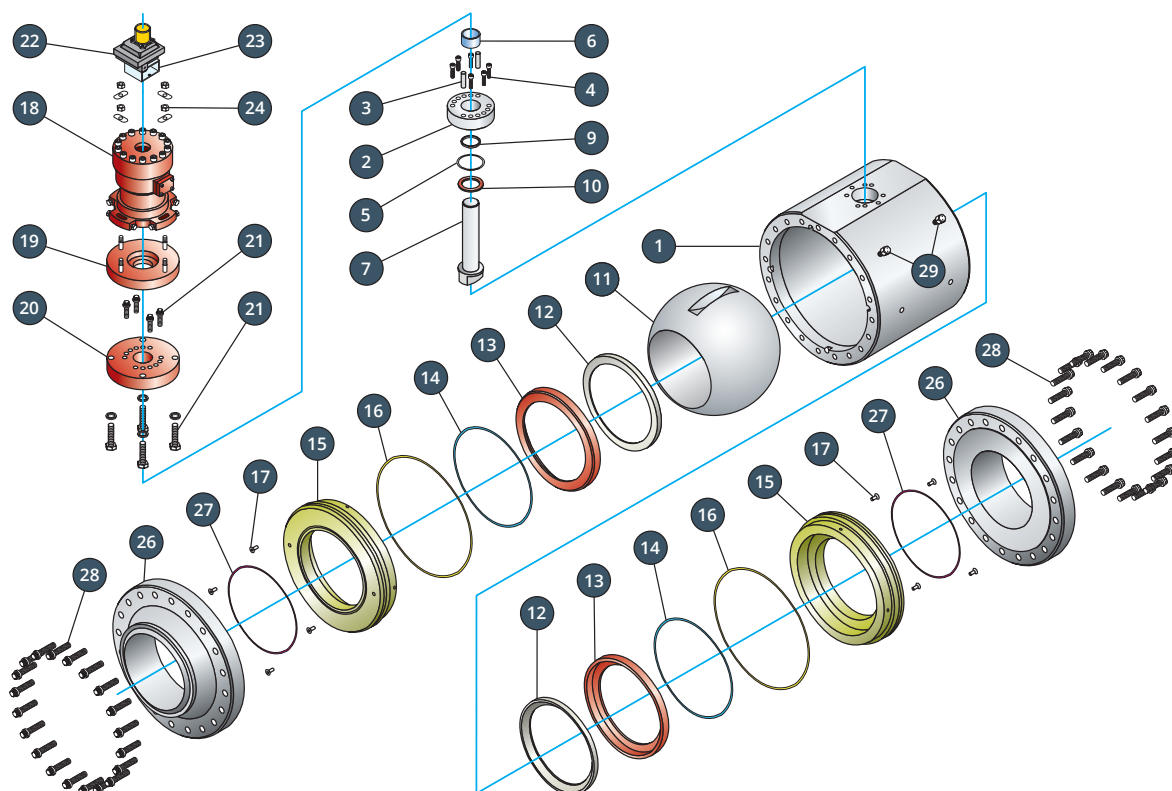
- **Large seat** contact area provides positive sealing even in high particulate conditions. Seat carriers are salt bath nitride QPQ finished as a standard.
- **Ends are available** in a compact BFW or RTJ flange.
- **Line spread** required for body group removal is less than 1/16" when using Piper compact BFW ends.
- **Easy access lifting points** are located at several places on the valve body as well as on the end flanges.





## Series DC Ball Valve Component Parts

Illustration shows weld end connections. Other connection types available on request.



Index	Quantity	Description	Standard Materials	Optional Materials <sup>1</sup>
1	1	Body	ASTM A350-LF2 Xylan® Coated	
2	1	Bonnet	ASTM A350-LF2 Xylan® Coated	
3	2	Shear Pin	Alloy Steel	
4	6	Bonnet Cap Screw	ASTM A320-L7 Xylan® Coated	Stainless Steel
5	1	Bonnet Seal	Low Temp Nitrile	Peroxide-Cured Nitrile, Viton®
6	1	Stem Bearing	SS Teflon®	
7	1	Stem	17-4PH SS	Duplex SS, Nickel Alloy
9	1	Stem Seal	Polymyte/Peroxide-Cured Nitrile	Polymyte/Viton®, Viton®/Viton®
10	1	Thrust Bearing	Nitronic 60 Xylan® Coated	
11	1	Ball	1 mil. ENP Carbon Steel	3 mil. ENP Carbon Steel, 316 SS Chrome
12	2	Seat	Celcon®	PEEK™
13	2	Seat Carrier	Carbon Steel (Salt Bath Nitride /QPQ)	316 SS
14	2	L-Seal	Low Temp Nitrile	Peroxide-Cured Nitrile, Viton®
15	2	Retainer	ASTM A350-LF2 Xylan® Coated	316 SS
16	2	Retainer Seal	Low Temp Nitrile	Peroxide-Cured Nitrile, Viton®
17	8	Retainer Screw	18-8 SS	
18	1	Actuator		
19	1	Mounting Plate-Actuator	Carbon Steel	
20	1	Adapter Plate-Actuator/Bonnet	Carbon Steel	
21	varies	Actuator Mounting Bolts	ASTM A320-L7 Xylan® Coated	
22	1	Position Indicator	Visual	Electric, Pneumatic, Hydraulic
23	1	Position Indicator Mounting Bracket	Carbon Steel	316 SS
24	4	Position Indicator Mounting Bolts	18-8	
N/S	1	Position Indicator Adapter Coupling	Carbon Steel	316 SS
26	2	End Connection Flange	ASTM A350-LF2	316 SS/Nickel Alloy Ring Groove
27	2	End Connection Seal	Low Temp Nitrile	Peroxide-Cured Nitrile, Viton®
28	varies	End Connection Bolts	ASTM A320-L7 Xylan® Coated	
29	2	Body Grease Fitting	316 SS	

<sup>1</sup> Consult factory for other material. | Contact your Piper representative for ordering information.

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## Quality Commitment

### Valve Repair & Recertification

Series DC diverter valves have a long history of outstanding service life, lasting as much as three times longer than conventional API 6D pipeline ball valves. All Series DC diverter valves are Xylan® coated for corrosion resistance to facilitate the repair process, if and when it is needed.

Oil States Piper Valve has taken an aggressive stance on the issue of recertification. The Series DC valve design and Xylan® coating affords faster tear down and fewer parts needed for re-assembly. Oil States Piper Valve has set up authorized recertification facilities in the following locations, and can provide service personnel to re-certify valves on site, if required:

- Oklahoma City, Oklahoma USA
- Whitburn, United Kingdom
- Macaé, RJ Brazil
- Singapore
- Bahrain



### SERIES DC APPLICATIONS

Series DC Diverter Valves are used in:

- Diversion Flow Lines (NPS 8" thru 18")
- Fill-up Valves (NPS 2" thru 12")
- Trip Tank Valves (NPS 2" thru 12")
- Motion Compensation Control Valves (NPS 1" thru 10")
- Tensioning System Control Valves (NPS 1" thru 10")
- Riser Booster Line Valves (NPS 2" thru 8")
- ANSI Class 300, 600, 900, 1500 and 2500
- API 5000 and 10000 pressure classes

### Piper Certification

- OSI Piper Valve has maintained **ISO 9001** certification since August 2002.
- OSI Piper Valve has also maintained **API Q1** certification with **API 6A** and **6D mono-gramming** licenses since March 2012.



# PIPER OPTIMUM-FLOW TECHNOLOGY



## OIL STATES INDUSTRIES

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