











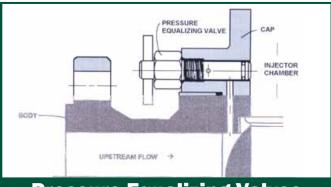




Carbon Steel - Alloy Steel - Stainless Steel

Advantages over fabricated trap systems include:

- The simple design is easier to install and offers greater accessibility and a reduction in maintenance costs.
- Downtime is saved because it is not necessary to shut in the flow line in the launching or receiving operation.
- The compact design requires a much smaller space than fabricated trap systems. This is a very important consideration on offshore platforms where space is very critical.
- Our system simplifies field operation and application of corrosion inhibitors.
- The By-Pass valve is available in flanged, threaded and buttweld connection 2" and larger.



Pressure Equalizing Valves

The pressure equalizing valve allows the operator to equalize the pressure between the flow line and the pig chamber before operating the valve. This greatly reduces the operating torque and ensures ease of operation. Standard equipment on all Tulsa By-Pass Pigging Valves.

By-Pass Pigging Valves are a top entry pig valve designed to launch and receive spherical pigs so pipelines remain clean and serviceable for the transportation of gas or liquid products. Periodic use of the pig ball valves leads to trouble-free scraping and eliminates the additional expense of hot oil treatments and extended downtime.

The By-Pass style pig ball valve provides continuous flow capability in all valve positions by isolating the pig chamber from the flow line, thereby not closing in the flow line. It is utilized where pumps or flow cannot be interrupted during the pigging operation. The By-Pass is built integrally into the valve body and provides 35% or more flow capacity to minimize pressure drops during the pigging operation.

Large Size range available from 2" up to 12" standard with larger sizes available on request. One Piece Body/Flange design to ensure complete integrity throughout the valve body and flanges. By-Pass Pig Valves are field repairable and serviceable without the need for special tools. Tulsa Valve performs 100% pressure testing on all of our By-Pass Pig Valves.

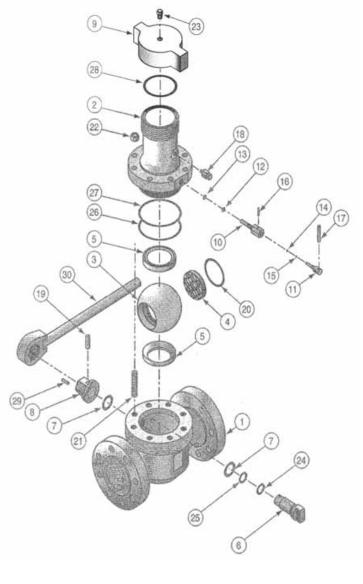
Features Include:

- One Piece Body/Flange design
- Blow-Out proof stem
- ANSI Class: 150 1500 WOG Pressure Range, contact us for higher pressures
- API Class: 5000 WOG Pressure Rating
- Large Size range 2" up to 12", larger sizes available on request
- By-Pass Style eliminates the possibility of line over-pressurization when operating the valve
- Two bleed fittings are provided for venting pressure in the pig chamber before removing bonnet cap
- Virtually any material combination to suit most applications
- By-Pass Pig Valves are field repairable and serviceable without the need for special tools



Materials

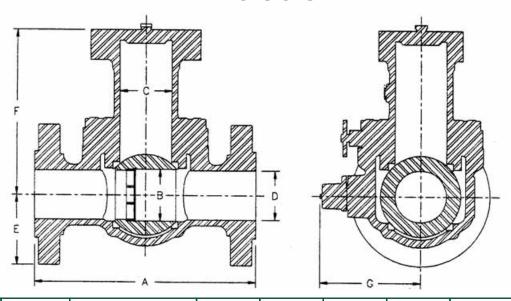
Item	Part Name	Materials		
1	BODY	WCB/LCC/4C		
2	BONNET	WCB/LCC		
3	BALL	316 SS/WCBENP		
4	BASKET	316 SS		
5	SEAT	DELRIN/NYLON		
6	STEM	316 SS		
7	STEM SPACER	RTFE		
8	STEM NUT	DUCTILE IRON		
9	CAP	WCB/LCC/A105/GR70		
10	EQUALIZING BODY	1018 CS		
11	EQ VALVE STEM	316 SS		
12	O-RING	BUNA/VITON/LT BUNA		
13	O-RING	BUNA/VITON/LT BUNA		
14	O-RING	BUNA/VITON/LT BUNA		
15	BACKUP RING	SPLIT TEFLON		
16	SPRING PIN	SPRING STEEL		
17	EQ VALVE HANDLE	316 SS		
18	BLEEDER VALVE	316 SS		
19	STEM NUT PIN	SPRING STEEL		
20	RETAINING RING	SPRING STEEL		
21	STUD	B7/B7M/L7M		
22	HEX NUT	2H/2HM/L7M		
23	PIPE PLUG	CARBON STEEL		
24	BACKUP RING	NITRILE/VITON		
25	O-RING	BUNA/VITON/LT BUNA		
26	BACKUP RING	NITRILE/VITON		
27	O-RING	BUNA/VITON/LT BUNA		
28	O-RING	BUNA/VITON/LT BUNA		
29	STOP PIN	SPRING STEEL		
30	HANDLE	CARBON STEEL		
31	SEAT WAVE SPRING	STEEL (Not Shown)		



Other materials available upon request. NACE materials also available, please specify.



Dimensions



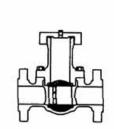
SIZE	CLASS	A		В	С	D	Е	F	G
		RF	RTJ			D	<u> </u>	I	4
3	600	14	14.12	3.12	3.13	3.06	4.12	10.5	6.78
	900	15	15.12				4.75		
	1500	17.68	17.8				5.25		
3-1/8	2000		15.12				4.12		
	3000		17.8				4.75		
4	600	17.12	17.25		4.26	4.03	5.38	13.62	8.28
	900	18	18.12				5.75		
	1500	18.37	18.37				6.12	13.74	
	2500	26.5	26.88	4.26			7.00	15.12	9.84
4-1/16	2000		18.12				5.38	13.62	8.28
	3000		19.1				5.75	13.74	
	5000		18.37				6.12		
6	600	24.9	25.14	6.30	6.30	6.03	7.00	15.63 15.75	11.08
	900	26.88	27				7.50		
	1500	29.62	29.88				7.75		
	2500	36	36.5				9.50	17.38	12.33
7-1/16	2000		27				7.00	15.63 15.75	11.08
	3000		29.88				7.50		
	5000		32.3				7.75		
8	600	26.62	26.75	8.36	8.35	8.00	8.28	16.74	10.75
	900	27.25	27.38				9.28		
	1500	32	32.38				9.53		



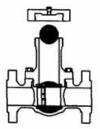
Operating Procedures

Launching

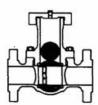
The launching valve is installed in the flow line with the pig chamber facing vertically upward within a maximum of 20 degrees vertical.



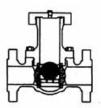
Open vent fitting to vent pig chamber. Close vent fitting.



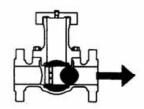
Remove cap and load pig into chamber.



Replace cap and open equalizing valve.



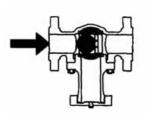
Rotate ball as shown so the pig drops into the ball.



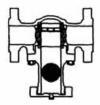
Close equalizing valve and rotate ball as shown. Pig is launched downstream.

Receiving

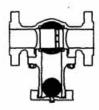
The receiving valve is installed in the flow line with the pig chamber facing vertically downward within a maximum of 20 degrees vertical.



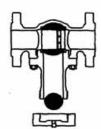
After pig is received open equalizing valve.



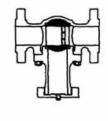
Rotate ball as shown. Pig drops into cap. Close equalizing Valve.



Rotate ball as shown. Open vent fitting and vent chamber. Close vent fitting.



Remove cap carefully and remove pig and debris.



Replace cap. Valve is ready to receive the next pig.

Caution: Important

Operating Pig Valves is a serious business. Please make sure you understand all the operating instructions prior to operating/opening any valve or part therof. The instructions above are for reference only please obtain the By-Pass IOM (installation, operation and maintenance manual) for more detailed instructions.

When opening vents, fittings and caps; dangerous gases or liquids may be released, please take all necessary precautions to protect yourself and the environment. Consult with local authorities for rules and regulations regarding fugitive emissions and other potential hazards before operating the valve.

Converting

Our By-Pass pig valves may be converted from launcher to receiver or vice versa simply by rotating the valve 180 degrees from vertical. Please follow the guidelines for installing valves contained in the IOM.









Tulsa Valve is an oil field and industrial valve manufacturer. Tulsa Valve Products are made of the highest quality materials and workmanship. We test every valve to the appropriate standards and maintain material and product traceability on all valves. Our valves are designed to meet the customers best expectations and we pride ourselves on our ability to meet these expectations.

Products we manufacture: Ball Check Valves, Threaded Swing Check Valves, Shut-off Pig Valves, By-pass Pig Valves, Casing Ball Valves, and Flanged Check Valves.

> Tulsa Valve is a member of Array Holdings, a group of affiliated companies proudly serving the domestic and international energy industry.

Terms and Conditions

Warranty: Tulsa Valve products are guaranteed against defects of material workmanship for One (1) Year from date of invoice provided such products are used normally and within the service and pressure range for which they were manufactured. This guarantee is limited to the repair, replacement or repayment of purchase price. Under no conditions will Tulsa Valve be liable for claim of labor for removal, repair or replacement of Tulsa Valve products, or any other consequential damage.

Cancellation: Firm orders which have been accepted and entered are not cancellable except by written authorization from Tulsa Valve, unused material may be returned upon written consent from Tulsa Valve and credit will be issued only on material returned within one year from date of purchase. Tulsa Valve reserves the right to deduct reconditioning and handling charges when issuing credit for returned material. Credit may be used only for the purchase of merchandise and is not subject to cash reimbursement or cash payments.



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