



FLOWSERVE

VALTEK *Valdisk BX Control Valves*

Available Materials

- Carbon steel
- Inconel
- Stainless steel
- Monel
- Alloy 20
- Nickel
- Hastelloy C



Unique, high strength Gibb pin positively locks valve shaft to the disc.

Lug and Wafer Body Styles Available

- 150 through 300 lb class
- 2" through 30"

Simple Solid Design

- Fewer parts for easy installation
- Lightweight and compact for easy maintenance
- Safe, reliable anti-blowout protection per ASME B16.34

High Capacity

- Low profile disc for more capacity and better flow
- Higher F_L for better pressure recovery



TriFlex Energized Metal Seat



Energized Soft Seat





Fugitive Emissions Packing Options

- Teflon V-ring
- SafeGuard
- SureGuard
- Grafoil
- Others on request

High Cycle Life

- Eccentric, Double offset disk
- Bearing Designs
 - Triple chrome plated 316 bearings for harsh service, long life
 - Proven PTFE/Fiberglass (Poly Lube®) pressure molded bearings for long life
 - Proven PTFE/metal backed pressure molded bearings for long life

Tight Shutoff

- Bidirectional metal class IV with TriFlex seat
- Bidirectional soft class VI
- Large diameter one-piece shaft
- Self-centering seat



Stainless Steel Bearings



Poly Lube® Bearings



Severe Service Bearings

Valdisk BX Control Valves

Packing Options

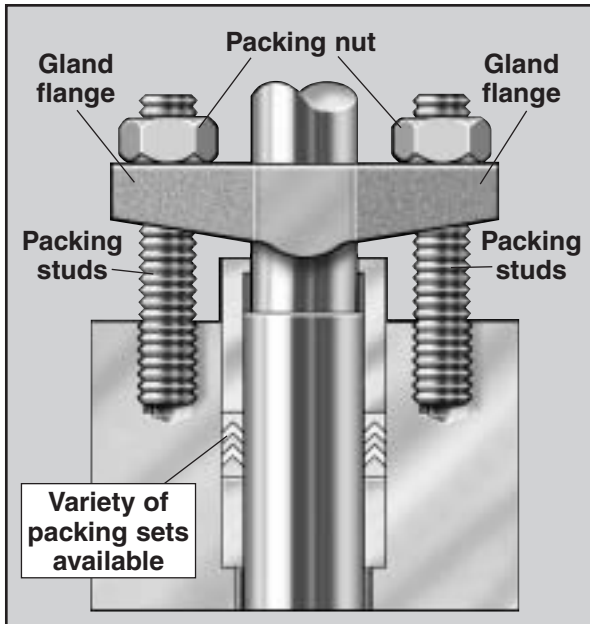


Figure 1: PTFE VEE Standard

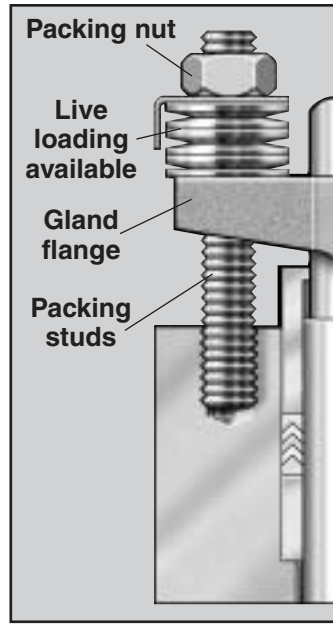


Figure 2: Live Loaded

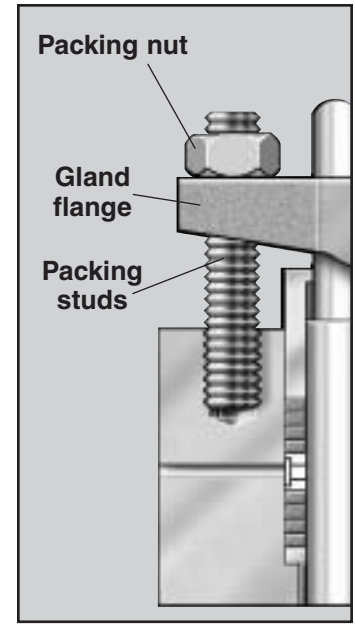


Figure 3: Twin Square

Packing Sets:

- PTFE V-ring
- SafeGuard
- SureGuard XT
- PTFE cup and cone
- SureGuard
- 1303 FEP 9001

Packing Styles:

- Standard
- Twin
- Live Loaded

Table I: Parts List for Soft Seat Design

Item No.	Description	Qty.
1	Body	1
2	Disc	1
3	Shaft	1
4	Pin	1
5	Bearing	3
6	Thrust Bearing	2
7	Thrust Washer	1
•8	Packing Set	1
9	Gland	1
10	Gland Flange	1
11	Packing Studs	2
12	Packing Nut	2
13	Ground Spring	1
14	Retainer Ring	1
•15	Lock Ring	1
•16	Seat	1
•17	Seat Energizer	1
18	Seat Ring	1
19	Jam Nut	1
•33	Seat	1

• Recommended spare parts.

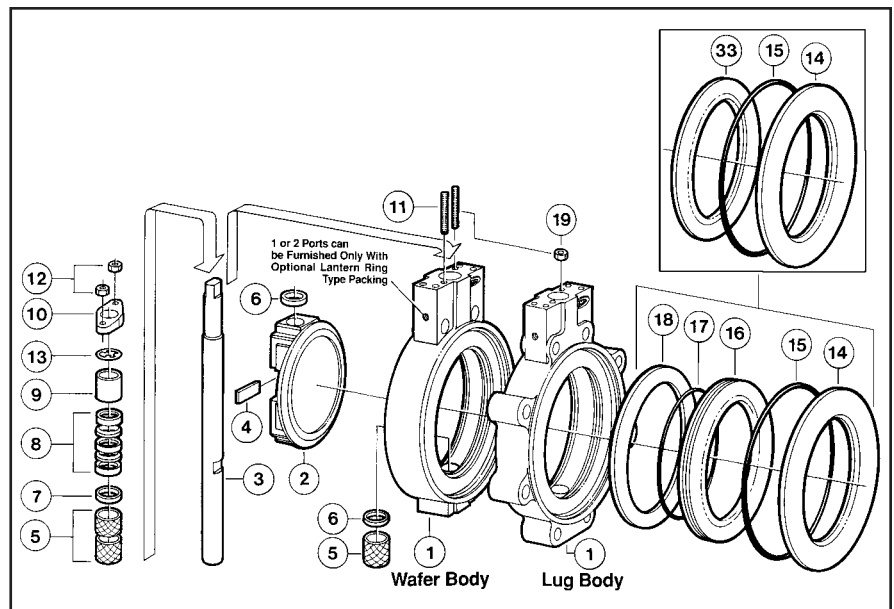


Figure 4

Valdisk BX Control Valves

Pressure Energized Seat Options

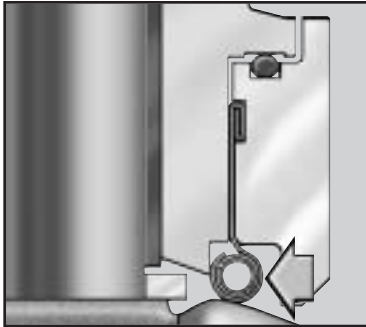


Figure 5: TriFlex, fluid pressure with seat upstream

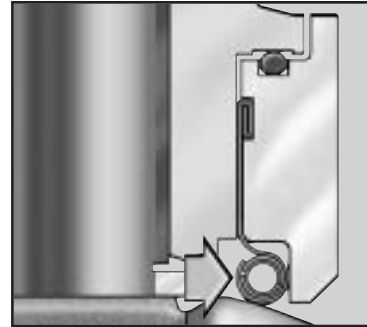


Figure 7: TriFlex, fluid pressure with seat downstream

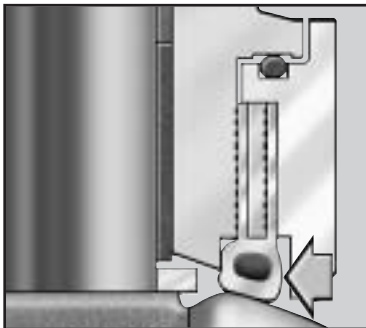


Figure 6: PTFE Soft Seat, fluid pressure with seat upstream

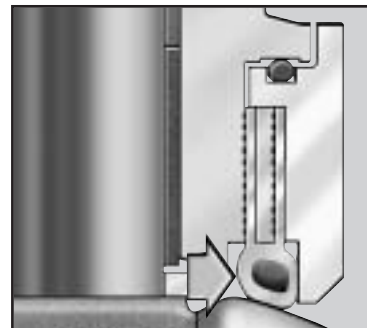


Figure 8: PTFE Soft Seat, fluid pressure with seat downstream

Table II: Parts List for TriFlex Seat Design

Item No.	Description	Qty.
1	Body	1
2	Disc	1
3	Shaft	1
4	Pin	1
5	Bearing	2
6	Thrust Bearing	2
7	Thrust Washer	2
8	Packing Set	1
9	Gland	1
10	Gland Flange	1
11	Packing Studs	2
12	Packing Nut	2
13	Ground Spring	1
14	Retainer Ring	1
15	Lock/Seal Ring Retainer*	1
16	Seat	1
19	Jam Nut	1

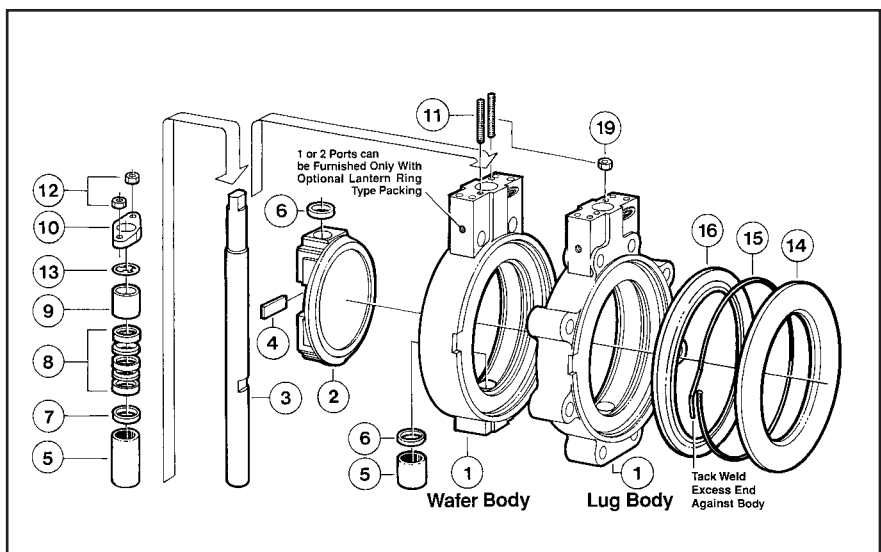


Figure 9

* Retainer seal is used on End Of Line Valves.
• Recommended spare parts.

Valdisk BX Control Valves

Specifications

Table III: Body Specifications

Sizes (inches)	2, 3, 4, 6, 8, 10, 12, 16, 18, 20, 24, 30
Body Forms	Wafer, Lug
Body rating	ANSI Class 150 / 300
Shutoff rating	ANSI Class IV, TriFlex Metal Seat ANSI Class VI, PTFE Soft Seat ANSI Class VI, Dual Metal / Soft Firesafe Seat*
Operating temperature	-100° to 800° F / -73° to 427° C (-20° F / -29° C for carbon steel)
Actuator	Pneumatic: Valtork, Supernova, Heavy Duty

Table VI: Materials of Construction

Body, disc, retainer	Carbon steel, stainless steel, Alloy 20, Hastelloy C, Inconel, Monel, Nickel
Shaft	17-4 PH (std.) stainless steel, Alloy 20, Hastelloy C, Inconel, Monel, Nitric 50
Bearing	PTFE Fiberglass (Poly Lube®), rolled stainless steel with PTFE insert, 316 triple chrome plated
Packing 2 thru 12-inch	PTFE V-ring, PTFE cup and cone, SafeGuard, SureGuard, SureGuard XT, 1303 FEP 9001
Packing 14 thru 30-inch	PTFE V-ring, Graphite, cup and cone
Seat	PTFE energized with Viton O-ring, Inconel TriFlex, Dual Firesafe*
Packing Configurations	Standard, live loaded, twin

Table IV: Flow Coefficients

Body Size (inches)	Flow Coefficient (C _v at 90° rotation)	
	Shaft Up	Shaft Down
2	39	40
3	141	116
4	294	277
6	966	901
8	1672	1604
10	3500	3680
12	4860	4590
14	6800	6800
16	8800	8800
18	11500	11500
20	14000	14000
24	20500	20500
30	31000	31000

Table VII: Estimated Shipping Weight

Value Size (inches)	Wafer Body		Lug Body	
	lb.	kg.	lb.	kg
2	44	20	44	20
3	48	22	50	23
4	52	24	58	26
6	98	44	103	47
8	119	54	129	59
10	149	68	163	74
12	280	127	353	160
14	397	180	447	203
16	472	214	547	248
18	547	248	647	293
20	614	279	771	350
24	812	368	1027	466
30	1197	543	1572	713

Table V: Valve / Actuator Compatibility

Actuator Style	Actuator Size	Valve Size (inches)												
		2	3	4	6	8	10	12	14	16	18	20	24	30
Valtork	25	●	●	●										
Valtork	50	●	●	●	●	●	●							
Valtork	100				●	●	●	●	●	●	●	●	●	●
Valtork	200							●	●	●	●	●	●	●
VB	63	●	●											
VB	85	●	●	●										
VB	100	●	●	●	●	●								
VB	115	●	●	●	●	●	●	●						
VB	125	●	●	●	●	●	●	●	●					
VB	150	●	●	●	●	●	●	●	●	●				
VB	175	●	●	●	●	●	●	●	●	●	●	●		
VB	200			●	●	●	●	●	●	●	●	●	●	
VSNA	250				●	●	●	●	●	●	●	●	●	●
VSNA	300					●	●	●	●	●	●	●	●	●

* API 607 Firesafe Seat Available

Valdisk BX Control Valves

Dimensions

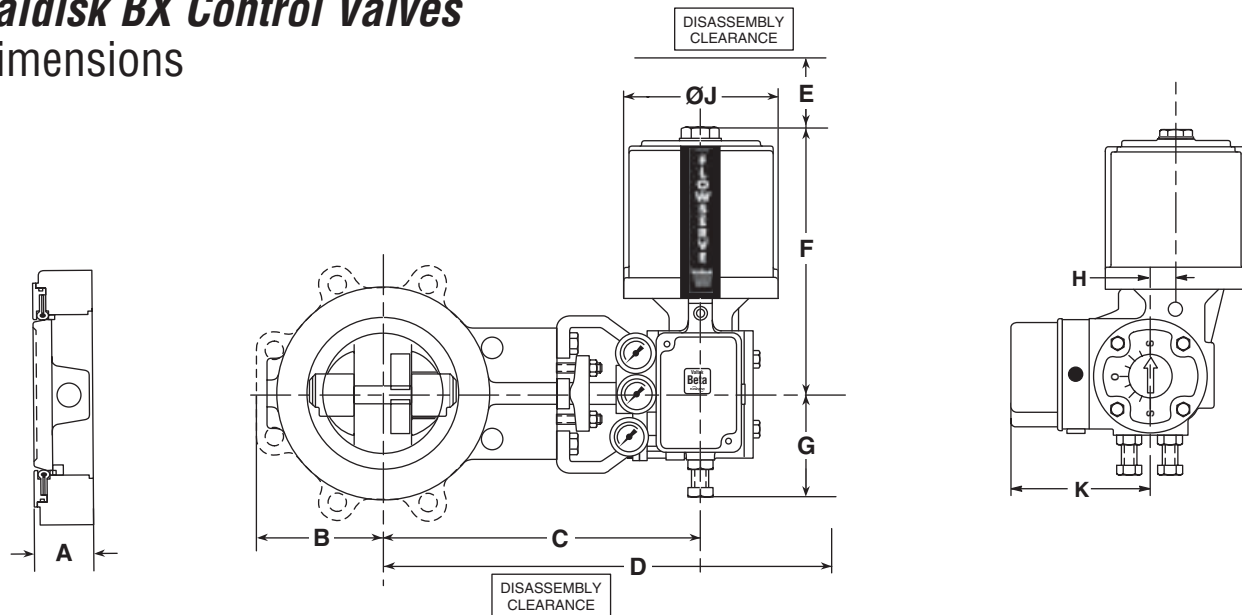


Table VIII: Valdisk BX Dimensions (inches / mm)

Size	Actuator Size	Spline Size	A		B		C		D		E		F		G		H		J		K	
			in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
2	25	0.62	1.75	44.5	2.5	64	11.5	292	22.1	561	5.3	135	13.3	338	4.5	114	1.1	28	6.5	165	6.5	165
2	50	0.62	1.75	44.5	2.5	64	11.5	292	22.3	566	7.5	191	18.3	465	5.8	147	2.0	51	9.1	231	7.4	188
3	25	0.62	1.88	47.8	3.1	79	12.2	310	22.8	579	5.3	135	13.3	338	4.5	114	1.1	28	6.5	165	6.5	165
3	50	0.62	1.88	47.8	3.1	79	12.2	310	23.0	584	7.5	191	18.3	465	5.8	147	2.0	51	9.1	231	7.4	188
4	25	0.62	2.13	54.1	4.2	107	12.7	323	23.3	592	5.3	135	13.3	338	4.5	114	1.1	28	6.5	165	6.5	165
4	50	0.62	2.13	54.1	4.2	107	12.7	323	23.5	597	7.5	191	18.3	465	5.8	147	2.0	51	9.1	231	7.4	188
6	50	0.88	2.25	57.2	5.2	132	13.7	348	24.5	622	7.5	191	18.3	465	5.8	147	2.0	51	9.1	231	7.4	188
6	100	0.88	2.25	57.2	5.2	132	13.7	348	28.0	711	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
8	50	1.12	2.44	62.0	6.3	160	15.0	381	25.8	655	7.5	191	18.3	465	5.8	147	2.0	51	9.1	231	7.4	188
8	100	1.12	2.44	62.0	6.3	160	15.0	381	29.3	744	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
8	200	1.12	2.44	62.0	6.3	160	15.0	381	31.8	808	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
10	50	1.12	2.93	74.4	7.8	198	16.7	424	27.5	699	7.5	191	18.3	465	5.8	147	2.0	51	9.1	231	7.4	188
10	100	1.12	2.93	74.4	7.8	198	16.7	424	31.0	787	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
10	200	1.12	2.93	74.4	7.8	198	16.7	424	33.5	851	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
12	100	1.50	3.31	84.1	9.3	236	18.7	475	33.0	838	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
12	200	1.50	3.31	84.1	9.3	236	18.7	475	35.5	902	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
14	100	1.38	3.75	95.3	14.0	356	20.3	516	36.0	914	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
14	200	1.38	3.75	95.3	14.0	356	20.3	516	38.5	978	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
16	100	1.50	4.13	104.9	15.9	404	22.0	559	36.3	922	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
16	200	1.50	4.13	104.9	15.9	404	22.0	559	38.8	986	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
18	100	1.75	4.63	117.6	17.9	455	23.8	605	38.1	968	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
18	200	1.75	4.63	117.6	17.9	455	23.8	605	40.6	1031	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
20	100	1.75	5.13	130.3	24.3	617	24.6	625	38.9	988	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
20	200	1.75	5.13	130.3	24.3	617	24.6	625	41.4	1052	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
24	100	1.75	6.19	157.2	27.5	699	34.7	881	49.0	1245	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
24	200	1.75	6.19	157.2	27.5	699	34.7	881	51.5	1308	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213
30	100	1.75	7.50	190.5	32.3	820	39.2	996	53.5	1359	8.5	216	22.9	582	7.5	191	2.4	61	12.5	318	8.4	213
30	200	1.75	7.50	190.5	32.3	820	39.2	996	56.0	1422	9.0	229	23.4	594	7.5	191	2.4	61	17.5	445	8.4	213

All dimensions are to be used for estimation only. Certified drawings will be supplied upon request. Face-to-Face, MSS SP68

Valdisk BX Control Valves Mounting Orientations

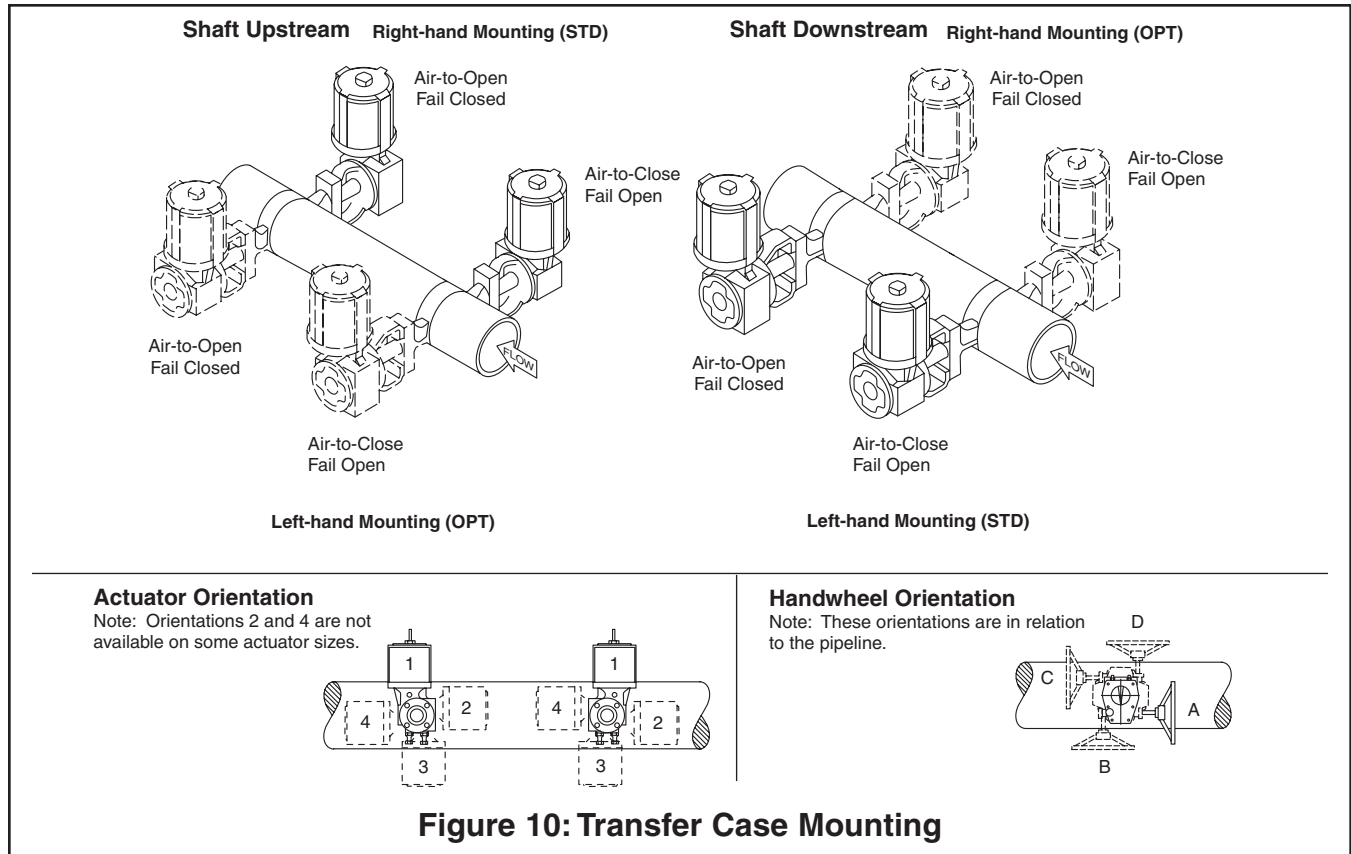


Figure 10: Transfer Case Mounting

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can (and often does) provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Operation Maintenance (IOM) instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications presented in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any of its worldwide operations or offices.

All trademarks and tradenames shown in this literature are property of their respective owners.

For more information, contact:

For more information about Flowserve and its products, contact www.flowserve.com or call USA 972 443 6500

7, Avenue de la Libération, B.P. 60 63307 Thiers Cedex, France Telephone (33 4) 60 73 80 42 66 Facsimile (33 4) 73 80 14 24

Sales/Manufacturing Facilities

1350 N. Mt. Springs Prkwy. Springville, UT 84663 USA Phone 801 489 8611 Facsimile 801 489 3719

Manderscheidstr. 19 45141 Essen, Germany Telephone (49) 2 01 89 19 5 Facsimile (49) 2 01 891 9600

Allâe du Quartz 1 CH-2300 La Chaux-de-Fonds Switzerland Telephone (41) 32 925 9700 Facsimile (41) 32 926 5422

Quick Response Centers

5114 Railroad Street Deer Park, TX 77536 USA Telephone 281 479 9500 Facsimile 281 479 8511

104 Chelsea Parkway Boothwyn, PA 19061 USA Telephone 610 497 8600 Facsimile 610 497 6680

1300 Parkway View Drive Pittsburgh, PA 15205 USA Telephone 412 787 8803 Facsimile 412 787 1944

12134 Industriplex Blvd. Baton Rouge, LA 70809 USA Telephone 225 751 9880 Facsimile 225 755 0728