

125FV SERIES CAST IRON FLANGED FOOT VALVES

Pressures to 200 PSI (13.8 barg)
Temperatures to 300°F (149°C)

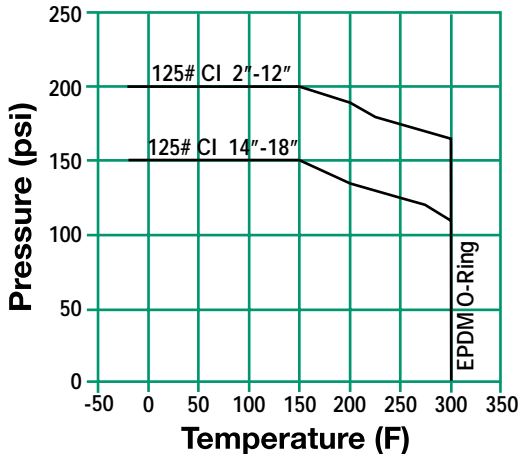


APPLICATIONS

- Liquid service: for preventing pump column from draining upon pump shutdown.
- Maintaining pump prime upon pump outage.

- ASME Class 125 rated foot valve
- Designed to reduced surge and water hammer
- Silent, non-slam closure
- Heavy duty stainless steel screening with flow areas three to four times that of the pipe area
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Bronze Metal to Metal Seats

PRESSURE/TEMPERATURE CHART
ASME B16.1



MODELS

- 125FVIB – Cast Iron Body, Bronze Seat and Disc

OPTIONS

- Consult factory

APPLICABLE CODES

- Bodies in accordance with ASME B16.1

Canadian Registration - OC10274.5C

FOOT VALVES

125FVIB Series Ordering Code

Inlet Size				Dash	Model								Seat	Dash	Perf	Add'l Mesh
0	6	0	0	-	1	2	5	F	V	I	B	M	-	4	5	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

Inlet Size* - Position 1 - 4 0200 - 2" 0250 - 2 1/2" 0300 - 3" 0400 - 4" 0500 - 5" 0600 - 6" 0800 - 8" 1000 - 10" 1200 - 12" 1400 - 14" 1600 - 16" 1800 - 18"	Dash - Position 5 Model - Position 6 -12 125FVIB - CI Body, Bz Disc, Metal Seat Seat - Position 13 M - Metal Dash - Position 14	Perf - Position 15 304SS Material' 1 - 1/32" B - 3/64" 4 - 1/8" (std) 2 - 1/16" 3 - 3/32" 5 - 5/32" 6 - 3/16" 7 - 7/32" 8 - 1/4" 9 - 3/8"	Additional Mesh - Position 16 Leave Blank If Not Required 1 - 10 2 - 20 3 - 30 4 - 40 5 - 50 6 - 60 7 - 70 8 - 80 9 - 90
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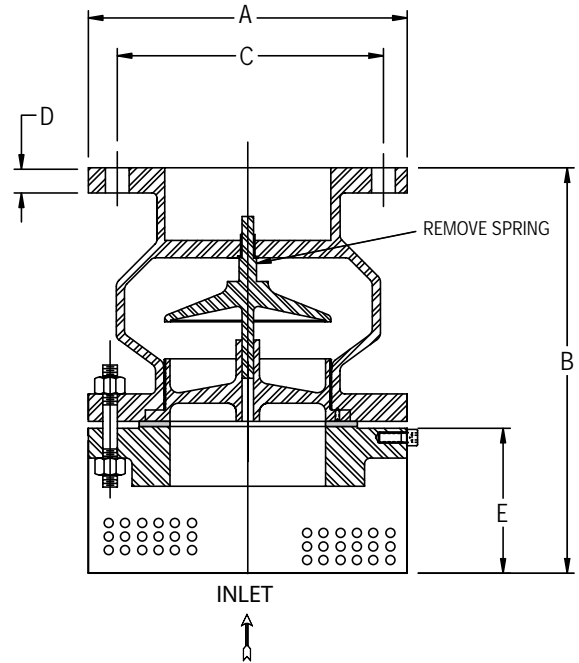
125FV SERIES CAST IRON FLANGED FOOT VALVES

SPECIFICATION

Foot Valve shall be composed of a Check Valve with single disc design with Cast Iron Flanged body style designed to ASME B16.1. The check valve shall have a metal to metal seat with bronze seat and disc. The check valve shall be ASME Class 125 rated. The screen shall be constructed from SA240 304 stainless steel. The foot valve shall be SSI 125FV Cast Iron Series.

MATERIALS OF CONSTRUCTION

BodyA126-B Cast Iron
 DiscB62 Bronze
 SeatB62 Bronze
 Screen Retainer BoltSA193 B8
 StudsSA193 B7
 Hex Nuts.....SA194 2H
 Screen Flange.....SA105
 Screen.....SA240 304
 GasketRed Rubber



- Connections : 2" to 18" Flanged FF
- Seats: 2" to 18" Bronze
- Cracking Pressure:
Vertical Mounting – Consult Factory

DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

Size	A	B	C	D	E	Stud Length	Bolt Size	No. of Bolts	Weight
2 (51)	6 (152)	8½ (213)	4¾ (121)	¾ (19)	3 (76)	¾ (83)	5/8 (16)	4	30 (14)
2½ (64)	7 (178)	8½ (219)	5½ (140)	7/8 (22)	3 (76)	¾ (89)	5/8 (16)	4	45 (20)
3 (76)	7½ (191)	9½ (244)	6 (152)	15/16 (24)	3 (76)	¾ (95)	5/8 (16)	4	51 (23)
4 (102)	9 (229)	11½ (283)	7½ (191)	15/16 (24)	3 (76)	¾ (95)	5/8 (16)	8	83 (38)
5 (127)	10 (254)	13½ (340)	8½ (216)	15/16 (24)	4 (102)	4 (102)	¾ (19)	8	104 (47)
6 (152)	11 (279)	15½ (403)	9½ (241)	1 (25)	5 (127)	4 (102)	¾ (19)	8	133 (60)
8 (203)	13½ (343)	19½ (498)	11¼ (298)	1½ (29)	6 (152)	4¼ (108)	¾ (19)	8	215 (98)
10 (254)	16 (406)	23½ (600)	14¼ (362)	1⅝ (30)	7 (178)	4¼ (121)	7/8 (22)	12	324 (147)
12 (305)	19 (483)	23½ (594)	17 (432)	1¾ (32)	8 (203)	4¼ (121)	7/8 (22)	12	557 (253)
14 (356)	21 (533)	25½ (657)	18¾ (476)	1¾ (35)	9 (229)	5¼ (133)	1 (25)	12	890 (404)
16 (406)	23½ (597)	29 (737)	21¼ (540)	1⅝ (37)	10 (254)	5½ (140)	1 (25)	16	1034 (469)
18 (457)	25 (635)	31½ (791)	22¾ (578)	1⅝ (40)	11 (279)	6 (152)	1½ (29)	16	1171 (531)

Dimensions are subject to change. Consult factory for certified drawings when required.

FOOT VALVES

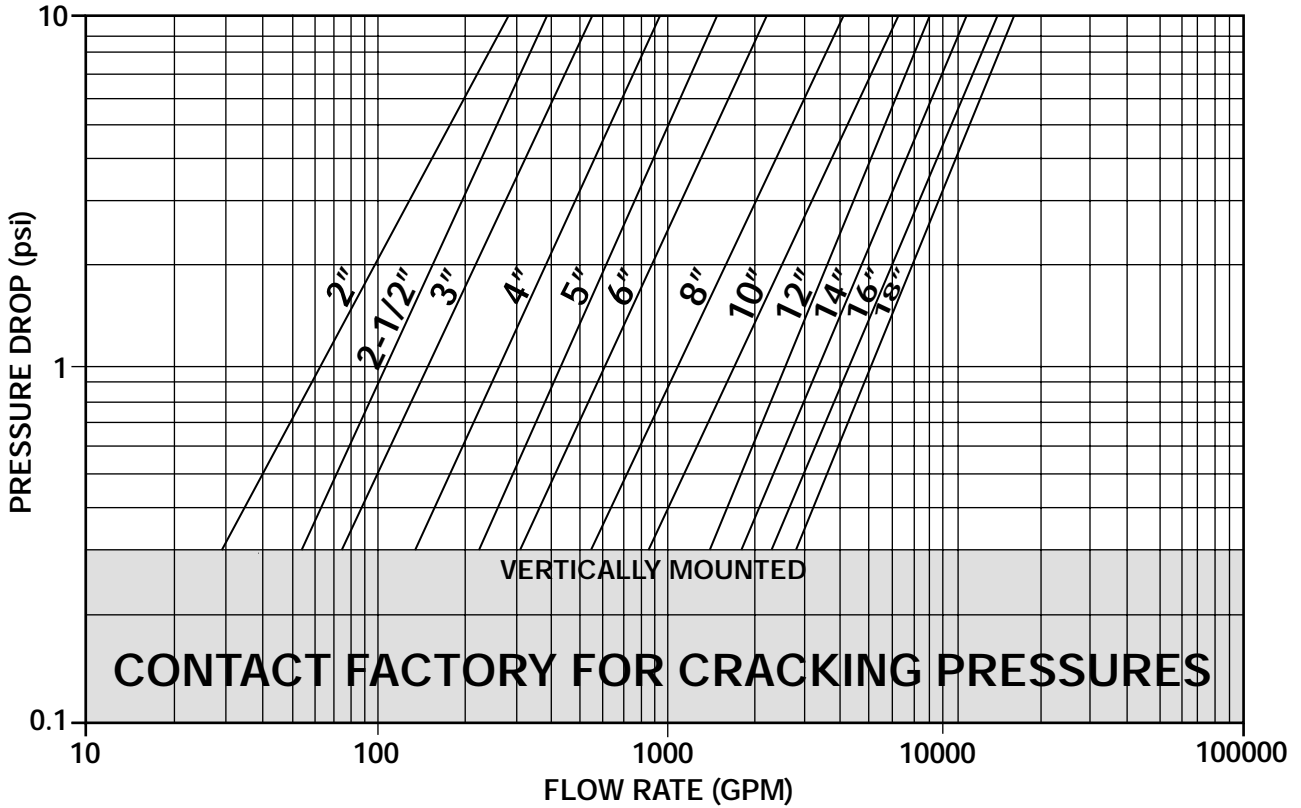


125FV SERIES

CAST IRON FLANGED FOOT VALVES

PRESSURE DROP VS FLOW RATE*

(Sizes 2" - 18")



* Pressure drop curves are based on water flow.

Installation Note

1. For correct installation and maintenance, please see our I & M manual.
2. Mount only in vertical position with upward flow.

Cv Values

Size (inches)	2	2½	3	4	5	6	8	10	12	14	16	18
Min Cv @ .3 PSID)	53	99	135	246	402	566	1004	1579	2556	3286	4199	5112
Cv (@ 1 PSID)	63	105	148	265	430	605	1105	1700	2575	3350	4300	5225
Max Cv (@ 10 PSID)	89	120	174	300	474	696	1297	1992	2593	3479	4427	5376

NOTES:

150FV SERIES CARBON STEEL AND STAINLESS STEEL FLANGED FOOT VALVES



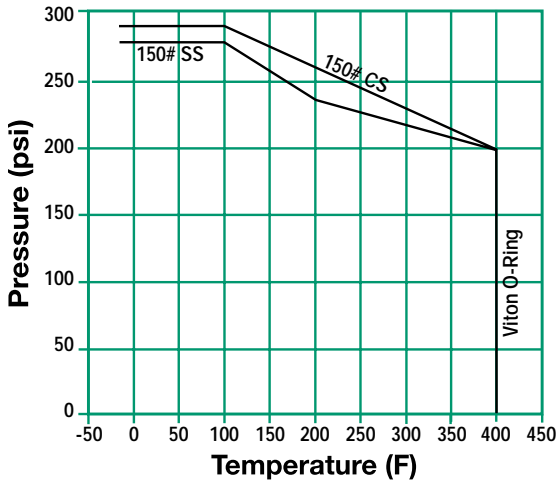
Pressures to 285 PSI (19.7 barg)
Temperatures to 400°F (204°C)

APPLICATIONS

- Liquid service: for preventing pump column from draining upon pump shutdown.
- Maintaining pump prime upon pump outage.

- ASME Class 150 rated foot valve
- Designed to reduced surge and water hammer
- Silent, non-slam closure
- Heavy duty stainless steel screening with flow areas three to four times that of the pipe area
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Stainless Steel Metal to Metal Seats

PRESSURE/TEMPERATURE CHART
ASME 16.34



MODELS

- 150FVCT – Carbon Steel Body, Stainless Steel Seat and Disc
- 150FVTT – Stainless Steel Body, Stainless Steel Seat and Disc

OPTIONS *(Consult factory)*

- Consult factory

APPLICABLE CODES

- ASME Sec. VIII and B16.34 Bodies

Canadian Registration - OC10274.5C

FOOT VALVES

150FVCT Series Ordering Code

Inlet Size				Dash	Model								Seat	Dash	Perf	Add'l Mesh
0	6	0	0	-	1	5	0	F	V	C	T	M	-	4	5	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

Inlet Size* - Position 1 - 4 0200 - 2" 0250 - 2½" 0300 - 3" 0400 - 4" 0500 - 5" 0600 - 6" 0800 - 8" 1000 - 10" 1200 - 12" 1400 - 14" 1600 - 16"	Dash - Position 5 Model - Position 6 - 12 150FVCT - CS Body, SS Disc, Metal Seat 150FVTT - SS Body, SS Disc, Metal Seat Seat - Position 13 M - Metal Dash - Position 14	Perf - Position 15 304SS Material¹ 1 - 1/32" B - 3/64" 4 - 1/8" (std) 2 - 1/16" 3 - 3/32" 5 - 5/32" 6 - 3/16" 7 - 7/32" 8 - 1/4"	Additional Mesh - Position 16 Leave Blank If Not Required 1 - 10 2 - 20 3 - 30 4 - 40 5 - 50 6 - 60 7 - 80 8 - 100
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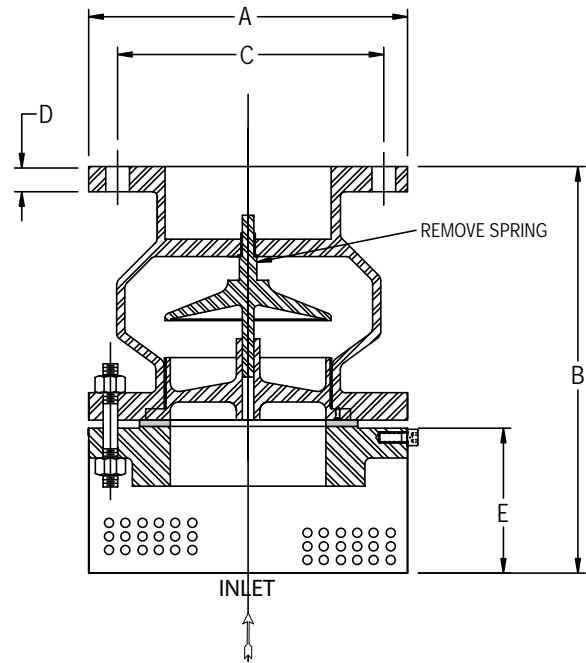
150FV SERIES CARBON STEEL AND STAINLESS STEEL FLANGED FOOT VALVES

SPECIFICATION

Foot Valve shall be composed of a Check Valve with single disc design with Carbon Steel Flanged body style designed to ASME Sec. VIII and ASME B16.1. The check valve shall have a metal to metal seat with stainless steel seat and disc. The check valve shall be ASME Class 150 rated. The screen shall be SA240 304 stainless steel. The foot valve shall be SSI 150FC Carbon Steel Series.

MATERIALS OF CONSTRUCTION

Part	Cast Steel	Stainless Steel
Body	A216 WCB	A351 CF8M
Disc	A351 CF8M	A351 CF8M
Seat	A351 CF8M	A351 CF8M
Screen Retainer Bolt	SA193 B8	SA193 B8
Studs	SA193 B7	SA193 B7
Hex Nuts	SA194 2H	SA194 2H
Screen Flange	SA105	SS-304
Screen	SA240 304	SA240 316
Gasket	Red Rubber	Red Rubber



Connections :
2" to 16" Carbon Steel Body Flanged RF
8" to 12" Stainless Steel Body Flanged RF

Seats: All sizes – Stainless Steel

Cracking Pressure:
Vertical Mounting – Consult Factory

DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

Size	A	B	C	D	E	Stud Length	Bolt Size	No. of Bolts	Weight
2 (51)	6 (152)	8 $\frac{3}{8}$ (213)	4 $\frac{3}{4}$ (121)	3/4 (19)	3 (76)	3 $\frac{3}{4}$ (83)	5/8 (16)	4	25 (11)
2 $\frac{1}{2}$ (64)	7 (178)	8 $\frac{5}{8}$ (219)	5 $\frac{1}{2}$ (140)	7/8 (22)	3 (76)	3 $\frac{1}{2}$ (89)	5/8 (16)	4	35 (16)
3 (76)	7 $\frac{1}{2}$ (191)	9 $\frac{1}{4}$ (244)	6 (152)	15/16 (24)	3 (76)	3 $\frac{3}{4}$ (95)	5/8 (16)	4	45 (20)
4 (102)	9 (229)	11 $\frac{1}{8}$ (283)	7 $\frac{1}{2}$ (191)	15/16 (24)	3 (76)	3 $\frac{3}{4}$ (95)	5/8 (16)	8	70 (32)
5 (127)	10 (254)	13 $\frac{3}{8}$ (340)	8 $\frac{1}{2}$ (216)	15/16 (24)	4 (102)	4 (102)	3/4 (19)	8	90 (41)
6 (152)	11 (279)	15 $\frac{1}{8}$ (403)	9 $\frac{1}{2}$ (241)	1 (25)	5 (127)	4 (102)	3/4 (19)	8	115 (52)
8 (200)	13 $\frac{1}{2}$ (343)	19 $\frac{1}{8}$ (498)	11 $\frac{3}{4}$ (298)	1 $\frac{1}{8}$ (29)	6 (152)	4 $\frac{1}{4}$ (108)	3/4 (19)	8	181 (82)
10 (254)	16 (406)	23 $\frac{3}{8}$ (600)	14 $\frac{1}{4}$ (362)	1 $\frac{3}{16}$ (30)	7 (178)	4 $\frac{1}{4}$ (121)	7/8 (22)	12	265 (120)
12 (305)	19 (483)	23 $\frac{3}{8}$ (594)	17 (432)	1 $\frac{1}{4}$ (32)	8 (203)	4 $\frac{1}{4}$ (121)	7/8 (22)	12	425 (193)
14' (356)	21 (533)	25 $\frac{1}{8}$ (657)	18 $\frac{3}{4}$ (476)	1 $\frac{1}{2}$ (35)	9 (229)	5 $\frac{1}{4}$ (133)	1 (25)	12	550 (249)
16' (406)	23 $\frac{1}{2}$ (597)	29 (737)	21 $\frac{1}{4}$ (540)	1 $\frac{7}{16}$ (37)	10 (254)	5 $\frac{1}{2}$ (140)	1 (25)	16	695 (315)

* 14" and 16" only available in Cast Steel body, contact factory for Stainless Steel body availability.
Dimensions are subject to change. Consult factory for certified drawings when required.

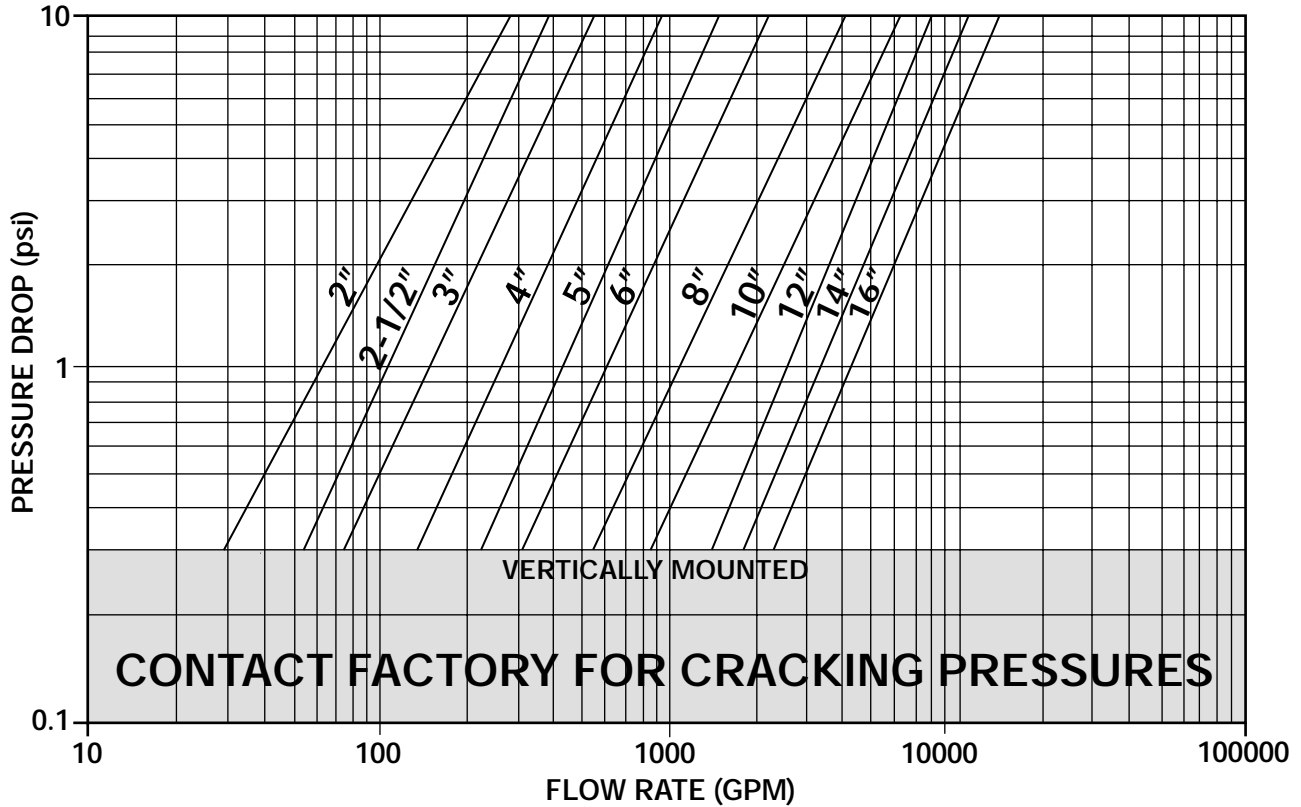
FOOT
VALVES

150FV SERIES

CARBON STEEL AND STAINLESS STEEL FLANGED FOOT VALVES

PRESSURE DROP VS FLOW RATE*

(Sizes 2" - 16")



* Pressure drop curves are based on water flow.

Installation Note

1. For correct installation and maintenance, please see our I & M manual.
2. Mount only in vertical position with upward flow.

Cv Values

Size (inches)	2	2½	3	4	5	6	8	10	12	14	16
Min Cv (@ .3 PSID)	53	99	135	246	402	566	1004	1579	2556	3286	4199
Cv (@ 1 PSID)	63	105	148	265	430	605	1105	1700	2575	3350	4300
Max Cv (@ 10 PSID)	89	120	174	300	474	696	1297	1992	2593	3479	4427

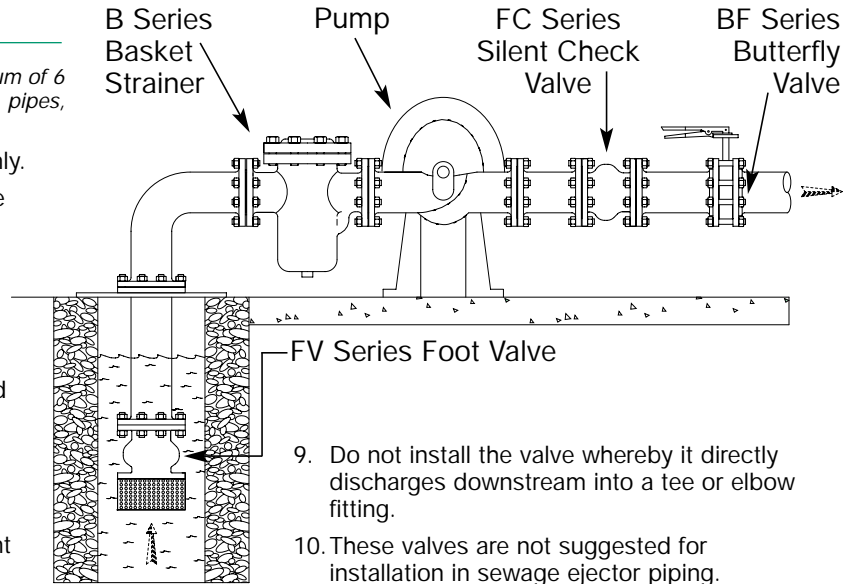
FLANGED FOOT VALVES

INSTALLATION AND MAINTENANCE INSTRUCTIONS

INSTALLATION

Foot valves should be installed, if possible, a minimum of 6 pipe diameters from other line elements, i.e. elbows, pipes, valves, etc.

1. Valves may be installed upward vertically only.
2. Install the valve with proper positioning of the flow arrow.
3. Support and align adjacent piping and the valve.
4. Install lubricated flange bolts.
5. Hand tighten, then torque the bolts using the crossover flange bolt tightening method to load the bolts evenly and eliminate concentrated stresses.
6. Valves must be mounted to ANSI flanges with conventional flat face or ring gaskets.
7. Proper centering of the gaskets is important to prevent internal leakage.
8. Do not install foot valve directly against another valve whereby the check valve discharges downstream directly into the valve.



9. Do not install the valve whereby it directly discharges downstream into a tee or elbow fitting.
10. These valves are not suggested for installation in sewage ejector piping.
11. Never lift the valve by the bronze or stainless steel trim.

PRECAUTIONS

- Individuals performing removal and disassembly should be provided with suitable protection from possible hazardous liquids.
- Do not install foot valve directly against another valve whereby the foot valve discharges downstream directly into the valve.
- Foot valves are not recommended for installation in sewage ejector piping.
- Prior to disassembly, the valve must first be isolated from the system's (electrically isolated pump) pressure and flow.

MAINTENANCE

1. Individuals performing removal and disassembly should be provided with suitable protection from possibly hazardous liquids.
2. Prior to disassembly, valve must first be isolated from system pressure and flow.
3. To replace screen remove two screen retainer bolts, replace the screen and reassemble retainer bolts.
4. To replace gasket, first dismantle the screen and then remove nuts of the strainer flange studs and separate the gasket from foot valve. Replace the gasket and reassemble in the reverse order.
5. To replace the valve seat, first dismantle the screen, screen flange and then remove two seat retaining counter-sunk screws and take out the valve seat. Replace the valve seat and reassemble in reverse order.
6. Lubricate bolts/nuts, hand tighten, then torque the bolts using the crossover flange bolt tightening method to load the bolts evenly, and eliminate concentrated stresses.

WARNING: This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel in the event of leakage of fluids or gasses.

FOOT
VALVES

NOTES:

FOOT
VALVES

