

Flow Line *Series 79*

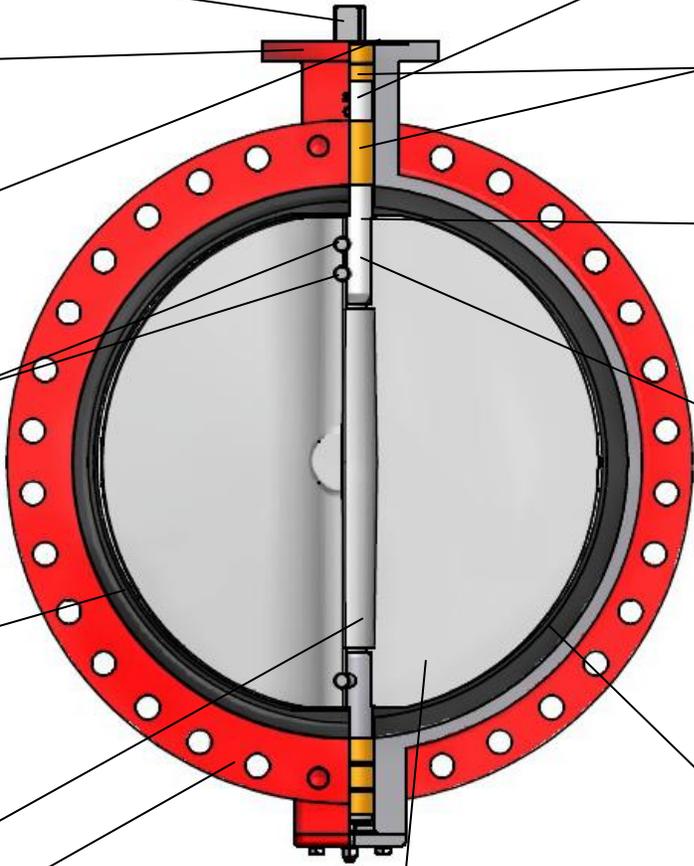


Industrial Flanged Butterfly Valves

Sizes 30"- 96"

FEATURES

The **Series 79** Industrial Flanged Butterfly Valve is a heavy-duty cartridge seated butterfly valve compatible to ANSI 125/150 weld neck, slip-on, and threaded flange standards. The 30" - 48" valves are fully rated to 150 psi bi-directional, dead end service. All Series 79 valves, regardless of the rated working pressure, are vacuum rated to 29.92" of Mercury Gauge (0 micron).

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- **ISO 5211 for ease of actuation.**
 - **Slotted ISO 5211 top plate for flexibility of direct mounting options.**
 - **Environmental shaft seal to keep contaminants from entering shaft bore.**
 - **Offset shaft retainers mechanically retain the shaft, ensuring a blow-out proof design.**
 - **Primary seal provides a smooth flow conduit and prevents media buildup in crevices.**
 - **Two secondary shaft seals are located inside the seat shaft holes.**
 - **High strength upper and lower shafts with triple shaft seals.**
 - **Two self-lubricated bronze bearings to eliminate side loading.**
 - **Double D drive for a positive disc/shaft connection, with no bolts or pins exposed to flow.**
 - **Proven pressure responsive 360° sealing method uses constant pressure between machined radius on disc and flatted area of the seat that eliminates the "squeeze" of the interference seat design.**
 - **Aluminum vulcanized cartridge seat with primary and secondary seals provide no movement of elastomer.**
 - **One-piece polyester coated body with extended neck.**
 - **Streamlined disc with no pins or screws in flow path.**

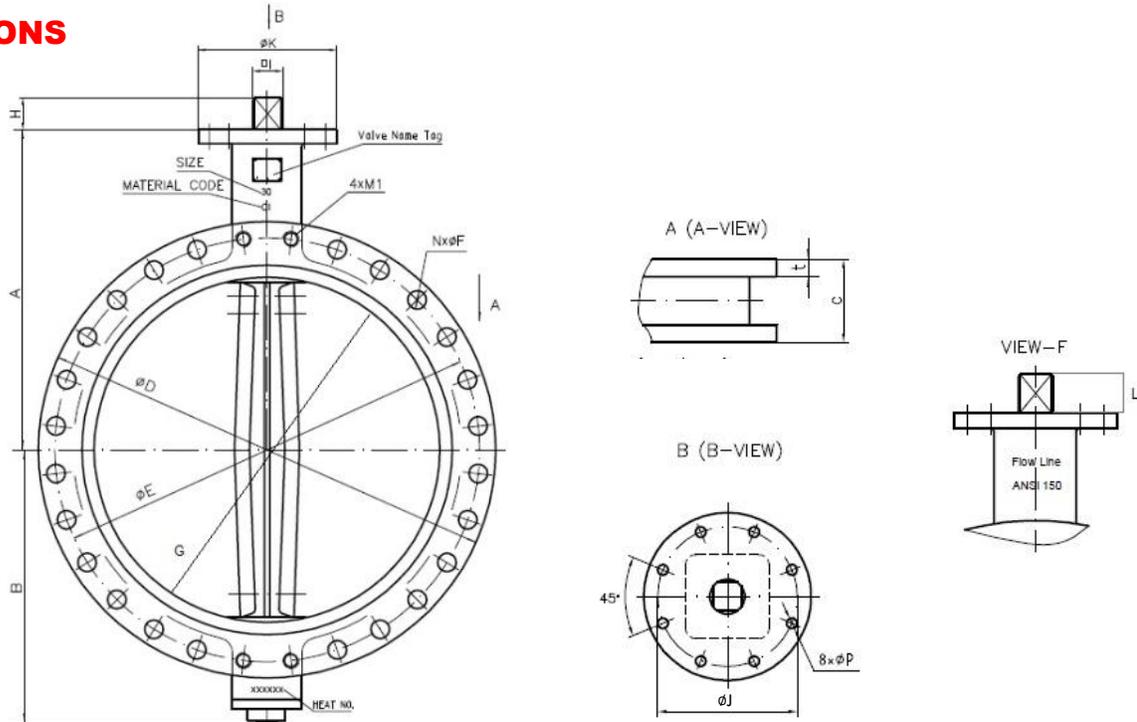
COATINGS

Flow Line Series 79 butterfly valve bodies are polyester coated as standard. Polyester is a significant upgrade to paint or two-part epoxy coatings. Our standard polyester coating offers outstanding protection against abrasion and corrosion. The Flow Line polyester coating is not affected by outdoor exposure and maintains excellent resistance to UV rays.

TEST	RESULT
Salty Fog Test	No change in excess of 2000 hours
Outdoor Weathering (UV Rays)	No noticeable change in excess of 12 months
50% Sulfuric Acid Test	No change for 48 hours

ENGINEERING

DIMENSIONS



Size	A	B	C	ØE	G	NxØF	4xM1	ØD	H	I	ØJ	ØK	8-ØP	t	WGT.
30"	26	21.81	6.57	36.00	29.31	24-1.38	4-1 1/4	29.31	2.36	1.81	10	11.81	8-.71	2.13	1017
36"	28.3	25.83	7.99	42.75	34.06	28-1.62	4-1 1/2	34.06	2.36	1.81	10	11.81	8-.71	2.36	1537
42"	29.1	26.61	9.88	49.50	40.58	32-1.62	4-1 1/2	40.58	2.36	1.81	10	11.81	8-.71	2.60	2017
44"	36.4	32.13	9.94	51.75	42.99	36-1.62	4-1 1/2	42.99	2.36	1.81	10	11.81	8-.71	2.65	2700
48"	37	33.23	10.87	56.00	45.79	40-1.62	4-1 1/2	45.79	2.36	2.17	11.73	13.78	8-.87	2.76	3348

For sizes... Please see salesperson or visit us at

www.FlowLineValves.com

TORQUE

Shutoff Pressure	30"	36"	42"	48"
150 psi	31500	43969	75471	105000

COMPONENTS

Qty	Description
1	Body
1	Disc
1	Upper Shaft
1	Middle Shaft
1	Lower Shaft
1	Seat
1	Inboard Bearing
2	Shaft Retainers
1	Bearing Retainer
1	Environmental Shaft Seal
2	Secondary Shaft Seals
1	Thrust Bearing

CV VALUES

Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
30"	420	1652	3986	7080	11328	18090	28844	43003	52443
36"	740	2775	5936	9790	15572	25053	40086	59667	77089
42"	783	3502	7870	12997	21010	35016	54584	83421	102989
44"	904	4066	8698	14348	22818	38712	58740	87430	112980
48"	1023	4651	10365	17010	27242	43853	70431	108968	132888

Notes:

- Torque chart is to be used as a guide only.
- These torque ratings do not apply to ever possible service criteria, which may affect seating and unseating torque.
- Torque vales are applicable to Flow Line Series 79.
- Do not apply a safety factor to the above torque valves when sizing actuators.
- Dynamic Torque should always be a consideration when sizing valves with high differential pressures.
- For 3-Way tee assembly, multiply the above torques by 1.5.

- ◆ Valve is to be operated a minimum of once each month.
- ◆ Temperature is well within resilient seat limits.
- ◆ Line media is self lubricating. (Aqueous liquids)
- ◆ Minor chemical attacks on seat.
- ◆ Disc corrosion and media deposits to be mild.

INSTALLATION, MAINTENANCE, AND ASSEMBLY

Materials of Construction

Body

- Cast Iron ASTM A-126 Class B
- Ductile Iron ASTM A-395

Disc

- Electroless Nickel Plated Ductile Iron ASTM A-536 (65-45-12)
- Aluminum Bronze ASTM B-148 (954)
- 316 Stainless Steel ASTM A-251 (CF8M)
- Epoxy Coated Ductile Iron ASTM A536 Grade

Stem

- 416 Stainless Steel ASTM A-582 Type 416
- 17-4ph
- Monel

Seat

- EPDM FDA Food Grade -30° to +275°
- Viton® - FDA Food Grade 0° to +375°
- Buna N-FDA Food Grade 0° to +180°

Viton® is a registered trademark of the E.I. DuPont De Nemours Company. FKM is the ASTM D1418 designation for Fluorinated Hydrocarbon elastomers, such as Viton® (DuPont) and Flourel® (3M).

Applicable Standards

- ANSI B16.1 Conforms to ANSI Class 125 flange drilling.
- ANSI B16.5 Conforms to ANSI Class 150 flange drilling.
- ANSI B16.42 Conforms to ANSI Class 150 flange drilling, body wall thickness, and pressure temperature
- ANSI B16.104 Exceeds Class VI shutoff requirements.
- API 609 Butterfly Valve Category A
- AWWA C504 Diameter of stainless steel shaft exceeds AWWA Class 75B standards. Body wall thickness exceeds the AWWA Class 150B standard for butterfly valves.
- MSS SP-25 Markings and identification conform to the
- MSS SP-67 Butterfly Valves
- ISO 5211 Actuator Mounting

Installation

To install, simply close the valve, position it between the flanges, and assemble the valve to the flanges with studs or cap screws. Do not use flange gaskets. Flow Line Series 79 butterfly valves can be installed with the disc closed. Before hand-tightening the flange bolts, fully open the disc to ensure disc OD clearance with pipe ID. Hand-tighten the flange bolts and close the valve to check for valve disc and pipe clearance. If contact is made, reposition as necessary and tighten all flange bolts to proper torque specification.

Maintenance and Repair

No regular maintenance or lubrication is required. Factory assembly procedures provide adequate lubrication for the life of the valve. To replace any component, remove the valve from the line by fully closing valve disc. Spread the flanges, remove all bolts, and then remove the valve from line.

Testing

All Flow Line Series 79 butterfly valves are bi-directionally tested to 130% of rated working pressure. Test certification is available upon request at time of order.

Flanges

ANSI 125/150 cast iron, steel, raised face, flat faced, and weld neck flanges are suitable for use with Flow Line valves.

Warranty

All products manufactured by Flow Line Valve and Controls, LLC. are warranted against defects in material and workmanship for a period of 2 years following the date of purchase.

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