

Stainless Steel Butterfly Valves



SERIES
486

ANSI and Metric
Flange Compatible

posi-flate[®]
butterfly valves

All stainless steel butterfly valve

The Series 486 inflatable seated butterfly valve from Posi-plate features a fully machined 316L stainless steel housing. The single piece disc and shaft is available in a number of materials including 316L stainless steel and hastelloy. The disc may be polished to a mirror finish or coated with PTFE, nylon or other high performance coating.

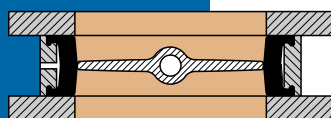
The stainless steel valve is ideal for powders, granules, slurries and liquids and is available in sizes 2" (50mm) to 20" (500mm). Typical applications include loading and unloading of process material, sterile air control, and outlet valves for storage containers or hoppers.

Unique inflatable seat provides better seal, less wear, longer life

Posi-plate's unique inflatable seat design provides a better seal by utilizing air pressure to expand the seat against the disc, providing more sealing area and an even pressure distribution against the disc every time. The inflatable seat automatically compensates for wear when it inflates against the disc which extends the valve life considerably.

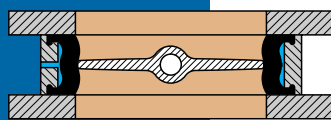
Torque requirements are substantially lower with the Posi-plate butterfly valve since the disc does not impinge the seat. The smooth profile of the disc provides minimum flow resistance and reduces material build-up.

How it works



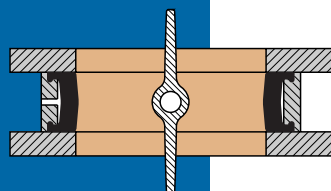
Closed, unsealed

As the valve rotates into the closed position, the disc makes only casual contact with the seat, reducing friction, wear and torque requirements.



Closed, sealed

After the valve is closed, the seat inflates against the disc providing more sealing surface and an even pressure distribution against the disc.



Open, unsealed

Before the valve opens, the seat is first deflated. The disc is then free to rotate to the open position.



Design features for reliable performance

U.S. Patent
4836499

**SERIES
486**

A. ACTUATOR MOUNTING FLANGE:

Flange is designed for direct actuator mounting.

B. BEARINGS:

Multiple bearings substantially reduce operating friction and torque requirements, eliminating any metal-to-metal contact, thus preventing shaft galling and freezing.

C. SHAFT SEALS:

O-ring shaft seals insure positive sealing under the most adverse conditions.

D. SEAT O-RING SEAL:

O-ring provides long lasting positive seal of seat inflation pressure.

E. MATERIAL SEAL:

Land seal prevents material contamination of seat o-ring seal.

F. AIR INLET PORT:

Oversized inlet port allows quick valve pressurization/depressurization.

G. DISC/SHAFT:

Integral disc and shaft with smooth, contoured surface provides minimum resistance to flow and reduces material buildup.

H. SPLIT HOUSING:

Rugged two-piece body fits standard 125/150 class ANSI flat-faced flanges and PN 10 metric flanges. Minimizes assembly time and allows for integral shaft and disc.

I. HOUSING GASKET:

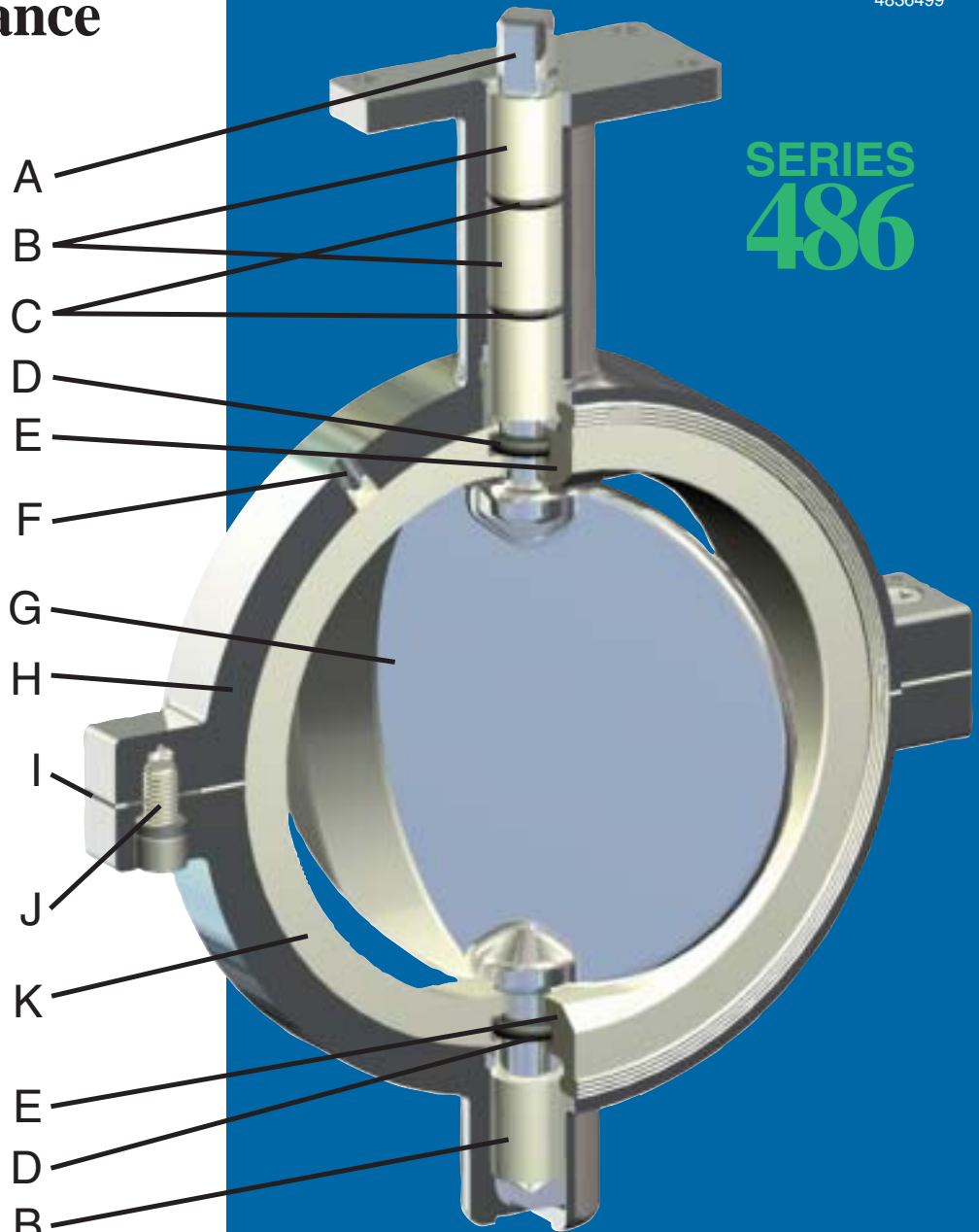
Die cut elastomeric gasket assures leakproof housing.

J. HOUSING BOLTS:

High strength steel bolts maintain structural integrity of housing under the most adverse conditions.

K. RESILIENT SEAT:

Easily replaceable, the inflatable molded seat has a smooth contour locking design to minimize stress and hold the seat in place, eliminating any need for flange gaskets.

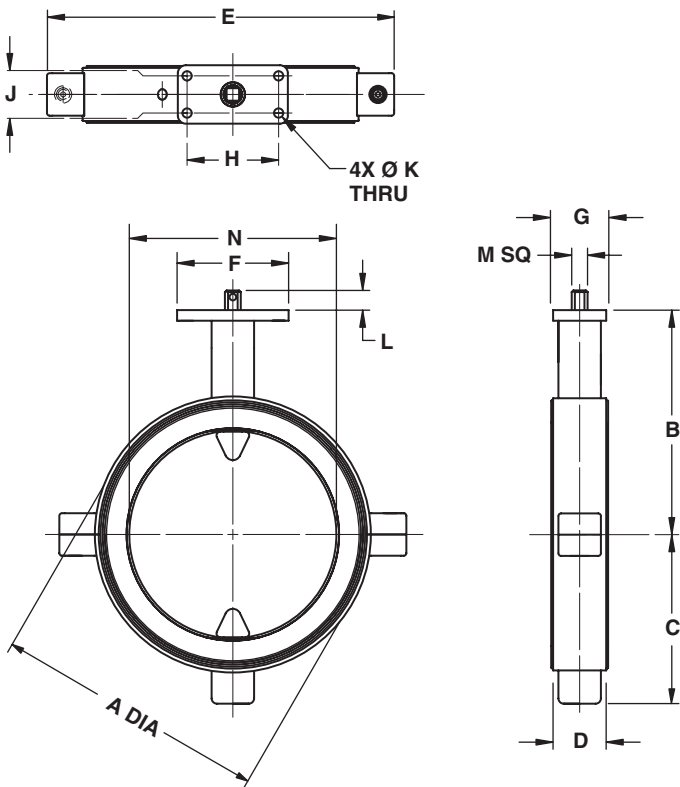


Performance features

- Inflatable seat compensates for disc and seat wear
- Longer valve life
- Minimal seat wear
- No disc impingement
- Ultra-low torque requirements
- Lower actuator costs
- More seal contact area
- Excellent for abrasive and dry solids
- Disc designed to prevent material buildup
- Double shaft seals
- Multiple bearings
- Fail-safe monitoring

Dimensions and Specifications

Valve Size	Posi-flate Butterfly Valves Series 486 with Stainless Steel Housing													Approx. Weight	Normal Torque	
	<div style="display: flex; justify-content: space-around; align-items: center;"> inches millimeters </div>														in. lbs.	Nm
	A	B	C	D	E	F	G	H	J	K	L	M	N		Min.	Max.
2"/50mm	4.13	4.50	2.00	1.62	5.84	4.00	1.75	3.25	1.17	0.31	0.78	0.43	2.00	8 lbs.	40	450
	105	114	51	41	148	102	44	83	30	8	20	11	51	3.6 kg	5	51
3"/80mm	5.31	5.56	3.95	1.75	8.09	4.00	1.75	3.25	1.17	0.31	0.81	0.43	2.90	9 lbs.	80	450
	135	141	100	44	205	102	44	83	30	8	21	11	74	4.1 kg	9	51
4"/100mm	6.46	7.58	4.60	2.00	9.28	4.00	2.00	3.25	1.17	0.31	0.70	0.43	3.88	15 lbs.	130	450
	164	193	117	51	236	102	51	83	30	8	18	11	99	6.8 kg	15	51
5"/125mm	7.63	7.95	4.83	2.12	9.68	4.00	2.12	3.25	1.17	0.31	0.86	0.55	4.92	17 lbs.	260	450
	194	202	123	54	246	102	54	83	30	8	22	14	125	7.7 kg	29	51
6"/150mm	8.66	7.95	5.82	2.12	10.73	4.00	2.12	3.25	1.17	0.31	0.86	0.55	5.88	19 lbs.	300	450
	220	202	148	54	273	102	54	83	30	8	22	14	149	8.6 kg	34	51
8"/200mm	10.83	9.87	7.21	2.50	13.64	5.25	2.50	4.31	1.75	0.38	0.88	0.75	7.86	34 lbs.	540	700
	275	251	183	64	346	133	64	109	44	10	22	19	200	15.4 kg	61	79
10"/250mm	12.99	10.56	7.97	2.50	16.34	5.25	2.50	4.31	1.75	0.38	0.93	0.75	9.81	48 lbs.	860	1300
	330	268	202	64	415	133	64	109	44	10	24	19	249	21.8 kg	97	147
12"/300mm	14.88	14.28	9.71	3.00	18.58	4.00	4.00	2.84	2.84	0.44	1.25	0.87	11.83	88 lbs.	1240	2480
	378	363	247	76	472	102	102	72	72	11	32	22	300	40 kg	140	280
14"/350mm	17.25	16.00	11.38	3.00	21.05	4.00	4.00	2.84	2.84	0.44	1.02	0.87	13.08	113 lbs.	2100	6200
	438	406	289	76	535	102	102	72	72	11	26	22	332	51.3 kg	237	701
16"/400mm	19.33	16.93	11.75	4.00	23.10	4.75	4.75	3.48	3.48	0.53	1.29	1.06	15.02	147 lbs.	3500	9600
	491	430	298	102	587	121	121	88	88	13	33	27	382	66.7 kg	395	1085
18"/450mm	21.23	15.84	13.36	4.25	25.09	4.75	4.75	3.48	3.48	0.57	1.31	1.06	17.26	188 lbs.	4800	12150
	539	402	339	108	637	121	121	88	88	14	33	27	438	85.4 kg	542	1373
20"/500mm	23.39	17.38	14.11	5.00	27.24	5.75	5.75	3.90	3.90	0.69	1.57	1.42	18.69	211 lbs.	7800	15600
	594	441	358	127	692	146	146	99	99	18	40	36	475	95.8 kg	881	1763



Available Materials of Construction:

Housing: 316L stainless steel housing with satin finish or polished finish

Disc/shaft: Integral 316L stainless steel disc/shaft with standard satin polish or premium polish; hastelloy disc/shaft; PTFE coating

Seat: White FDA Buna-N, white FDA silicone, white fluoroelastomer, black fluoroelastomer, black EPDM and others

Bearings: Nylon, bronze or PTFE

Shaft Seal: Buna-N or fluoroelastomer

Housing Gasket: Buna-N or silicone

Hardware: Stainless steel

All specifications subject to change without notice. Customized materials available.

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Foreign patents pending.

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Temperature limits: -40° to 300° F (-40° to 150° C), varies with application and materials of construction.

Air supply: 115 PSIG (7.9 bar) maximum to seat, varies with application.

Working pressure: Full vacuum to 100 PSIG (6.9 bar), varies with materials of construction.

Operating torque: Varies with application.

posi-flate®

butterfly valves

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