

Resilient Seated Butterfly Valves: 24"-48"

Large Diameter, Wafer & Double Flanged Bodies

410
SERIES
412



ultraflo

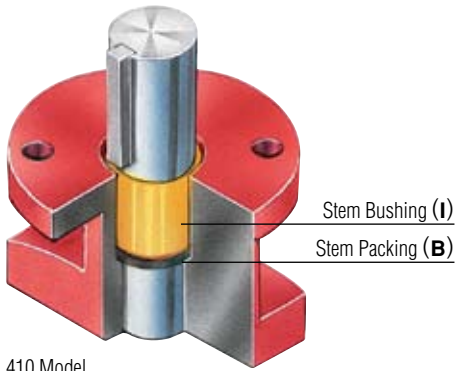
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410/412 SERIES

Ultraflo is proud to offer the 410/412 Series large diameter, resilient seated butterfly valve. The 410 model, a **wafer** style body, is available in sizes **24"–36"**. The 412 model, a **double flanged** style body, is available in sizes **24"–48"**.

Both models have a bi-directional, bubble tight shut off pressure rating of **150 psi**. 410/412 Series valves feature high C_v ratings, full isolation of body parts from line media, heavy duty construction, reliability and long service life.

Valve **Bodies (A)** are offered in Cast and Ductile Iron, Cast Steel and Stainless Steel and comply with ASME/ANSI 125/150 flange drilling standards. 412 models may be bolted to allow downstream flange removal or cross-bolted for high resistance to line media stress.

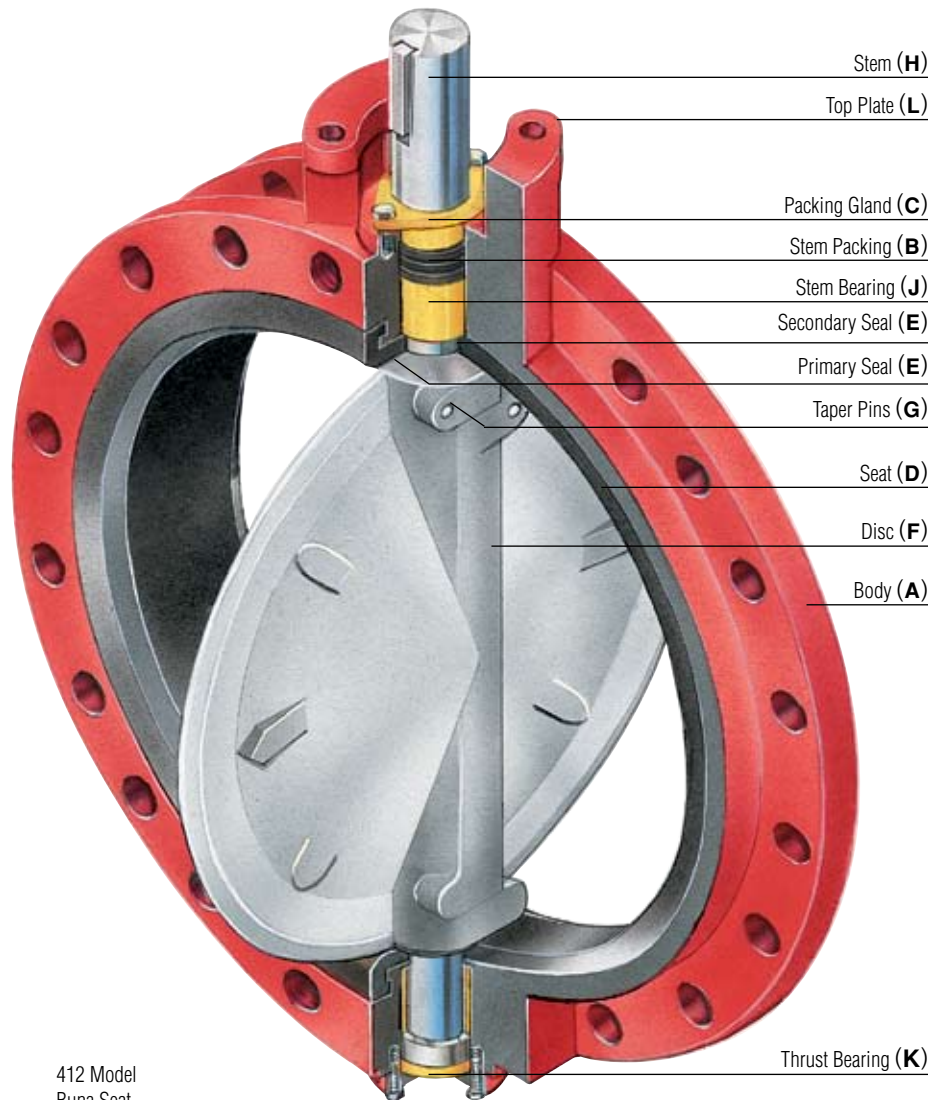


410 Model

Stem Packing (B) V-type packing design is self-adjusting with bi-directional sealing to prevent external substances from entering the stem bore. 412 models feature externally adjustable packing which is ideal for vacuum applications.

Packing Gland (C) 412 model valves have a bronze packing gland that allows for field adjustment of stem packing without the need to remove manual operators or actuators. This feature, combined with the self-adjusting stem packing, greatly extends the service life of the valve.

Features Ultraflo's resilient **Seat (D)** is the heart of all 410/412 Series valves. The seat design offers lower torque and complete isolation of the line media from the valve body. A tongue and groove seat retention system ensures positive alignment and ease of assembly. All 400 Series seats include a flange seal molded into the seat face providing a positive seal with all popular flanges. Valves installed in dead end service (downstream flange removed) are derated to 75 psi. **Primary and Secondary Seals (E)** The primary seal is formed by an interference fit between the disc hub and the seat flat. The secondary seal is an interference fit between the stem and seat stem hole. These seals prevent line media from coming into contact with other valve components. Ultraflo's **Disc (F)** edge is CNC machined and hand polished to produce bubble tight shut off, minimum torque and longer seat life. Discs are available in a variety of materials and custom coatings. **Taper Pins (G)** with O-ring seals are mechanically locked for maximum torsional capacity and vibration resistance. The one-piece heavy duty, high strength **Stem (H)** includes industry standard connections for actuator mounting. The heavy wall bronze **Stem Bushing (I)** (410 models only) absorbs operator side thrusts. Upper and Lower **Stem Bearings (J)** (412 models only) provide precision alignment to ensure less wear and lower operating torque. The **Thrust Bearing (K)** eliminates disc displacement due to stem and disc weight. All size bodies have a CNC machined **Top Plate (L)** with standardized drilling for total actuator and operator interchangeability.



412 Model
Buna Seat,
Nylon 11 Coated Ductile Iron Disc,
Double Flanged Style Body

410/412 SERIES

Direct Operator Mounting

Ultraflo has designed the 410/412 Series operator mounting Top Flange to ISO 5211 specifications for direct mounting of manual operators and actuators. Designed to recognized industry standards, the stem connection provides a secure assembly with most actuators eliminating the need for brackets.



Actuators & Accessories

Ultraflo offers a wide range of automation products including gear operators, pneumatic / electric / hydraulic actuators and a complete line of accessories including pneumatic and electro-pneumatic positioners, solenoids valves, position indicators and proximity switches.

Temperature Range of Seats

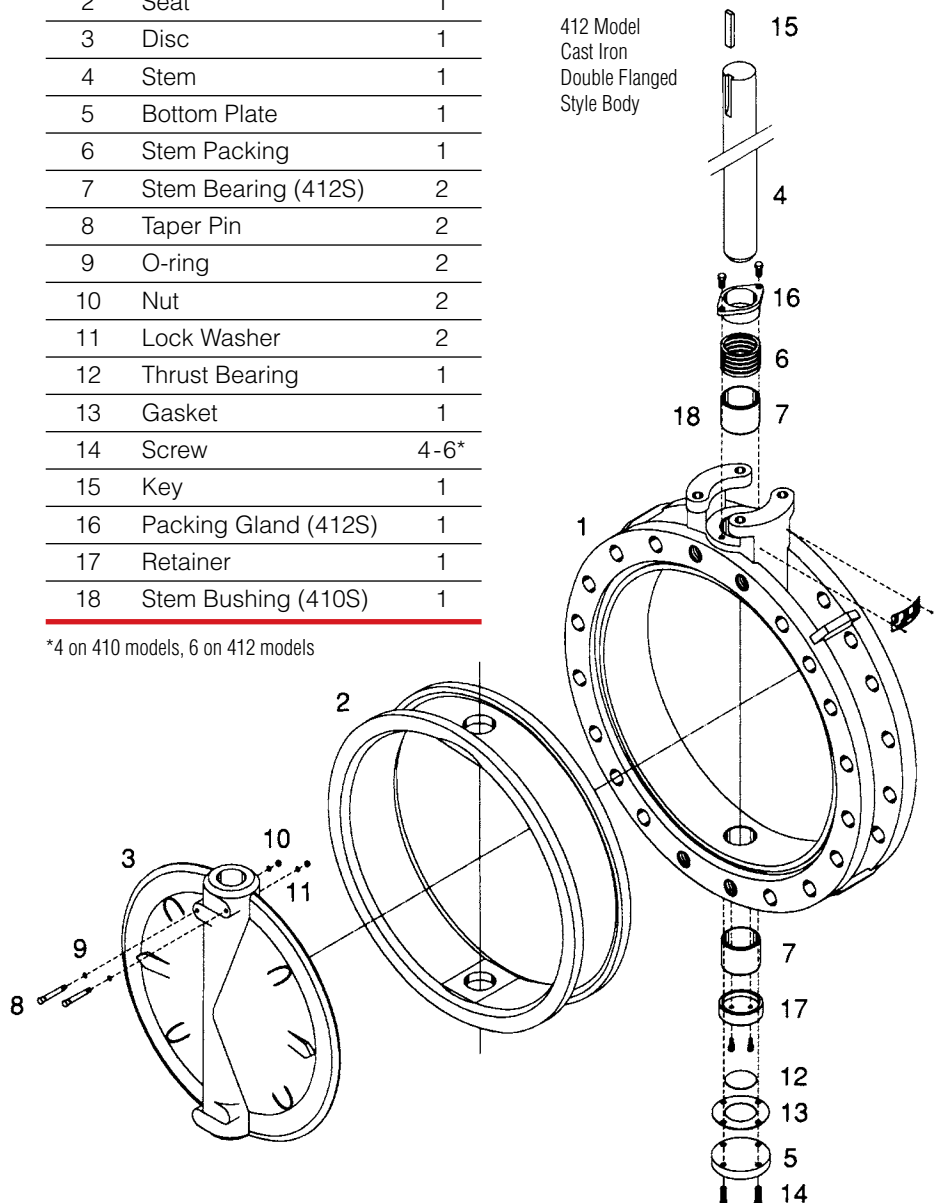
Type	Minimum	Maximum
EPDM	-40°F	+250°F
Buna	0°F	+212°F
FKM	0°F	+400°F

All Ultraflo valves are tested to 110% of pressure rating for bubble tight shut off before shipment.

Components

Item	Description	Qty.
1	Body	1
2	Seat	1
3	Disc	1
4	Stem	1
5	Bottom Plate	1
6	Stem Packing	1
7	Stem Bearing (412S)	2
8	Taper Pin	2
9	O-ring	2
10	Nut	2
11	Lock Washer	2
12	Thrust Bearing	1
13	Gasket	1
14	Screw	4-6*
15	Key	1
16	Packing Gland (412S)	1
17	Retainer	1
18	Stem Bushing (410S)	1

*4 on 410 models, 6 on 412 models



Materials of Construction

Bodies: Cast Iron, Ductile Iron, Cast Steel, and Stainless Steel.

Seats: EPDM, Buna, and FKM.

Discs: Ductile Iron, Nylon 11 Coated Ductile Iron, ENP Ductile Iron, Aluminum Bronze, 316 Stainless Steel, Monel and Hastelloy C.

Stems: Coated Carbon Steel, 304 Stainless Steel, Monel and Hastelloy C.

Taper Pins: 17-4 PH Stainless Steel.

Stem Packing: Buna-N.

Upper and Lower Bearings: Luberized Bronze (412S).

Stem Bushing: Luberized Bronze (410S).

Thrust Bearing: Bronze

Packing Gland: Bronze (412S).

410/412 SERIES

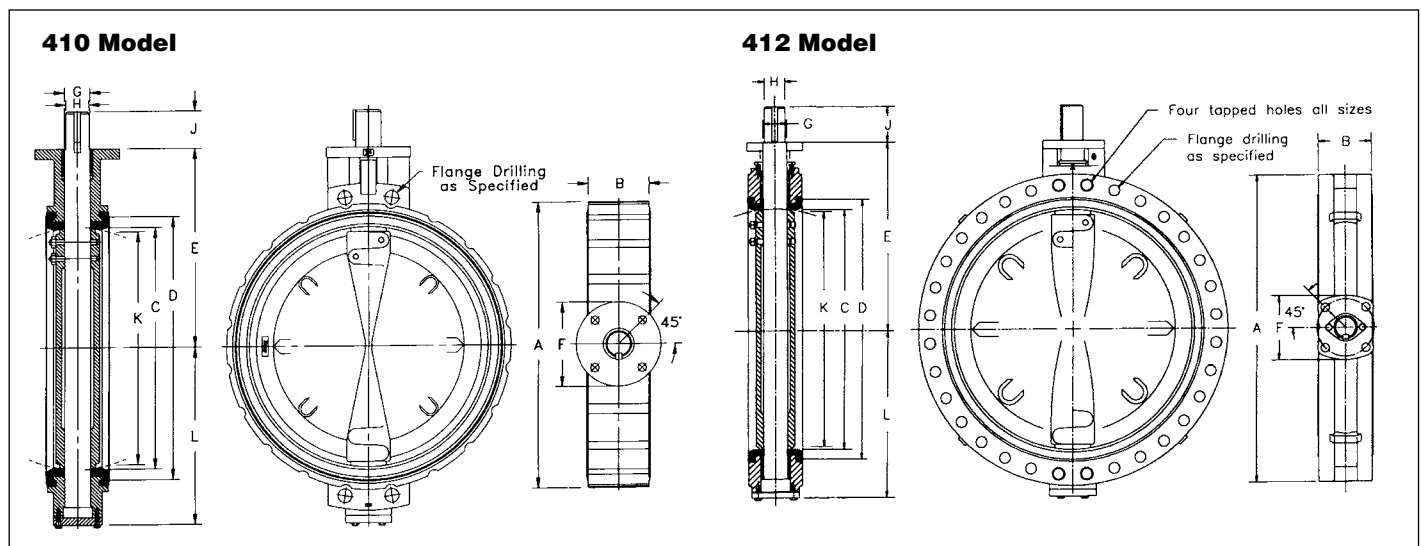
410 Model Dimensions

Valve Size	ins	mm	A	B	C	D	E	F	G	H	Key Way	J	K	L	Top Plate Drilling			Wt. (lb)
															PCD	Holes	Dia.	
24	600	27.94	5.94	23.25	25.75	19.50	8.27	2.50	2.50	.62 x .62	4.00	22.69	17.56	6.50	4	.81	420	
30	750	34.19	6.56	29.29	32.00	23.00	8.27	3.00	3.00	.75 x .75	4.00	28.73	20.81	6.50	4	.81	660	
36	900	40.69	7.88	35.30	38.25	27.75	10.75	3.50	3.50	.88 x .62	5.25	34.60	24.94	11.73	8	.81	1025	

412 Model Dimensions

Valve Size	ins	mm	A	B	C	D	E	F	G	H	Key Way	J	K	L	Top Plate Drilling			Wt. (lb)
															PCD	Holes	Dia.	
24	600	33.00	5.94	23.25	25.75	19.50	8.27	2.50	2.50	.62 x .62	4.00	22.69	17.56	6.50	4	.81	500	
30	750	38.75	6.56	29.29	32.00	23.00	8.27	3.00	3.00	.75 x .75	4.00	28.73	20.81	6.50	4	.81	855	
36	900	46.00	7.88	35.30	38.25	27.75	9.50	3.50	3.50	.88 x .62	5.25	34.60	24.94	11.73	8	.81	1320	
42	1050	53.00	9.88	41.25	44.25	32.00	9.50	4.00	4.00	1.0 x .75	5.25	40.25	27.81	11.73	8	.81	2550	
48	1200	59.50	10.88	47.25	50.62	36.00	10.75	5.00	5.00	1.25 x .88	6.00	46.18	31.06	8.50	4	1.25	3200	

All 410/412 Series valves are designed to meet MSS SP67 dimensional standards.



Flange Requirements

The valve O.D. and flange bolt circle must share a common center line. The valve is designed to be placed between ASME/ANSI 125 or 150 lb. flanges.

Please refer to Ultraflo's website periodically to ensure this brochure is the latest version.

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Ultraflo Corporation
A Subsidiary of Bray International, Inc.

8 Trautman Industrial Drive
Ste. Genevieve MO 63670
800.950.1762 Fax 573.883.8882
www.ultraflovalve.com