

DeVal[®] SERIES 40/41

Industrial Split Body Butterfly Valves

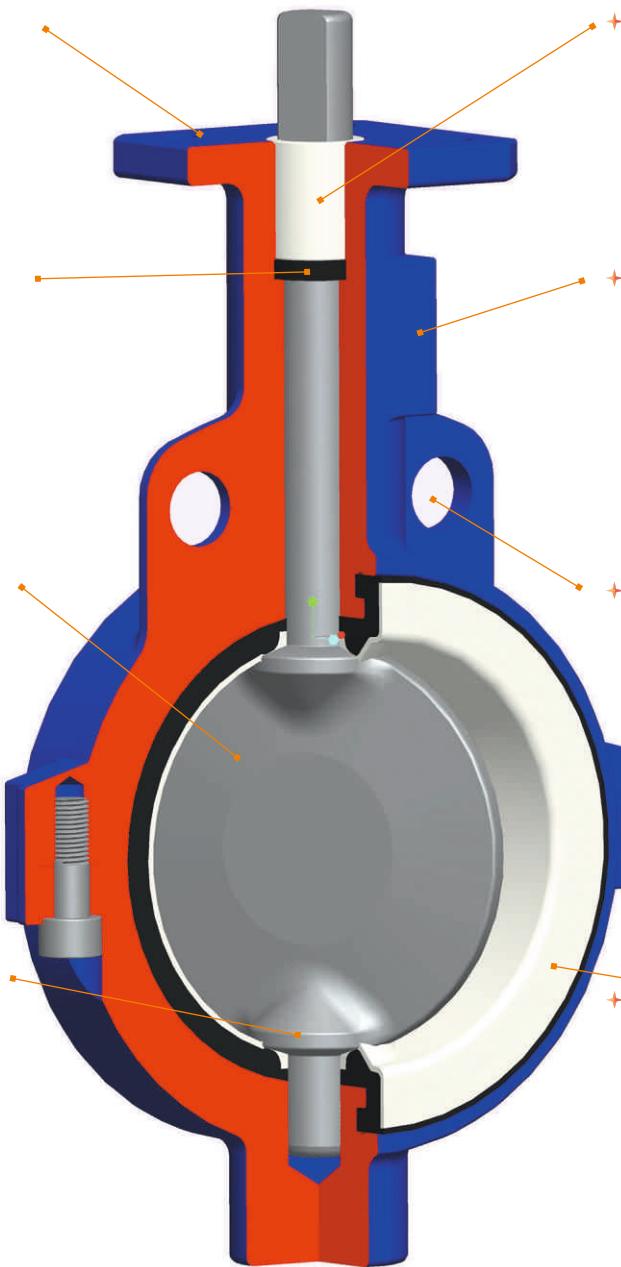
Sizes 2"-24" / DN 50 - DN 600
Wafer & Lug Design



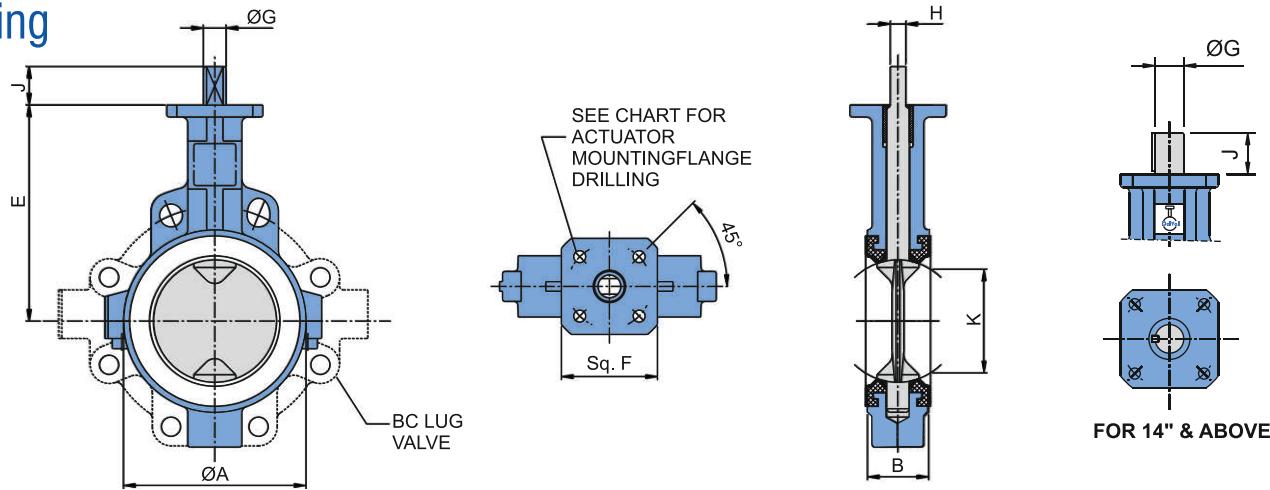
Leading the Industry with Innovation by Design

DelVal Flow Controls is pleased to offer top-of-the-line products in pipeline flow control. The DelVal® Series 40 (wafer body) and Series 41 (lug body) Industrial Split Body Butterfly Valves have been developed with extensive application, design and manufacturing expertise. These products are produced by employing modern manufacturing practices under a robust quality assurance system. These practices ensure consistent product quality and dependable performance. The DelVal® Series 40/41 Industrial Split Body Butterfly Valves have been designed to include state-of-the-art features that are described in this bulletin.

Features

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- Top plate drilled to fit ISO 5211 bolt circle dimensions. All handles, gear operators and DelTorq® actuators are designed to mount directly to DelVal® valves.
 - Bi-directional "U" cup stem seal.
 - One-piece disc/stem in high strength design. Available in stainless steel and other alloy steel (thin profile, with hand polished edge and hubs).
 - Precision machined radius on the upper and lower disc hubs is pressed against upper and lower seat sealing faces for achieving primary sealing between disc and stem.
 - Heavy-duty acetal bushing absorbs the forces acting on the stem/disc assembly due to line pressure.
 - Heavy-duty, two-piece body with extended neck for 2" piping insulation. Two coats of hard, zinc-rich epoxy for excellent corrosion resistance is optional.
 - Two flange locating holes for sizes up to 12" for easy alignment of valve during installation. They meet ANSI #125/150 or other international drilling standards.
 - Unique heavy-duty seat design virtually eliminates any seat movement during the seating and unseating of the disc. Available in PTFE lined EPDM materials.

Engineering



Valve Size		ØA	*B	E	Sq'F'	Top Flange Drilling			ØG	H	J	Key Size	K	Lug Bolting Data			Weight in Lbs.	
Inch	DN					BC	No. of Holes	Hole Dia						BC	No.of Holes	Threads UNC-2B	Wafer (Series 40)	Lug (Series 41)
2	50	3.58	1.69	5.51	3.15	2.76	4	0.39	0.55	0.43	1.25	---	1.42	4.75	4	5/8-11	7.72	9.04
2 1/2	65	4.17	1.81	5.98	3.15	2.76	4	0.39	0.55	0.39	1.25	---	2.13	5.50	4	5/8-11	7.72	10.36
3	80	4.80	1.81	6.30	3.15	2.76	4	0.39	0.55	0.39	1.25	---	2.78	6.00	4	5/8-11	8.38	10.58
4	100	5.98	2.05	7.09	3.15	2.76	4	0.39	0.75	0.51	1.25	---	3.63	7.50	8	5/8-11	12.34	19.40
5	125	6.93	2.20	7.56	3.93	2.76/4.01	4	0.39/0.47	0.87	0.63	1.25	---	4.68	8.50	8	3/4-10	18.08	28.66
6	150	8.07	2.20	8.07	3.93	2.76/4.01	4	0.39/0.47	0.87	0.63	1.25	---	5.56	9.50	8	3/4-10	21.16	33.51
8	200	10.39	2.36	9.49	4.72	4.01/4.92	4	0.47/0.55	0.94	0.75	1.25	---	7.38	11.75	8	3/4-10	46.73	65.69
10	250	12.40	2.68	10.75	4.72	4.01/4.92	4	0.47/0.55	1.18	0.87	2.00	---	9.36	14.25	12	7/8- 9	54.67	82.44
12	300	14.57	3.07	12.24	4.72	4.92	4	0.55	1.38	0.94	2.00	---	11.14	17.00	12	7/8- 9	78.47	120.36
14	350	16.34	3.07	13.62	4.72	4.92	4	0.55	1.38	---	2.00	0.39x0.39	12.92	18.75	12	1- 8	87.96	122.80
16	400	18.58	4.00	14.76	4.72	4.92	4	0.55	1.38	---	2.00	0.39x0.39	14.80	21.25	16	1- 8	130.51	184.31
18	450	20.67	4.25	15.98	6.70	6.50	4	0.83	1.97	---	2.50	0.39x0.47	16.59	22.75	16	11/8- 7	194.45	239.42
20	500	22.83	5.00	17.24	6.70	6.50	4	0.83	1.97	---	2.50	0.39x0.47	18.61	25.00	20	11/8- 7	236.78	306.88
24	600	27.24	5.94	19.49	Ø8.27	6.50	4	0.83	2.50	---	4.00	0.62x0.62	22.55	29.50	20	11/4- 7	385.81	477.08

Valve Size		ØA	*B	E	Sq'F'	Top Flange Drilling			ØG	H	J	Key Size	K	Lug Bolting Data			Weight in Kg.	
Inch	DN					BC	No. of Holes	Hole Dia						BC	No.of Holes	Threads UNC-2B	Wafer (Series 40)	Lug (Series 41)
2	50	91	43	140	80	70	4	10	14	10	32	---	36.1	120.7	4	5/8-11	3.5	4.1
2 1/2	65	106	46	152	80	70	4	10	14	10	32	---	54.0	139.7	4	5/8-11	3.5	4.7
3	80	122	46	160	80	70	4	10	14	10	32	---	70.5	152.4	4	5/8-11	3.8	4.8
4	100	152	52	180	80	70	4	10	19	13	32	---	92.2	190.5	8	5/8-11	5.6	8.8
5	125	176	56	192	100	70/102	4	10/12	22	16	32	---	118.9	215.9	8	3/4-10	8.2	13
6	150	205	56	205	100	70/102	4	10/12	22	16	32	---	141.1	241.3	8	3/4-10	9.6	15.2
8	200	264	60	241	120	102/125	4	12/14	24	19	32	---	187.4	298.5	8	3/4-10	21.2	29.8
10	250	315	68	273	120	102/125	4	12/14	30	22	51	---	237.7	362.0	12	7/8-9	24.8	37.4
12	300	370	78	311	120	125	4	14	35	24	51	---	283.0	431.8	12	7/8-9	35.6	54.6
14	350	415	78	346	120	125	4	14	35	---	51	10x10	328.3	476.2	12	1-8	39.9	55.7
16	400	472	102	375	120	125	4	14	35	---	51	10x10	375.8	539.7	16	1-8	59.20	83.60
18	450	525	108	406	170	165	4	21	50	---	64	10x12	421.4	577.8	16	1 1/8-7	88.20	108.60
20	500	580	127	438	170	165	4	21	50	---	64	10x12	472.6	635.0	20	1 1/8-7	107.40	139.20
24	600	692	151	495	Ø210	165	4	21	63.5	---	102	15.88x15.88	572.7	749.3	20	1 1/4-7	175.00	216.40

*Face to face dimension "B" generally conforming to API 609 Category A/BS EN 558-1 Series 20/ISO 5752 Series 20 / MSS SP 67 / ASME B 16.10

TORQUE (lb-inch)	Valve Size		2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	Full Rated Pressure Valve	△P, Bar	150	142	230	354	460	620	867	1505	2301	3717	5620	7726	10886	13585
			16	26	40	52	70	98	170	260	420	635	873	1230	1535	2446

Specifications

The Series 40/41 valve has a two-piece (split body) cast iron body available in wafer and full lug construction. All wafer valves have a flange with locating holes that meet ANSI Class 125/150 and other international drilling standards. The disc/stem is a one-piece design having a thin profile, high flow capacity disc.

The 316 SS disc has spherically machined and hand polished disc edge and hubs for minimum torque and maximum sealing capacity. The valve has a non-corrosive bushing and a self-adjusting stem seal.

Pressure Rating : 150 psi / PN10

Valve is bi-directional and tested to 110% of full rating.

Dead-End Service : Lug bodies for use in dead end services with downstream flanges are equal to bi-directional ratings as stated above. With no downstream flanges, the dead end pressure is 75 psi.

PTFE Advantages and Applications :

PTFE is a superior material for use in highly corrosive applications. It is inert to most chemicals at high temperatures and pressures. It also has a low coefficient of friction. PTFE is ideal for use in the chemical industry, in processes with hazardous fluids, in the food and beverage industry, pharmaceutical facilities, electronics production plants and other industries where the media must not come in contact with any organic or metallic materials.



Valves up to size 6" can be supplied with lever handles for manual operation. Optional accessories for hand-lever operation can be provided for various flow control requirements. Pad locking can also be provided for preventing unauthorized operation.

Materials of Construction

Body :

- ◆ Cast Iron ASTM A126 Class B / IS 210 FG 260
- ◆ Ductile Iron ASTM A395 60-40-18
- ◆ SS 316 ASTM A 351 CF8M
- ◆ Carbon Steel ASTM A 216 WCB

Seat :

- ◆ PTFE - Lined EPDM

Disc / Stem :

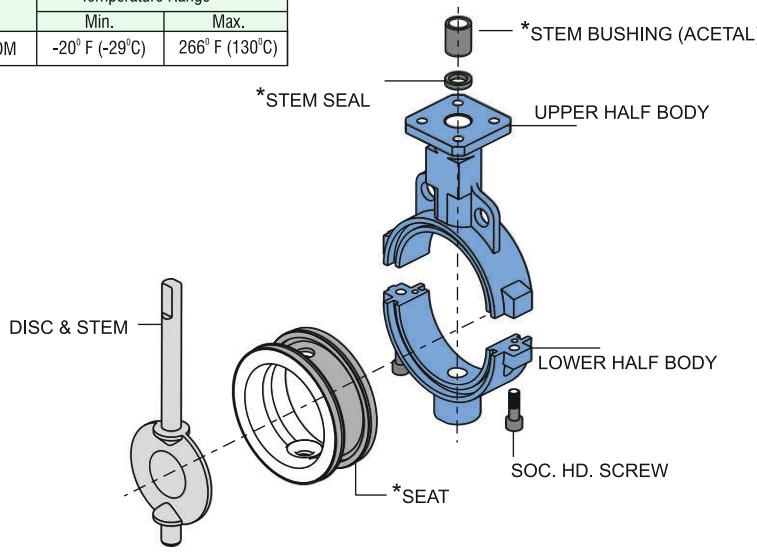
- ◆ SS 316 ASTM A 351 CF8M
- ◆ SS 304 ASTM A 351 CF8
- ◆ Duplex Stainless Steel
- 2" - 12" Investment Cast
- 14" - 24" Fabricated

Codes and Standards :

General Design and Manufacturing Standards :
API 609 / BS EN 593

Testing Standards : API 598 / BS EN 12266-1

Seat Type	Temperature Range	
	Min.	Max.
PTFE-Lined EPDM	-20° F (-29°C)	266° F (130°C)



* Recommended Spares



Valves up to size 24" can be direct mounted with gear operators for manual operation. Gear operators can also be attached with chain-wheel operators for opening or closing valves located on pipelines at high elevations.



All valves can be direct mounted with pneumatic actuators or electric actuators and accessories for complete automation options such as fail open/close & positioner controlled. Valves can be mounted with manual overrides.

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