

DeVal[®] SERIES 5C/5D



Resilient Seated Butterfly Valves For Special Applications

Sizes 2"-24" / DN 50 - DN 600

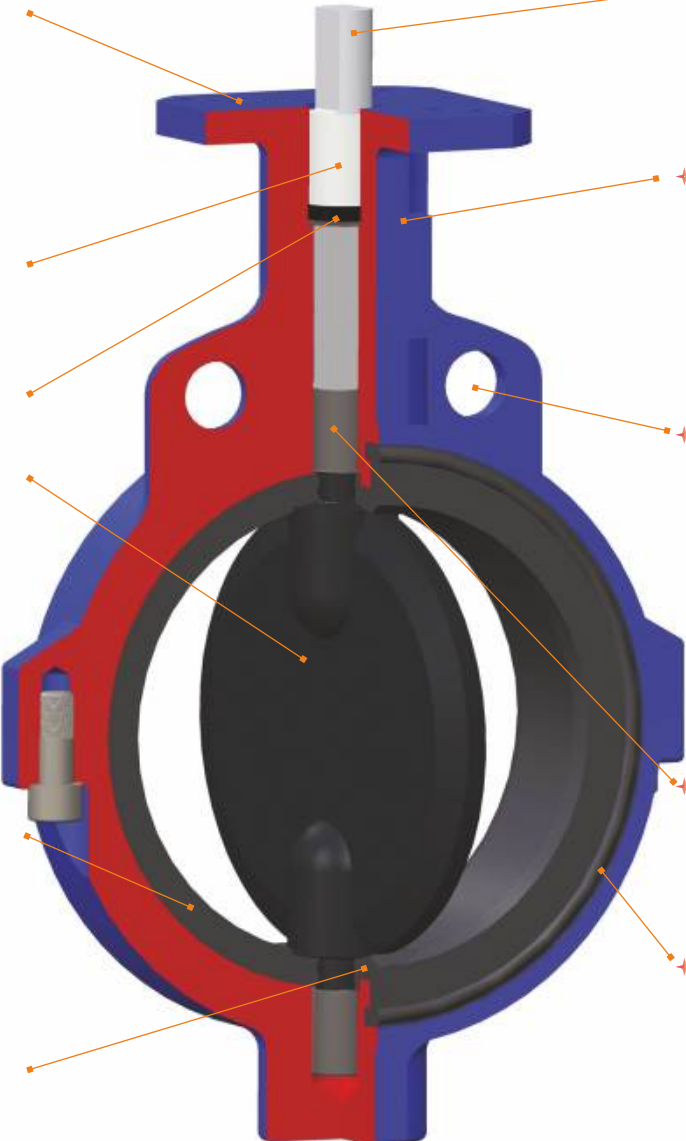
Wafer & Lug Design

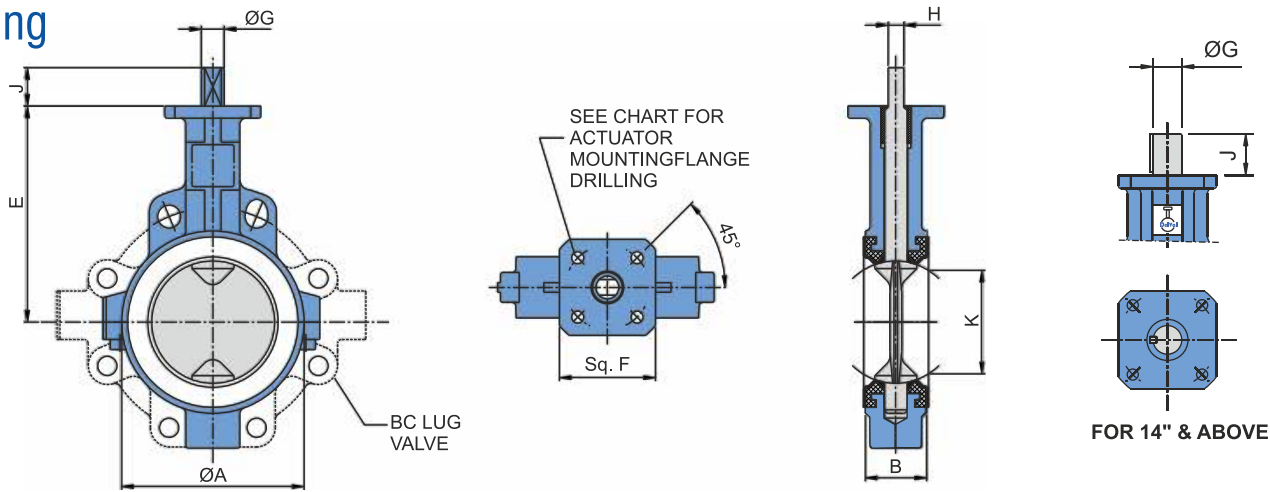


Leading the Industry with Innovation by Design

DelVal Flow Controls is pleased to offer top-of-the-line products in pipeline flow control. The DelVal® Series 5C (wafer body) and Series 5D (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 5C/5D 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.
 - + Heavy-duty acetal bushing absorbs the forces acting on the stem/disc assembly due to line pressure.
 - + Bi-directional “U” cup stem seal.
 - + One piece disc/stem in high strength design. Available in options such as fully encased (thin profile) in either EPDM or NBR covered with the covering extending on the stem in the sealing area. SS316 with highly polished surface for Food and Pharmaceutical Industry.
 - + Unique “Center-LOK®” seat design virtually eliminates any seat movement during the seating and un-seating of the disc.
 - + Double O-rings are molded in both upper and lower journals providing a superior secondary seal.
 - + Stem connection available in standard DelVal® sizes and to match standard secondary top plate drilling.
 - + 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.
 - + Upper and lower bearing securely support stem and isolate stem contact from valve body hence torques are reduced.
 - + Heavy duty square-grooved seat design has molded O-ring seals to serve as flange gaskets. EPDM seats are peroxide cured to yield the best elastic properties of the elastomer.



DIMENSIONS (Inch)

Valve Size		$\varnothing A$	*B	E	Sq'F'	Top Flange Drilling			$\varnothing G$	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	---	1.32	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	---	2.05	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	---	2.70	6.00	4	5/8-11	8.38	10.58
4	100	5.98	2.06	7.09	3.15	2.76	4	0.39	0.63	0.43	1.25	---	3.61	7.50	8	5/8-11	12.34	19.40
5	125	6.93	2.19	7.56	3.93	2.76/4.01	4	0.39/0.47	0.75	0.51	1.25	---	4.62	8.50	8	3/4-10	18.08	28.66
6	150	8.07	2.19	8.07	3.93	2.76/4.01	4	0.39/0.47	0.75	0.51	1.25	---	5.50	9.50	8	3/4-10	21.16	33.51
8	200	10.39	2.38	9.49	4.72	4.01/4.92	4	0.47/0.55	0.87	0.63	1.25	---	7.39	11.75	8	3/4-10	46.73	65.69
10	250	12.40	2.69	10.75	4.72	4.01/4.92	4	0.47/0.55	1.18	0.87	2.00	---	9.31	14.25	12	7/8-9	54.67	82.44
12	300	14.57	3.06	12.24	4.72	4.92	4	0.55	1.18	0.87	2.00	---	11.12	17.00	12	7/8-9	78.47	120.36
14	350	16.34	3.06	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	4.50	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	6.06	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

DIMENSIONS (mm)

Valve Size		$\varnothing A$	*B	E	Sq'F'	Top Flange Drilling			$\varnothing G$	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	---	33.5	120.7	4	5/8-11	3.5	4.1
2 1/2	65	106	46	152	80	70	4	10	14	10	32	---	52.1	139.7	4	5/8-11	3.5	4.7
3	80	122	46	160	80	70	4	10	14	10	32	---	68.5	152.4	4	5/8-11	3.8	4.8
4	100	152	52	180	80	70	4	10	16	11	32	---	91.7	190.5	8	5/8-11	5.6	8.8
5	125	176	56	192	100	70/102	4	10/12	19	13	32	---	117.3	215.9	8	3/4-10	8.2	13
6	150	205	56	205	100	70/102	4	10/12	19	13	32	---	139.7	241.3	8	3/4-10	9.6	15.2
8	200	264	60	241	120	102/125	4	12/14	22	16	32	---	187.6	298.5	8	3/4-10	21.2	29.8
10	250	315	68	273	120	102/125	4	12/14	30	22	51	---	236.4	362.0	12	7/8-9	24.8	37.4
12	300	370	78	311	120	125	4	14	30	22	51	---	282.4	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	114	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	154	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" conforms 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"
Pressure ΔP , PSI	150	80	142	177	271	426	582	1083	1756	2987	3980	5178	8756	10126	15576

TORQUE (Nm)

Valve Size		2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Pressure ΔP , Bar	10	9	16	20	31	48	66	122	198	337	450	585	989	1144	1760

Materials of Construction

Body

- ❖ Cast Iron ASTM A126 Class B/IS 210 FG 260
- ❖ Ductile Iron ASTM A395 60-40-18
- ❖ Carbon steel ASTM A 216 WCB

Disc/Stem

Stainless Steel /Duplex Stainless

- ❖ 2"-12" (DN50-DN300) One Piece Investment Cast
- ❖ 14"-24" (DN350-DN600) One Piece Fabricated Disc/Stem

High Polished Stainless Steel

- ❖ 2"-24" (DN50-DN600) Fabricated One Piece Disc/Stem

Elastomer Lined

- ❖ 2"-24" (DN50-DN600) EPDM lined over Carbon steel + SS410, One Piece Fabricated Disc/Stem
- ❖ 2"-24" (DN50-DN600) NBR lined over Carbon steel + SS410, One Piece Fabricated Disc/Stem

Halar® Coated

- ❖ 2"-12" (DN50-DN300) Halar® coated over One Piece Investment Cast Stainless steel disc/stem
- ❖ 14"-24" (DN350-DN600) Halar® coated over One Piece Fabricate Disc/Stem

Seat

- ❖ EPDM/White EPDM - Food Grade
- ❖ BUNA-N / White BUNA-N - Food Grade
- ❖ Viton® (FKM)
- ❖ Silicone

Pressure Rating:

For bi-directional bubble tight shut off and full vacuum service with disc in the closed position.

Inch	DN	PSIG	BARG
2"- 24"	50-600	150	10

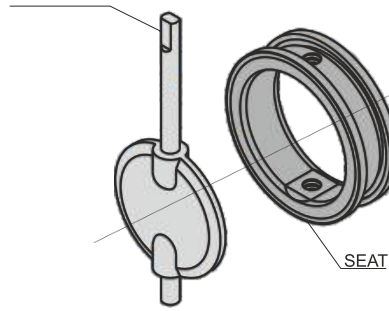
Seat Temperature Range:

Seat Type	Temperature Range	
	Min.	Max.
EPDM / WHITE EPDM	-20° F (-29°C)	302° F (150°C)
BUNA-N / WHITE BUNA-N	0° F (-18°C)	212° F (100°C)
Viton® (FKM)	0° F (-18°C)	392° F (200°C)
Silicone #	-58° F (-50°C)	392° F (200°C)

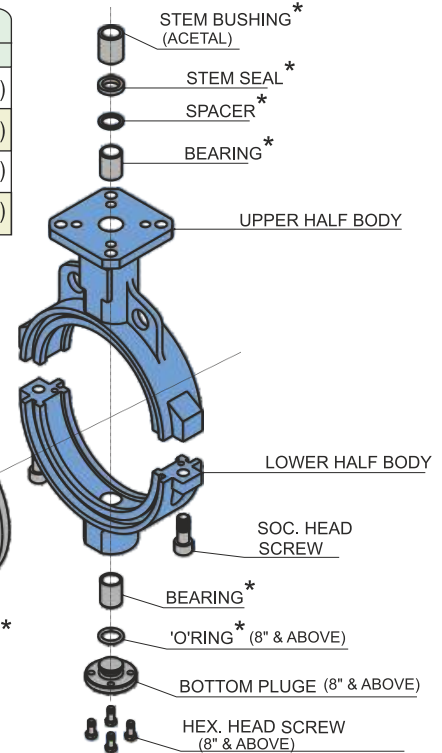
Max. pressure rating limited to 6 Bar.

Viton® is registered trademark of E.I. DuPont.

INTEGRAL OR ONE
PIECE DISC / STEM



*Note: Recommended Spares



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.



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.

All statements, technical information and recommendations in the bulletin are for general use only. DelVal Flow Controls is not responsible for suitability or compatibility of these products in relation to system requirements. Consult DelVal Flow Controls distributors or factory for the specific requirements and material selection for your intended application. DelVal Flow Controls reserves the right to change or modify product design or product without prior notice. DelVal® - Registered trademark of DelVal Flow Controls.

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