

DeVal[®] SERIES 56/57



High Flow Resilient Seated Butterfly Valves

Wafer & Lug , Sizes 2"-24" / DN50-DN600

2"-12" Class 150 / 285 PSI

14"-24" PN16 / 230 PSI



Leading the Industry with Innovation by Design

DelTech Controls is pleased to offer top-of-the-line products in pipeline flow control. The DelVal Series 56 (wafer body) and Series 57 (lug 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 56/57 Butterfly Valves have been designed to include state-of-the-art features that are described in this bulletin.

Features

1. High Strength Stem - Stem connection available in standard DelVal sizes.

2. Top plate drilled to fit ISO 5211 dimensions. All handles, gear operators, pneumatic and electric DelTorq actuators are designed to mount directly to DelVal Valves.

3. Four flange locating ribs for sizes up to 12" and four flange locating holes from size 14" to 24" for easy alignment of valve during installation. They meet ANSI #125 /150 or other world drilling standards.

4. Unique stem retention system to provide blow-out proof stem and easy assembly and disassembly of valve.

5. Unique "integral rubber rich seat" in various elastomeric materials provides ultimate sealing in a wide variety of applications. Integral rubber rich seat offers all the advantages of a cartridge seat and the integrity of one-piece body/seat design. This construction allows easy installation between tightly spaced flanges without using flange spreader. Offers 100% bi-directional sealing against vacuum and dead end service to full rated pressure without the use of a downstream flange.

6. Heavy duty one-piece body. Standard coating is two coats of hard, zinc-rich epoxy for excellent corrosion resistance.

7. Heavy duty acetal bushing absorbs the forces acting on the stem/disc assembly due to line pressure.

8. The secondary sealing is achieved through double integrally molded 'O' rings which are compressed around the stem.

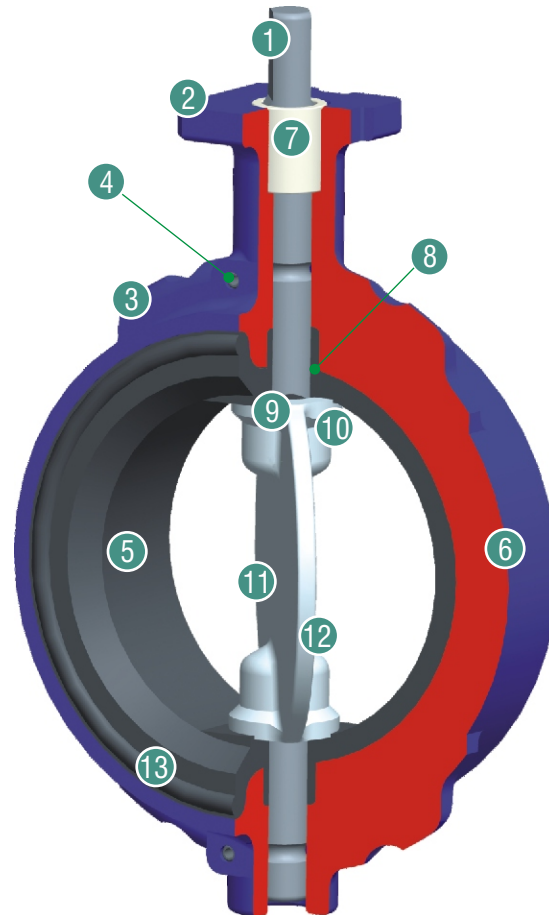
9. Positive disc stem engagement by a precision machined square drive, eliminating potential leak path and failure of stem joint.

10. 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 seat.

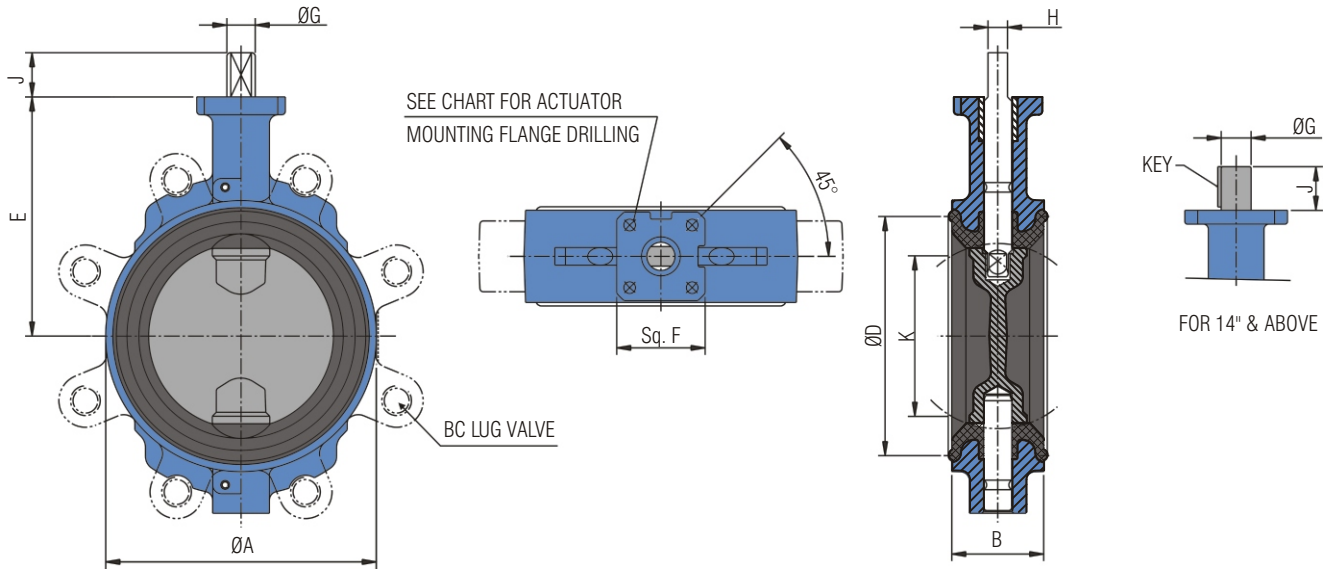
11. High flow disc design provides a streamlined flow passage, enhanced flow characteristics and reduced resistance to flow especially for control applications.

12. Nylon PA 12 coated disc option ensures excellent corrosion resistance to several chemical media. The hard, non-porous sintered polymer has very low hygroscopicity and is suitable for use in drinking water and food grade applications.

13. Flange gasket ('O' ring) is integral to the body lining which eliminates the need of separate gasket.



Engineering



DIMENSIONS (Inch)

Valve Size		ØA	*B	ØD	E	Sq'F'	TOP FLANGE DRILLING			ØG	H	J	Key Size	K	LUG BOLTING DATA			Weights In Lbs	
Inches	DN						BC	NO. OF HOLES	HOLE DIA.						BC	NO. OF HOLES	THREADS UNC/UN-2B	Wafer (Series 56)	Lug (Series 57)
2	50	3.54	1.69	2.83	4.13	1.96	1.96	4	0.27	0.55	0.39	0.78	-	1.29	4.75	4	5/8-11	4.96	6.61
2 1/2	65	4.13	1.81	3.46	4.48	1.96	1.96	4	0.27	0.55	0.39	0.78	-	2.02	5.50	4	5/8-11	5.73	7.82
3	80	4.80	1.81	4.13	4.72	1.96	1.96	4	0.27	0.55	0.39	0.78	-	2.67	6.00	4	5/8-11	6.83	8.92
4	100	6.02	2.06	5.31	5.31	1.96	1.96	4	0.27	0.63	0.43	0.78	-	3.52	7.50	8	5/8-11	9.92	15.43
5	125	7.24	2.19	6.45	5.90	2.75	2.76	4	0.39	0.75	0.51	1.25	-	4.54	8.50	8	3/4-10	15.87	23.58
6	150	8.26	2.19	7.40	6.49	2.75	2.76	4	0.39	0.75	0.51	1.25	-	5.45	9.50	8	3/4-10	17.19	26.23
8	200	10.39	2.38	9.52	8.07	3.93	2.76/4.01	4	0.39/0.47	0.87	0.63	1.25	-	7.38	11.75	8	3/4-10	31.41	41.33
10	250	12.44	2.69	11.49	9.25	3.93	4.01	4	0.47	1.18	0.87	2.0	-	9.30	14.25	12	7/8-9	47.61	65.25
12	300	14.56	3.06	13.62	10.82	3.93	4.01	4	0.47	1.18	0.87	2.0	-	11.11	17.00	12	7/8-9	66.13	97.00
14	350	16.22	3.06	15.11	12.20	4.72	4.92	4	0.55	1.38	-	2.00	0.39x0.39	12.70	18.75	12	1-8	88.18	123.01
16	400	18.42	4.00	17.24	13.38	4.72	4.92	4	0.55	1.38	-	2.00	0.39x0.39	14.65	21.25	16	1-8	132.71	186.51
18	450	20.66	4.48	19.40	14.56	Ø6.89	5.51	4	0.70	1.57	-	2.36	0.31x0.47	16.52	22.75	16	1 1/8-8	196.21	240.30
20	500	22.75	5.00	21.57	15.74	Ø6.89	5.51	4	0.70	1.57	-	2.36	0.31x0.47	18.43	25.00	20	1 1/8-8	239.20	309.08
24	600	26.96	6.06	25.59	18.30	Ø8.27	6.50	4	0.83	1.97	-	2.76	0.39x0.47	22.55	29.50	20	1 1/4-8	385.80	477.07

DIMENSIONS (mm)

Valve Size		ØA	*B	ØD	E	Sq'F'	TOP FLANGE DRILLING			ØG	H	J	Key Size	K	LUG BOLTING DATA			Weights In Kg	
Inches	DN						BC	NO. OF HOLES	HOLE DIA.						BC	NO. OF HOLES	THREADS UNC/UN-2B	Wafer (Series 56)	Lug (Series 57)
2	50	90	43	72	105	50	50	4	7	14	10	20	-	32.7	120.7	4	5/8-11	2.25	3.00
2.5	65	105	46	88	114	50	50	4	7	14	10	20	-	51.4	139.7	4	5/8-11	2.60	3.55
3	80	122	46	105	120	50	50	4	7	14	10	20	-	67.8	152.4	4	5/8-11	3.10	4.05
4	100	153	52	135	135	50	50	4	7	16	11	20	-	89.5	190.5	8	5/8-11	4.50	7.00
5	125	184	56	164	150	70	70	4	10	19	13	32	-	115.3	215.9	8	3/4-10	7.20	10.70
6	150	210	56	188	165	70	70	4	10	19	13	32	-	138.4	241.3	8	3/4-10	7.80	11.90
8	200	264	60	242	205	100	70/102	4	10/12	22	16	32	-	187.6	298.5	8	3/4-10	14.25	18.75
10	250	316	68	292	235	100	102	4	12	30	22	51	-	236.4	362.0	12	7/8-9	21.60	29.60
12	300	370	78	346	275	100	102	4	12	30	22	51	-	282.4	431.8	12	7/8-9	30.00	44.00
14	350	412	78	384	310	120	125	4	14	35	-	51	10x10	322.4	476.2	12	1-8	40.00	55.80
16	400	468	102	438	340	120	125	4	14	35	-	51	10x10	372.3	539.7	16	1-8	60.20	84.60
18	450	525	114	493	370	Ø175	140	4	18	40	-	60	8x12	419.8	577.8	16	1 1/8-8	89.00	109.00
20	500	578	127	548	400	Ø175	140	4	18	40	-	60	8x12	468.1	635.0	20	1 1/8-8	108.50	140.20
24	600	685	154	650	465	Ø210	165	4	21	50	-	70	10x12	572.7	749.3	20	1 1/4-8	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
All bolt holes 1 1/8" and larger have a 8-UN thread series as per API 609

TORQUE (lb.-Inch)

Valve Size	2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	
Full Rated Pressure Valve ΔP, PSI	50	62	106	115	241	360	484	878	1409	2366	3064	3684	5795	6741	9601
	100	72	124	142	256	393	545	977	1586	2677	3527	4428	7273	8441	12482
	150	80	142	177	271	426	582	1083	1756	2987	3980	5178	8756	10126	15576
	230	150	212	283	478	575	1062	1859	2823	4142	6106	8187	10550	13329	26809
	285	177	248	354	540	637	1150	2168	3098	4673	-	-	-	-	-
Reduced Disc Dia. ΔP, PSI	50	-	-	-	133	187	267	623	771	1259	2159	2627	3649	4285	6500

TORQUE (Nm)

Valve Size	2"	2.5"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	
Full Rated Pressure Valve ΔP, Bar	3.5	7	12	13	27	41	55	99	159	267	346	416	655	762	1085
	7	8	14	16	29	44	62	110	179	302	398	500	822	954	1410
	10	9	16	20	31	48	66	122	198	337	450	585	989	1144	1760
	16	17	24	32	54	65	120	210	319	468	690	925	1192	1506	3029
	Class 150	20	28	40	61	72	130	245	350	528	-	-	-	-	-
Reduced Disc Dia. ΔP, Bar	3.5	-	-	-	15	21	30	70	87	142	244	297	412	484	734

Material of Construction

Body

- ◇ Cast Iron ASTM A126 Class B
- ◇ Ductile Iron ASTM A536 Grade 65-45-12

Disc

- ◇ DI ASTM A 536 Grade 65-45-12 + Epoxy coated
- ◇ 316 Stainless Steel ASTM A351 Grade CF8M
- ◇ Nylon 12 Coated Ductile Iron ASTM A536 Grade 65-45-12 (Optional)

Stem

- ◇ 410 Stainless Steel ASTM A479 Type 410
- ◇ ASTM A564 17-4-PH

Seat

- ◇ EPDM - Food Grade
- ◇ Buna-N - Food Grade

General Design and Manufacturing

Standard: API 609 / BS EN -593

Testing Standard: API 598 / BS EN 12266-1

Seat Temperature Range:

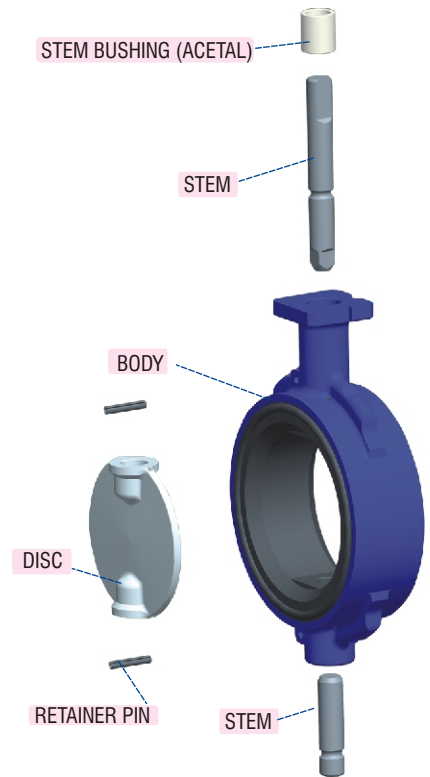
Seat Type	Temperature Range	
	Min.	Max.
EPDM	-13° F (-25°C)	302° F (150°C)
BUNA-N	-13° F (-25°C)	212° F (100°C)

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	50	3.5
2" - 24"	50-600	150	10
2" - 24"	50-600	230	16
2" - 12"	50-300	285	Class150

Dead-End Service : Without a downstream flange installed, the dead-end pressure ratings are equal to the values stated above.



Operators



Valves up to size 8" 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. DelTech is not responsible for suitability or compatibility of these products in relation to system requirements. Consult DelTech distributors or factory for the specific requirements and material selection for your intended application. DelTech reserves the right to change or modify product design or product without prior notice. DelVal® - Registered trademark of DelTech Controls.

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