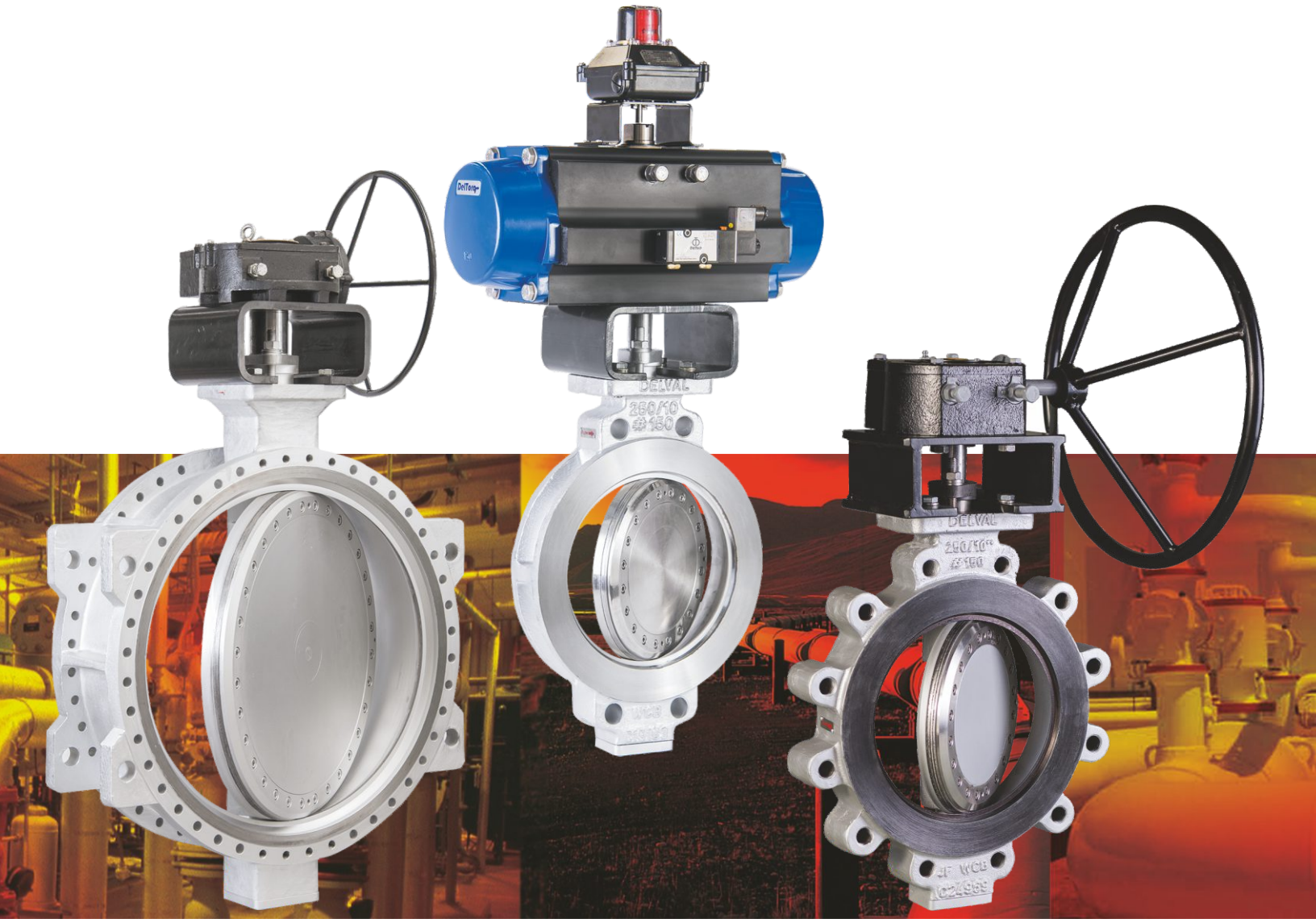
DelVal® Triple Offset Butterfly Valves

SERIES 4

The Ultimate in High Performance Butterfly Valves
Wafer, Lug, Double Flange and Butt Weld Ends

Sizes 3" to 48" ASME Class150, Class 300 & Class 600



DelVal Flow Controls is pleased to offer top-of-the-line products in pipeline flow control. The DelVal® Series 4 Triple Offset Butterfly Valve has 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 4 has been designed to include state-of-the-art features that are described in this bulletin.

Features

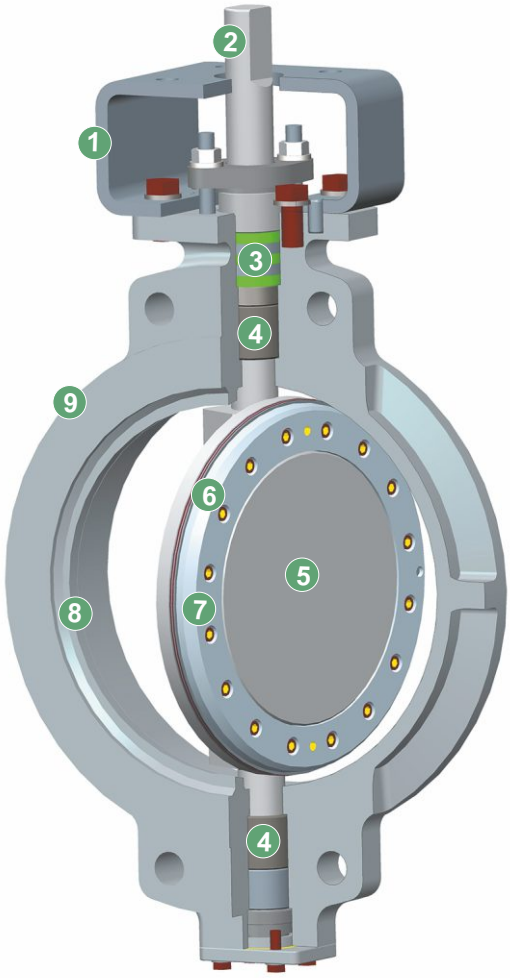
1. Top Flange
The top flange is drilled as per ISO 5211 to accommodate direct mounting of a wide range of actuators.

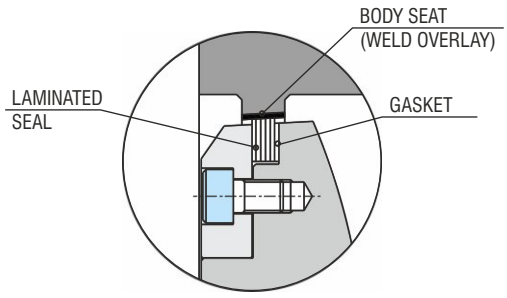
2. Stem
Robust single piece stem, located in stem bearings at drive and non-drive end of body, supports the disc against the pressure exerted by the fluid and minimizes disc and stem deflection. This facilitates bi-directional sealing of the valve. An anti-blow-out retainer ring makes the stem blow-out proof.

3. Stem Seal
Stem seal assembly is live loaded with two Belleville Springs. This ensures continuous compression of packing and sealing. Rocker shaped gland bridge compensates for uneven adjustment of gland bolts. Adjustable stem packing with multiple graphite rings seal on high surface finish of the stem and ensures tight sealing, suitable for fugitive emission control.

4. Bearings
SS316+Nitriding bearings with graphite rings for bearing ingress protection are installed in the drive and non-drive end stem bores of the body. Bearings are designed to take high radial and axial stem loads due to pressures.

5. Disc
Disc is designed with a profile to minimize resistance to flow and pressure drop across the valve and maximize the flow capacity.





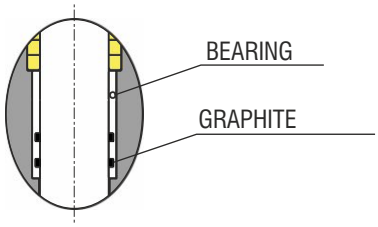
LAMINATED SEAL

9. Body
Body is single-piece cast construction, with options of wafer, lug, double flanged or buttweld ends and face to face dimensions and pressure rating conforming to international standards.

8. Seat
Seat is integral on body and is hard faced with Stellite or suitable alloy. Seat is precision machined to ensure perfect match with the seal ring. This (a) provides bubble tight seal,(b) prevents galling and friction during seating and unseating, (c) provides resistance to erosion during high velocity fluid flow and (d) prevents corrosion due to media.

7. Seal Ring Retainer
Seal ring is clamped rigidly on the disc face by the seal ring retainer. The retainer is made of identical metal as the disc and combines the disc, seal ring and retainer into a robust, composite unit for bubble tight, bi-directional sealing.

6. Seal Ring
Conical, laminated seal ring is located on the disc. It is precision machined for bi-directional, bubble tight sealing. Alternating layers of metal and graphite flex generate a circumferential compressive force on the precision machined hard face seat on body. Metal laminations in stainless steel or Inconel provide a rigid back up for the soft graphite laminations. This combination makes the seat suitable for bubble tight sealing at high and low temperatures alike. Seal ring is replaceable.



BEARING DESIGN

Reinforced flexible graphite bearing protectors provide the highest level of protection to the bearings from dirty service while extending service life.

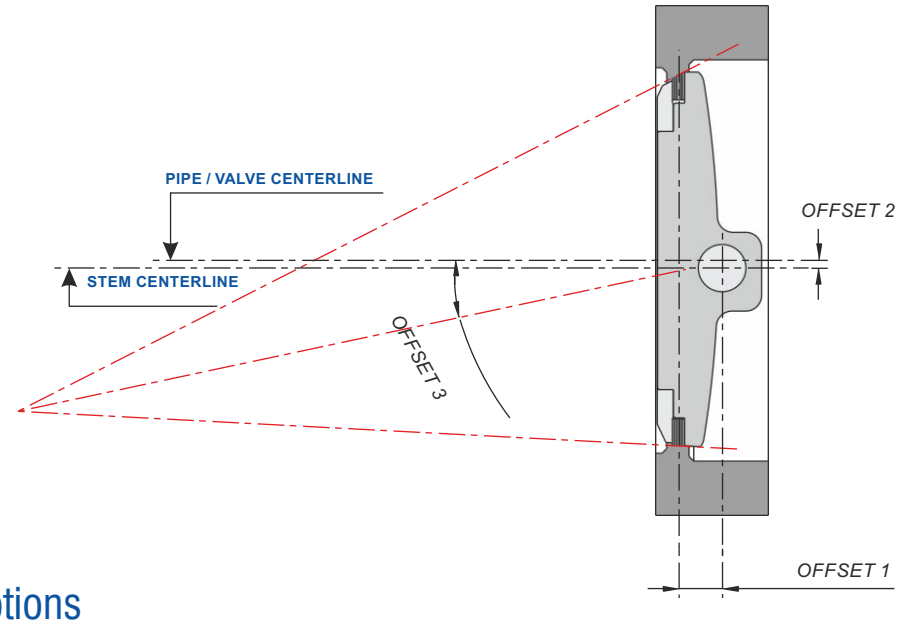
Principle of Operation

The DelVal® Triple-Offset Butterfly Valves provide bi-directional bubble tight shut-off. This geometry ensures that the disc seal contacts the body seal only at the final shut-off position without rubbing or galling, providing a torque generated resilient seal with sufficient “wedging” to ensure a uniform seal contact.

Offset 1: The shaft is located with an offset behind the sealing plane allowing complete sealing contact around the entire seat periphery.

Offset 2 : The shaft axis is offset with respect to the pipe and disc centerline providing interference free opening and closing of the valve.

Offset 3 : The seat cone axis is offset from the disc centerline to eliminate friction during opening and closing and to achieve uniform compressive sealing around the entire seat.



Valve Configuration and Options

Cryogenic

Extended stem and bonnets can be offered for low temperature and cryogenic applications. The design of the bonnet separates the cryogenic fluid flowing through the valve from the stem packing. A small amount of fluid enters into the bonnet and forms vapor at a higher temperature for effective gland sealing. The design for extended stem and bonnet conforms to BS 6364.

Extended Stem

Valves are available with stem extensions for buried service applications.

Steam Jackets

Steam jacketed valves are available for applications where the media tends to crystallize when cooled down.

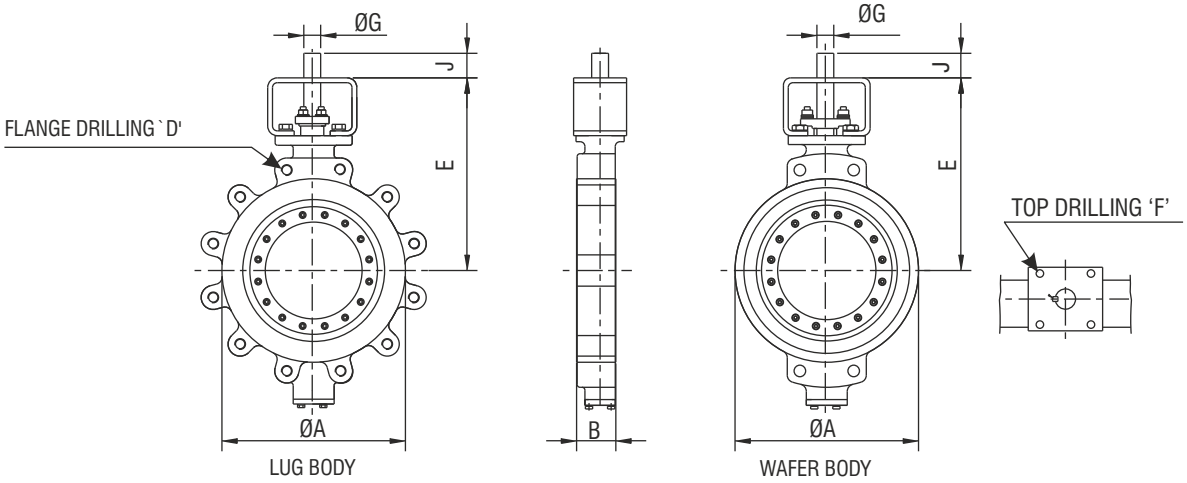
Specification and Codes

Design: API 609, ASME B16.34,BS EN 593, BS EN12516
Face to Face: API 609,ASME B16.10,ISO 5752, BS EN 558
Testing: API 598, BS EN 12266-1 Rate 'A', ANSI-FCI 70-2 Class VI, ISO 5208 Rate 'A'
Pressure/Temperature: ASME B16.34

Flange Accommodation:
ASME B16.5, ASME B16.47 series‘A’
Optional - BS EN 1092,ASME B16.47 series ‘B’

Fire Safe: API 607
Butt Weld Ends: ASME B16.25
Compliance With: Pressure Equipment Directive PED/97/23/EC
Body Style: Wafer, Lug, Double Flange and Butt Weld End
Pressure Rating: ASME Class 150, Class 300 and Class 600
Temperature Range: -20 °F to 1000 °F
-320 °F to 1292 °F (optional)

Engineering

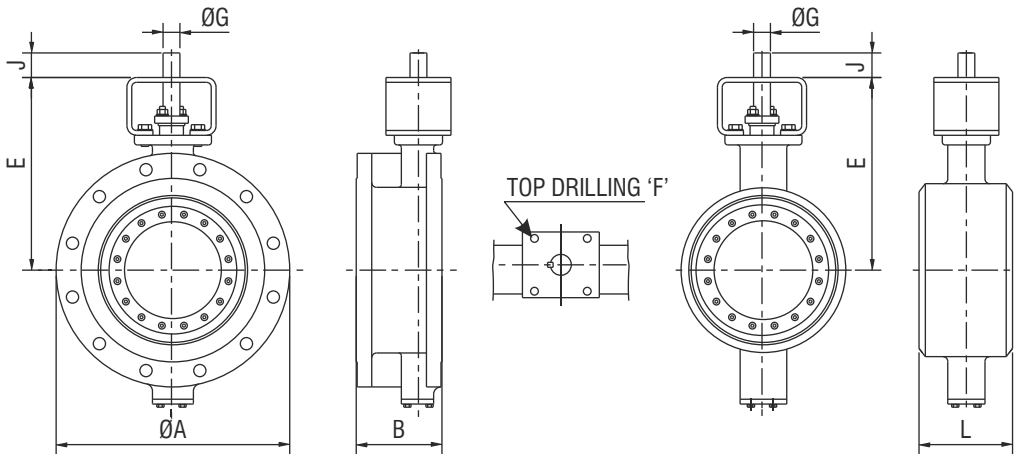


DIMENSIONS (Inches)

	Size		ΦA	*B	E	F			ΦG	J	Key	D			Apx.Weight.in Lbs.	
	Size	DN				PCD	No.	Dia.				PCD	No.	TAPPING UNC/UN-2B	Wafer	Lug
ASME CLASS 150	3	80	5	1.88	7.48	2.76/4.01	4	0.39/0.47	0.63	1.25	0.20x0.20	6	4	5/8-11	20	22
	4	100	6.18	2.12	8.85	2.76/4.01	4	0.39/0.47	0.79	1.25	0.23x0.23	7.5	8	5/8-11	27	31
	6	150	8.50	2.25	9.05	2.76/4.01	4	0.39/0.47	0.87	1.25	0.23x0.23	9.5	8	3/4-10	38	44
	8	200	10.62	2.5	11.02	4.01/4.92	4	0.47/0.55	0.98	1.25	0.31x0.27	11.8	8	3/4-10	58	71
	10	250	12.87	2.81	12.89	4.92	4	0.55	1.18	2.00	0.31x0.27	14.3	12	7/8-9	99	115
	12	300	15	3.19	14.96	4.92	4	0.55	1.38	2.00	0.39x0.31	17	12	7/8-9	155	177
	14	350	16.25	3.62	15.94	4.92/5.51	4	0.55/0.71	1.57	2.00	0.47x0.31	18.8	12	1-8	199	243
	16	400	18.50	4	20.66	6.50	4	0.87	1.97	2.51	0.55x0.35	21.3	16	1-8	362	419
	18	450	21.02	4.48	20.66	6.50	4	0.87	2.16	2.51	0.62x0.39	22.8	16	11/8-8	419	507
	20	500	23.00	5	22.83	6.50/10	8	0.87/0.71	2.36	4.01	0.71x0.43	25	20	11/8-8	529	595
	24	600	27.24	6.06	25.39	10	8	0.71	2.75	4.01	0.78x0.47	29.5	20	1-1/4-8	992	1080
	28	700	31.50	6.50	28.34	11.73	8	0.87	3.5	4.01	0.87x0.62	–	–	–	1455	–
	30	750	33.73	7.48	29.53	11.73	8	0.87	3.5	4.01	0.87x0.62	–	–	–	1702	–
	32	800	35.98	7.48	34.25	11.73	8	0.87	4	5.27	1x0.75	–	–	–	2083	–
	36	900	40.24	7.99	35.03	11.73	8	0.87	4	5.27	1x0.75	–	–	–	2866	–
	40	1000	44.25	8.50	38.58	14.01	8	1.30	4.72	5.91	1.25x0.71	–	–	–	3395	–
	48	1200	53.50	10	45.27	19.01	12	1.57	4.72	5.91	1.25x0.71	–	–	–	5401	–
ASME CLASS 300	3	80	5	1.88	7.48	2.76/4.01	4	0.39/0.47	0.63	1.25	0.20x0.20	6.62	8	3/4-10	22	26
	4	100	6.18	2.12	8.85	4.92	4	0.55	0.79	1.25	0.23x0.23	7.87	8	3/4-10	44	55
	6	150	8.50	2.31	9.84	4.92	4	0.55	0.87	1.25	0.23x0.23	10.6	12	3/4-10	75	99
	8	200	10.62	2.88	12.2	4.92	4	0.55	1.38	2	0.39x0.31	13	12	7/8-9	110	123
	10	250	12.75	3.25	15.03	6.49	4	0.86	1.38	2	0.39x0.31	15.3	16	1-8	176	229
	12	300	15	3.62	16.73	6.49	4	0.86	1.57	2	0.47x0.31	17.8	16	11/8-8	287	353
	14	350	16.25	4.62	18.5	10	8	0.71	2.16	2.51	0.62x0.39	20.3	20	11/8-8	364	518
	16	400	18.50	5.25	19.88	10	8	0.71	2.16	2.51	0.62x0.39	22.5	20	11/4-8	496	794
	18	450	21.02	5.88	21.45	10	8	0.71	2.75	4.01	0.78x0.47	24.8	24	11/4-8	754	1089
	20	500	23.00	6.25	22.83	11.73	8	0.86	3.5	5.27	0.87x0.62	27	24	11/4-8	860	1226
	24	600	27.24	7.12	24.01	11.73	8	0.86	4	5.27	1x0.75	32	24	11/2-8	1466	1764
ASME CLASS 600	3	80	5.75	2.12	9.25	4.92	4	0.55	1.18	2	0.31x0.27	6.62	8	3/4-10	31	33
	4	100	6.88	2.51	11.81	4.92	4	0.55	1.18	2	0.31x0.27	8.5	8	7/8-10	57	66
	6	150	9.48	3.07	14.17	6.49	4	0.86	1.38	2	0.39x0.31	11.5	12	1-8	137	154
	8	200	11.88	4.01	15.94	6.49	4	0.86	1.57	2	0.47x0.31	13.8	12	11/8-8	198	221
	10	250	13.77	4.61	19.09	6.49	4	0.86	1.97	2	0.55x0.35	17	16	11/4-8	291	408
	12	300	16.25	5.51	21.06	6.49	4	0.86	2.16	2.51	0.62x0.39	19.3	20	11/4-8	485	560
	14	350	17.99	6.12	24.01	10	8	0.71	2.50	4.01	0.62x0.62	20.8	20	13/8-8	622	714
	16	400	20.00	7	26.77	10	8	0.71	3.00	4.01	0.75x0.75	23.8	20	1½-8	992	1133
	18	450	22.63	7.88	27.16	11.73	8	0.86	3.50	4.01	0.87x0.62	25.8	20	15/8-8	1213	1389
	20	500	25.00	8.50	31.29	11.73	8	0.86	4	5.27	1x0.75	28.5	24	15/8-8	1521	1764
	24	600	29.48	9.13	34.84	14.01	8	1.3	4.72	5.91	1.25x0.71	33	24	17/8-8	2394	2734

* Face to Face dimension `B' generally conforming to API 609 category B/ BSEN 558-1 /ISO 5752 / ASME B16.10

Engineering



DOUBLE FLANGED

BUTTWELD END

DIMENSIONS (Inches)

Size		ØA	B	L	E	F			ØG	J	Key	Apx. Weight in Lbs.	
Inch	DN					PCD	No.	Dia.				DF	BW
ASME CLASS 150													
3	80	7.48	4.5	7.08	7.48	2.76/4.01	4	0.39/0.47	0.63	1.25	0.20X 0.20	30.85	22.04
4	100	9.05	5	7.48	8.85	2.76/4.01	4	0.39/0.47	0.79	1.25	0.23X0.23	48.48	30.85
6	150	11.02	5.5	8.26	9.05	2.76/4.01	4	0.39/0.47	0.87	1.25	0.23X0.23	83.75	55.1
8	200	13.58	6	9.05	11.02	4.01/4.92	4	0.47/0.55	0.98	1.25	0.31X0.27	121.22	114.6
10	250	15.94	6.5	9.84	13.26	4.92	4	0.55	1.18	2	0.31X0.27	198.36	167.5
12	300	19.09	7	10.62	14.96	4.92	4	0.55	1.38	2	0.39X0.31	335	220.4
14	350	21.06	7.5	11.41	15.94	4.92/5.51	4	0.55/0.7	1.57	2	0.47X0.31	429.78	304.15
16	400	23.42	8.5	12.2	20.66	6.5	4	0.86	1.97	2.51	0.55X0.35	595.08	502.51
18	450	25	8.75	12.99	20.66	6.5	8	0.86	2.16	2.51	0.62X0.39	650.18	568.63
20	500	27.55	9	13.77	22.83	6.5/10	8	0.86/0.70	2.36	4.01	0.71X0.43	936.7	650.18
24	600	32.08	10.5	15.35	25.39	10	8	0.70	2.75	4.01	0.78X0.47	1476.68	974.16
28	700	36.42	11.49	16.92	28.34	11.73	8	0.86	3.5	4.01	0.87X0.62	1921.88	1454.64
30	750	38.17	12.52	18.5	29.52	11.73	8	0.86	3.5	4.01	0.87X0.62	2468.48	1917.48
32	800	41.73	12.52	18.5	34.25	11.73	8	0.86	4	5.27	1X0.75	2732.96	2192.98
36	900	46.06	12.99	20.07	35.03	11.73	8	0.86	4	5.27	1X0.75	3795.28	2402.36
40	1000	50.78	16.14	21.65	38.58	14.01	8	1.29	4.72	5.9	1.25X0.71	5047.16	2424.4
48	1200	59.44	18.5	24.8	45.27	19.01	12	1.57	4.72	5.9	1.25X0.71	7603.8	2755
ASME CLASS 300													
3	80	8.26	4.5	7.08	7.48	2.76/4.01	4	0.39/0.47	0.63	1.25	0.20X0.20	39.67	22.04
4	100	10.03	5	7.48	8.85	4.92	4	0.55	0.79	1.25	0.23X0.23	70.52	30.85
6	150	12.59	5.5	8.26	9.84	4.92	4	0.55	0.87	1.25	0.23X0.23	185.13	61.71
8	200	14.96	6	9.05	12.2	4.92	4	0.55	1.38	2	0.39X0.31	220.4	119.01
10	250	17.51	6.5	9.84	15.03	6.49	4	0.86	1.38	2	0.39X0.31	286.52	185.13
12	300	20.47	7	10.62	16.73	6.49	4	0.86	1.57	2	0.47X0.31	495.9	238.03
14	350	23.03	7.5	11.41	18.5	10	8	0.71	2.16	2.51	0.62X0.39	683.24	308.56
16	400	25.59	8.5	12.2	19.88	10	8	0.71	2.16	2.51	0.62X0.39	894.82	511.32
18	450	27.95	8.75	12.99	21.45	10	8	0.71	2.75	4.01	0.78X0.47	1157.1	577.44
20	500	30.51	9	13.77	22.83	11.73	8	0.86	3.5	5.27	0.87X0.62	1463.45	687.64
24	600	36.02	10.5	15.35	24.01	11.73	8	0.86	4	5.27	1X0.75	2104.82	980.78
ASME CLASS 600													
3	80	8.26	7.09	-	9.25	4.92	4	0.55	1.18	2	0.31X0.27	88.16	-
4	100	10.82	7.48	-	11.81	4.92	4	0.55	1.18	2	0.31X0.27	143.26	-
6	150	13.97	8.27	8.26	14.17	6.49	4	0.86	1.38	2	0.39X0.31	290.92	143.26
8	200	16.53	9.06	9.05	15.94	6.49	4	0.86	1.57	2	0.47X0.31	352.64	209.38
10	250	20.07	9.84	9.84	19.09	6.49	4	0.86	1.97	2	0.55X0.35	586.26	374.68
12	300	22.04	10.63	10.62	21.06	6.49	4	0.86	2.16	2.51	0.62X0.39	804.46	484.88
14	350	23.81	11.42	11.41	24.01	10	8	0.7	2.50	4.01	0.62X0.62	815.48	683.24
16	400	26.96	12.20	12.2	26.77	10	8	0.7	3	4.01	0.75X0.75	1388.52	1057.92
18	450	29.33	12.99	12.99	27.16	11.73	8	0.86	3.5	4.01	0.87X0.62	1619.94	1256.28
20	500	32.08	13.78	13.77	31.29	11.73	8	0.86	4	5.27	1X0.75	1917.48	1763.20
24	600	37	15.35	15.35	34.84	14.01	8	1.29	4.72	5.91	1.25X0.70	3129.68	2600.72

* Face to Face dimension `B' & `L' generally conforming to API 609 category B/ BSEN 558-1 /ISO 5752 / ASME B16.10

TORQUE (Lb-Inch)

ASME Class 150

SIZE		Pre.Direction (Shaft Upstream)		Non Pre.Direction (Shaft Downstream)	
INCHES	DN	Unseating	Seating	Unseating	Seating
3	80	779	726	451	1045
4	100	1036	956	602	1355
6	150	1372	1257	814	2337
8	200	3160	2346	903	3540
10	250	5222	4479	2708	8125
12	300	8258	6974	3470	10462
14	350	12143	10426	5390	13878
16	400	17471	15772	7674	23419
18	450	25180	16551	9479	31978
20	500	32996	20932	14374	40227
24	600	56822	28322	24676	61955
28	700	106209	57176	39828	123911
30	750	163739	69036	48679	184096
32	800	173475	78329	59743	191619
36	900	244936	123911	78772	289862
40	1000	321725	159756	101784	379255
42	1050	334027	179228	129575	388194
48	1200	535028	254592	186751	601320

ASME Class 300

SIZE		Pre.Direction (Shaft Upstream)		Non Pre.Direction (Shaft Downstream)	
Inches	DN	Unseating	Seating	Unseating	Seating
3	80	1354	1168	646	2257
4	100	1788	1522	912	2761
6	150	3381	3045	1735	4992
8	200	8585	6319	3567	10957
10	250	13081	9585	6160	15612
12	300	23809	14444	11568	25278
14	350	33412	16560	16038	32854
16	400	52839	32349	25499	60575
18	450	79259	40306	37917	82542
20	500	99739	51184	49697	101642
24	600	166518	74099	81427	158145

ASME Class 600

SIZE		Pre.Direction (Shaft Upstream)		Non Pre.Direction (Shaft Downstream)	
Inches	DN	Unseating	Seating	Unseating	Seating
3	80	2124	1593	575	3496
4	100	3540	3231	885	5930
6	150	8054	6727	2567	12391
8	200	16374	11904	10488	22171
10	250	30093	21552	13878	37908
12	300	41510	28057	20109	49741
14	350	65053	37704	31686	71072
16	400	90853	62221	44253	108953
18	450	145639	90455	77223	159269
20	500	182104	115237	105103	192327
24	600	321282	181086	200027	321282

Cv VALUES

ASME Class 150

SIZE		DISC OPENING ANGLE (IN DEGREE)								
Inches	DN	10	20	30	40	50	60	70	80	90
3	80	5	21	38	56	69	93	125	155	167
4	100	10	39	70	100	125	172	230	282	300
6	150	32	55	98	175	295	440	631	777	804
8	200	59	105	181	321	555	833	1152	1418	1438
10	250	102	185	312	577	928	1392	1989	2458	2522
12	300	150	275	469	867	1382	2099	2862	3546	3855
14	350	205	389	638	1138	1949	2933	4040	4939	5243
16	400	315	583	1005	1764	3050	4600	6303	7755	7940
18	450	420	767	1353	2347	3880	5881	8343	10302	10659
20	500	515	960	1674	2964	4788	7450	9999	12276	12805
24	600	752	1417	2345	4126	7105	10441	14717	18258	19176
28	700	1100	2090	3500	6810	10670	15575	21300	26200	27400
30	750	1250	2330	4000	7210	11450	17640	24000	29635	31000
32	800	1390	2620	4505	8760	13600	20000	27380	33540	35220
36	900	1720	3230	5560	10000	16420	24475	33565	41100	43310
40	1000	2360	4290	7330	13000	21350	32070	44450	54310	57150
42	1050	2370	4508	7775	13650	22700	33950	46820	57400	60225
48	1200	3180	6000	11050	18240	30000	45300	62200	76350	80175

ASME Class 300

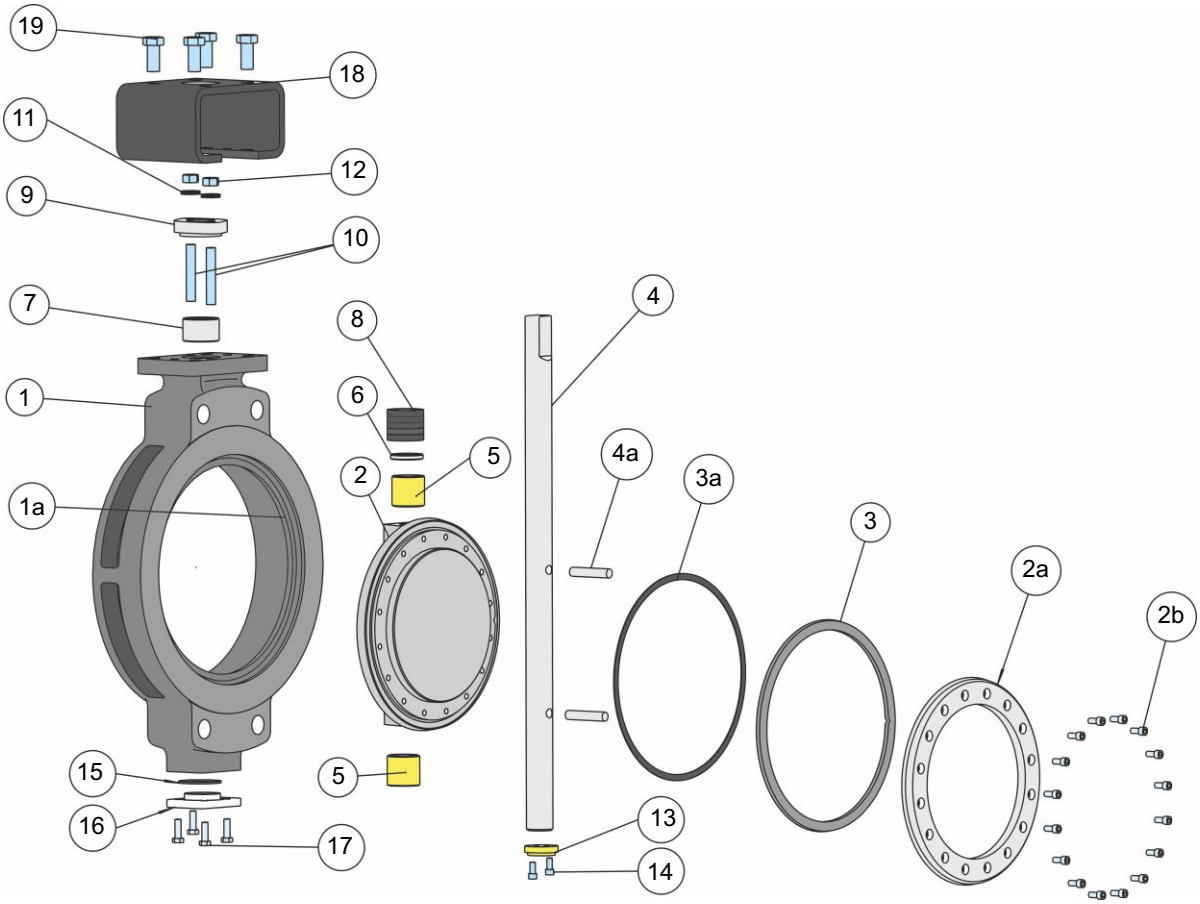
SIZE		DISC OPENING ANGLE (IN DEGREE)								
Inches	DN	10	20	30	40	50	60	70	80	90
3	80	5	21	38	56	69	93	125	155	167
4	100	10	39	70	100	125	172	230	282	300
6	150	27	50	95	165	270	400	573	703	732
8	200	42	95	160	300	504	760	1045	1277	1350
10	250	85	175	295	553	913	1330	1897	2313	2362
12	300	120	260	459	802	1363	2040	2739	3352	3690
14	350	165	372	603	1122	1846	2791	3742	4590	4851
16	400	245	528	900	1650	2730	4172	5526	6817	7389
18	450	334	720	1218	2196	3515	5460	7511	9246	9399
20	500	395	867	1510	2716	4467	6541	9312	11130	11977
24	600	591	1279	2172	3877	6404	9474	13296	16443	17442

ASME Class 600

SIZE		DISC OPENING ANGLE (IN DEGREE)								
Inches	DN	10	20	30	40	50	60	70	80	90
3	80	4	16	31	44	52	74	90	115	140
4	100	8	27	56	90	106	120	160	220	245
6	150	20	42	69	137	170	240	430	500	650
8	200	27	100	200	300	460	1020	1070	1200	1310
10	250	42	150	290	460	690	980	1630	1840	2090
12	300	59	200	410	650	970	1390	2300	2600	2950
14	350	73	260	510	800	1200	1710	2840	3200	3640
16	400	100	350	700	1100	1660	2360	3910	4410	5010
18	450	120	440	870	1360	2040	2900	4810	5430	6170
20	500	170	580	1160	1810	2720	3870	6440	7250	8250
24	600	260	900	1800	2830	4250	6050	10000	11300	12900

Rated Cv=the volume of water in USgpm that will pass through a given valve opening at a pressure drop of 1 psi.

Materials of Construction



Item	Component	Carbon Steel	Stainless Steel
1	Body	A216 WCB	A351 CF8M A351 CF8
1a	Body Seat	13% Chrome	Stellite Gr.21
2	Disc	A216 WCB A351 CF8 A351 CF8M	A351 CF8 A351 CF8M
2a	Retainer Ring	A240 SS304	A240 SS316 A240 SS304
2b	Retainer Screw	A4-70 (SS316)	
• 3	Seal Ring	SS316 + Graphite SS316 + PTFE Inconel 625 + Graphite SS316 (Solid)	
• 3a	Disc Gasket	Graphite / PTFE	
4	Stem	A564 17-4PH / A479 SS410 A479 XM-19 / A479 SS316	
• 4a	Pin	17-4PH	
• 5	Shaft Bearing	SSS316 + Nitriding	
6	Packing Spacer	SS TYPE 316	
7	Gland	SS TYPE 316	

Item	Component	Carbon Steel	Stainless Steel
• 8	Gland Packing	Graphite / PTFE	
9	Gland Flange	Carbon Steel	SS TYPE 304
10	Stud	Gr. B8	
• 11	Belleville Spring	Stainless Steel	
12	Hex Nut	Gr. 8	
• 13	Thrust Bearing	SSS316 + Nitriding	
• 14	Soc Hd Cap Screw	A4 -70 (SS316)	
• 15	Bottom Cover Gasket	Graphite / PTFE	
16	Bottom Cover	Carbon Steel	SS TYPE 316
17	Hex Hd bolt	Gr. B8	
18	Bracket	Carbon Steel / Stainless Steel	
19	Hex Hd Bolt	Gr. B8	

Notes:-

The materials shown are representative, all other materials are available on request eg. LCB, Dupex SS, Super Duplex,Super Austenitic SS.

Material confirms to the requirement of NACE Mr0175 are available.

• Recommended Spares.

Operators

Valves up to size 48" 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 and positioner controlled. Valves can be mounted with manual overrides.

Major Applications

Refinery

- Fuel Oil Storage Isolation
- Steam Supply Stop and Control
- Sulphur Condenser Switch
- Flare Gas Control and Isolation
- FCC Stop and Control

Petrochemicals

- Propane Gas
- Propylene Plant
- Ethylene Plant
- Coker Plant
- Steam Service

Power Plant

- Pump Isolation
- Condenser Cooling
- Heat Exchanger, Suppression System
- Condensate Cooling Water Isolation
- District Heating and Cooling

Cryogenics

- LNG Ships
- Oilfield Recovery
- Tank Farm Isolation
- Gasification Plant and Storage

Others

- Water Pipeline
- Process Liquid
- Hydrocarbons
- Liquefied Natural Gas
- Hot Gas and Sour Gas (NACE)

How to Order Series 4 DelVal Valves

SERIES ☐ ☐	SIZE ☐ ☐ ☐	TRIM / OTHER VARIABLES / SPECIAL						
		☐	☐	☐	☐	☐	☐	☐
VALVE DESCRIPTION	VALVE DESCRIPTION	BODY	DISC	STEM	SEAL	RATING	OPERATOR	SPECIAL
4A : Wafer Class 150 4B : Lug Class 150 4C : Flange Class 150 4W : Butt Weld Class 150 4D : Wafer Class 300 4E : Lug Class 300 4F : Flange Class 300 4Y: Butt Weld Class 300 4G : Wafer Class 600 4H : Lug Class 600 4J : Flange Class 600 4K : Butt Weld Class 600	030 : 3" 040 : 4" 060 : 6" 080 : 8" 100 : 10" 120 : 12" 140 : 14" 160 : 16" 180 : 18" 200 : 20" 240 : 24" 280 : 28" 300 : 30" 320 : 32" 360 : 36" 400 : 40" 420 : 42" 480 : 48"	3- WCB 4- CF8M(SS316) 8- CF8(SS304)	3- WCB 4-CF8M(SS316) 8- CF8(SS304)	6- 17-4-PH 5-XM19 1-SS410 4-SS316	G-SS316+GRAPHITE T-SS316+PTFE H-DUPLEX SS +GRAPHITE A-INCONEL+GRAPHITE D-SS316 (Solid)	5 - Class 150 6 - Class 300 9 - Class 600	B-BARE G - GEAR	0-NO SPECIAL REQUIREMENT S - SPECIAL REQUIREMENT AS SPECIFIED BY CUSTOMER

For example: To order a 12" Wafer Body Valve, CF8M Body, CF8M Disc, SS316 Stem, SS316 + Graphite Seal, 150 Class, Gear Operated with no special requirements:

4	A	1	2	0	4	4	4	G	5	G	0

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