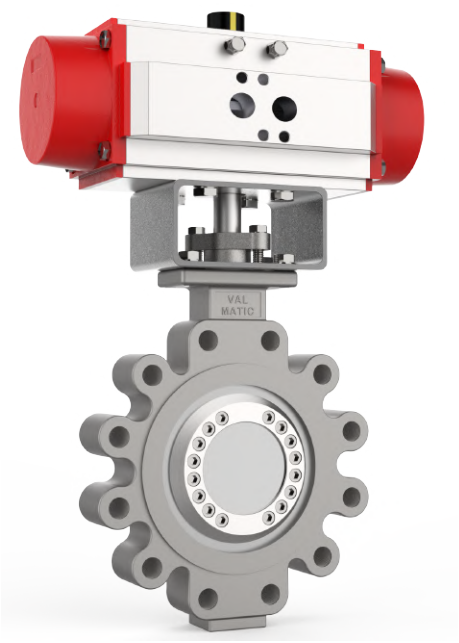
VALMATIC®

TRIPLE OFFSET BUTTERFLY VALVE

Table of Contents

OVERVIEW

VALMATIC Triple Offset Butterfly Valve



Valmatic triple offset butterfly valves features triple offset technology designed for high pressure, high temperature and critical service applications. The seat seating angles are precision engineered to deliver **high performance, durability and reliability** for the most demanding applications.

Valmatic triple offset butterfly valve includes the following features:

- Triple offset technology provides bi-directional zero leakage shutoff
- Friction free rotation between seat and seal, low torque operation
- Metal-metal sealing inherently fire safe
- Variety of sealing options
- Direct mounting with Valmatic actuators and controls for strong mechanical connection
- Lower total cost of ownership compared to ball and gate valves in terms of initial installation and maintenance
- High life cycle, switch life up to 500,000 times

TECHNICAL DATA

Specifications

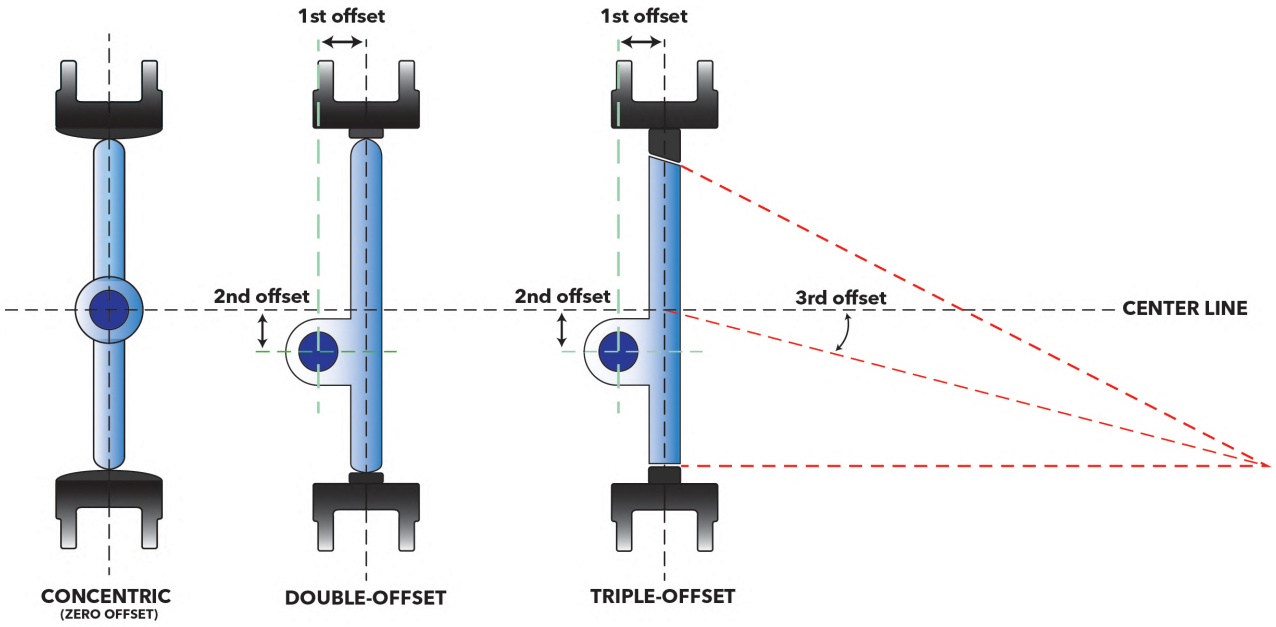
Body Styles	Wafer, Lug, Double Flange, Butt-weld
Size Range	DN50 - DN4000
Temperature Range	-196°C to 700°C
Pressure Ratings	ASME Class 150, 300, 600, 900, 1500
Valve Design Pressure/ Temperature Ratings	API 609 EN 593 JB/T 8527
Flange Standard	ASME B16.5 ASME B16.47B EN 1092 GB/T 9113
Face-to-Face	API 609 ASME B16.10 EN 558 GB/T 9113
Test Standard	API 598 EN 1226-1 GB/T 13927

Material Options

Body	Carbon Steels High Temperature Alloy Steels Stainless Steels Duplex Stainless Steel Superduplex Stainless Steel
Disc	Same as body material
Seat	Same as body material with optional hard surfacing
Seal Ring	Laminated Metal Graphite or Solid Metal

Note: Other materials are available on request

TRIPLE OFFSET DESIGN



Zero Offset

Disc rotates around the centre axis allowing for a 360° rotation. Sealing is achieved by disc deforming the soft seat. This interference fit allows for a bubble-tight shut off in both directions.

Double Offset

This offset is the displacement of the shaft from the centreline. The first offset is the displacement of the shaft from the centreline of the disc seat and body seal. This is to provide a continuous sealing surface.

The second offset is the displacement from the centreline of the pipe/bore. This is to allow the disc and seal right to easily lift off and away from the body seat.

The result is a cam like motion to lift the seat from the seal during operation. Friction between the disc and seal occurs during the first 10° of opening and final 10° of closing.

Triple Offset

The third offset is achieved by altering the geometry of the sealing component. Here, the seal is machined into an offset conical profile resulting in a right-angled cone. The third offset eliminates friction, rubbing and reduce wear between the seat and seal ring during operation. Contact is only made at the final point of closure.

Once the seat and seal ring are in contact, torque is applied to create a bi-directional bubble tight seal. This is known as 'torque-seated' rather than by mechanical interference of 'position-seated' ball, butterfly and plug valves.

COMMON APPLICATIONS

- Bulk Liquid Isolation
- Power Generation
- Steam Supply
- Pulp & Paper Steam Isolation
- Emergency Shut Off/Safety
- High pressure & protective function:
  - Boiler blow-off
  - Turbine back flow
  - Turbine supply & bypass

FEATURES & BENEFITS

Stem

External blow-out proof stem safe, complies with API 609 requirements.

Packing

A variety of packing structure available to meet the requirements of different working conditions.

Seal Ring

Seal with elastic metal steel in the interlayer enables the valve to have zero leakage performance

Seat

Designed with optimised seating angles to enable friction free rotations. This extends the service life of both the sealing components and the valve.

Low operating torque allows for easy handling and lowers the cost of actuation.

SEAT OPTIONS

Seal Structure Type

1. Seal ring on disc

This configuration is commonly to suit most applications. Seal rings are replaceable as a standard.

2. Seal ring on body

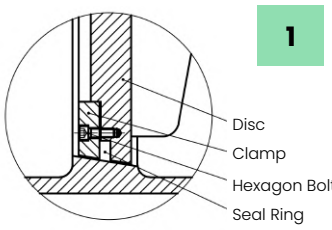
This configuration is suited for abrasive media. The seal ring is protected from direct contact with the media when the disc is in open position. This reduces the wear and increases the lifespan of the seal ring.

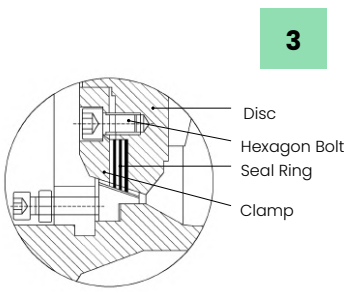
3. Seal ring with replaceable seat structure

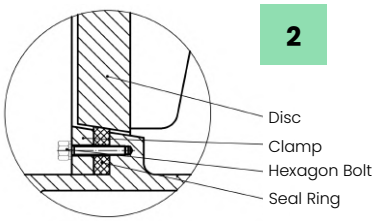
In this configuration, the seat and seal ring are field replaceable. Reference markings are present to aid the assembly and to ensure optimal alignment. This extends the service life of the valve while reducing plant downtime and cost of ownership.

** It is recommended to purchase spare seal ring and seats together with the valve*

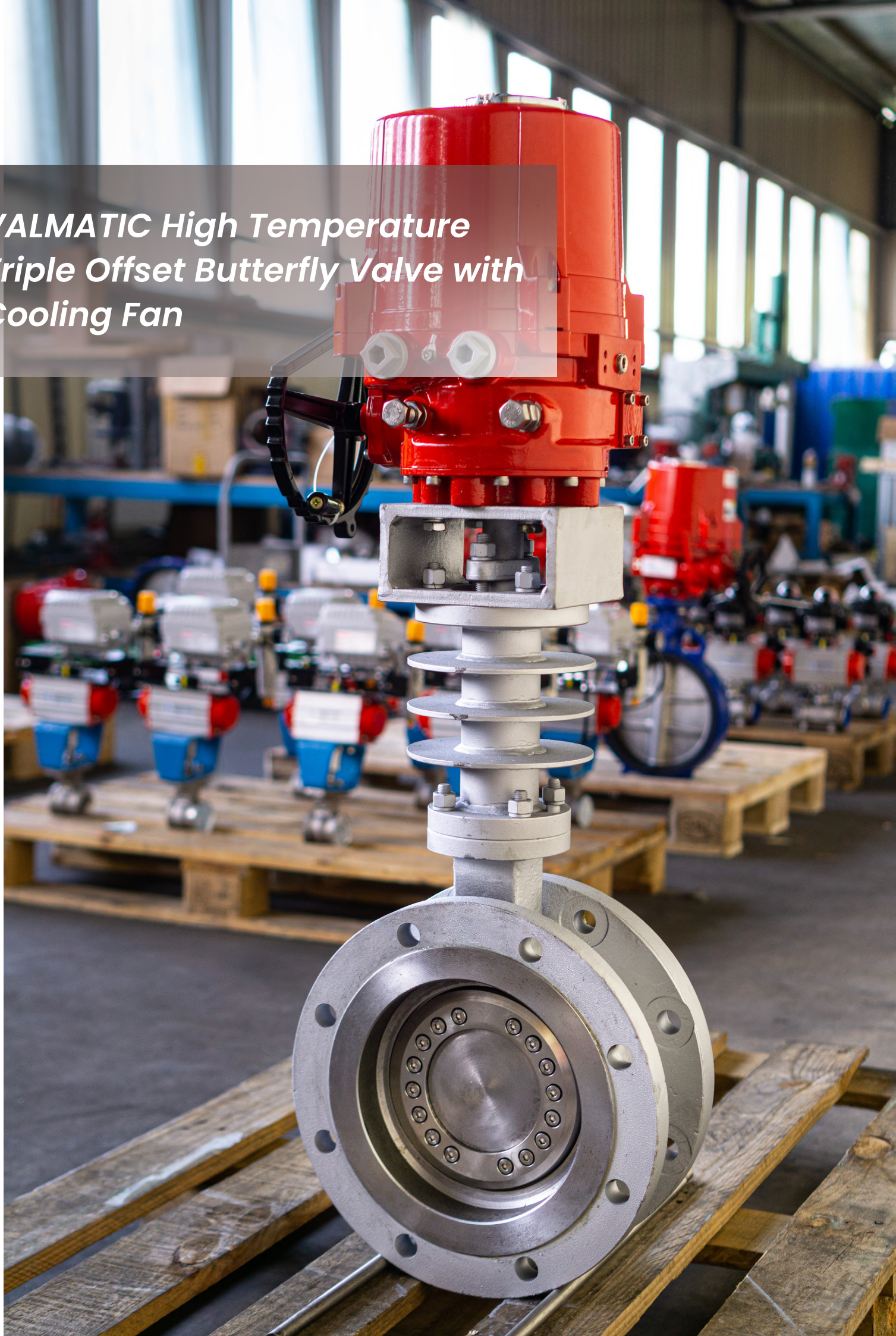
Part	Materials	Material
Seat	**WCB/WC6** **SS304/SS316/ Duplex**	Seat can be hardsurfaced with Stellite 6 or 21 as an option
Seal Ring	**Laminated SS + graphite** **PTFE** **SS304/SS316/ Duplex**	The laminated seal ring is composed of alternative layers of metal and graphite. For extreme temperatures applications, a solid metal seal ring can be made.





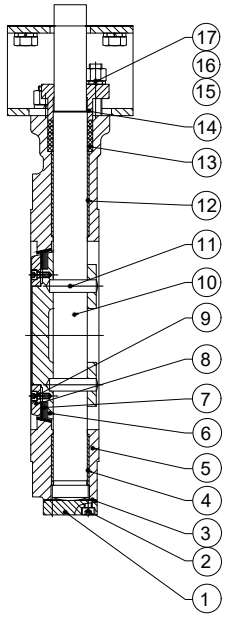


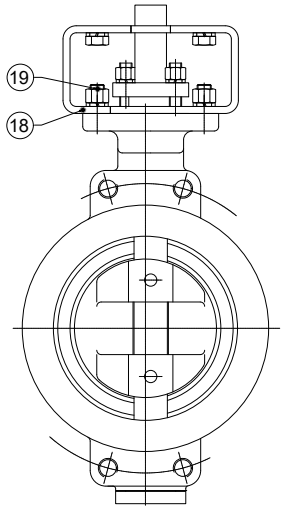
VALMATIC High Temperature Triple Offset Butterfly Valve with Cooling Fan



MATERIALS OF CONSTRUCTION (PARTS LIST)

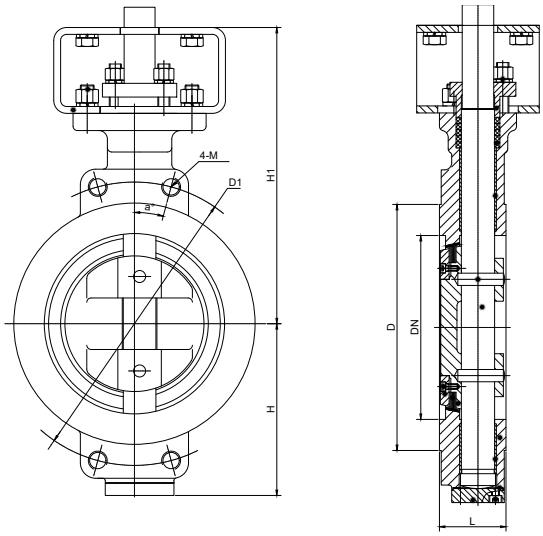
Item	Description	Material	
		Standard	Optional
1	Bottom Cover	A105 Stainless Steel 304, 316	Duplex Stainless Steel, ASTM A182 F51
2	Hexagon Bolt	B8M -A193	
3	Seal Gasket	Graphite	
4	Down Bearing Bush	Self lubricating bearing	Duplex Stainless Steel + PTFE, ASTM A182 F51 + PTFE
5	Body	ASTM A126 WCB ASTM A351 CF8, CF8M	Duplex Stainless Steel, ASTM A995 4A *Hardcoating: Stellite, Hard Chromium, Inconel*
6	Disc	ASTM A351 CF8, CF8M	Duplex Stainless Steel, ASTM A995 4A
7	Seal Ring	PTFE Stainless Steel 316 + Graphite	RPTFE Solid Metal
8	Disc Cover	Stainless Steel 304, 316	
9	Hexagon Bolts	B8M -A193	
10	Stem	17-4 PH Stainless Steel	Duplex Stainless Steel, ASTM A182 F51
11	Pin	17-4 PH Stainless Steel	Duplex Stainless Steel, ASTM A182 F51
12	Up Bearing Bushing	Self lubricating bearing	Duplex Stainless Steel + PTFE, ASTM A182 F51 + PTFE
13	V Type Packing	Graphite	
14	Packing Gland	ASTM A351 CF8, CF8M	Duplex Stainless Steel, ASTM A995 4A
15	Hexagon Nuts	B8M -A193	
16	Disc Spring	1065 1566	Stainless Steel 316
17	Studs	B7 - A193	
18	Yoke	1020 ASTM A351 CF8, CF8M	
19	Hexagon Nuts	2H - A194 8M -A194	





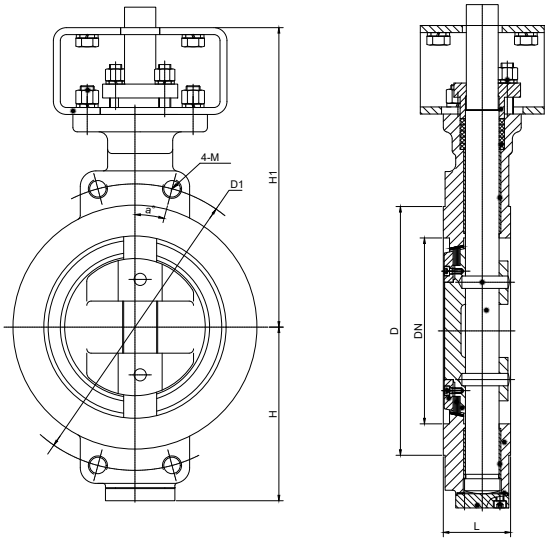
DIMENSIONS & WEIGHT (mm & kg)

ASME Class 150 - Wafer



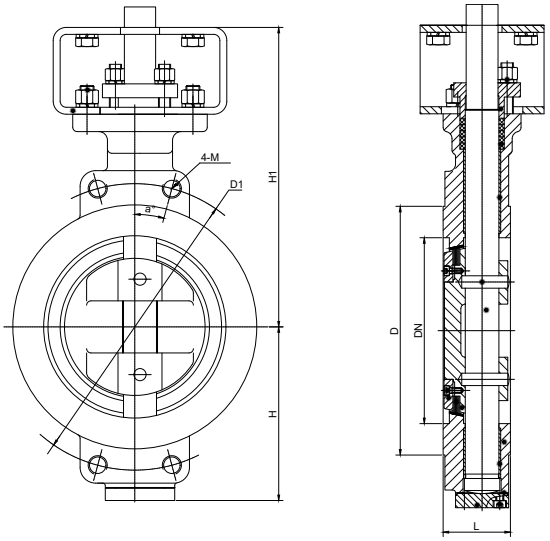
Size (150)		L	D2	D3	f	a°	n-M	ISO5 211	Nm	Weight	Cv	H	H1	H2
inch	DN													
2	50	43	120.7	92.1				F07	26	5	58	65	160	40
2.5	65	46	139.7	104.8				F07	32	6	109	85	167	40
3	80	48	152.4	127				F07	80	10	165	85	197	40
4	100	54	190.5	157.2				F07	142	11	318	107	204	40
5	125	57	215.9	185.7				F10	264	15	648	138	237	50
6	150	57	241.3	215.9				F10	362	21	932	147	272	60
8	200	64	298.5	269.9				F12	785	32	1970	185	307	60
10	250	71	362	323.8				F14	1080	45	2689	215	354	60
12	300	81	431.8	381	2	15	4-7/8-9UNC	F14	1510	80	3930	252	395	60
14	350	92	476.3	412.8	2	15	4-1-8UNC	F16	2458	90	5290	287	445	80
16	400	102	539.8	469.9	2	11.25	4-1-8UNC	F25	2850	110	7726	317	490	90
18	450	114	577.9	533.4	2	11.25	4-1 1/8-8UNC	F25	4536	170	9856	342	507	90
20	500	127	635	584.2	2	9	4-1 1/8-8UNC	F25	6200	190	12180	372	575	90
22	550	154	692.2	641.4	2	9	4-1 1/4-8UNC	F25	7300	250	15625	409	575	120
24	600	154	749.3	692.2	2	9	4-1 1/4-8UNC	F25	8240	290	19800	439	605	120
26	650	165	744.5	711	2	5	8-3/4-10UNC	F30	10380	312	23850	510	645	120
28	700	165	795.3	762	2	4.5	8-3/4-10UNC	F30	11682	392	27600	536	680	120
30	750	190	846.1	813	2	4.09	8-3/4-10UNC	F30	14340	472	33700	580	710	150
32	800	190	900.1	864	2	3.75	8-3/4-10UNC	F30	17856	528	35800	581	705	150
34	850	203	957.3	921	2	4.5	8-7/8-9UNC	F30	23345	588	40400	636	825	150
36	900	203	1009.6	972	2	4.09	8-7/8-9UNC	F30	27200	648	45600	675	850	150
38	950	203	1070	1022	2	4.5	8-1-8UNC	F35	31000	784	50560	675	855	150
40	1000	216	1120.8	1080	2	4.09	8-1-8UNC	F35	32000	926.4	56000	725	885	150
42	1050	216	1171.6	1130	2	3.75	8-1-8UNC	F35	34000	960	61800	777	952	180
44	1100	254	1222.4	1181	2	3.461	8-1-8UNC	F35	36000	1000	67800	786	965	180
48	1200	254	1335.1	1289	2	3.75	8-1 1/8-8UN	F40	45400	1496.8	82500	847	1020	180
52	1300	279	1436.7	1391	2	3.461	8-1 1/8-8UN	F40	56000	1600	104336	896	1080	180
56	1400	279	1543	1492	2	3	8-1 1/8-8UN	F40	70500	2000	121000	980	1205	200
60	1500	318	1662.1	1600	2	3.461	8-1 1/4-8UN	F40	86000	2500	160380	995	1225	200

ASME Class 300 - Wafer



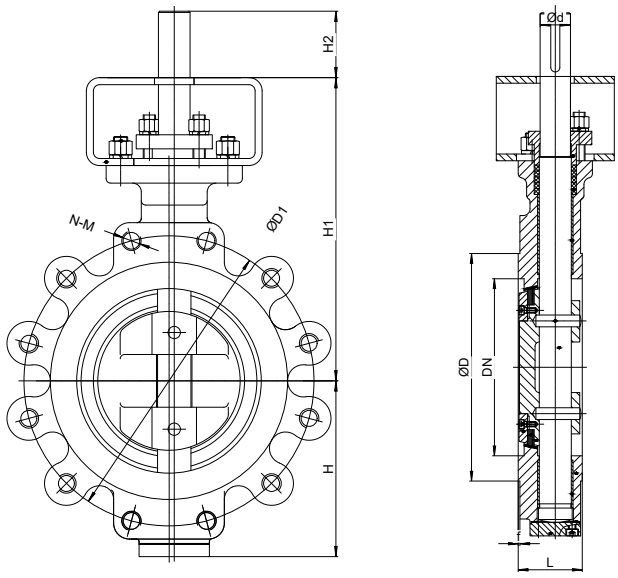
Size (300)		L	D2	D3	f	a°	n-M	ISO5 211	Nm	Weight	Cv	H	H1	H2
inch	DN													
2	50	43	127	92.1				F07	78	6	58	65	160	40
2.5	65	46	149.2	104.8				F07	88	7	109	85	167	40
3	80	48	168.3	127				F07	144	11	165	100	207	40
4	100	54	200	157.2				F07	258	13	318	120	222	45
5	125	59	235	185.7	2	22.5	4 3/4-10UNC	F10	412	21	648	165	272	60
6	150	59	269.9	215.9	2	15	4 3/4-10UNC	F12	798	24	932	185	292	60
8	200	73	330.2	269.9	2	15	4-7/8-9UNC	F14	1960	36	1970	215	345	80
10	250	83	387.4	323.8	2	11.25	4-1-8UNC	F16	2270	57.6	2689	252	400	80
12	300	92	450.8	381	2	11 1/4	4-1 1/8-8UNC	F16	2780	80	3930	282	440	85
14	350	117	514.4	412.8	2	9	4-1 1/8-8UNC	F25	5680	110	5290	330	485	90
16	400	133	571.5	469.9	2	9	4-1 1/4-8UNC	F25	7800	160	7726	365	510	90
18	450	149	628.6	533.4	2	7.5	4-1 1/4-8UNC	F25	8956	240	9856	405	550	120
20	500	159	685.8	584.2	2	7.5	4-1 1/4-8UNC	F30	11518	300	12180	435	580	120
22	550	181	743	641.4	2	7.5	4-1 1/2-8UNC	F30	15800	350	15625	480	610	150
24	600	181	812.8	692.2	2	7.5	4-1 1/2-8UNC	F30	18393	400	19800	515	645	150
26	650	229	803.3	737	2	5.625	8-1 1/4-8UN	F35	24000	500	19327	575	700	150
28	700	229	857.2	787	2	5	8-1 1/4-8UN	F35	27478	656	22410	600	725	180
30	750	229	920.8	845	2	5	8-1 3/8-8UN	F35	38971	800	27090	635	765	180
32	800	241	977.9	902	2	5.625	8-1 1/2-8UN	F35	41150	928	33050	665	855	180
34	850	241	1031.9	953	2	5	8-1 1/2-8UN	F35	48200	1000	37320	686	880	180
36	900	241	1089	1010	2	5.625	8-1 5/8-8UN	F35	53700	1148	42090	712	920	180
38	950	241	1139.8	1060	2	5	8-1 5/8-8UN	F35	63000	1280	47000	764	950	200
40	1000	300	1190.6	1114	2	4.5	8-1 5/8-8UN	F35	68370	1420	48964	784	980	200
42	1050	300	1244.6	1168	2	5	8-1 3/4-8UN	F35	75400	1560	53700	809	985	200
44	1100	300	1295.4	1219	2	4.5	8-1 3/4-8UN	F35	82650	1800	62500	839	1010	200
48	1200	360	1416	1327	2	4.5	8-1 7/8-8UN	F48	108000	2120	69350	916	1090	250

ASME Class 600 - Wafer



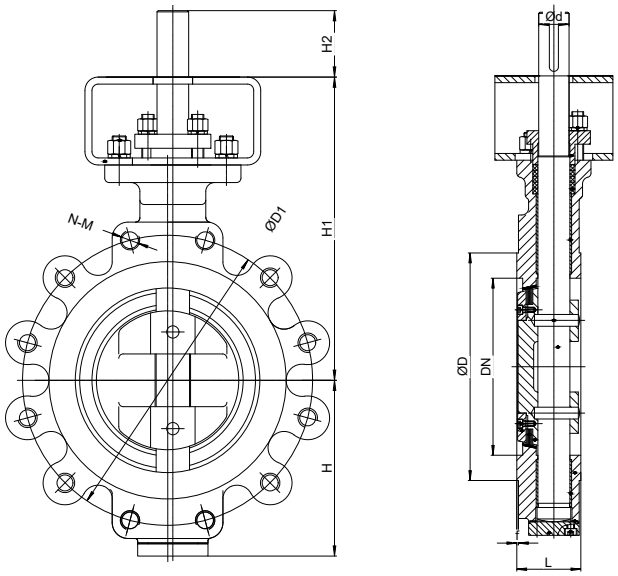
Size (600)		L	D2	D3	f	a°	n-M	ISO 5211	Nm	Weight	Cv	H	H1	H2
inch	DN													
2	50	54	127	92.1	7	22.5	4-5/8-11UNC	F07	162	7	42	82.5	190	40
2.5	65	54	149.2	104.8	7	22.5	4-3/4-10UNC	F07	208	9	72	95	210	40
3	80	54	168.3	127	7	22.5	4-3/4-10UNC	F10	340	13	107	100	227	40
4	100	64	215.9	157.2	7	22.5	4-7/8-9UNC	F12	633	42	250	120	242	60
5	125	78	266.7	185.7	7	22.5	4-1-8UNC	F12	960	45	416	188	282	60
6	150	78	292.1	215.9	7	15	4-1-8UNC	F16	1630	50	600	210	345	60
8	200	102	349.2	269.9	7	15	4-1 1/8-8UN	F16	3540	60	1079	245	380	80
10	250	117	431.8	323.8	7	11.25	4-1 1/4-8UN	F25	5462	105	1708	287	440	90
12	300	140	489	381	7	9	4-1 1/4-8UN	F25	6018	150	2620	315	475	90
14	350	155	527	412.8	7	9	4-1 3/8-8UN	F25	10913	220	4062	357	510	120
16	400	178	603.2	469.9	7	9	4-1 1/2-8UN	F30	15757	348.8	5292	401	570	150
18	450	200	654	533.4	7	9	4-1 5/8-8UN	F35	19805	509.6	7395	437	615	150
20	500	216	723.9	584.2	7	7.5	8-1 5/8-8UN	F35	25808	608	9320	543	670	150
22	550	232	777.7	641.4	7	7.5	8-1 3/4-8UN	F40	40258	650	12260	560	705	180
24	600	232	838.2	692.2	7	7.5	8-1 7/8-8UN	F40	44799	710.4	13578	597	735	180

ASME Class 150 - Lug



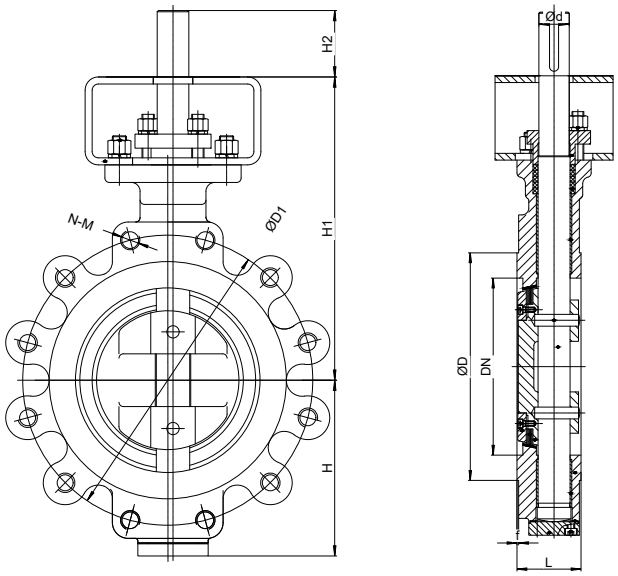
Size (150L)		L	D2	D3	f	n-M	ISO5 211	Nm	Weight	Cv	H	H1	H2
inch	DN												
2	50	43	120.7	92.1	2	4-5/8-11UNC	F07	26	5	58	65	160	40
2.5	65	46	139.7	104.8	2	4-5/8-11UNC	F07	32	6	109	85	167	40
3	80	48	152.4	127	2	4-5/8-11UNC	F07	80	8	165	85	197	40
4	100	54	190.5	157.2	2	4-5/8-11UNC	F07	142	12	318	107	204	40
5	125	57	215.9	185.7	2	8-3/4-10UNC	F10	264	20	648	138	237	50
6	150	57	241.3	215.9	2	8-3/4-10UNC	F10	362	25	932	147	272	60
8	200	64	298.5	269.9	2	8-3/4-10UNC	F12	785	36	1970	185	307	60
10	250	71	362	323.8	2	12-7/8-9UNC	F14	1080	60	2689	215	355	60
12	300	81	431.8	381	2	12-7/8-9UNC	F14	1510	80	3930	252	395	60
14	350	92	476.3	412.8	2	12-1-8UNC	F16	2458	120	5290	287	445	80
16	400	102	539.8	469.9	2	16-1-8UNC	F25	2850	140.8	7726	317	490	90
18	450	114	577.9	533.4	2	16-1 1/8-8UN	F25	4536	180	9856	342	507	90
20	500	127	635	584.2	2	20-1 1/8-8UN	F25	6200	220	12180	372	535	90
22	550	154	692.2	641.4	2	20-1 1/4-8UN	F25	7300	250	15625	409	575	120
24	600	154	749.3	692.2	2	20-1 1/4-8UN	F25	8240	300	19800	439	605	120
26	650	165	744.5	711	2	36-3/4-10UNC	F30	10380	400	23850	510	645	120
28	700	165	795.3	762	2	40-3/4-10UNC	F30	11682	456	27600	536	680	120
30	750	190	846.1	813	2	44-3/4-10UNC	F30	14340	512	33700	580	710	150
32	800	190	900.1	864	2	48-3/4-10UNC	F30	17856	560	35800	581	705	150
34	850	203	957.3	921	2	40-7/8-9UNC	F30	23345	620	40400	636	825	150
36	900	203	1009.6	972	2	44-7/8-9UNC	F30	27200	680	45600	675	850	150
38	950	203	1070	1022	2	40-1-8UNC	F35	31000	850	50560	675	855	150
40	1000	216	1120.8	1080	2	44-1-8UNC	F35	32000	1000	56000	725	885	150
42	1050	216	1171.6	1130	2	48-1-8UNC	F35	34000	1136	61800	777	952	180
44	1100	254	1222.4	1181	2	52-1-8UNC	F35	36000	1200	67800	786	965	180
48	1200	254	1335.1	1289	2	44-1 1/8-8UN	F40	45400	1337.6	82500	847	1020	180

ASME Class 300 - Lug



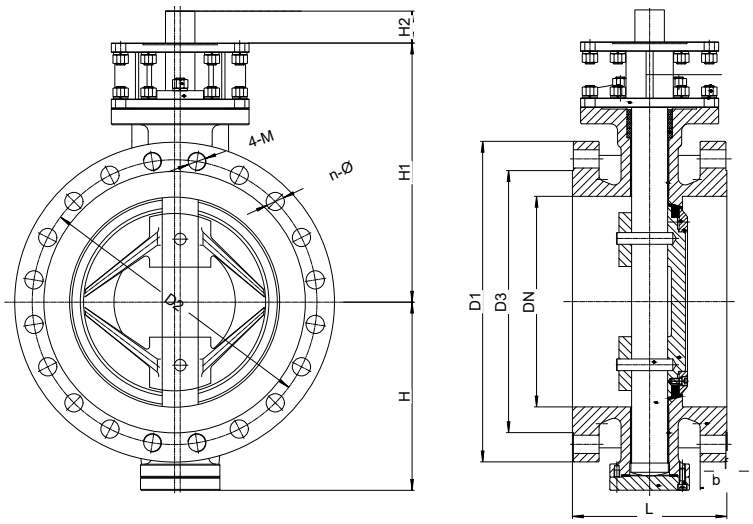
Size (300L)		L	D2	D3	f	n-M	ISO5 211	Nm	Weight	Cv	H	H1	H2
inch	DN												
2	50	43	127	92.1	2	8-5/8-11UNC	F07	78	7	58	65	160	40
2.5	65	46	149.2	104.8	2	8-3/4-10UNC	F07	88	9	109	85	167	40
3	80	48	168.3	127	2	8-3/4-10UNC	F07	144	13	165	85	182	40
4	100	54	200	157.2	2	8-3/4-10UNC	F07	258	18	318	100	204	45
5	125	59	235	185.7	2	8-3/4-10UNC	F10	412	25	648	165	272	60
6	150	59	269.9	215.9	2	12-3/4-10UNC	F12	798	32	682	185	292	60
8	200	73	330.2	269.9	2	12-7/8-9UNC	F14	1960	51.2	1230	215	345	80
10	250	83	387.4	323.8	2	16-1-8UNC	F16	2270	80	2370	252	400	80
12	300	92	450.8	381	2	16-1 1/8-8UN	F16	2780	125.6	3520	282	440	85
14	350	117	514.4	412.8	2	20-1 1/8-8UN	F25	5680	204	4782	330	485	90
16	400	133	571.5	469.9	2	20-1 1/4-8UN	F25	7800	276.8	6280	365	510	90
18	450	149	628.6	533.4	2	24-1 1/4-8UN	F25	8956	360	7980	405	550	120
20	500	159	685.8	584.2	2	24-1 1/4-8UN	F30	11518	460	10800	435	580	120
22	550	181	743	641.4	2	24-1 1/2-8UN	F30	15800	550	13030	480	610	150
24	600	181	812.8	692.2	2	24-1 1/2-8UN	F30	18393	630	16180	520	640	150
26	650	229	803.3	737	2	32-1 1/4-8UN	F35	24000	630	19327	575	700	150
28	700	229	857.2	787	2	36-1 1/4-8UN	F35	27478	800	22410	600	725	180
30	750	229	920.8	845	2	36-1 3/8-8UN	F35	38971	960	27090	640	765	180
32	800	241	977.9	902	2	32-1 1/2-8UN	F40	41150	1224	33050	665	855	180
34	850	241	1031.9	953	2	36-1 1/2-8UN	F40	48200	1280	37320	686	880	180
36	900	241	1089	1010	2	32-1 5/8-8UN	F40	53700	1336	42090	712	920	180
38	950	241	1139.8	1060	2	36-1 5/8-8UN	F40	63000	1580	47000	764	950	200
40	1000	300	1190.6	1114	2	40-1 5/8-8UN	F40	68370	1832	48964	784	980	200
42	1050	300	1244.6	1168	2	36-1 3/4-8UN	F40	75400	2137.6	53700	809	985	200
44	1100	300	1295.4	1219	2	40-1 3/4-8UN	F40	82650	2500	62500	839	1010	200
48	1200	360	1416	1327	2	40-1 7/8-8UN	F48	108000	2880	69350	916	1090	250

ASME Class 600 - Lug



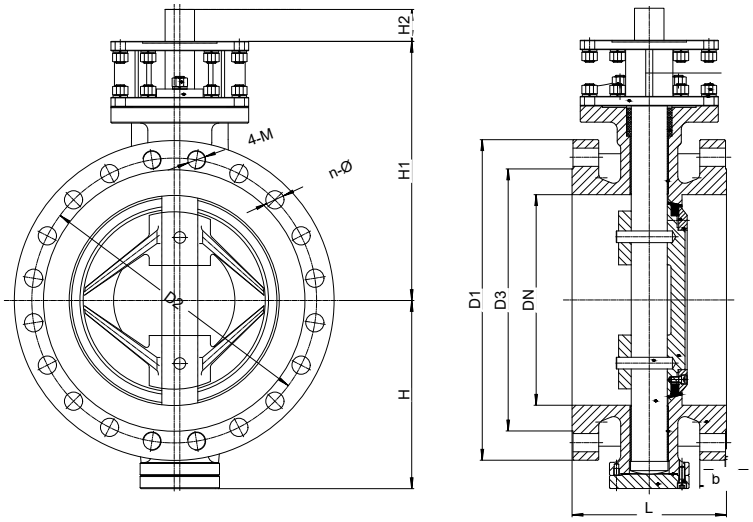
Size (600L)		L	D2	D3	f	n-M	ISO 5211	Nm	Weight	Cv	H	H1	H2
inch	DN												
2	50	54	127	92.1	7	8-5/8-11UNC	F07	162	9	42	82.5	190	40
2.5	65	54	149.2	104.8	7	8-3/4-10UNC	F07	208	13	72	95	210	40
3	80	54	168.3	127	7	8-3/4-10UNC	F10	340	17	107	100	227	40
4	100	64	215.9	157.2	7	8-7/8-9UNC	F12	633	25	250	120	242	60
5	125	78	266.7	185.7	7	8-1-8UNC	F12	960	43	416	188	282	60
6	150	78	292.1	215.9	7	12-1-8UNC	F16	1630	62	600	210	345	60
8	200	102	349.2	269.9	7	12-1 1/8-8UN	F16	3540	100	1079	245	380	80
10	250	117	431.8	323.8	7	16-1 1/4-8UN	F25	5462	140	1708	287	440	90
12	300	140	489	381	7	20-1 1/4-8UN	F25	6018	210	2620	315	475	90
14	350	155	527	412.8	7	20-1 3/8-8UN	F25	10913	350	4062	357	510	120
16	400	178	603.2	469.9	7	20-1 1/2-8UN	F30	15757	530	5292	401	570	150
18	450	200	654	533.4	7	20-1 5/8-8UN	F35	19805	720	7395	437	615	150
20	500	216	723.9	584.2	7	24-1 5/8-8UN	F35	25808	890	9320	543	670	150
22	550	232	777.7	641.4	7	24-1 3/4-8UN	F40	40258	1000	12260	560	705	180
24	600	232	838.2	692.2	7	24-1 7/8-8UN	F40	44799	1280	13578	597	735	180

ASME Class 150 - Double Flange



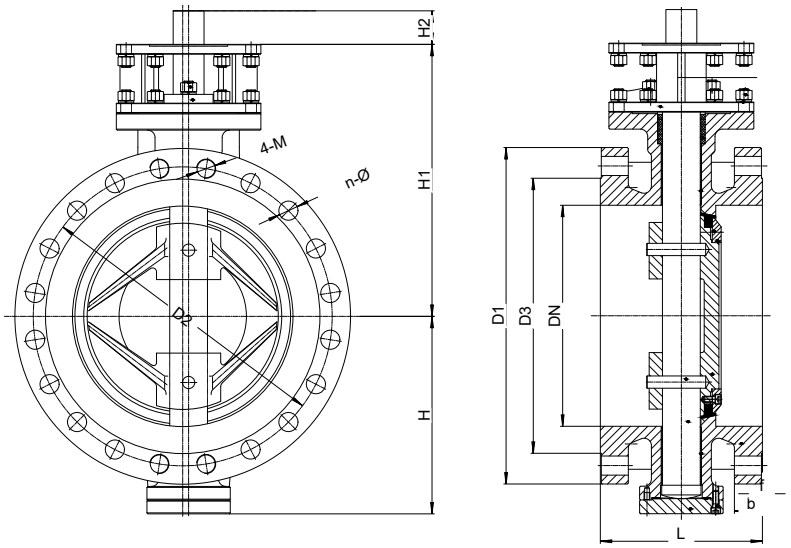
Size (150D)		L	D1	D2	D3	N-Φ	n-M	b	f	ISO5211	Nm	Weight	Cv	H	H1	H2
inch	DN															
2	50	108	150	120.7	92.1	4-Φ19.1	-	19.5	2	F07	26	10	58	75	160	40
2.5	65	112	180	139.7	104.8	4-Φ19.1	-	22.7	2	F07	32	14	109	90	172	40
3	80	114	190	152.4	127	4-Φ19.1	-	24.3	2	F07	80	17	165	95	197	40
4	100	127	230	190.5	157.2	8-Φ19.1	-	24.3	2	F07	142	23	318	115	204	40
5	125	140	255	215.9	185.7	8-Φ22.2	-	24.3	2	F10	264	32	648	138	260	50
6	150	140	280	241.3	215.9	8-Φ22.2	-	25.9	2	F10	362	41	932	147	272	60
8	200	152	345	298.5	269.9	8-Φ22.2	-	29	2	F12	785	50	1970	185	307	60
10	250	165	405	362	323.8	8-Φ25.4	4-7/8-9UNC	30.6	2	F14	1080	74	2689	215	355	60
12	300	178	485	431.8	381	8-Φ25.4	4-7/8-9UNC	32.2	2	F14	1510	120	3930	252	395	60
14	350	190	535	476.3	412.8	8-Φ28.6	4-1-8UNC	35.4	2	F16	2458	146	5290	287	440	80
16	400	216	595	539.8	469.9	12-Φ28.6	4-1-8UNC	37	2	F25	2850	200	7726	317	490	90
18	450	222	635	577.9	533.4	12-Φ31.8	4-1 1/8-8UN	40.1	2	F25	4536	236	9856	342	507	90
20	500	229	700	635	584.2	16-Φ31.8	4-1 1/8-8UN	43.3	2	F25	6200	300	12180	372	535	90
22	550	267	750	692.2	641.4	16-Φ34.9	4-1 1/8-8UN	46.5	2	F25	7300	400	15625	409	575	120
24	600	267	815	749.3	692.2	16-Φ34.9	4-1 1/8-8UN	48.1	2	F25	8240	460	19800	439	605	120
26	650	292	785	744.5	711	36-Φ22.2	-	41.8	2	F30	10380	460	23850	510	645	120
28	700	292	835	795.3	762	40-Φ22.2	-	45	2	F30	11682	500	27600	536	680	120
30	750	318	885	846.1	813	44-Φ22.2	-	45	2	F30	14340	570	33700	580	710	150
32	800	318	940	900.1	864	48-Φ22.2	-	46.6	2	F30	17856	620	35800	581	705	150
34	850	330	1005	957.3	921	40-Φ25.4	-	49.7	2	F30	23345	750	40400	636	825	150
36	900	330	1055	1009.6	972	44-Φ25.4	-	52.9	2	F30	27200	794	45600	675	850	150
38	950	410	1125	1070	1022	40-Φ28.6	-	54.5	2	F35	31000	1100	50560	675	855	150
40	1000	410	1175	1120.8	1080	44-Φ28.6	-	56.1	2	F35	32000	1250	56000	725	885	150
42	1050	410	1225	1171.6	1130	48-Φ28.6	-	59.3	2	F35	34000	1300	61800	777	952	180
44	1100	470	1275	1222.4	1181	52-Φ28.6	-	60.9	2	F35	36000	1336	67800	786	965	180
48	1200	470	1390	1335.1	1289	44-Φ31.8	-	65.6	2	F40	45400	1800	82500	847	1020	180
52	1300	530	1495	1436.7	1391	52-Φ31.8	-	70.4	2	F40	56000	1900	104336	896	1080	180
56	1400	530	1600	1543	1492	60-Φ31.8	-	73.6	2	F40	70500	2000	121000	941	1175	200
60	1500	530	1725	1662.1	1600	52-Φ34.9	-	76.7	2	F40	86000	3300	160380	995	1225	200

ASME Class 300 - Double Flange



Size (300D)		L	D1	D2	D3	N-Φ	n-M	b	f	ISO5211	Nm	Weight	Cv	H	H1	H2
inch	DN															
2	50	108	165	127	92.1	4-Φ19.1	4-5/8-11UNC	22.7	2	F07	78	13	58	82.5	160	40
2.5	65	112	190	149.2	104.8	4-Φ22.2	4-3/4-10UNC	25.9	2	F07	88	18	109	95	172	40
3	80	114	210	168.3	127	4-Φ22.2	4-3/4-10UNC	29	2	F07	144	23.2	165	105	207	40
4	100	127	255	200	157.2	4-Φ22.2	4-3/4-10UNC	32.2	2	F07	258	32	318	127.5	222	45
5	125	140	280	235	185.7	4-Φ22.2	4-3/4-10UNC	35.4	2	F10	412	42	648	170	272	60
6	150	140	320	269.9	215.9	8-Φ22.2	4-3/4-10UNC	37	2	F12	798	58	682	190	292	60
8	200	152	380	330.2	269.9	8-Φ25.4	4-7/8-9UNC	41.7	2	F14	1960	85	1230	230	345	80
10	250	165	445	387.4	323.8	12-Φ28.6	4-1-8UNC	48.1	2	F16	2270	121.6	2370	260	400	80
12	300	178	520	450.8	381	12-Φ31.8	4-1 1/8-8UN	51.3	2	F16	2780	180	3520	300	440	85
14	350	190	585	514.4	412.8	16-Φ31.8	4-1 1/8-8UN	54.4	2	F25	5680	245	4782	330	485	90
16	400	216	650	571.5	469.9	16-Φ34.9	4-1 1/4-8UN	57.6	2	F25	7800	334	6280	365	510	90
18	450	222	710	628.6	533.4	20-Φ34.9	4-1 1/4-8UN	60.8	2	F25	8956	400	7980	405	550	120
20	500	229	775	685.8	584.2	20-Φ34.9	4-1 1/4-8UN	64	2	F30	11518	594	10800	440	600	120
22	550	267	840	743	641.4	20-Φ41.3	4-1 1/2-8UN	67.1	2	F30	15800	700	13030	480	610	150
24	600	267	915	812.8	692.2	20-Φ41.3	4-1 1/2-8UN	70.3	2	F30	18393	800	16180	520	675	150
26	650	292	865	803.3	737	24-Φ34.9	8-1 1/4-8UN	89.4	2	F35	24000	820	19327	575	745	150
28	700	292	920	857.2	787	28-Φ34.9	8-1 1/4-8UN	89.4	2	F35	27478	920	22410	600	780	180
30	750	318	990	920.8	845	28-Φ38.1	8-1 3/8-8UN	94.1	2	F35	38971	1100	27090	635	815	180
32	800	318	1055	977.9	902	24-Φ41.3	8-1 1/2-8UN	103.6	2	F40	41150	1100	33050	665	895	180
34	850	330	1110	1031.9	953	28-Φ41.3	8-1 1/2-8UN	103.6	2	F40	48200	1600	37320	686	930	180
36	900	330	1170	1089	1010	24-Φ44.5	8-1 5/8-8UN	103.6	2	F40	53700	1975	42090	712	950	180
38	950	410	1220	1139.8	1060	28-Φ44.5	8-1 5/8-8UN	111.6	2	F40	63000	2017.6	47000	764	950	200
40	1000	410	1275	1190.6	1114	32-Φ44.5	8-1 5/8-8UN	116.3	2	F40	58370	2350	48964	784	960	200
44	1100	470	1385	1295.4	1219	32-Φ47.6	8-1 3/4-8UN	127.5	2	F40	82650	2600	62500	839	1010	200
48	1200	470	1510	1416	1327	32-Φ50.8	8-1 7/8-8UN	129	2	F48	108000	3200	69350	916	1090	250
52	1300	530	1615	1517.6	1429	40-Φ50.8	8-1 7/8-8UN	143.3	2	F48	123000	4288	81847	972	1150	250
56	1400	530	1765	1651	1537	28-Φ60.3	8-2 1/4-8UN	154.4	2	F48	156000	5440	94390	1087	1270	290
60	1500	530	1880	1763.7	1651	32-Φ60.3	8-2 1/4-8UN	151.3	2	F60	210000	6160	108400	1145	1370	290

ASME Class 600 - Double Flange



Size (600D)		L	D1	D2	D3	N-Φ	n-M	b	f	ISO 5211	Nm	Weight	Cv	H	H1	H2
inch	DN															
2	50	150	165	127	92.1	4-Φ19.1	4-5/8-11UNC	32.4	7	F07	162	15	42	82.5	190	40
2.5	65	170	190	149.2	104.8	4-Φ22.2	4-3/4-10UNC	35.6	7	F07	208	22	72	95	210	40
3	80	180	210	168.3	127	4-Φ22.2	4-3/4-10UNC	38.8	7	F10	340	30	107	105	242	40
4	100	190	275	215.9	157.2	4-Φ25.4	4-7/8-9UNC	45.1	7	F12	633	50	250	137.5	242	60
5	125	200	330	266.7	185.7	4-Φ28.6	4-1-8UNC	51.5	7	F12	960	88	416	188	282	60
6	150	210	355	292.1	215.9	8-Φ28.6	4-1-8UNC	54.7	7	F16	1630	118	600	210	345	65
8	200	230	420	349.2	269.9	8-Φ31.8	4-1 1/8-8UN	62.6	7	F16	3540	166	1079	245	380	80
10	250	250	510	431.8	323.8	12-Φ34.9	4-1 1/4-8UN	70.5	7	F25	5462	248	1708	292	440	90
12	300	270	560	489	381	16-Φ34.9	4-1 1/4-8UN	73.7	7	F25	6018	310	2620	320	465	90
14	350	290	605	527	412.8	16-Φ38.1	4-1 3/8-8UN	76.9	7	F25	10913	394	4062	350	527	120
16	400	310	685	603.2	469.9	16-Φ41.3	4-1 1/2-8UN	83.2	7	F30	15757	546	5292	405	570	150
18	450	330	745	654	533.4	16-Φ44.5	4-1 5/8-8UN	89.6	7	F35	19805	728	7395	440	615	150
20	500	250	815	723.9	584.2	16-Φ44.5	8-1 5/8-8UN	95.9	7	F35	25808	890	9320	543	670	150
22	550	370	870	777.7	641.4	16-Φ47.6	8-1 3/4-8UN	102.2	7	F40	40258	1100	12260	560	705	180
24	600	390	940	838.2	692.2	16-Φ50.8	8-1 7/8-8UN	108.6	7	F40	44799	1280	13578	597	735	180
26	650	410	890	806.4	727	20-Φ44.5	8-1 5/8-8UN	118.2	7	F40	54490	1300	16490	590	730	180
28	700	430	950	863.6	784	20-Φ47.6	8-1 3/4-8UN	122.9	7	F40	66593	1440	20326	620	780	180
30	750	450	1020	927.1	841	20-Φ50.8	8-1 7/8-8UN	132.5	7	F48	79506	1680	23400	675	850	180
32	800	470	1085	984.2	895	20-Φ54	8-2-8UN	137.2	7	F48	90160	2200	26370	705	890	200
36	900	510	1215	1104.9	1010	20-Φ60.3	8-2 1/4-8UN	153.1	7	F48	117500	2656	32816	760	970	250

VALMATIC®
VALVES & ACTUATORS

INDUSTRIES WE SUPPORT

INDUSTRIAL	WATER	BUILDINGS	ENERGY
Palm Oil	Water Treatment	HVAC	Oil & Gas
Bulking Facilties	Sewerage Treatment	Plumbing	Power Plant
Chemical	Civil	Fire Protection	
Pulp & Paper			

OUR SALES & SERVICE LOCATIONS

HEADQUARTERS

Valmatic Engineering Sdn Bhd
10, Jalan Anggerik Mokara 31/48
Kota Kemuning, 40460 Shah Alam
Selangor, Malaysia

Tel: 603 5122 9888 / 603 5122 0099
Fax: 603 5122 3030
Email: sales@valmatic.com.my

SUBSIDIARIES

Malaysia
Valmatic M&E Engineering Sdn Bhd
Valmatic Automation Sdn Bhd
Valmatic Valves Sdn Bhd

Indonesia
PT Valmatic Indonesia
Jakarta, Medan, Pekan Baru

Your preferred brand of valves and actuators since 1997.
Discover our range of products at **VALMATIC.COM.MY**