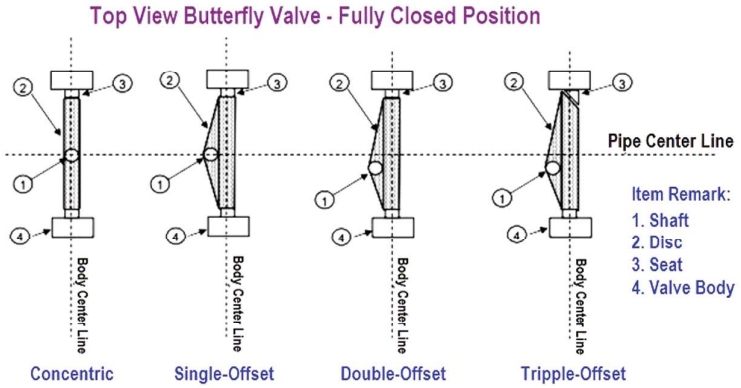
FLOWTORQ make Butterfly valves are generally preferred because they cost less than other valve designs, and are lighter weight so they need less support. Operation is similar to that of a ball valve, which allows for quick shut off. The disc is positioned in the center of the pipe. A shaft or stem passes through the disc to an actuator on the outside of the valve. Rotating the actuator turns the disc either parallel or perpendicular to the flow. Unlike a ball valve, the disc is always present within the flow, so it induces a pressure drop, even when open.

It is from a family of valves called quarter-turn valves. In operation, the valve is fully open or closed when the disc is rotated a quarter turn. The "butterfly" is a metal disc mounted on a rod. When the valve is closed, the disc is turned so that it completely blocks off the passageway. When the valve is fully open, the disc is rotated a quarter turn so that it allows an almost unrestricted passage of the fluid. The valve may also be opened incrementally to throttle flow.



Single-Offset - The shaft is offset from its body center line.

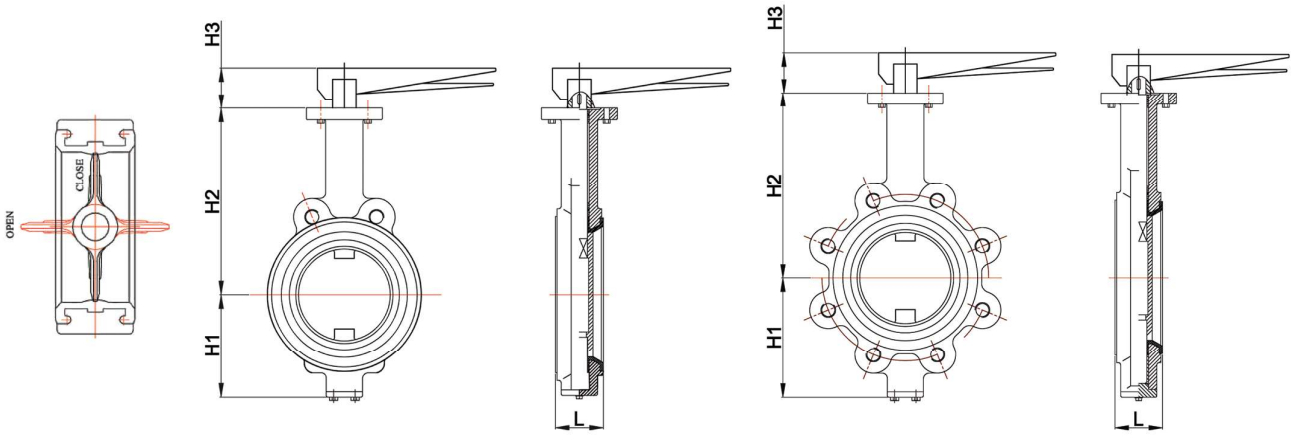
Double-Offset - The shaft is offset from its body center line + shaft offset from pipe center line.

Tripple-Offset - The shaft is offset from its body center line + shaft offset from pipe center line + conical offset shape in its seal and dics connection.

DESIGN STANDARD	
DESIGN STANDARD	ISO 5752, API 609, BS 5155, ASME B16.34
Face to Face / End to End Dimensions	BS 5155, API 609, ISO 5752, MSS SP67
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	ANSI B16.5, PN6, PN10, PN16, BS10 D & E

BUTTERFLY VALVES - CENTERLINE TYPE

The concentric butterfly valve is a standard or a general use butterfly valve. The shaft is located in the center of the disc. During opening or closing, there are some parts of the disc that always in-contact or rubbing the seat.This arrangement will make the seat experience friction each time the valve is operating. In a typical application, this concentric butterfly valve is limited to class 150 due to its seat design.



Upto 150#, PN10 - Wafer & Lug Type							
SIZE						WEIGHT (APPROX.) (kg)	
inch	mm	L	H1	H2	H3	Wafer	Lug
1.5"	40	40	54	120	33	2.5	3.4
2"	50	43	68	130	33	3	3.4
2.5"	65	46	77	138	33	4	4
3"	80	46	84	157	33	4.5	4.8
4"	100	52	105	170	33	5	6.9
5"	125	56	120	186	33	6.5	10.6
6"	150	56	135	200	33	8	11.4
8"	200	60	183	237	33	12.5	15.9
10"	250	68	223	286	50	19.5	26
12"	300	78	255	314	50	30.5	38.2
14"	350	78	280	340	50	55	60
16"	400	102	310	378	60	70	92
18"	450	114	350	400	60	95	108
20"	500	127	380	440	80	128	151
22"	550	142	396	485	80	180	245
24"	600	154	448	510	80	222	266
26"	650	165	463	530	80	265	320
28"	700	165	500	580	110	295	350
30"	750	190	520	590	110	350	430
32"	800	190	565	630	110	430	600
36"	900	203	670	700	150	600	720
40"	1000	216	725	750	150	720	805
44"	1100	216	780	840	150	805	862
48"	1200	254	860	900	150	860	940
52"	1300	280	920	970	180	940	1121
56"	1400	280	970	1010	180	1100	1429
64"	1600	360	1120	1160	180	1450	1842
72"	1800	360	1210	1270	200	1850	2250

(Code -SVE)

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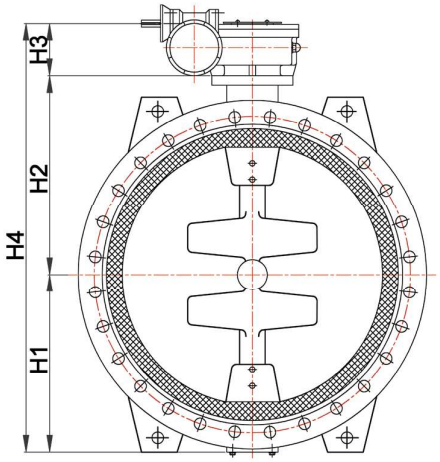
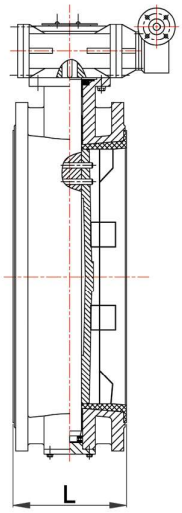
BUTTERFLY VALVES - WATER APPLICATIONS

FLOWTORQ make Butterfly Valves specialised for Water applications are typically available up to very large sizes. These are designed as per AWWA standards along with API & IS Standards. Typically are centerlined design and heavier in construction to sustain water pressure and hammer. Can be supplied in lever, gear operated handwheel and electric actuator configurations.





Upto 150#, PN10 - Wafer Type						
SIZE						WEIGHT (APPROX.) (kg)
inch	mm	L	H1	H2	E	Wafer
2"	50	43	115	210	66	7.2
3"	80	64	145	250	66	10
4"	100	64	162	265	66	39
6"	150	76	192	300	66	46
8"	200	89	209	317	80	50
10"	250	114	254	365	80	72
12"	300	114	278	414	120	81
14"	350	127	324	465	120	102
16"	400	140	349	495	120	128
18"	450	152	402	540	120	170
20"	500	152	427	608	120	198
22"	550	170	470	620	120	222
24"	600	178	502	663	203	308
28"	700	229	537	703	203	380
30"	750	230	575	750	203	570
32"	800	241	605	765	203	730
36"	900	300	682	830	203	880
40"	1000	300	752	958	203	1040
44"	1100	350	800	1000	203	1195
48"	1200	350	865	1080	203	1410
52"	1300	350	920	1140	203	1780
54"	1350	350	940	1200	270	2100
56"	1400	390	956	1261	270	2400
60"	1500	390	1050	1310	270	2800
64"	1600	440	1120	1380	270	3500

(Code -SVE)

DESIGN STANDARD	
DESIGN STANDARD	AWWA C-504, BS 5155
Face to Face / End to End Dimensions	BS 5155, ISO 5752, AWWA C-504
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	BS4504 PN10, PN16, ANSI B 16.1 Cl. 125 LB, BS 16.5 Cl. 150 LB, AWWA C-207 Class D & E, ISO 2531 PN10, PN16

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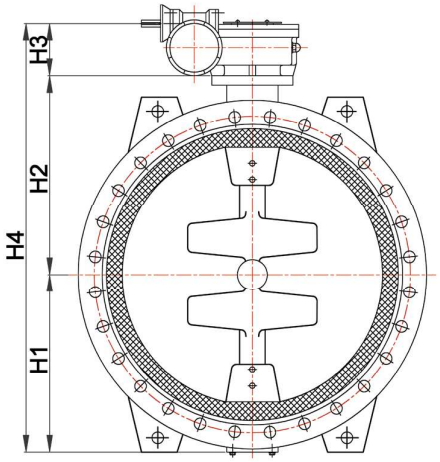
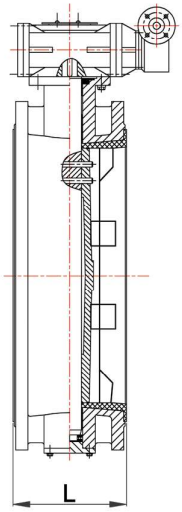
BUTTERFLY VALVES - WATER APPLICATIONS

FLOWTORQ make Butterfly Valves specialised for Water applications are typically available up to very large sizes. These are designed as per AWWA standards along with API & IS Standards. Typically are centerlined design and heavier in construction to sustain water pressure and hammer. Can be supplied in lever, gear operated handwheel and electric actuator configurations.





Upto 150#, PN10 - Flange Type						
SIZE						WEIGHT (APPROX.) (kg)
inch	mm	L	H1	H2	E	Flange
2"	50	43	115	210	66	9.5
3"	80	64	145	250	66	15
4"	100	127	162	265	66	52
6"	150	127	192	300	66	61
8"	200	153	209	317	80	68
10"	250	203	254	365	80	99
12"	300	203	278	414	120	110
14"	350	203	324	465	120	134
16"	400	203	349	495	120	170
18"	450	203	402	540	120	230
20"	500	203	427	608	120	266
22"	550	203	470	620	120	298
24"	600	203	502	663	203	410
28"	700	203	537	703	203	758
30"	750	305	575	750	203	980
32"	800	305	605	765	203	1180
36"	900	305	682	830	203	1395
40"	1000	305	752	958	203	1588
44"	1100	305	800	1000	203	1890
48"	1200	381	865	1080	203	2385
52"	1300	381	920	1140	203	2800
54"	1350	381	940	1200	270	3250
56"	1400	381	956	1261	270	3705
60"	1500	457	1050	1310	270	4675
64"	1600	457	1120	1380	270	5200

(Code -SVE)

DESIGN STANDARD	
DESIGN STANDARD	AWWA C-504, BS 5155
Face to Face / End to End Dimensions	BS 5155, ISO 5752, AWWA C-504
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	BS4504 PN10, PN16, ANSI B 16.1 Cl. 125 LB, BS 16.5 Cl. 150 LB, AWWA C-207 Class D & E, ISO 2531 PN10, PN16

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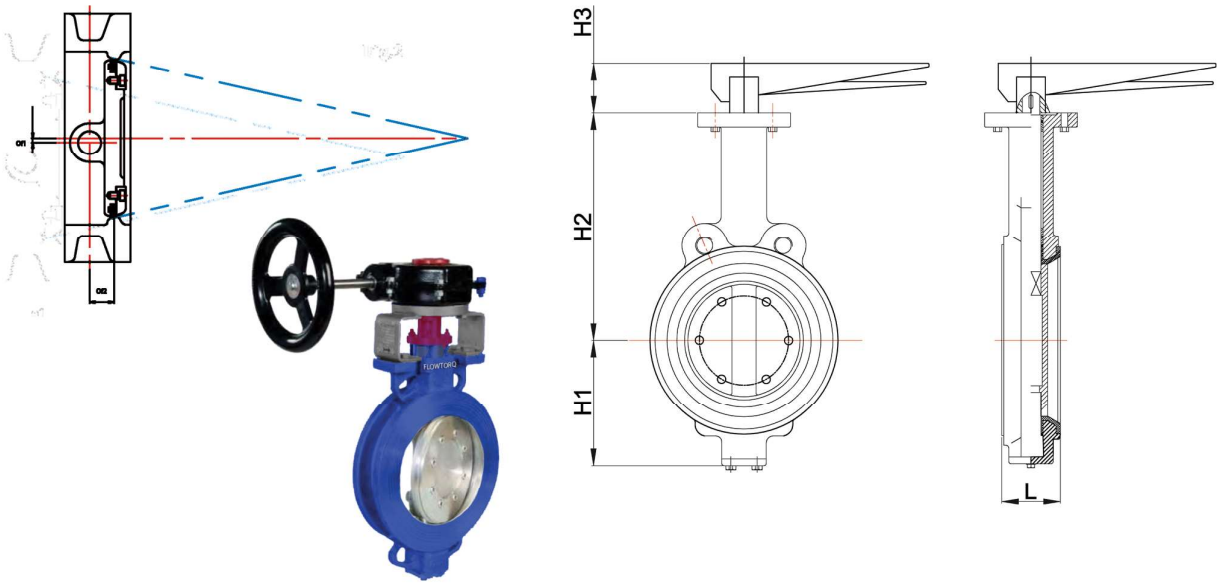
BUTTERFLY VALVES - DOUBLE OFFSET TYPE

FLOWTORQ make Double offset butetrfly valves have an added advantage and own benefits for medium critical applciations The centre of rotation is moved from the centerline of the valve body. The seat and seal design remains conical and on centre. This design again relies on a frictional, interference seal, but the length of rotation over which this friction occurs is reduced, allowing a larger range of process resistant seat materials to be used. However these materials must be relatively soft or highly elastic to prevent "jamming".



SIZE			WAFER TYPE			WEIGHT (APPROX.) (kg)
inch	mm	L	H1	H2	H3	Wafer
2"	50	44	71	141	55	6
2.5"	65	44	81	142	60	7
3"	80	44	84	154	60	11
4"	100	52	96	160	60	12
5"	125	62	124	194	70	16
6"	150	62	144	207	70	21
8"	200	84	171	235	70	32
10"	250	91	205	240	70	48
12"	300	101	278	342	110	82
14"	350	114	306	357	110	112
16"	400	114	338	384	110	146

(Code -SVE)

DESIGN STANDARD	
DESIGN STANDARD	ISO 5752, API 609, BS 5155, ASME B16.34
Face to Face / End to End Dimensions	BS 5155, API 609, ISO 5752, MSS SP67
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	ANSI B16.5, PN6, PN10, PN16, BS10 D & E

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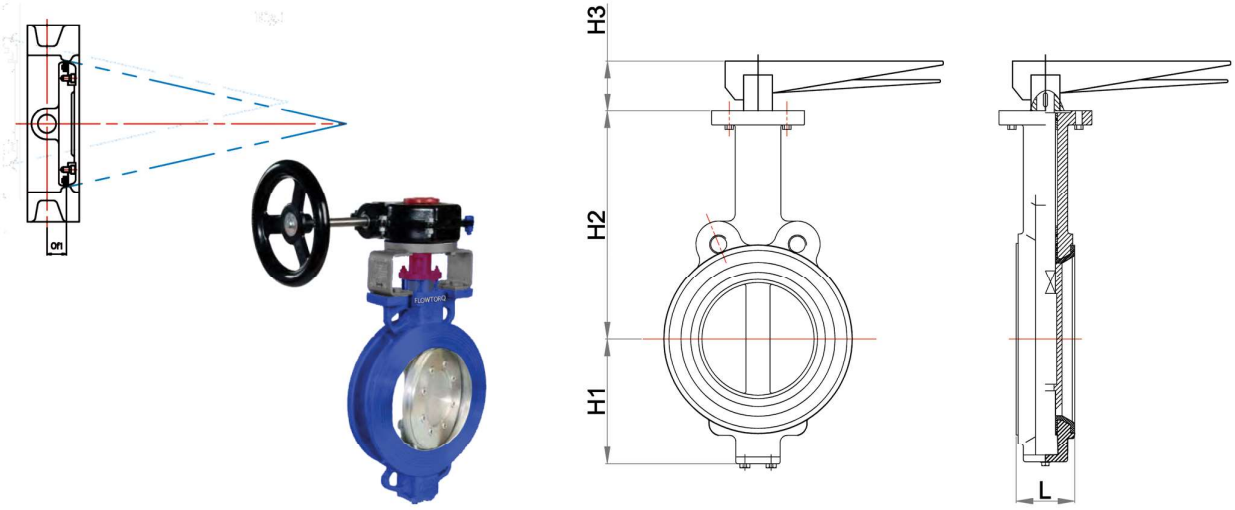
BUTTERFLY VALVES - HIGH PERFORMANCE SINGLE OFFSET

FLOWTORQ make High Performance Butterfly valves are "Single Offset" design. Although, are similar to ceterline type, a typical difference is that the centre of rotation is moved back from the centreline of the valve disc. The seat and seal are designed conically and on centre. This design relies on a frictional, interference seal and so is applicable only to soft seated valves.



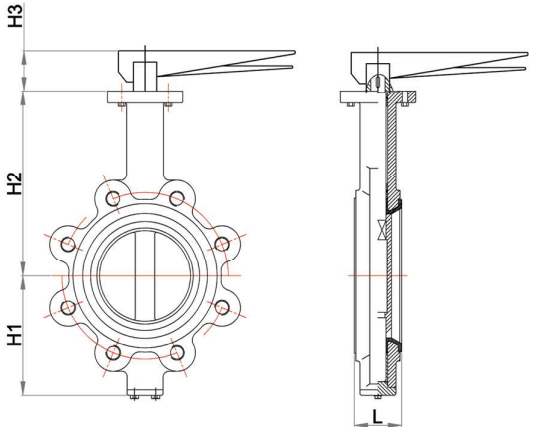
SIZE		L		WAFER TYPE			WEIGHT (APPROX.) (kg)
inch	mm	#150	#300	H1	H2	H3	Wafer
2"	50	43	43	60	180	35	4.5
2.5"	65	46	46	70	180	35	5.5
3"	80	48	48	75	185	35	9
4"	100	54	54	100	200	35	10
5"	125	57	57	110	215	35	13
6"	150	57	59	130	235	35	17
8"	200	64	73	150	255	50	26
10"	250	71	83	245	300	50	40
12"	300	81	92	285	320	50	68
14"	350	92	117	342	440	80	93
16"	400	102	133	380	460	80	121
18"	450	114	149	402	492	120	144
20"	500	127	159	432	552	120	160
22"	550	154	159	465	572	120	228
24"	600	154	181	510	610	120	284
26"	650	165	-	540	630	120	327
28"	700	165	-	570	665	120	388
30"	750	190	-	595	695	140	462
32"	800	190	-	640	740	140	607
36"	900	203	-	705	800	140	860
40"	1000	216	-	675	865	140	1180
44"	1100	254	-	830	925	170	1460
48"	1200	254	-	890	990	170	1800
56"	1400	280	-	950	1160	180	2045
64"	1600	360	-	1100	1260	180	2570
72"	1800	360	-	1200	1370	200	2895
80"	2000	400	-	1275	1450	220	3120

(Code -SVE)

DESIGN STANDARD	
DESIGN STANDARD	ISO 5752, API 609, BS 5155, ASME B16.34
Face to Face / End to End Dimensions	BS 5155, API 609, ISO 5752, MSS SP67
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	ANSI B16.5, PN6, PN10, PN16, BS10 D & E

BUTTERFLY VALVES - HIGH PERFORMANCE SINGLE OFFSET

FLOWTORQ make High Performance Butterfly valves are "Single Offset" design. Although, are similar to ceterline type, a typical difference is that the centre of rotation is moved back from the centreline of the valve disc. The seat and seal are designed conically and on centre. This design relies on a frictional, interference seal and so is applicable only to soft seated valves.



SIZE		L		LUG TYPE			WEIGHT (APPROX.) (kg)
inch	mm	#150	#300	H1	H2	H3	Lug
2"	50	43	43	115	182	45	6
2.5"	65	46	46	130	200	45	7
3"	80	48	48	140	215	45	11
4"	100	54	54	160	232	45	12
5"	125	57	57	185	245	45	16
6"	150	57	59	190	260	45	21
8"	200	64	73	220	292	65	32
10"	250	71	83	270	353	65	48
12"	300	81	92	300	372	65	82
14"	350	92	117	342	440	80	112
16"	400	102	133	380	460	80	146
18"	450	114	149	402	492	120	173
20"	500	127	159	432	552	120	192
22"	550	154	159	465	572	120	274
24"	600	154	181	510	610	120	341
26"	650	165	-	540	630	120	393
28"	700	165	-	570	665	120	466
30"	750	190	-	595	695	140	555
32"	800	190	-	640	740	140	729
36"	900	203	-	705	800	140	1032
40"	1000	216	-	675	865	140	1416
44"	1100	254	-	830	925	170	1752
48"	1200	254	-	890	990	170	2160
56"	1400	280	-	950	1160	180	2454
64"	1600	360	-	1100	1260	180	3084
72"	1800	360	-	1200	1370	200	3474
80"	2000	400	-	1275	1450	220	3744

(Code -SVE)

DESIGN STANDARD	
DESIGN STANDARD	ISO 5752, API 609, BS 5155, ASME B16.34
Face to Face / End to End Dimensions	BS 5155, API 609, ISO 5752, MSS SP67
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	ANSI B16.5, PN6, PN10, PN16, BS10 D & E

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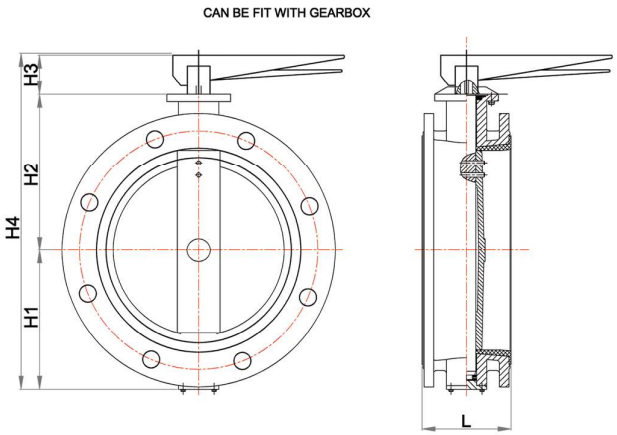
BUTTERFLY VALVES - HIGH PERFORMANCE SINGLE OFFSET

FLOWTORQ make High Performance Butterfly valves are "Single Offset" design. Although, are similar to ceterline type, a typical difference is that the centre of rotation is moved back from the centreline of the valve disc. The seat and seal are designed conically and on centre. This design relies on a frictional, interference seal and so is applicable only to soft seated valves.



SIZE		L		DOUBLE FLANGE TYPE			WEIGHT (APPROX.) (kg)	
inch	mm	#150	#300	H1	H2	H3	150#	300#
2"	50	108	108	115	182	45	7	11
2.5"	65	112	112	130	200	45	9	15
3"	80	114	180	140	215	45	12	21
4"	100	127	190	160	232	45	18	30
5"	125	140	190	185	245	45	23	38
6"	150	140	210	190	260	45	31	52
8"	200	152	230	220	292	65	47	78
10"	250	165	250	270	353	65	67	112
12"	300	178	270	300	372	65	103	172
14"	350	190	290	342	440	80	146	243
16"	400	216	310	380	460	80	176	293
18"	450	222	330	402	492	120	222	370
20"	500	229	350	432	552	120	268	446
22"	550	229	350	465	572	120	396	660
24"	600	267	390	510	610	120	413	688
26"	650	267	410	540	630	120	524	874
28"	700	292	430	570	665	120	538	897
30"	750	292	450	595	695	140	832	1386
32"	800	318	470	640	740	140	1076	1793
36"	900	330	510	705	800	140	1590	2651
40"	1000	410	550	675	865	140	2124	3540
44"	1100	410	550	830	925	170	2453	4088
48"	1200	470	630	890	990	170	2732	4553
56"	1400	280	950	950	1160	180	3206	5343
64"	1600	360	1100	1100	1260	180	3734	6223
72"	1800	360	1200	1200	1370	200	4463	7439
80"	2000	400	1275	1275	1450	220	5218	8697

(Code -SVE)

DESIGN STANDARD	
DESIGN STANDARD	ISO 5752, API 609, BS 5155, ASME B16.34
Face to Face / End to End Dimensions	BS 5155, API 609, ISO 5752, MSS SP67
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	ANSI B16.5, PN6, PN10, PN16, BS10 D & E

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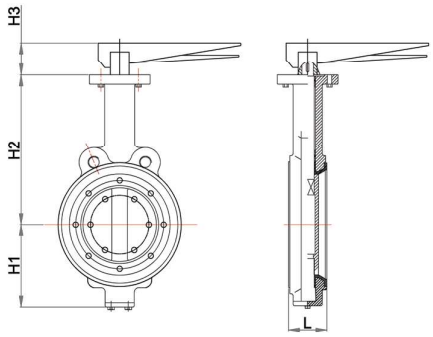
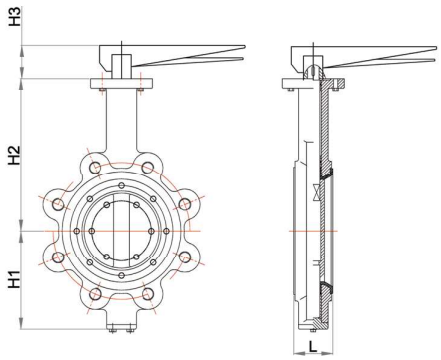
BUTTERFLY VALVES - TRIPLE OFFSET TYPE

FLOWTORQ make Triple offset butetrfly valves are an ideal solution for most critical high pressure applications. The centreline of the cone is rotated away from the valve centreline resulting in an ellipsoidal pro le and providing the third offset. With this geometry, seat seal interference is completely eliminated ensuring long sealing life. The result is a torque seated, process pressure aided FRICTIONLESSseal. The geometry allows the body seat to be used as the closed limit stop, aiding operator adjustment. The Triple Offset design is ideally suited to metal seated valves providing bubble-tight performance on high temperature, high pressure and Firesafe applications.



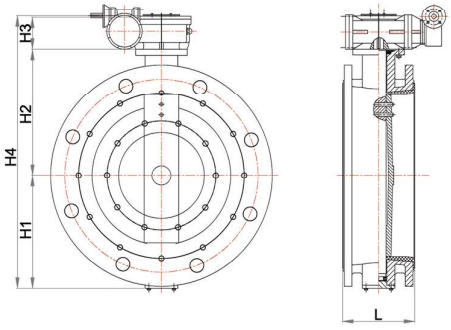
SIZE		L			150#		
inch	mm	Wafer	Lug	Flange	H1	H2	H3
4"	100	54	54	127	160	190	45
5"	125	57	57	140	185	210	45
6"	150	57	57	140	190	230	45
8"	200	64	64	152	220	260	60
10"	250	71	71	165	270	310	60
12"	300	81	81	178	300	350	75
14"	350	92	92	190	342	385	75
16"	400	102	102	216	380	440	100
18"	450	114	114	222	402	480	100
20"	500	127	127	229	432	495	100
24"	600	154	154	267	510	560	100
26"	650	165	165	267	540	630	100
28"	700	165	165	292	570	660	150
30"	750	190	190	292	595	690	150
32"	800	190	190	318	640	730	150
36"	900	203	203	330	705	800	150
40"	1000	216	216	410	675	860	150
44"	1100	240	240	410	830	925	180
48"	1200	254	254	470	890	990	180

(Code -SVE)



SIZE		L			300#		
inch	mm	Wafer	Lug	Flange	H1	H2	H3
4"	100	54	54	190	170	210	45
5"	125	59	59	210	190	220	45
6"	150	61	61	210	220	250	45
8"	200	73	73	230	245	300	60
10"	250	83	83	250	290	340	60
12"	300	92	92	270	315	380	75
14"	350	117	117	290	360	400	75
16"	400	133	133	310	390	480	100
18"	450	149	149	330	430	510	100
20"	500	159	159	350	470	570	100
24"	600	182	182	390	540	640	100
26"	650	182	182	410	570	660	100
28"	700	210	210	430	630	710	150
30"	750	210	210	450	660	740	150
32"	800	210	210	470	680	770	150
36"	900	227	227	510	750	840	150
40"	1000	245	245	550	770	870	150
44"	1100	305	305	550	880	965	180
48"	1200	308	308	630	920	1020	180

(Code -SVE)



DESIGN STANDARD	
DESIGN STANDARD	ISO 5752, API 609, BS 5155, ASME B16.34
Face to Face / End to End Dimensions	BS 5155, API 609, ISO 5752, MSS SP67
Valve inspection & testing	API598, BS 5146, ISO 5208 Rate A, FCI 70.2 Cl. VI
Pressure - Temperature rating	ASME B16.34
Flange Standards	ANSI B16.5, PN6, PN10, PN16, BS10 D & E

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