

## Aquaseal Butterfly & Check Valves

L&T Valves manufactures a comprehensive range of Butterfly & Check Valves. The range addresses water treatment and distribution systems, power plants, utility lines, fire water lines and HVAC.

- **Aquaseal 10** Integrally-moulded Butterfly Valve in PN 10
- **Aquaseal 16** Integrally-moulded Butterfly Valve in PN 16
- **Aquaseal Plus** Integrally-moulded Butterfly Valve in Class 150
- **Aquaseal 25** Integrally-moulded Butterfly Valve in PN 25
- **Aquaseal Chek** Dual-plate Check Valve
- **Aquaseal Max** Large-size Fabricated Steel Butterfly Valve
- **Aquaseal FabChek** Fabricated Steel Check Valve

The versatile range is available in various body styles, materials, and actuation options to suit customer requirements.

### Aquaseal 10 Integrally-moulded Butterfly Valve - PN 10

Body Style	Pressure Rating	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
		50	65	80	100	125	150	200	250	300	350	400	450	500	600
Wafer	PN 10	•	•	•	•	•	•	•	•	•	•	•	•	•	•

### Aquaseal 16 Integrally-moulded Butterfly Valve - PN 16

Body Style	Pressure Rating	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	26	28	30	32	36
		50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900
Wafer	PN 16	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Lugged		•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Flanged							•	•	•	•	•	•	•	•	•	•	•	•	•	•

### Aquaseal Plus Integrally-moulded Butterfly Valve - Class 150

Body Style	Pressure Rating	2	2½	3	4	5	6	8	10	12	14	16	18	20	24	26	28	30	32	36
		50	65	80	100	125	150	200	250	300	350	400	450	500	600	650	700	750	800	900
Wafer	Class 150	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Lugged		•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Flanged							•	•	•	•	•	•	•	•	•	•	•	•	•	•

### Aquaseal 25 Integrally-moulded Butterfly Valve - PN 25

Body Style	Pressure Rating	2	2½	3	4	5	6	8
		50	65	80	100	125	150	200
Wafer	PN 25	•	•	•	•	•	•	•

### Aquaseal Chek Dual-plate Check Valve

Body Style	Pressure Rating	2	2½	3	4	5	6	8
		50	65	80	100	125	150	200
Wafer	PN 10	•	•	•	•	•	•	•
	PN 16	•	•	•	•	•	•	•
	Class 125	•	•	•	•	•	•	•

### Aquaseal Max Large-size Fabricated Steel Butterfly Valve

### Aquaseal FabChek Fabricated Steel Check Valve

Body Style	Pressure Rating	Size
Flanged, Fabricated	PN 6	Available in sizes up to 120" (3000 mm)
	PN 10	
	PN 16	

## Aquaseal 16 Integrally-moulded Butterfly Valve - PN 16



Aquaseal 16 Integrally-moulded Butterfly Valve sets a new benchmark in performance for butterfly valves. The versatile valve is offered in a variety of elastomer-disc combinations to address myriad process requirements. The highly reliable butterfly valve has successfully completed over 10,000 cycles at its rated pressure.

Available in sizes from 50 mm (2") to 900 mm (36"), the valve is available in Cast Iron, SG Iron and carbon steel, in a variety of body styles, materials and actuation options. The body seat of Aquaseal16 Butterfly Valve is vulcanised insitu onto the body, which provides longer life and superior performance when compared to valves with loose liners.

### Compliance Standards

Parameter	Standard
Valve Design	EN 593 (BS 5155), API 609, MSS SP-67
Pressure Testing	EN 12266 Part 1&2, API 598, ISO 5208
End Connection	Wafer Flangeless, Lugged (EN 1092), ASME B16.42 & ASME B16.5 Class150/ BS 4504 PN 16
Face-to-Face	EN 558 Series 20 (For 350mm - EN 558 series 25)/ API 609 Cat A, MSS SP-67 (Narrow Body), ISO 5752 (Short)

### Materials of Construction

Components	Materials
Body	Cast Iron IS 1561 EN GJL-250, SG Iron to EN 1563-400/ 18, CS to A 216 Gr. WCB
Seat/ Liner	Nitrile Rubber, EPDM, Viton
Disc	SG Iron to EN 1563-400/ 18 with Nylon-coating, CF8, CF8M to A 351, AB2 to IS EN 1982, CF3M
Stem	ASTM A479 Type 410 with Xylan® Coating, 17-4 Ph
Bearing	Acetal, PTFE, Phosphor Bronze

### Pressure Rating

Rated Working Pressure (bar)	16
Shell Test Pressure (bar)	24
Seat Test Pressure (bar)	17.6

Valves in other materials available on demand

### Longer Life

The strength of the vulcanised liner as well as its strong bonding with the body ensure that it doesn't get deformed and torn by the disc during valve operations. Further, friction during operations is minimised owing to the smooth liner surface. The strong seat and reduced friction greatly enhance service life of the valve.

### Tight Sealing, and Consistent Low Torque

Bubble-tight sealing is obtained by the tight interference fit between liner and disc. The insitu moulded seat does not deform with age, and hence the operating torque stays low and consistent during the entire life cycle of the valve. High reliability and consistent torque make Aquaseal 16 the ideal valve for actuated systems.

### Assured Shaft Sealing

The flat profiles on the top and bottom of Aquaseal Plus disc engage with matching profiles on the body liner, and the large area of contact prevents leakage to atmosphere. Integrally moulded O-Ring that compresses around the blowout-proof shaft provide a secondary seal.

### Actuator Mounting Platform

The integral ISO 5211 platform facilitates direct mounting of actuators and gear units, thereby improving system reliability and efficiency.

### Enhanced Reliability

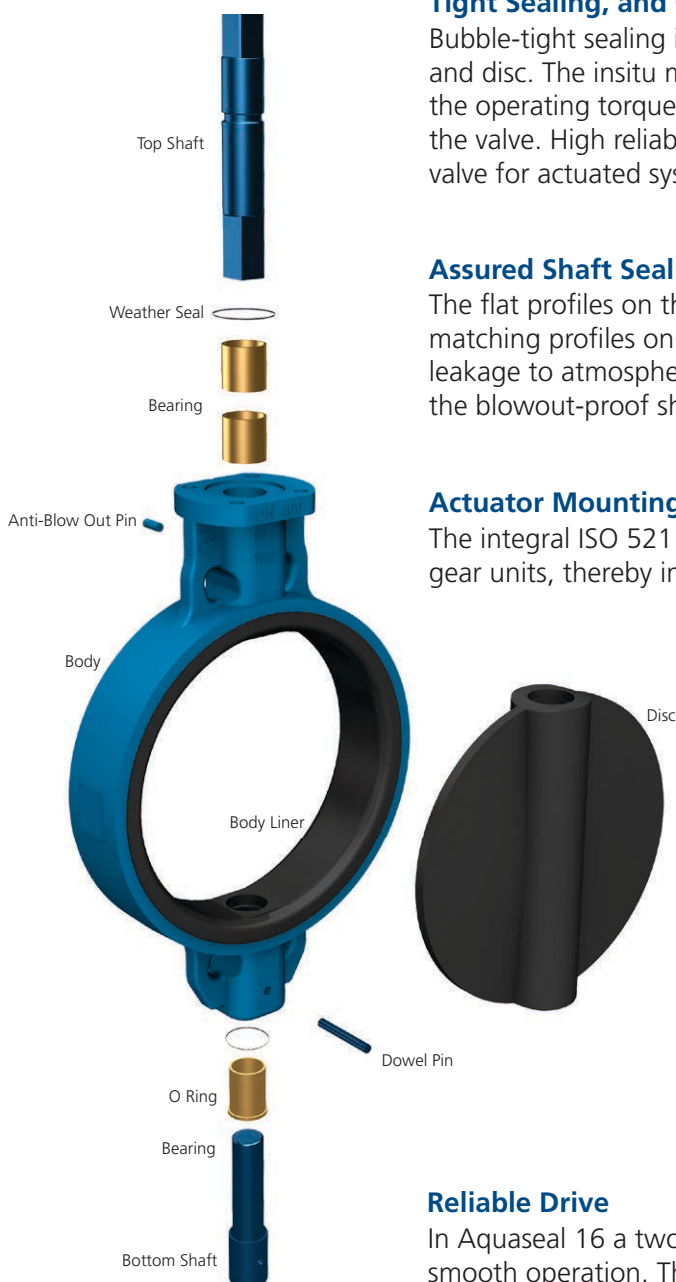
The rugged body is designed to withstand pipeline stresses and vibrations. Further, enhanced liner thickness assures reliable performance over an extended service. Reinforcements are provided on Aquaseal 16 disc also.

### Lower Torque, Longer Life

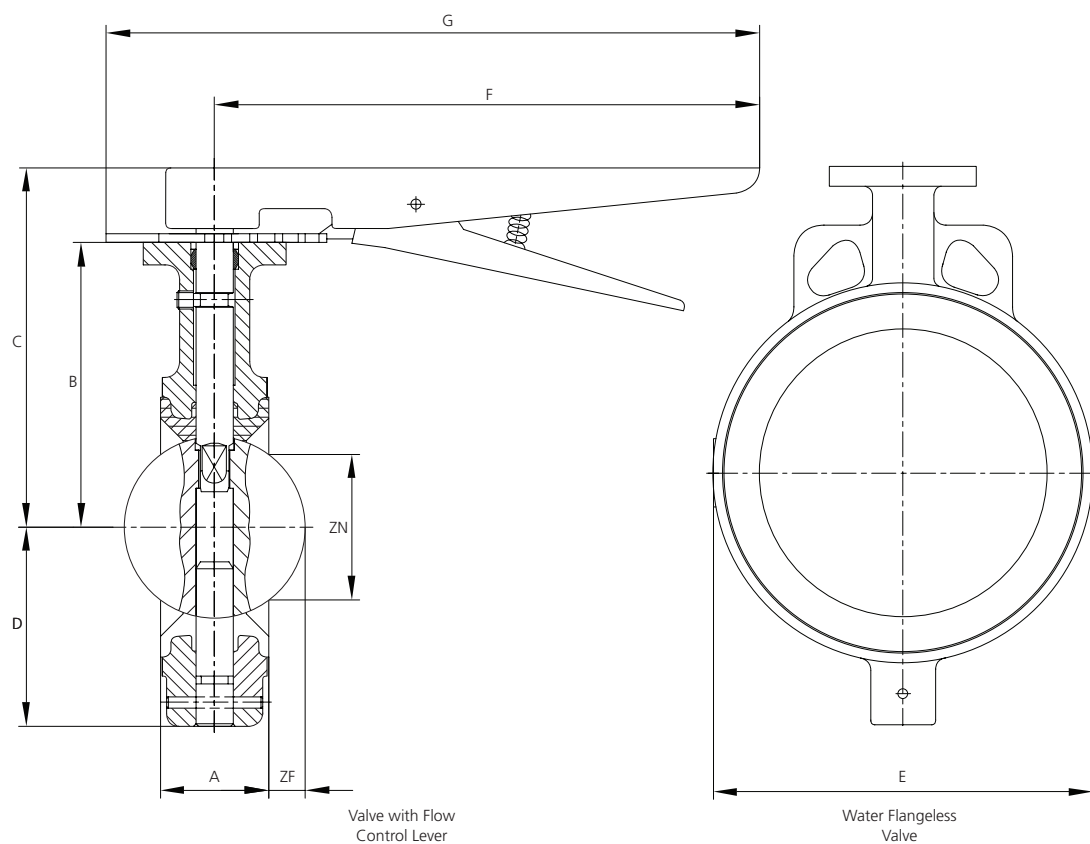
The Aquaseal 16 disc is profiled for smoother flow. Further the coating/ encapsulation of Nylon and EPDM on the disc helps to reduce torque and prevent disc damage.

### Reliable Drive

In Aquaseal 16 a two-piece shaft is employed for closer control and smooth operation. The shaft is Xylan-coated to reduce friction and improve wear resistance. While the square shaft provides positive drive, the bottom shaft acts as a pivot for operational ease.

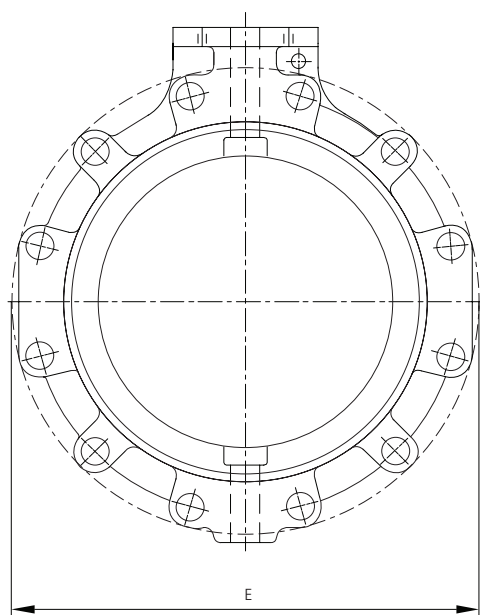


## Aquaseal 16 Integrally-moulded Butterfly Valve - PN 16 (Wafer & Lugged)

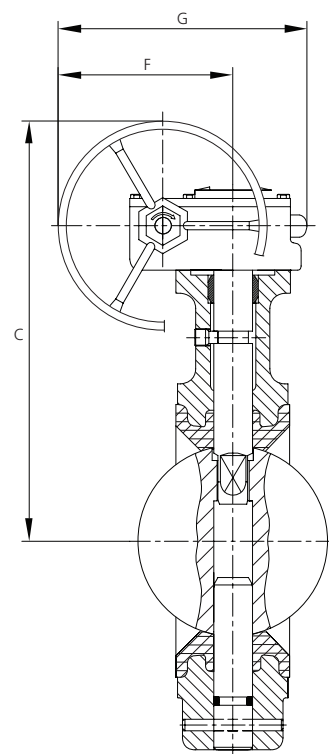


Valve Size		A	B	C			D	E	
				Flow Control Lever	Standard Gear Unit	Heavy Duty Gear Unit		Wafer Flangeless	Wafer Lugged
NPS	DN								
2	50	43	99	129	277	-	65	96	158
2½	65	46	110	140	288	-	78	105	180
3	80	46	116	146	294	-	85	123	190
4	100	52	134	164	312	-	105	157	216
5	125	56	164	194	342	-	118	180	255
6	150	56	177	207	355	-	144	212	280
8	200	60	235	300	428	450	169	262	345
10	250	68	259	332	452	476	214	322	405
12	300	78	284	357	477	501	249	373	485
14	350	92	318	-	510	535	304	430	530
16	400	102	370	-	-	587	340	481	600
18	450	114	409	-	-	790	408	524	650
20	500	127	441	-	-	828	430	583	710
24	600	154	501	-	-	889	500	685	820

All dimensions in mm and weights in kg



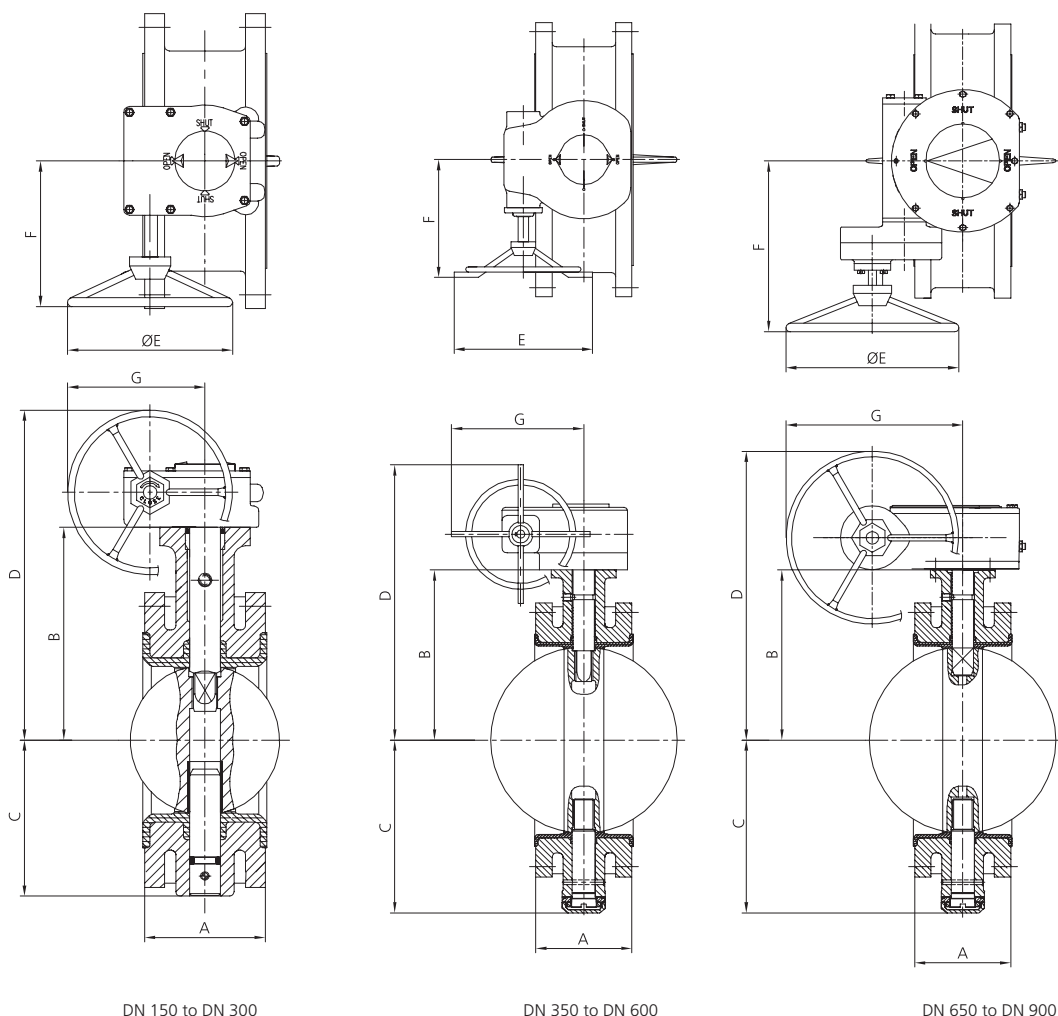
Water  
Lugged Valve



Valve with  
Gear Unit

F			G			ZN	ZF	Weight			
Flow Control Lever	Standard Gear Unit	Heavy Duty Gear Unit	Flow Control Lever	Standard Gear Unit	Heavy Duty Gear Unit			FC Lever	Standard Gear Unit		
								Wafer	Lugged	Wafer	Lugged
176	181	-	216	242	-	24	4	3	4	11	12.5
176	181	-	216	242	-	46	10	3.5	5	11.5	13
176	181	-	216	242	-	62	16	4	8	12	16
268	181	-	308	242	-	82	23	6	10.5	14	18.5
268	181	-	308	242	-	107	32	7	11.5	15	20
268	181	-	308	242	-	135	45	9.5	14.5	17.5	22.5
405	217	255	470	290	375	184	67	18	29.5	25	36
513	217	255	610	290	375	234	88	30	44	35	48.5
516	217	255	612	290	375	279	106	41	61	45	66
-	217	255	-	290	375	324	123	-	-	72	106
-	-	255	-	-	375	374	144	-	-	113	156
-	-	437	-	-	552	423	163	-	-	162	206
-	-	437	-	-	552	475	183	-	-	189	264
-	-	437	-	-	552	573	220	-	-	270	362

## Aquaseal 16 Integrally-moulded Butterfly Valve - PN 16 (Flanged)



### Dimensions (ASME B16.5)

Valve Size		A	B	C	D	E	F	G	Weight
NPS	DN								
6	150	140	177	144	306	175	163	132	35
8	200	152	235	169	429	300	218	217	52
10	250	165	259	214	453	300	218	217	66
12	300	178	284	249	478	300	218	217	106
14	350	190	318	342	512	300	218	217	150
16	400	216	370	377	587	300	271	255	215
18	450	222	410	445	788	578	338	437	225
20	500	229	440	477	820	578	338	437	278
24	600	267	500	547	880	578	338	437	370

### Dimensions (B16.47 Series A & B or AWWA C207 Class E)

Valve Size		A	B	C	D	E	F	G	Weight <sup>1</sup>	Weight <sup>2</sup>
NPS	DN									
26	650	292	540	587	890	500	510	513	550	450
28	700	292	600	661	950	500	510	513	680	660
30	750	318	625	686	975	500	510	513	840	720
32	800	318	670	750	1120	700	510	613	965	800
36	900	330	720	785	1170	700	510	613	1180	1075

<sup>1</sup>ASME B16.47 Series 'A' & AWWA C207 Class E, <sup>2</sup>ASME B16.47 Series 'B'

All dimensions in mm and weights in kg

