

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 10 Integrally-moulded Butterfly Valve - PN 10



Aquaseal10 Integrally-moulded Wafer-type Butterfly Valve is available in sizes from 50 mm (2") to 600 mm (24"), in PN 10 pressure rating. The valve was developed to provide reliable sealing in water and air lines, and is today the industry benchmark.

The most striking feature of Aquaseal10 Butterfly Valve is its integrally-moulded body liner. Aquaseal's elastomer body seat is vulcanised insitu onto the body using high temperature and pressure, and this provides longer life and superior performance when compared to valves with loose liners.

Aquaseal 10 requires no maintenance, and is truly a fit-and-forget valve.

Compliance Standards

Parameter	Standard
Valve Design	EN 593 (BS 5155), API 609, MSS SP 67, ISO 5752
Pressure Testing	EN 12266/ API 598
End Connection	To suit BS 10 Table D & E, ASME B 16.1 Class 125, B 16.5 Class 150, EN 1092-2 PN 10, BS 4504 PN 10, IS 6392 Table 11

Materials of Construction

Components	Materials
Body	Cast Iron EN 1561 (BS 1452) Gr. 200, Gr. 250
Body Liner	Nitrile, EPDM
Disc	Cast Iron EN 1561 (BS 1452) Gr. 250, CF8M
Shaft	BS 970 - 080M40

Other material available on request

Pressure Rating

Rated Working Pressure (bar)	10
Shell Test Pressure (bar)	15
Seat Test Pressure (bar)	11

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. Aquaseal is the valve of choice for actuated systems because of high reliability and consistent torque.

Assured Shaft Sealing

The flat profiles on the top and bottom of Aquaseal disc engage with matching profiles on the body liner, and the large area of contact prevents leakage to atmosphere. Integrally moulded O-Rings that compresses around the top shaft provide a secondary seal. Weather seal is provided to prevent the ingress of foreign particles on valves with flow control lever.

Actuator Mounting Platform

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

Lower Resistance to Flow

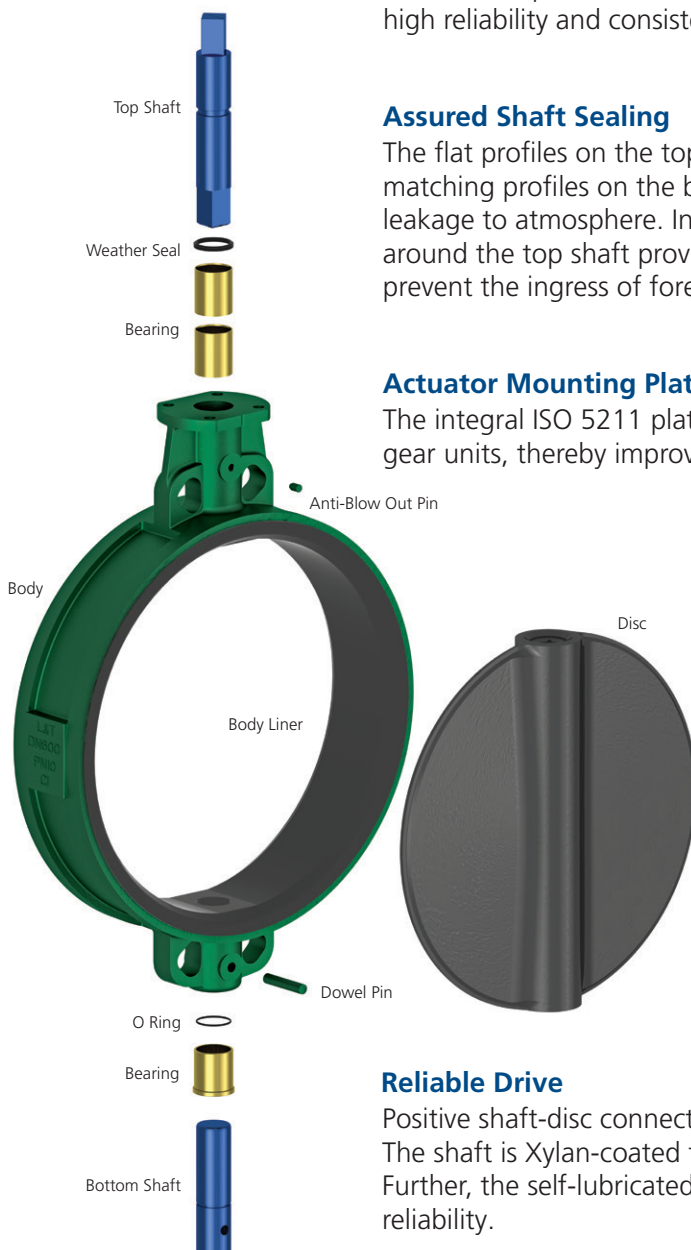
The discs are hydrodynamically designed to provide minimum resistance to flow and improved flow coefficients.

Ease of Installation

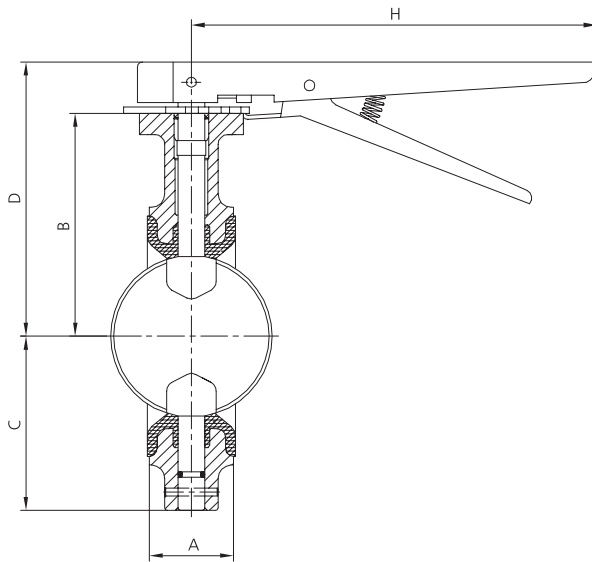
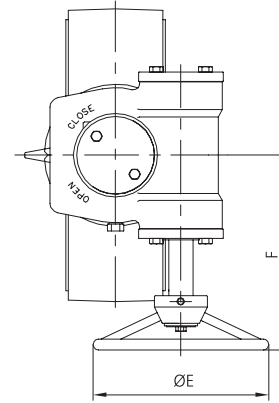
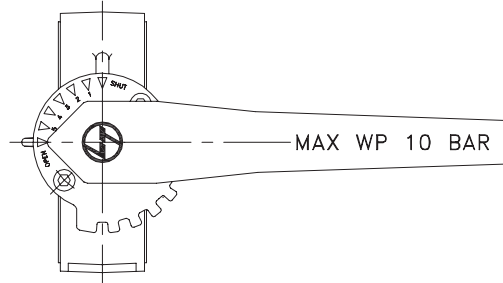
The integral liner of the valve acts as a gasket between the valve and companion flange. The liner being bonded to the body doesn't get stretched or damaged during installation unlike loose liners.

Reliable Drive

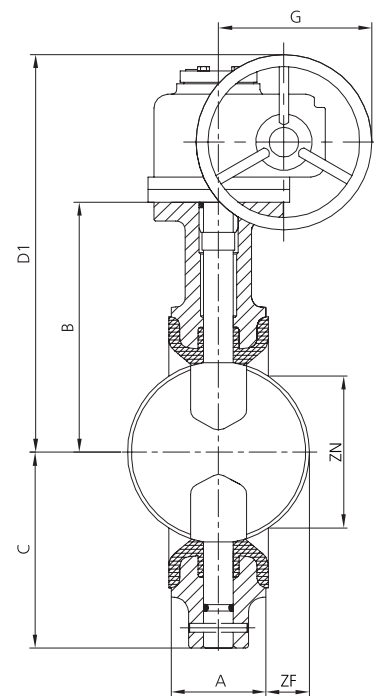
Positive shaft-disc connection with anti-blow out is a key Aquaseal feature. The shaft is Xylan-coated to reduce friction and improve wear resistance. Further, the self-lubricated bearings reduce the torque and increase valve reliability.



Aquaseal 10 Integrally-moulded Butterfly Valve - PN 10



DN 50 to DN 300



DN 50 to DN 600

Dimensions - PN 10

Valve Size		A	B	C	D	D1	E	F	G	H	ZN	ZF	Weight	
NPS	DN												FC Lever	Gear Unit
2	50	43	99	65	129	228	152	163	132	176	27	4	2.5	11
2½	65	46	110	78	140	239	152	163	132	176	47	10	3	11
3	80	46	116	85	146	245	152	163	132	176	63	16	3	12
4	100	52	134	105	164	263	152	163	132	268	83	23	5	14
5	125	56	164	118	194	293	152	163	132	268	107	32	7	15
6	150	56	177	144	207	306	152	163	132	268	136	45	9	17
8	200	60	235	169	300	365	152	163	132	405	185	67	16	23
10	250	68	259	214	332	438	250	197	181	513	234	88	27	32
12	300	78	284	249	357	463	250	197	181	516	280	106	36	40
14	350	92	318	275		512	300	218	217		324	123		57
16	400	102	370	310		564	300	218	217		374	144		70
18	450	114	410	336		604	300	218	217		423	166		89
20	500	127	448	362		642	300	218	217		475	183		129
24	600	154	510	430		704	300	218	217		573	220		170

All dimensions in mm and weights in kg