

AIL-AQUASEAL

Butterfly Valves



L&T Valves

AIL-AQUASEAL Butterfly Valves

AIL-AQUASEAL wafer type butterfly valve, with an integrally moulded elastomer body liner, is designed to outperform valves with loose liners. The elastomer liner, moulded directly in the body and vulcanized in-situ, ensures that the liner lasts the entire life of the valve. A valve that requires no form of maintenance. An ideal *fit and forget* valve.

AIL-AQUASEAL offers a cost effective solution to HVAC systems and is available in sizes from 50 mm to 300 mm, for use in water and air services.

LONGER VALVE LIFE

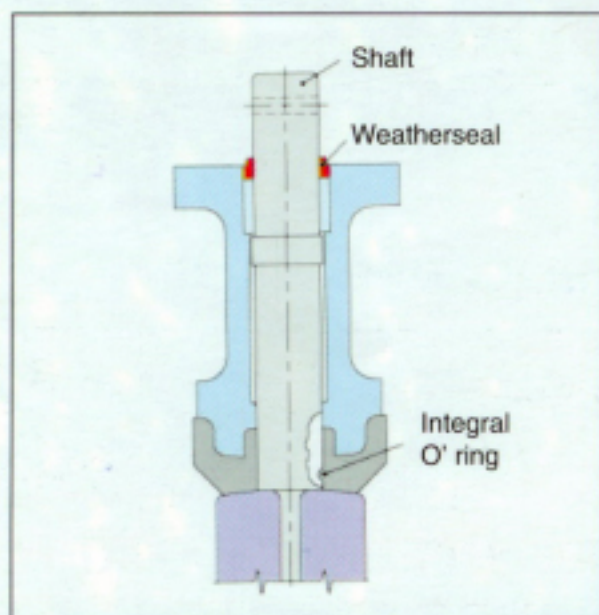
The integrally moulded liner provides a stable seat, which overcomes the tendency of the disc to push the seat out of position. In-situ vulcanizing provides the desired strength to the liner. Plasticiser in the elastomer formulation ensures a smooth surface which minimises the friction between disc and liner. The stable, tough seat, and low operating friction all contribute to extend valve life.

TIGHT SEALING AND LOW TORQUE

The close interference fit between disc and liner ensures tight sealing at the full rated pressure, with minimal operating effort. The in-situ vulcanizing prevents liner fatigue caused by stretching. This reduces operating torque and the tendency for liners to tear and be swept into the line. The elastomer formulation of the liner provides a smooth surface, which ensures low operating torque.

STEM SEALING

The AQUASEAL body liner has a flat surface at the top and bottom. This flat surface provides a wider

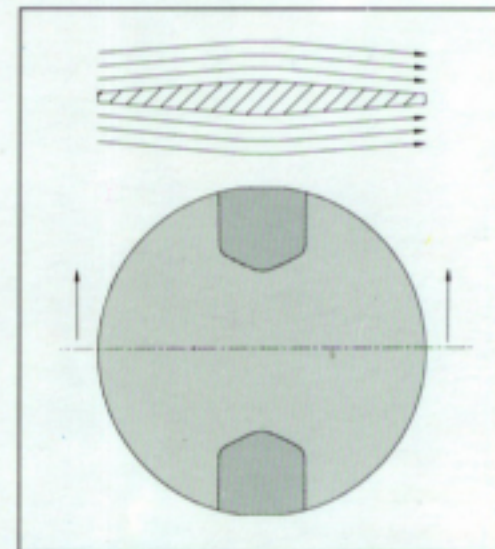


seating between the body liner and disc. The secondary sealing is achieved through an integrally moulded 'O' ring which gets compressed around the shaft.

A weatherseal at the top of the shaft prevents any ingress of foreign particles into the valve.

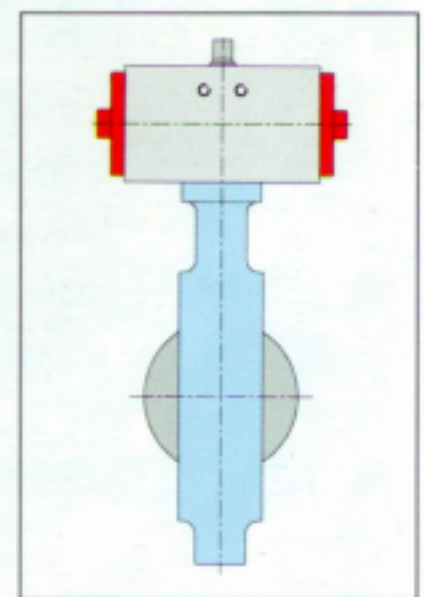
STREAMLINED FLOW

A contoured disc ensures a smooth flow with minimum resistance. The improved flow coefficient (Cv) of the valve enables enhanced regulation characteristics.



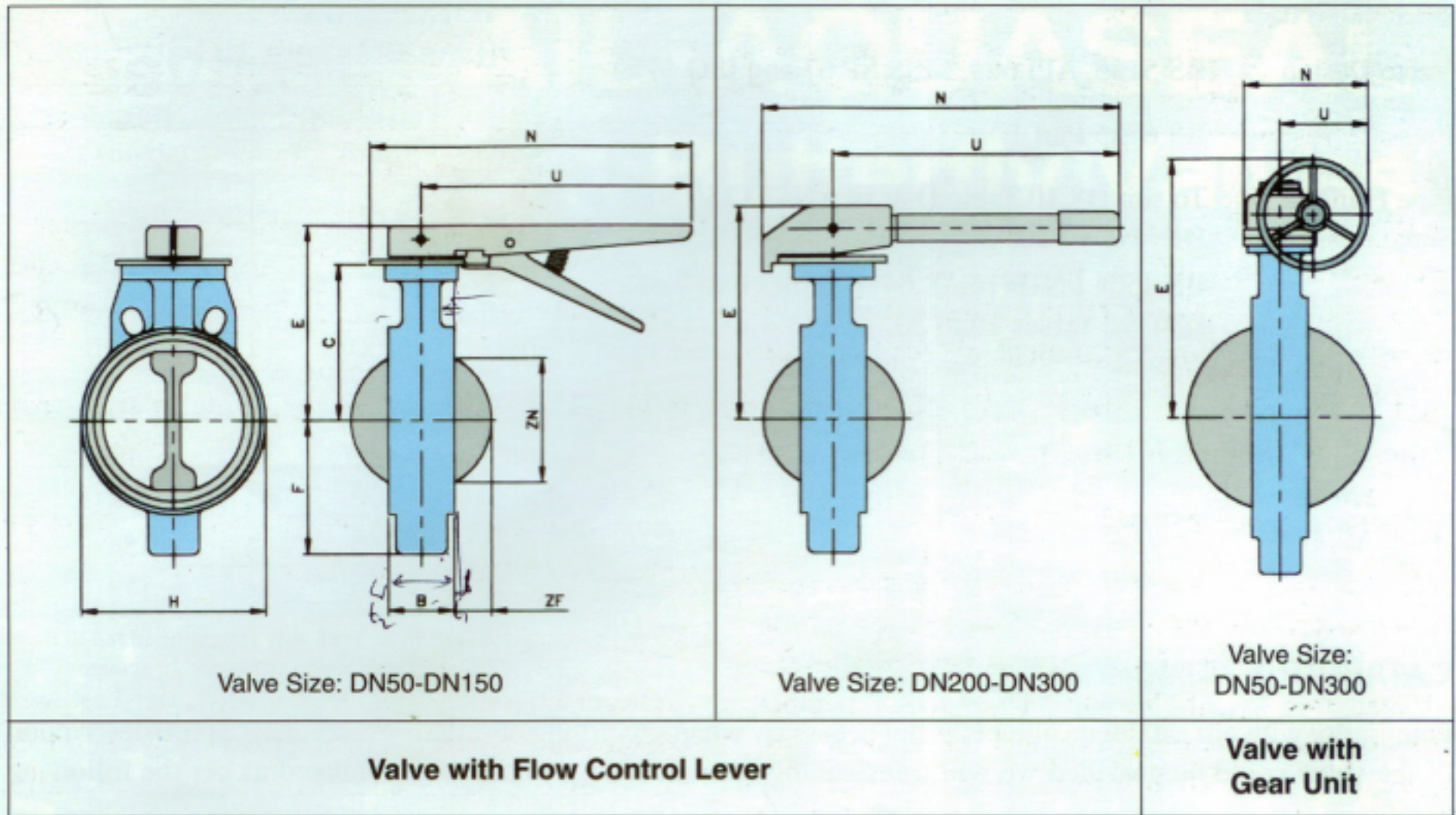
UNIVERSAL ACTUATOR MOUNTING

AQUASEAL has an integral top platform drilled to ISO 5211 mounting standards which facilitates direct mounting of actuators and gear units. This eliminates the need for a coupling to connect the shaft to the actuator - improving torque transmission.



EASY INSTALLATION

AQUASEAL has a gasket integral to the body which eliminates the need for a separate gasket between the valve face and companion flange. In addition, as the liner is bonded to the body, it will not hang out or get pinched during installation.



DIMENSIONS (mm)

Valve size	B	C	E		F	H	N		U		ZN	ZF
			Flow Control Lever	Gear Unit			Flow Control Lever	Gear Unit	Flow Control Lever	Gear Unit		
50	43	99	129	228	65	96	300	193	268	132	27	4
65	46	110	140	239	78	105	300	193	268	132	47	10
80	46	116	146	245	85	123	300	193	268	132	63	16
100	52	134	164	263	105	157	300	193	268	132	83	23
125	56	164	194	293	118	180	300	193	268	132	107	32
150	56	177	207	306	144	212	300	193	268	132	136	45
200	60	235	300	365	169	262	472	193	405	132	185	67
250	68	259	332	438	214	322	615	250	513	181	234	88
300	78	284	357	463	249	373	618	250	516	181	280	106

MATERIAL SPECIFICATION

Name of Part	Material of Construction
Body	Cast Iron to BS 1452 Gr. 200
Body Liner	Nitrile rubber or EPDM
Disc	Cast Iron to BS 1452 Gr. 250
Shaft	BS 970 - 080M40

PRESSURE - TEMPERATURE

Liner Material	Temperature (max)	Working Pressure (bar)	Test Pressure (bar)	
			Body	Seat
Nitrile	70°C	10	15	11
EPDM	90°C			

STANDARDS

Valve Design : BS 5155, API 609, MSS SP 67 and ISO 5752

Pressure Testing : BS 6755 Part 1

Pipe Flange Standards : To suit BS 10 Table D & E, ANSI 125/150, DIN ND10/16, BS 4504 PN10/16, IS 6418 Tables 6 to 9 or IS 6392 Tables 10 to 20.

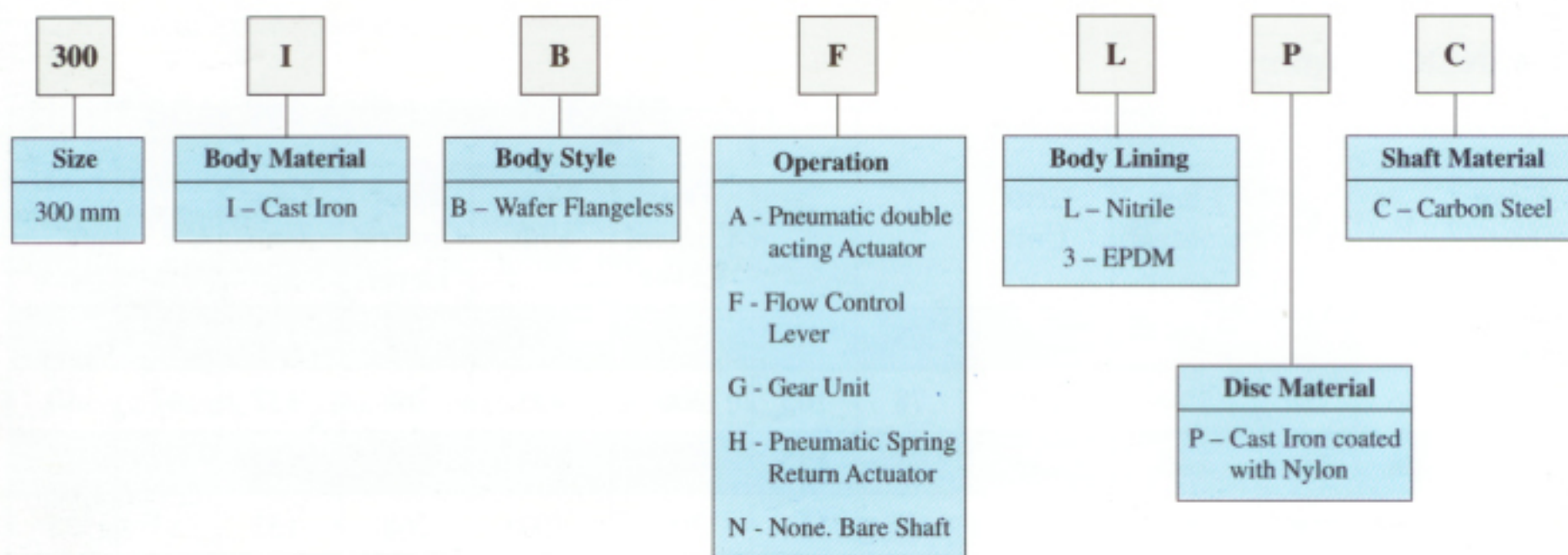
TORQUE DATA (Line Pressure 10 bar)

Valve Size (mm)	Torque (Nm)
50	7
65	11
80	15
100	23
125	34
150	52
200	102
250	156
300	178

A safety factor of 25% should be added to these figures, while sizing for an actuator

CATALOGUE NUMBER

Familiarity with our catalogue number is not necessary when specifying or ordering our valves. If full description of the valve could be provided we will translate this into a catalogue number formulated as per the following system.



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As we continuously endeavour to improve our products, the data given herein is subject to change. Please refer www.lntvalves.com for the latest catalogue.