

## Lever & Gear Operated

- ISO Square Drive for sizes 50-300mm and positive keyed drive for sizes 350mm and above.
- Four self lubricating bronze bushes provide maximum stem support with minimum friction. Eliminates potential stem seizure.
- Pressure surge seals (O'rings) are moulded inside the seat stem hole area to provide failsafe sealing around stem, eliminating possible leakage.
- Phenolic resin backed seat provides support for the seat is non-collapsible, stretch resistant, blowout proof and suitable for vacuum.
- Precision profile disc provides bubble-tight shutoff with minimal disc/seat interference, assuring minimum torque and longer seat life.
- Available flange standards include. AS4087 PN16, AS 2129 Table "D" & "E", ANSI 150 and BS EN 1092 DIN 16.
- Actuator mounting flange, conforms to ISO5211 and accommodates all types of operators, lever, gear, electric, hydraulic and pneumatic.
- O'ring weather seal prevents ingress of moisture and external material into the stem area.
- One piece thru-stem design ensures dependability and positive disc control.
- Internal square drive and precision taper pins ensure positive, vibration proof, stem to disc connection. Square drive  $\leq$  300mm size Pins  $\geq$  350mm size.
- Polished disc flats "mate" with seat flats to give a highly efficient seal; prevents leakage into stem area.
- Supported stem seal protects against distortion, a common cause of stem leakage.
- Fusion bonded epoxy coated.

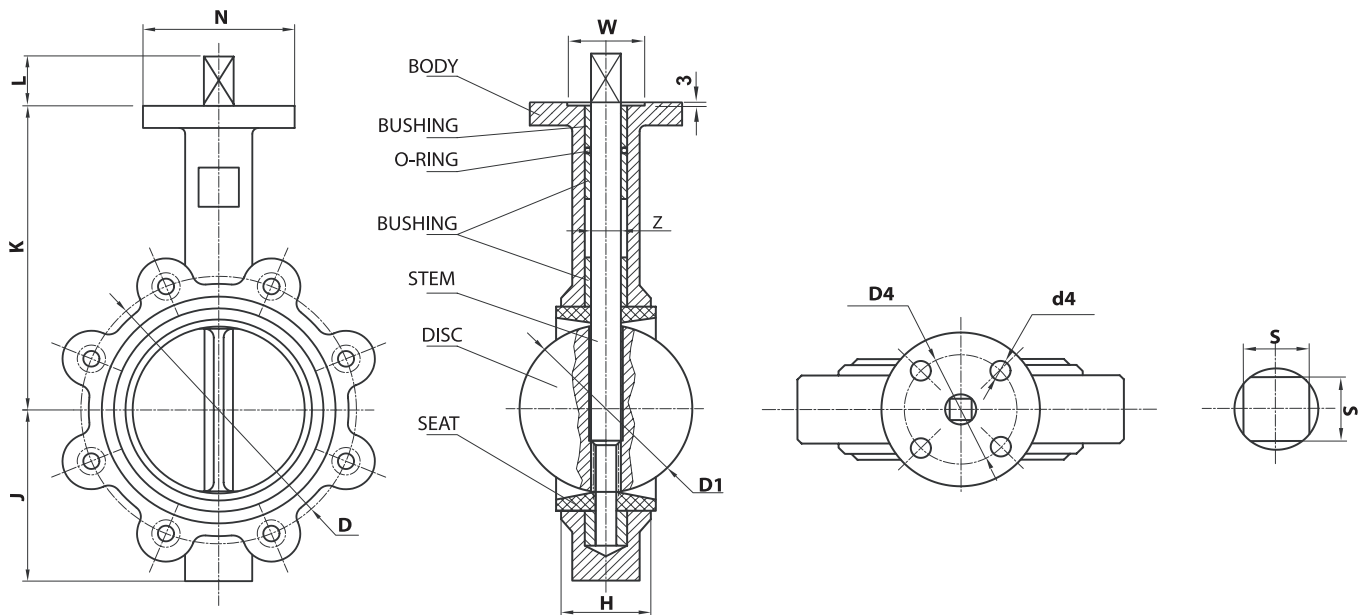


# Lugged Butterfly Valves

## Cast Iron Lugged Butterfly Valves - Rated 16 Bar

- 50mm (2") - 300mm (12") Lugged Butterfly Valves
- Lever or Gear operated
- Dimensions to BS5155
- Fusion bonded epoxy (FBE) coating
- Blue/Black body colour
- Pinless stainless disc

Part Name	Material
Body	Ductile Iron
Disc	Stainless Steel CF8M
Stem	Stainless Steel 410
Seat	EPDM / NBR
O-Ring	Nitrile (NBR)



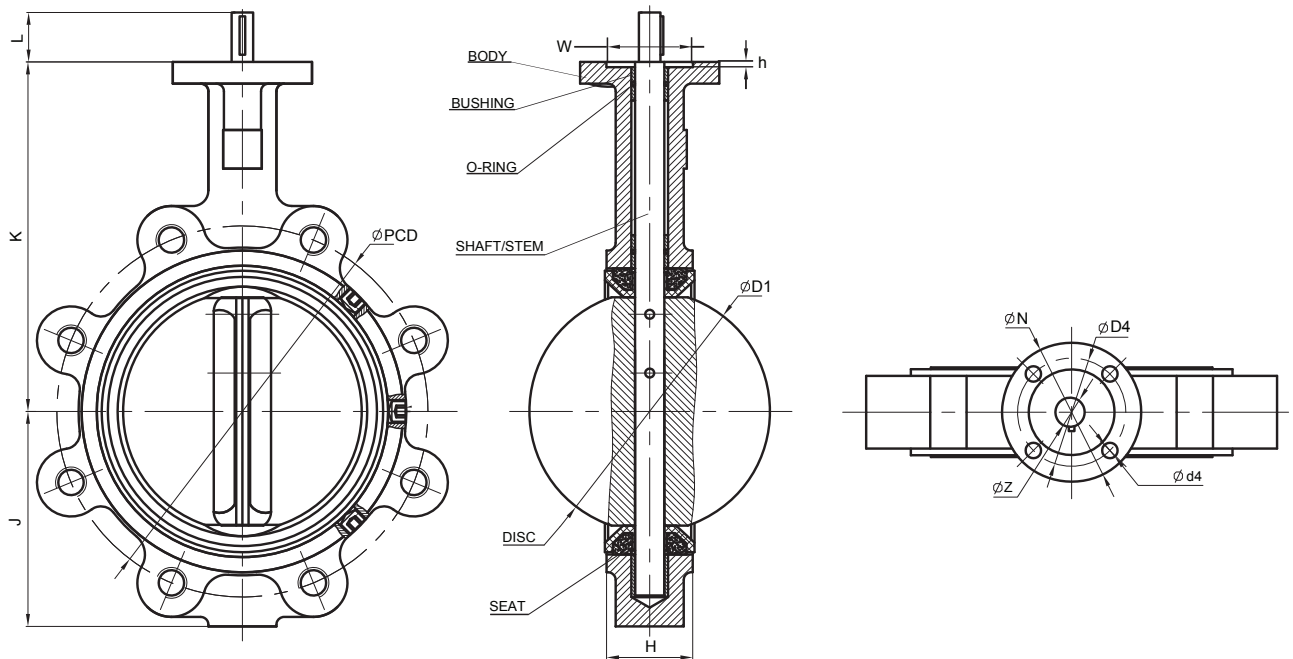
Sizes	K	J	H	Z	L	Locating Holes to suit PCD		D1	N	d4	D4	W	S	Iso	Weight (kg)	
						Table D/E	Ansi 150								Lever	Gear
50Nb	161	80	43	14.3	29	114	120.5	52.5	65	8	50	36	9	F05	2.8	7.8
65Nb	175	89	46	14.3	29	127	139.5	64.2	65	8	50	36	9	F05	3.6	8.5
80Nb	181	95	46	14.3	29	146	152.5	78.9	90	10	70	56	11	F07	4.0	8.6
100Nb	200	114	52	15.8	29	178	190.5	104.2	90	10	70	56	11	F07	5.7	9.5
125Nb	213	127	56	18.9	29	210	216.0	123.2	90	10	70	56	14	F07	7.2	11.8
150Nb	226	139	56	18.9	29	235	241.5	155.8	90	10	70	56	14	F07	7.4	11.9
200Nb	260	175	60	22.1	40	292	298.5	202.4	125	12	102	71	17	F10	13.4	21.2
250Nb	292	203	68	28.5	40	356	362.0	250.5	125	12	102	71	22	F10	20.2	26.5
300Nb	337	242	78	31.6	40	406	432.0	301.5	125	12	102	71	22	F10	29.6	38.6

# Lugged Butterfly Valves

## Cast Iron Lugged Butterfly Valves - Rated 16 Bar

- 350mm (14") - 600mm (24") Lugged Butterfly Valves
- Gear operated only
- Dimensions to BS5155
- Fusion bonded epoxy (FBE) coating
- Blue/Black body colour
- Stainless disc

Part Name	Material
Body	Ductile Iron
Disc	Stainless Steel CF8M
Stem	Stainless Steel 410
Seat	EPDM / NBR
O-Ring	Nitrile (NBR)



Locating Holes to suit PCD

Sizes	K	J	H	Z	L	Table D/E	Ansi 150	D1	N	d4	D4	W X H	Iso	Weight (Kg) With Gearbox
350NB	368	267	78	32.60	45	470	476.5	333.3	125	12	102	70.5 x 3.5	F10	48
400NB	400	298	102	33.15	51	521	540.0	389.3	175	18	140	100.5 x 4.5	F14	84
450NB	422	318	114	38.00	51	584	578.0	440	175	18	140	100.5 x 4.5	F14	101
500NB	480	355	127	41.15	64	641	635.0	491.4	175	18	140	100.5 x 4.5	F14	140
600NB	562	444	154	50.60	70	756	749.0	592.5	210	22	165	130.3 x 5.5	F16	240

## Butterfly Valves Operators & Torques

### Operating torques in NM

Valve Size	Shut off pressures in kPa			
	300	600	1,000	1,600
50	13	13	14	15
65	13	13	14	16
80	21	21	23	24
100	35	37	40	45
125	55	58	63	71
150	82	87	98	112
200	149	159	180	210
250	236	249	297	358
300	348	385	445	542
350	517	550	641	784
400	684	746	889	1156
450	895	995	1187	1544
500	1132	1244	1491	2087
600	1678	1834	2180	2838

### Actuator Options

#### Lockable Lever

Cast Iron Epoxy Coated Lever with 10 positions  
SS notch plate, SS fasteners & spring.

#### Gear Operated

Cast Iron Epoxy Coated Gearbox with SS fasteners.

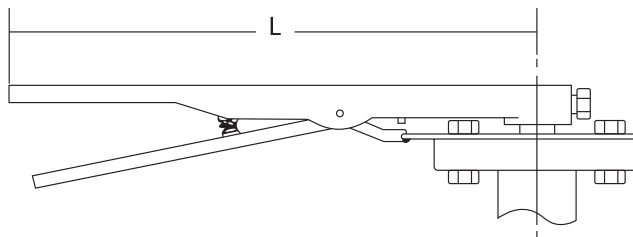
#### Pneumatic

Air operated (double acting & spring return),  
c/w solenoid valves, limit switches, position indicators, modulating controls.

#### Electric

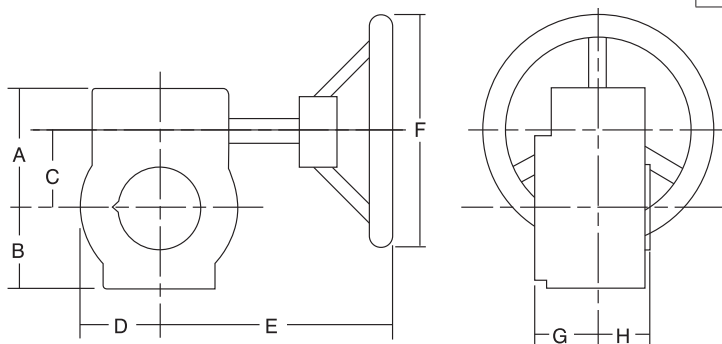
Open/close, modulating control.

### Lever Operated



Valve Size	A	B	C	D	E
50-100mm	263	54	27	55.5	17
125-150mm	302	85	27	55.5	20
200-250mm	356	95	28	77	31
300mm	502	95	32	77	43

### Gear Operated



Valve Size	A	B	C	G	Ø	H
50-150mm	45	127	106	205	146	65
200-250mm	63	170	145	295	287	69
300-350mm	80	190	156	291	287	71
400-450mm	118	278	249	291	385	97