

DOUBLE FLANGED RESILIENT SEAT BUTTERFLY VALVE MODEL - CFBV2103



FEATURES AND BENEFITS

- This product is Bi-directional, ideal for throttling or bubble tight shut off at full rated pressure.
- Suitable for fully rated end of line service.
- The Phenolic backed seat is blow out proof and easily field replaceable.
- Triple shaft bushing located at the top, middle and bottom of the valve act as bearing lubricant, preventing shaft or disc deflection, provides precision disc positioning and allows easy operation while reducing component wear.
- Bushing provides secondary seal points to liner preventing ingress of media into the shaft cavity area.
- Shaft sealing: Rubber O-rings located at the top, middle and bottom of the valve protect against the ingress of foreign matter and media, in addition it also protects against corrosion. Moulded in O-rings on the seat seal against the shaft also protect against the ingress of foreign media and corrosion.
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- The entire wetted area of the valve body is rubber lined extending over the flanges, providing corrosion protection.
- Reliable one piece shaft ensures higher stability and greater disc control.
- Mounting flange complies with ISO5211 allowing for direct mounting.
- Installation can be made on any angle.
- Maintenance free design.
- Polished disc edges reduce seating torque and scrubbing action. This increases valve performance and life cycle.



*Please note the coating and gearbox in this image are not standard

TECHNICAL SPECIFICATION

Construction : Seal on body, concentric double flanged butterfly valve, long pattern

Design: In accordance with AS4795 / EN593

Size: 50mm - 2000mm (For larger sizes contact Challenger)

Pressure Rating: PN10

Pressure Testing: ISO5208

Flange Drilling : AS4087 PN16 (Table D), AS2129 Table E, ANSI B16.5 #150

Coatings: FBE Coating (EPOXY coating to AS4158 & AS4020 available)

Temperature Range: -20°C to 110°C

APPLICATIONS

Challenger Valves and Actuators are the **“Right Choice for Valves and Actuation”** when quality matters.

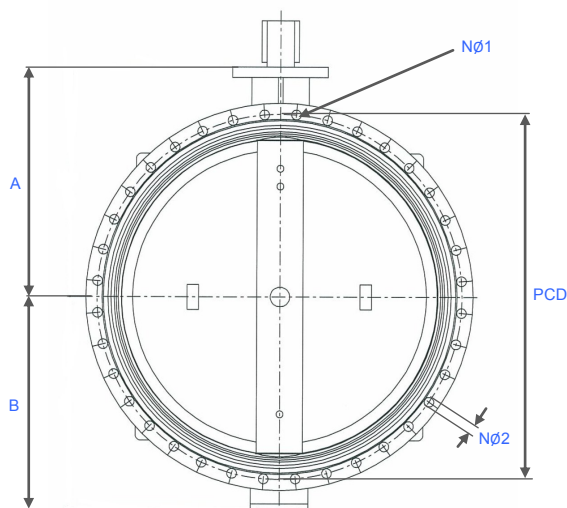
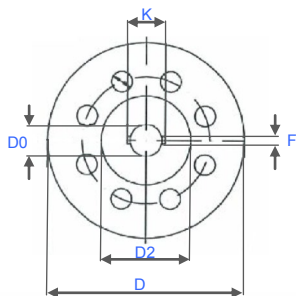
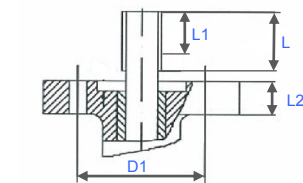
Servicing industries such as : Chemical, Textile, Paper, Engineering, Water and Waste Water.

These valves are suitable for throttling or stopping the flow of corrosive or non-corrosive media such as gases, liquids, semiliquids and solid powder.

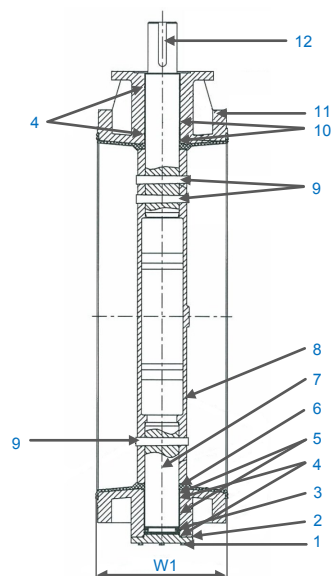
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TECHNICAL : VALVE MATERIALS



ITEM	COMPONENT	MATERIAL	GRADE
1	Bolts	Stainless Steel	ASTM A276-316
2	End Cap	Ductile Iron	AS1831
3	Ball Thrust Bearing	Bronze	-
4	O-Ring	NBR	AS1646
5	Bushing	Bronze	-
6	Seat	EPDM	AS1646 & AS681.1
7	Shaft	Stainless Steel	ASTM A276 - 410
8	Disc	Stainless Steel	ASTM A351 - CF8M
9	Taper Pins	Stainless Steel	ASTM A276
10	Bushing	Bronze	-
11	Body	Ductile Iron	AS1831
12	Key	Tool Steel	-



SIZE	A	B	W1	D	D0	D1	D2	F	h	K	L	L1	L2	ISO 5211	PCD	NØ1	NØ2
50	110	80	108	77	12.6	50	35	3	4	13.8	30	13.5	13	F05	114	4 x M16	-
65	134	80	112	77	12.6	50	35	3	4	13.8	30	13.5	13	F05	127	4 x M16	-
80	131	95	114	77	12.6	50	35	3	4	13.8	30	13.5	13	F05	146	4 x M16	-
100	150	114	127	92	15.77	70	55	5	4	17.77	30	13.6	13	F07	178	4 x M16	-
125	170	114	140	92	18.92	70	55	5	4	20.92	30	13.6	13	F07	210	8 x M16	-
150	180	139	140	92	18.92	70	55	5	4	20.92	30	13.6	13	F07	235	8 x M16	-
200	210	175	152	125	22.1	102	70	5	4	24.1	34	13.6	13	F10	292	8 x M16	-
250	245	203	165	125	28.45	102	70	8	4	31.45	34	15.6	13	F10	356	8 x M20	-
300	276	242	178	140	31.6	102	70	8	4	34.6	34	15.6	19	F10	406	12 x M20	-
350	328	250	190	140	31.6	102	70	8	4	34.6	40	15.6	19	F10	470	12 x M24	-
400	376	310	216	175	33.15	140	100	10	5	36.15	52	48	20	F14	521	12 x M24	-
450	407	332	222	175	38	140	100	10	5	41	52	48	20	F14	584	12 x M24	-
500	433	358	229	175	41.15	140	100	10	5	44.15	64	59	22	F14	641	16 x M24	-
600	508	423	267	210	50.65	165	130	16	6	54.65	70	69	22	F16	756	4 x M27	12 x 30
700	560	479	292	300	63.35	254	200	18	5	71.35	95	85	30	F25	845	4 x M27	16 x 30
750	610	508	305	300	63.35	254	200	18	5	71.35	95	85	32	F25	927	4 x M30	16 x 33
800	620	533	318	300	63.35	254	200	18	5	71.35	95	85	32	F25	984	4 x M33	16 x 36
900	692	602	330	300	75	254	200	20	5	84	130	130	34	F25	1091	4 x M33	20 x 36
1000	735	656	410	300	85	254	200	22	5	95	130	130	35	F25	1175	4 x M33	20 x 36
1200	917	781	470	350	105	298	230	28	5	117	150	150	35	F30	1410	4 x M33	28 x 36
1400	1000	900	530	415	120	356	260	32	5	132	200	180	35	F35	1590	4 x M45	32 x 49
1600	1150	1045	600	415	160	356	260	40	5	178	200	180	50	F35	1820	4 x M52	36 x 56
1800	1200	1150	670	475	160	406	300	40	7	178	200	180	45	F40	2020	4 x M52	40 x 56
2000	1360	1350	760	560	190	483	370	45	7	210	200	180	50	F48	2230	4 x M56	44 x 62

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TECHNICAL DATA

TORQUE DATA

Torque is the measure of the turning force on an object. For a butterfly valve the turning force is determined by the friction of the disc and the seat, bushing friction and fluid dynamic torque. The torques listed are based on normal temperatures and applications at full 10 Bar (1000KPA) rated pressures

*TORQUE NOTES:

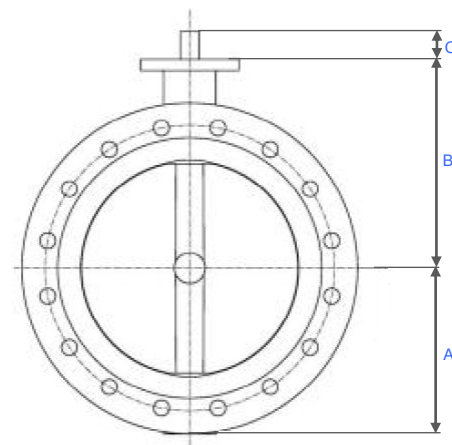
For conditions that vary from those noted, apply the following Application Factor Multipliers:

- Operated less than once per day x 1.2
- Dry Service with gas or air x 1.5
- Dry Service with abrasive powder x 1.7
- Lubricant oils x 0.5
- Temperature - lower than -4.5°C x 1.2
- higher than 93°C x 1.2
- For NBR (Nitrile) Seat Figures will be 1.1 times
- Chemical attack: **Consult Challenger**
- These torque figures include 25% safety factors

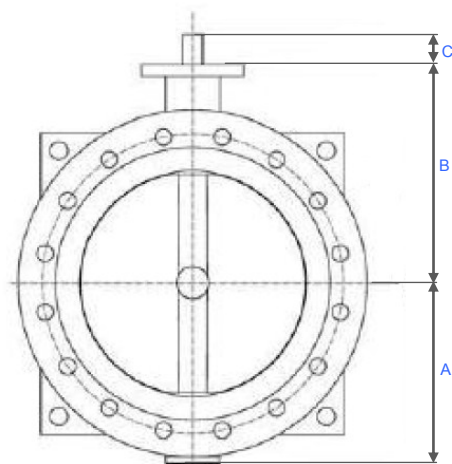
SIZE	*TORQUE Nm
@ 10 BAR	
50	23.25
65	31.5
80	42
100	70
125	103.8
150	167.2
200	372.2
250	607.5
300	873.7
350	1031.2
400	1416.2
450	1897.5
500	2531.2
600	3957.5
700	6135
750	7062.5
800	8077.5
900	9857.5
1000	16736.2
1200	23541.2
1400	41662.5
1600	65625
1800	88537.5
2000	125000

OPTIONS

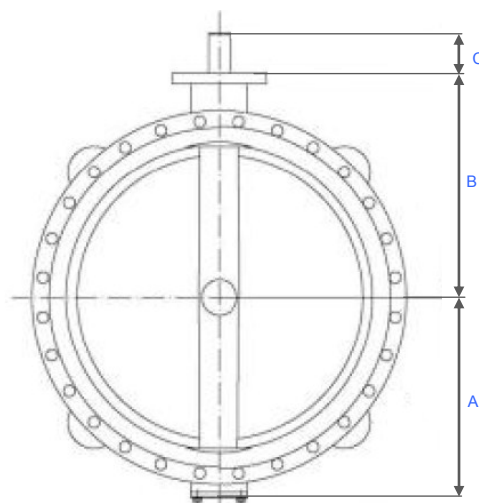
- Epoxy coating to AS4020.
Jotun Tankgard 412.
- Hand wheel operation up to 300mm
- Gearbox operation
- Lockable gearbox
- Actuation:
 - Pneumatic
 - Electric
 - Hydraulic
- Torque limiting devices
- Buried service
- Submerged service
- Extension spindles
- Chain wheel operation
- Seat material: NBR (Nitrile)
- Disc material: Bronze, Duplex
- Shaft material: Monel
- Flange drillings: AS2129 Table E, ANSI B16.5 (ANSI#150), DIN
- Limit switches
- 316 Stainless Steel fasteners



DN50 to DN350 Double Flanged
Butterfly Valves



DN400 to DN1200 Double Flanged
Butterfly Valves



DN1300 to DN3000 Double
Flanged Butterfly Valves