

ARITA UL/FM Resilient Seat Butterfly Valve with Tamper Switch









BF-25G series Butterfly Valve Groove Type
BF-25L series Butterfly Valve Lug Type
BF-25W series Butterfly Valve Wafer Type



Feature	Benefit
Ductile Iron Body	Weighs ~50% less than conventional cast iron design, easy on-site handling and halved shipping cost
EPDM Coated Ductile Iron Disc	Full encapsulated design ensures drop-tight sealing and reduction of wear and jamming
Bubble Tight Closure	Zero leakage at full rated pressure
Epoxy Resin Coated Body and Cover	Enhanced UV protection in exposed installations for long and reliable service life, internally protect against corrosion and abrasion
2 sets of Tamper Switch	One for connection to supervisory circuit and the other to be connected to auxiliary devices



TECHNICAL DATA

Size

2 inch to 12 inch

Approval

UL Listed 2 to 12 inch FM Approved 2 to 12 inch

Pressure Rating

2 inch to 12 inch 300 PSI

Temperature Rating

14°F (-10°C) ~ 248°F (120°C)

Standard

Compliance UL 1091/FM 1112/NFPA 11

NFPA 13/NFPA 14/NFPA 15/NFPA 16 NFPA 20/NFPA 22/NFPA 24/NFPA 71

NFPA 72

Design Standard MSS-SP 67 (Groove Type)

ISO 5752 (Lug & Wafer Type)

Groove Connection Dimension AWWA C606

Connecting Flange Standard ASME B16.42 ANSI 150

(Lug & Wafer Type)

Epoxy Coating AWWA C550

Rubber to Iron bond on Disc Inspected per ASTM D 429-73



MATERIAL SPECIFICATION





BF25 Series

Body: Ductile Iron, ASTM A536 Gr. 65-45-12

Gland: Carbon Steel, ASTM A570 Gr. A

Body Coating: Epoxy Resin Fusion Bonded

Top Shaft: Stainless Steel, AISI SS410

Under Shaft: Stainless Steel, AISI SS410

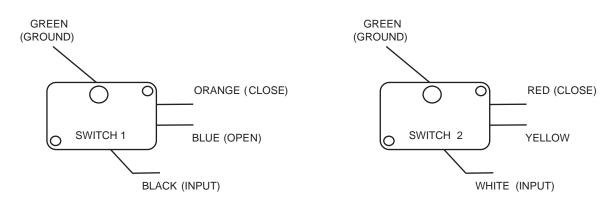
Disc: EPDM Coated Ductile Iron, ASTM A536 Gr. 65-45-12

Screw, Plug, Bolt, Washer, Pin: Galvanized Carbon Steel Surface Passivation

Housing: Cast Iron, ASTM A126 Gr. B

TAMPER SWITCH WIRING DIAGRAM

Wiring Diagram



Switch 1: Supervisory Switch

Switch 2: Auxiliary Switch

BF-25 series Butterfly Valve is installed with one supervisory switch and one auxiliary switch with actuator suitable for outdoor and indoor use.

Switches are installed with current monitor, Input Rating: 10A 250 VAC

Conduit and electrical connections to tamper switch must be in accordance to NFPA 13, 71 and 72.

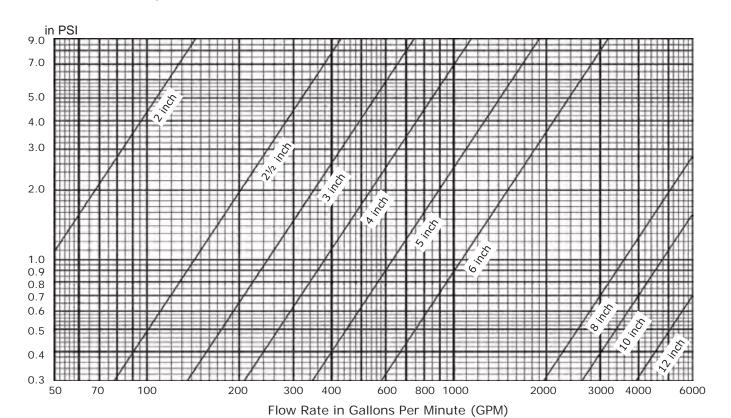


FLOW RATE





Nominal Pressure Drop



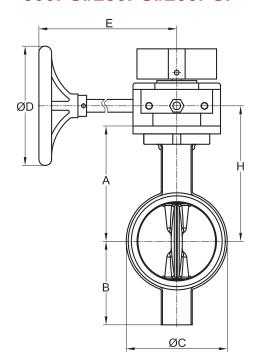
Butterfly Valve Friction Loss

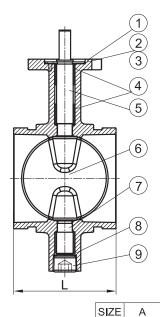


GROOVED BUTTERFLY VALVE 2"-12" 300PSI/250PSI/200PSI









2

2.5

3

4

5

6

8

10

3.74

3.86

4.13

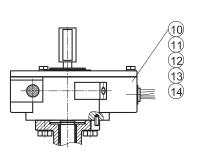
5.31

5.83

6.50

8.03

9.65



ØС

2.83

3.46

3.86

5.00

6.14

7.28

9.25

11.50

ØD

5.91

5.91

5.91

5.91

7.87

7.87

13.78 9.25

13.78 9.25

Ε

6.26

6.26

6.26

6.26

6.26

6.26

Н

5.12

5.24

5.51

6.69

7.20

7.87

9.51

11.12

12.40

L

3.33

3.86

3.86

4.57

5.87

5.81

5.28

6.30

6.50

	Packing	Working Pressure	Working Temperature	
Table 1	EPDM	300PSI	-10°C~120°C	
	NBR	300PSI	-10°C~80°C	

Valves conform to the standards and specifications:

- 1. The valve structure conform to MSS-SP67 long
- 2. The valve test accord with UL1091 / FM1112 300PSI
- 3. The valve connecting flange in accordance with AWWA C606 groove connection standard, etc
- 4. The body surface coated with epoxy
- 5. Valve plate of A536 + EPDM rubber can choose NBR
- 6. Working pressure and working temperature: table 1

No	Name	Material
1	Body	DI ASTM A536 65-45-12
2	Gland	ASTM A570 Gr. A
3	Philips Countersunk Head Screw	Galvanized Carbon Steel Surface Passivation
4	Bushing	ASTM B150M C63000
5	Top Shaft	SS410/SS416/SS420
6	Disc	ASTM A536 65-45-12+EPDM/NBR
7	Under Shaft	SS410/SS416/SS420
8	Adjust Washer	ASTM B150M C63000
9	Plug	Galvanized Carbon Steel Surface Passivation
10	Electrical Signals Worm Gear Box	
11	Hexagon Head Bolts	(12.9)Galvanized Carbon Steel Surface Passivation
12	Spring Washer	Galvanized Carbon Steel Surface Passivation
13	Washer	Galvanized Carbon Steel Surface Passivation
14	Pin	Galvanized Carbon Steel Surface Passivation

12 | 10.93 | 10.17 | 12.75 | 13.09 | 13.78 | 9.25 |
A C606 groove connection standard, etc

5-45-12
Gr. A | urface Passivation | 63000 | 68420 | EPDM/NPR

В

3.07

3.07

3.35

4.13

5.04

5.51

6.69

8.07

ØD

2.37

3.50

4.50

8.63

10.75

3.00

5.50

6.50

2.87

5.56

6.63

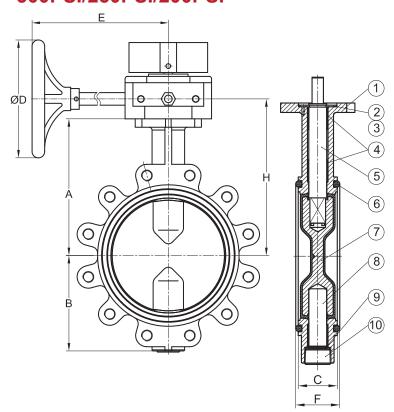


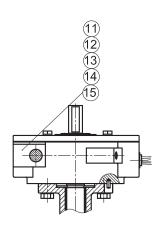
LUG TYPE BUTTERFLY VALVE 2"-12" 300PSI/250PSI/200PSI





Working Temperature





Packing

T-1-1-	I acking			Working Fressure				***	Working Temperature				
Table	1	EP	OM	300PSI/250PSI/200PSI				-10°C~120°C					
SIZE		Α	В		С	F	=	ØD		Е	Ξ	Н	
2	5	.53	3.0	7	1.69	1.8	36	5.9	91	6.2	26	6.9	91
2.5	6	.00	3.0	7	1.81	1.9	98	5.9	91	6.2	26	7.3	8
3	6	.20	3.35		1.81	1.9	98	5.91		6.2	26	7.5	8
4	6	.93	4.13		2.05	2.2	28	5.91		6.2	26	8.3	31
5	7	.52	5.0	4	2.20	2.4	44	7.8	37	6.2	26	8.9	0
6	7	.97	5.5	51	2.20	2.4	44	7.8	37	6.2	26	9.3	5
8	9	.59	6.6	9	2.44	2.	76	13.	78	9.2	25	11.0	06
10	10	0.75	8.0	7	2.68	2.9	99	13.	78	9.2	25	12.2	22
12	12	2.24	10.	16	3.07	3.3	39	13.	78	9.2	25	13.	72

Working Pressure

Valves conform to the standards and specifications:

- 1. The valve structure in accordance with ISO 5752
- 2. The valve test accord with UL1091 / FM1112 300 psi/300 psi / 200 psi
- 3. The valve connecting flange in accordance with BS EN 1092-2 PN16, ASME B16.42 CL150
- 4. The body surface coated with epoxy
- 5. Valve plate of A536 + EPDM
- 6. Working pressure and working temperature: table 1

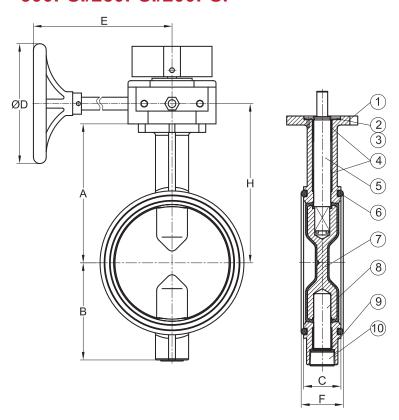
No	Name	Material
1	Body	ASTM A536
2	Gland	ASTM A570 Gr. A
3	Philips Countersunk Head Screw	Galvanized Carbon Steel Surface Passivation
4	Bushing	ASTM B150M C63000
5	Top Shaft	SS410
6	O-Ring	EPDM
7	Disc	ASTM A536+EPDM/NBR
8	Under Shaft	SS410
9	Adjust Washer	ASTM B150M C63000
10	Plug	Galvanized Carbon Steel Surface Passivation
11	Electrical Signals Worm Gear Box	
12	Hexagon Head Bolts	(12.9)Galvanized Carbon Steel Surface Passivation
13	Spring Washer	Galvanized Carbon Steel Surface Passivation
14	Washer	Galvanized Carbon Steel Surface Passivation
15	Pin	Galvanized Carbon Steel Surface Passivation

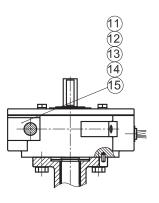


WAFER TYPE BUTTERFLY VALVE 2"-12" 300PSI/250PSI/200PSI









T-bl- 4	Packing	Working Pressure	Working Temperature
Table 1	EPDM	300PSI/250PSI/200PSI	-10°C~120°C

SIZE	Α	В	С	F	ØD	Е	Н
2	5.53	3.07	1.69	1.86	5.91	6.26	6.91
2.5	6.00	3.07	1.81	1.98	5.91	6.26	7.38
3	6.20	3.35	1.81	1.98	5.91	6.26	7.58
4	6.93	4.13	2.05	2.28	5.91	6.26	8.31
5	7.52	5.04	2.20	2.44	7.87	6.26	8.90
6	7.97	5.51	2.20	2.44	7.87	6.26	9.35
8	9.59	6.69	2.44	2.76	13.78	9.25	11.06
10	10.75	8.07	2.68	2.99	13.78	9.25	12.22
12	12.24	10.16	3.07	3.39	13.78	9.25	13.72

Valves conform to the standards and specifications:

- 1. The valve structure in accordance with ISO 5752
- 2. The valve test accord with UL1091 FM1112 300PSI/250PSI/200PSI
- 3. The valve connecting flange in accordance with BS EN 1092-2 PN16, ASME B16.42 CL150
- 4. The body surface coated with epoxy
- 5. Valve plate of A536 + EPDM
- 6. Working pressure and working temperature: table 1

No	Name	Material
1	Body	ASTM A536
2	Gland	ASTM A570 Gr. A
3	Philips Countersunk Head Screw	Galvanized Carbon Steel Surface Passivation
4	Bushing	ASTM B150M C63000
5	Top Shaft	SS410
6	O-Ring	EPDM
7	Disc	ASTM A536+EPDM/NBR
8	Under Shaft	SS410
9	Adjust Washer	ASTM B150M C63000
10	Plug	Galvanized Carbon Steel Surface Passivation
11	Electrical Signals Worm Gear Box	
12	Hexagon Head Bolts	(12.9)Galvanized Carbon Steel Surface Passivation
13	Spring Washer	Galvanized Carbon Steel Surface Passivation
14	Washer	Galvanized Carbon Steel Surface Passivation
15	Pin	Galvanized Carbon Steel Surface Passivation