TB 491-22

MAX SEAL® Valves & Controls

Global Series Butterfly Valves

Designed For Direct Mount Automation

Models:
Wafer 75 Cast Iron
Ductile Iron
Size Range:
2" thru 24"
Pressure Rating:
2" to 24" : 200 PSI
14" to 24" ISO PSI

Design Features

- Ease of Automation
- Low Torque Operation
- Wafer Body Features Four Alignment Lugs
- Collapsable Dove Tail Design Booted Seat
- 2 Piece Stem Design
- High Quality Body Coating for Excellent Corrosion Resistance
- 10 Position Locking Handle 2" - 8"

- One piece body with extended neck allows clearance for flanges and up to 2 1/2 inch of insulation.
- High strength, square drive (2" - 12") ensures a positive shaft to disc connection.
- Square drive ofers direct ISO mounting of gear operator and automation equipment
- Disc floats inside the seat for positive sealing and extended seat life.
- No pins or bolts exposed to flow.
- Offset shaft retainers mechanically retain the shaft in the body ensuring a blow out proof stem design.

Max-Seal Global Series Valves Are Bidirectional Bubble Tight.

Ordering Codes Example

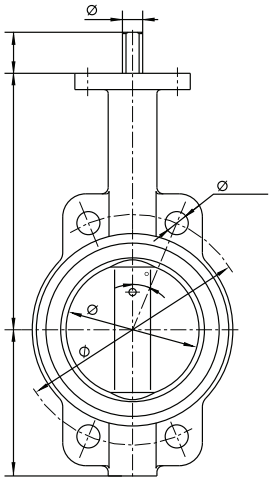
Model	Body	Disc	Stem	Seat	Operator	Size
Lug	Ductile Iron	304 SS	420 SS	EPDM	Lever	4"
56	DI	S4	S2	E	L	100

Design/Performance

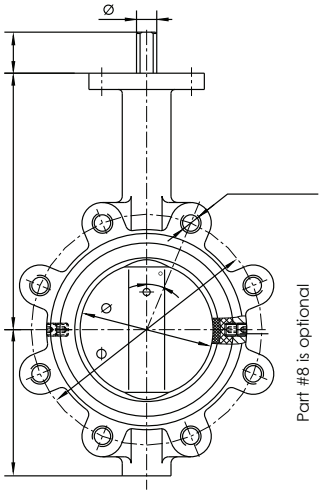
Accurate and smooth machined profile of disc edge requires minimal deformation of the resilient elastomer liner to achieve a positive seal. The low deformation results in low torque, less wear of the seat liner and increased operational life.

www.maxsealinc.com

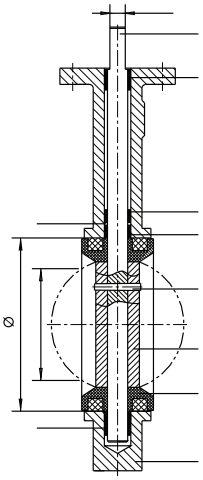
BF 75 & BF 76 > Sizes: 2" ~ 8"



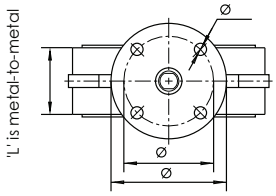
Front View
BF 75 > Wafer Style



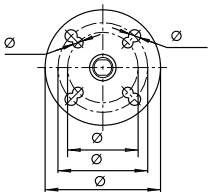
Front View
BF 76 > Lug Style



Side View
Wafer & Lug Style



Top View 2" ~ 6"
Wafer & Lug Style



Top View 8" Only
Wafer & Lug Style

BILL OF MATERIALS [1]

No.	PART	WAFER STYLE	LUG STYLE
1	Stem	T-410 SS	T-410 SS
2	Bushing	PTFE	PTFE
3	O-Ring	EPDM [2] or Buna-N	EPDM [2] or Buna-N
4	Pin [3]	T-410 SS	T-410 SS
5	Disc	Bronze or Nickel Plated DI or CF8M T-316 SS	
6	Seat [4]	EPDM [2] or Buna-N	EPDM [2] or Buna-N
7	Body	Cast Iron	Ductile Iron
8	Set Screw [5]	Carbon Steel	Carbon Steel

1. BOM represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. EPDM is sulfur cured.
3. Sizes 8" through 24" valves have two pins (Part number four).
4. Seat is phenolic backed cartridge.
5. Part number eight (Set Screw) is optional and only applies to Lug Style valves when customer specifies valve for dead-end service. Part number eight is not included on standard valves.

TECHNICAL NOTES

Valves are designed to comply with MSS SP-67 Type II

Valves are tested to comply with API 598

Bolting pattern conforms to Cast Iron ASME B16.1 Class 125 and Ductile Iron ASME B16.42 Class150 [1]

Top flange drilling conform to ISO 5211

Maximum working pressure is 200 PSI for sizes 2" through 12"

Sizes 2" through 6" have double 'D' style stems

Sizes 8" and larger have round style stems

Valves can be made silicone free upon request

Not recommended for steam service (consult factory)

1. Bolting pattern for Cast Iron ANSI Class 125 and Ductile Iron Class 150 are identical. Pressure ratings are not identical. Valves 2" ~ 12" have a maximum working pressure of 200 PSI and 14" ~ 48" have a maximum working pressure of 150 PSI. Pressure ratings are lower for dead-end service.

WEIGHT DATA [1]

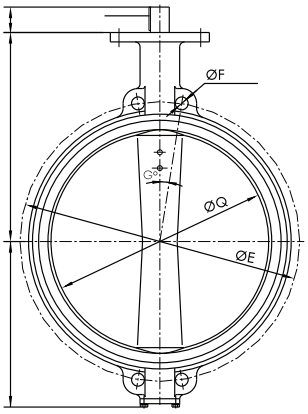
SIZE	2 lb / kg	2.5 lb / kg	3 lb / kg	4 lb / kg	5 lb / kg	6 lb / kg	8 lb / kg
Wafer Style	7.5	8.5	9.2	12.7	14.5	17.5	42.5
	3.4	3.9	4.2	5.8	6.6	7.9	19.3
Lug Style	8.5	11.5	11.0	16.0	20.0	26.5	49.5
	3.9	5.2	5.0	7.3	9.1	12.0	22.5

DIMENSIONAL DATA [1]

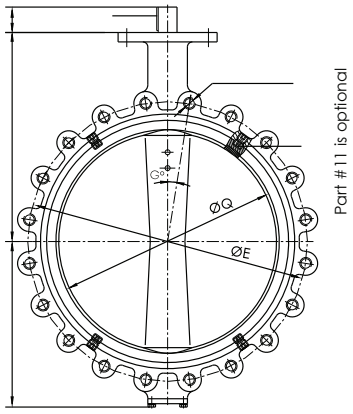
SIZE in / mm	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G Deg.	H1 in / mm	H2 in / mm	I in / mm	J1 in / mm	J2 in / mm	L in / mm	M [2] UNC	N [2] Qty	O [3] in / mm	P in / mm	Q in / mm	W in / mm
2	2.99	6.38	1.26	0.50	4.75	0.69	45	0.37	n/a	3.54	2.76	n/a	1.65	5/8 - 11	4	1.26	3.01	2.01	0.37
50	76	162	32	12.7	120.65	17.50	- - -	9.5	n/a	90	70	n/a	42	- - -	4	32	76.4	51	9.5
2 1/2	3.50	6.89	1.26	0.50	5.50	0.69	45	0.37	n/a	3.54	2.76	n/a	1.77	5/8 - 11	4	1.85	3.51	2.47	0.37
65	89	175	32	12.7	139.7	17.50	- - -	9.5	n/a	90	70	n/a	45	- - -	4	47	89.1	62.8	9.5
3	3.74	7.13	1.26	0.50	6.00	0.69	45	0.37	n/a	3.54	2.76	n/a	1.77	5/8 - 11	4	2.56	4.09	3.04	0.37
80	95	181	32	12.7	152.4	17.50	- - -	9.5	n/a	90	70	n/a	45	- - -	4	65	104	77.3	9.5
4	4.49	7.87	1.26	0.63	7.50	0.69	22.5	0.37	n/a	3.54	2.76	n/a	2.05	5/8 - 11	8	3.54	5.32	4.04	0.44
100	114	200	32	15.9	190.5	17.50	- - -	9.5	n/a	90	70	n/a	52	- - -	8	90	135.1	102.5	11.1
5	5.00	8.39	1.26	0.75	8.50	0.81	22.5	.037	n/a	3.54	2.76	n/a	2.13	3/4 - 10	8	4.37	6.26	4.80	0.50
125	127	213	32	19.1	215.9	20.60	- - -	9.5	n/a	90	70	n/a	54	- - -	8	111	159.1	121.8	12.7
6	5.47	8.86	1.26	0.75	9.50	0.81	22.5	0.37	n/a	3.54	2.76	n/a	2.20	3/4 - 10	8	5.71	7.42	6.00	0.50
150	139	225	32	19.1	241.3	20.60	- - -	9.5	n/a	90	70	n/a	56	- - -	8	145	188.5	152.4	12.7
8	6.97	10.24	1.75	0.87	11.75	0.81	22.5	0.45	0.55	5.91	4.02	4.92	2.36	3/4 - 10	8	7.60	9.38	7.91	0.63
200	177	260	44	22.2	298.45	20.60	- - -	11.5	14	150	102	125	60	- - -	8	193	238.3	200.9	15.9

1. Dimensions and weights are for reference only. When required, request certified drawings. Weights for 2" ~ 8" include lever.
2. Dimensions 'M' and 'N' only are applicable to Lug Style valves. Dimensions 'M' is Unified Inch Screw Thread, coarse pitch series (UNC) per ANSI B1.1. 'N' is the number of bolt holes.
3. Dimension 'O' is disc chordal dimension at valve face.

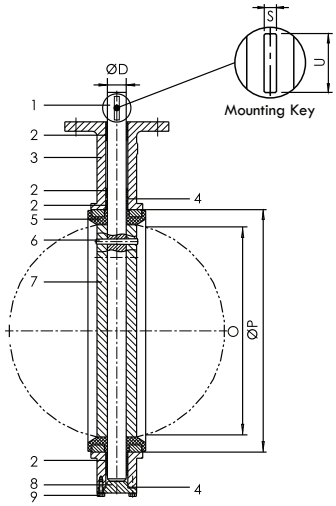
BF 75 & BF 76 > Sizes: 10" ~ 24"



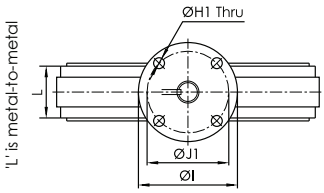
Front View
BF 75 > Wafer Style



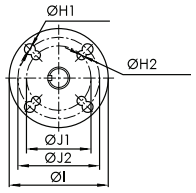
Front View
BF 76 > Lug Style



Side View
Wafer & Lug Style



Top View 16" ~ 24"
Wafer & Lug Style



Top View 10" ~ 14"
Wafer & Lug Style

BILL OF MATERIALS [1]

No.	PART	WAFER STYLE	LUG STYLE
1	Stem	T-410 SS	T-410 SS
2	Bushing	PTFE	PTFE
3	Body	Cast Iron	Ductile Iron
4	O-Ring	EPDM [2] or Buna-N	EPDM [2] or Buna-N
5	Seat [3]	EPDM [2] or Buna-N	EPDM [2] or Buna-N
6	Pin	T-410 SS	T-410 SS
7	Disc	Bronze or Nickel Plated DI or CF8M T-316 SS	
8	End Cap [4]	Cast Iron	Cast Iron
9	Bolt [4]	Carbon Steel	Carbon Steel
10	Key [5]	Carbon Steel	Carbon Steel
11	Set Screw [6]	Carbon Steel	Carbon Steel

1. BOM represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. EPDM is sulfur cured.
3. Seat is phenolic backed cartridge on sizes 10" ~ 14"
   Seat is aluminum backed cartridge on sizes 16" ~24".
4. Sizes 10" ~ 12" do not have End Cap (#8) or Bolt (#9).
5. Sizes 10" ~ 12" have US Standard keys. Sizes 14" ~ 24" have metric keys.
6. Part number eleven (Set Screw) is optional and only applies to Lug Style valves when customer specifies valve for dead-end service.

TECHNICAL NOTES

Valves are designed to comply with MSS SP-67 Type II

Valves are tested to comply with API 598

Bolting pattern conforms to Cast Iron ASME B16.1 Class 125 and Ductile Iron ASME B16.42 Class150 [1]

Top flange drilling conform to ISO 5211

Max working pressure Sizes 2" ~ 12" is 200 PSI Sizes 14" ~ 48" is 150 PSI [1]

Sizes 8" and larger have round style stems

Valves can be made silicone free upon request

Not recommended for steam service (consult factory)

1. Bolting pattern for Cast Iron Class 125 and Ductile Iron Class 150 are identical. Pressure ratings are not identical. Valves 2" ~ 12" have a max working pressure of 200 PSI and 14" ~ 48" have a max working pressure of 150 PSI. Pressure ratings are lower for dead-end service (See page six).

WEIGHT DATA [1]

SIZE	10 lb kg	12 lb kg	14 lb kg	16 lb kg	18 lb kg	20 lb kg	24 lb kg
Wafer Style	54.0	88.2	98.0	162.0	188.0	341.8	529.2
	24.5	40.0	44.5	73.5	85.3	155.0	240.0
Lug Style	80.0	110.0	130.0	220.0	232.0	322.0	522.0
	36.3	49.9	59.0	99.8	105.2	146.1	236.8

DIMENSIONAL DATA [1]

SIZE in mm	A in mm	B in mm	C in mm	D in mm	E in mm	F in mm	G Deg.	H1 in mm	H2 in mm	I in mm	J1 in mm	J2 in mm	L in mm	M [2] UNC	N [2] Qty	O [3] in mm	P in mm	Q in mm	S x U in mm
10	7.99	11.50	1.50	1.13	14.25	0.94	15	0.55	0.45	5.91	4.02	4.92	2.60	7/8 - 9	12	9.49	11.52	9.80	- - -
250	203	292	38	28.6	361.95	23.80	- - -	14	11.5	150	102	125	66	- - -	12	241	292.5	248.9	8 x 36.2 [4]
12	9.53	13.27	1.87	1.25	17.00	0.94	15	0.55	0.45	5.91	4.02	4.92	2.99	7/8 - 9	12	11.46	13.55	11.81	- - -
300	242	337	47	31.8	431.8	23.80	- - -	14	11.5	150	102	125	76	- - -	12	291	344.2	299.9	8 x 36.2 [4]
14	11.02	14.49	1.77	1.25	18.75	1.06	15	0.55	0.45	5.91	4.02	4.92	2.99	1 - 8	12	12.80	14.78	13.06	- - -
350	280	368	45	31.8	476.25	27.0	- - -	14	11.5	150	102	125	76	- - -	12	325	375.3	331.7	8 x 36.2 [4]
16	12.20	15.75	1.77	1.31	21.25	1.06	11.25	0.87	n/a	8.27	6.50	n/a	3.39	1 - 8	16	14.96	17.30	15.26	- - -
400	310	400	45	33.3	539.75	27.0	- - -	22	n/a	210	165	n/a	86	- - -	16	380	439.5	387.5	10 x 50
18	13.58	16.61	2.01	1.50	22.75	1.25	11.25	0.87	n/a	8.27	6.50	n/a	4.13	1 1/8 - 7	16	16.85	19.31	17.26	- - -
450	345	422	51	38.1	577.85	31.80	- - -	22	n/a	210	165	n/a	105	- - -	16	428	490.5	438.4	10 x 50
20	14.88	18.86	2.52	1.63	25.00	1.25	9	0.87	n/a	8.27	6.50	n/a	5.12	1 1/8 - 7	20	18.66	21.08	19.28	- - -
500	378	479	64	41.3	635	31.80	- - -	22	n/a	210	165	n/a	130	- - -	20	474	535.4	489.6	10 x 50
24	18.11	22.13	2.76	2.00	29.50	1.37	9	0.87	n/a	8.27	6.50	n/a	5.94	1 1/4 - 7	20	22.64	25.76	23.23	- - -
600	460	562	70	50.8	749.3	34.9	- - -	22	n/a	210	165	n/a	151	- - -	20	575	654.4	590.1	16 x 56

1. Dimensions and weights are for reference only. When required, request certified drawings. Weights for 10" ~ 24" include gear operator.
2. Dimensions 'M' and 'N' only are applicable to Lug Style valves. Dimension 'M' is Unified Inch Screw Thread, coarse pitch series (UNC) per ANSI B1.1. 'N" is number of bolt holes.
3. Dimension 'O' is disc chordal dimension at valve face.
4. Sizes 10" through 14" have a Woodruff Mounting Key. Contact factory for additional mounting dimensions and information for these sizes.

Resilient Seated Butterfly Valves

Performance Series

Built for Heavy Duty Applications

Ductile Iron Body
Disc: Nylon Coated
316SS or Bronze Disc
Seat: EPDM / Buna / Viton
ISO 5211 Top Flange

Size Range: 2"–24"
Pressure: 200 WOG

51 Model Wafer Type

52 Model Lug Type

ISO Series

This series is in full compliance with ISO 5211
Low Torque - Direct Mount Automation Design

Ductile Iron Body / 316 SS Disc
Die Cast Aluminum Handle
Seat: EPDM / Viton / Buna / PTFE / Specials

Size Range: 1½"–24"
Pressure: 200 WOG

51-I Model Wafer Type

52-I Model Lug Type

Chem-Tek Series

Designed for Corrosive Environments

316 Stainless Steel Standard Body Special Duplex / Alloy 20
Seat: EPDM / Buna / PTFE / Viton
ISO 5211 Direct Mount
4 Drilled & Tapped Lugs, Ideal for Precise Alignment

Size Range: 2"–12"
Pressure: 150 WOG

53 Model Semi-Lug

53 Model Semi-Lug

Chem-Flo Series

Built for Highly Corrosive Media

Ductile Iron Body
Optional Stainless Steel Body
Wafer and Lug Available
Disc: 316SS or 316SS / PTFE Lined
Seat: PTFE
2-Piece Body Design
ISO 5211 / Direct Mount

Size Range: 2"–24"
Pressure: 175 WOG

25 Model Wafer Type

26 Model Lug Type

High Performance Butterfly Valves

HP Series

Fire Safe - Fire Pro Series

Wafer and Lug Type
Built to ANSI & API standards
Eccenctric Double Offset Design

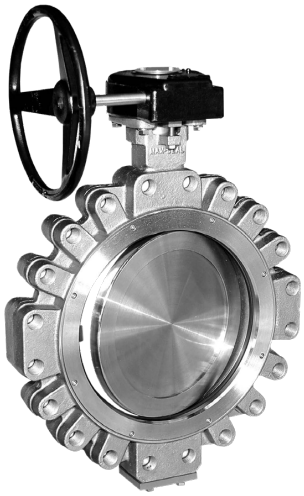
Both Types
ANSI Class 150 / Class 300
Standard Material SS316
OR CS-WCB
Special Duplex SS / Alloy 20
17 - 4PH Shaft
Adjustable Stem Packing
with Gear or Actuator Mounted
Optional Valve Seats Available
ISO 5211 Top Flange

Size Range: 2"–48"
Pressure Classes: 150 / 300

Wafer Type
Class 150: Model BW630
Class 300: Model BW730

Lug Type
Class 150: Model BL630
Class 300: Model BL730

BW 630 Wafer Type Class 150



BL 630 Lug Type Class 300

Hi-Tek Series

Triple Offset Butterfly Valves Hi-Tek Series

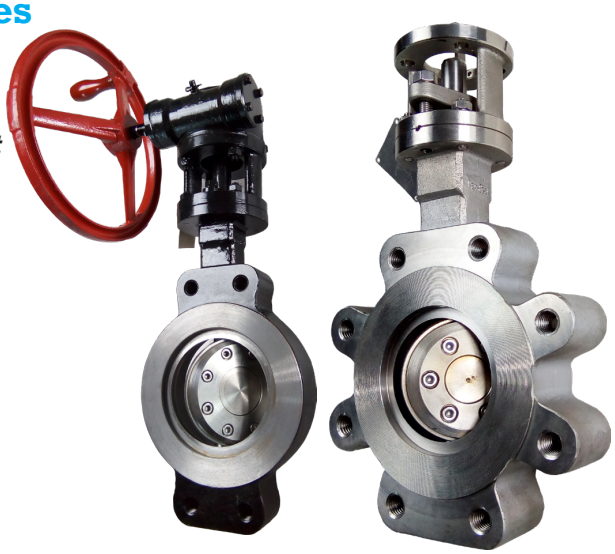
Triple Offset Butterfly Valves are designed for extreme temperatures, extreme pressures, and your toughest application challenges.

Triple Offset Butterfly Valves feature standard metal seats, robust laminated disc seats, and unique graphite stem bearing seals for long service life.

Design Features

Full Flanged End
Wafer Type
Lug Type
Butt Weld
Metal Seats
Class VI Shut-Off

Size Range:
3"–48"
Pressure Classes:
150/300/600/900



Triple Offsets

Double Offset