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BFL2400
General Purpose, Lugged Butterfly Valve

Technical Brochure

Customized valve solutions
for the toughest applications.

BFL2400 General Purpose Butterfly

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BFL2400
General Purpose, Lugged Butterfly Valve

The BFL2400 is a general purpose, resilient seated, butterfly valve suitable for use on a wide variety of process flow applications across all industries. The stainless steel disc and cartridge style seat ensures reliable, bidirectional shut-off for many types of liquids and gases. The BFL2400 is manufactured with a ductile iron body for added durability.

Sizes Available
2” to 24”
(50mm to 600mm)

Pressure Rating
250psi max

Temperature Rating
EPDM seat:
14°F to 158°F (-10°C to 70°C)
BUNA-N seat:
32°F to 176°F (0°C to 80°C)

Standard Design & Construction
(see page 8 for options)
- Ductile Iron body
- Phenolic backed EPDM seat
- 316SS disc
- 17-4 PH shaft
- PTFE bushings

Standards & Approvals

Design:	MSS SP-67, API 609
Flanges:	ASME B16.42 Class 150
Testing:	API 598
Mounting:	ISO 5211
Quality:	ISO 9001:2015
Registration:	CRN

Key Features and Benefits

- Stainless steel disc resists corrosion
- Phenolic backed, cartridge style seat ensures reliable shut-off
- Ductile iron body provides added durability
- ISO 5211 mounting pattern allows direct mounting of various actuation options
- Hand lever with notch plate and lock-out provision provides operator and maintenance safety

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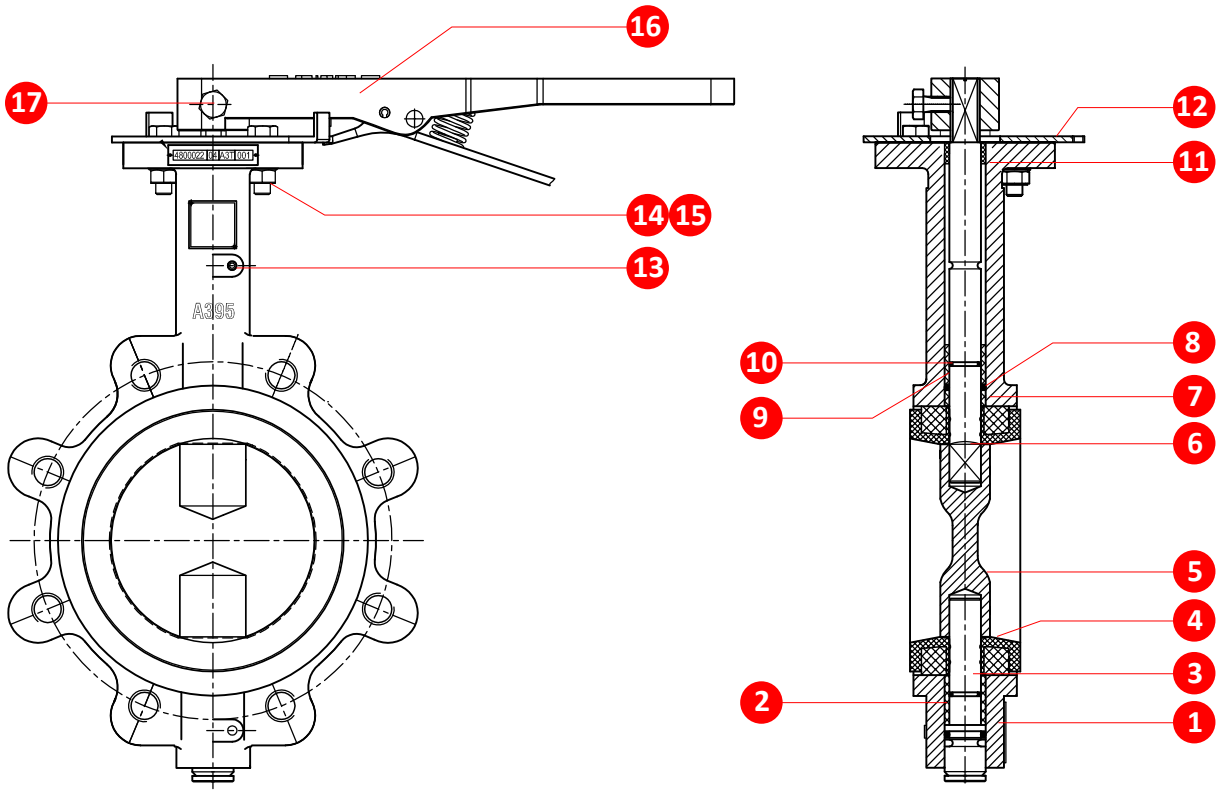
BFL2400: Material Specification



Material Specification		
#	Part	Material
1	Body	ASTM A395 60-40-18
2	Bearing	PTFE
3	Lower Shaft	17-4PH
4	Seat	EPDM / BUNA / FKM
5	Disc	CF8M
6	Upper Shaft	17-4PH
7	Bearing	PTFE
8	O-Ring	NBR
9	O-Ring	NBR
10	Bearing	PTFE
11	Bearing	PTFE
12	Locking Plate	Carbon Steel + Chrome
13	Retaining Pin	304 SS
14	Bolt	Stainless Steel
15	Nut	Stainless Steel
16	Lever	Ductile Iron
17	Bolt	Stainless Steel

Ductile iron is a stronger and more impact-resistant version of traditional cast iron, making it a popular choice for high-pressure and heavy-duty valve applications.

17-4 PH stainless steel is a high-strength, corrosion-resistant alloy commonly used in valve stems, shafts, seats, and trim components. It offers excellent mechanical properties, wear resistance, and good corrosion resistance

316 stainless steel (CF8M) is a high-performance corrosion-resistant alloy widely used in valve bodies, stems, and internal components for applications requiring chemical resistance, strength, and durability.

EPDM is a synthetic rubber commonly used for valve seals, gaskets, and linings due to its excellent chemical resistance and durability.

NBR (BUNA-N) is a synthetic elastomer widely used in valve seals, gaskets, and O-rings, particularly in applications involving oils, fuels, and hydrocarbons.

PTFE is a high-performance fluoropolymer widely used in valve seats, seals, liners, and coatings due to its exceptional chemical resistance, low friction, and thermal stability.

More detailed material information is available at elitevalve.com/material-reference/

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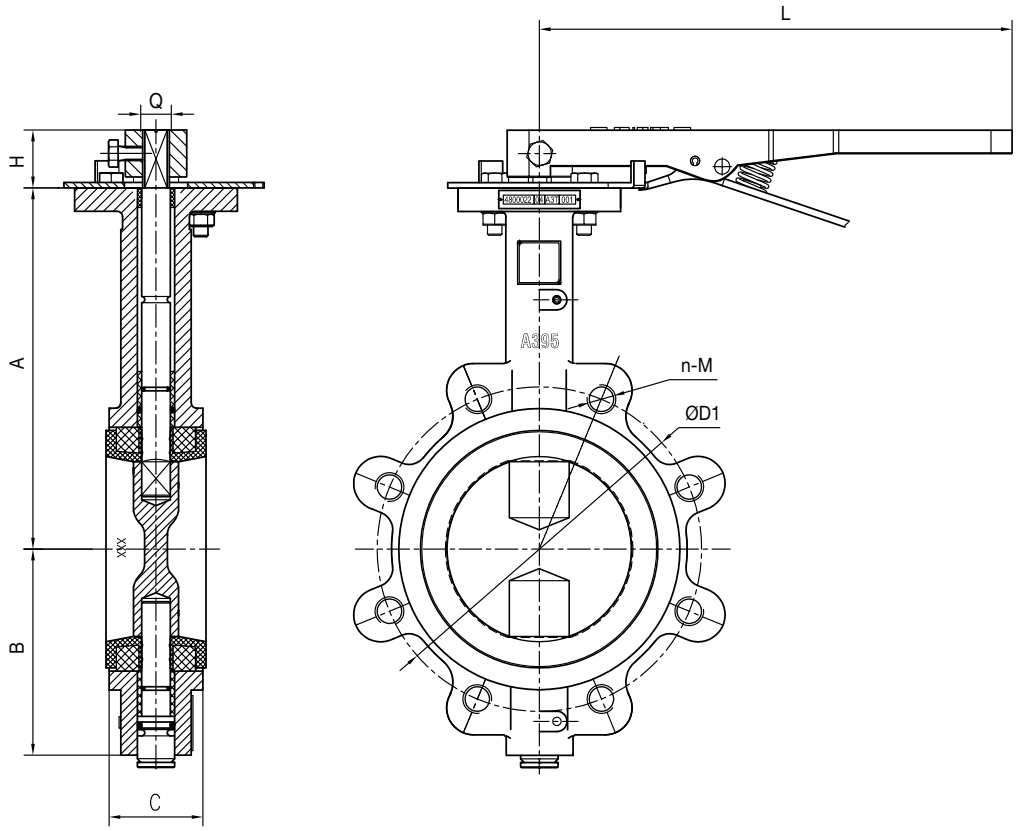
BFL2400 General Purpose Butterfly Valve

Lugged Connection | 2" to 12"



Dimensions											Weight		Cv
Size		A	B	C	ØD1	n-M	H	Q	L	ISO 5211			
NPS	DN	in	in	in	in	in	in	mm	in		Lever (lbs)	Gear (lbs)	
2	50	6.34	3.50	1.69	4.74	4-5/8-11 UNC-2B	1.26	11	10.31	F05/F07	9.3	17.0	115
2.5"	65	6.89	3.82	1.81	5.49	4-5/8-11 UNC-2B	1.26	11	10.31	F05/F07	11.1	18.7	196
3"	80	7.13	4.21	1.81	6.00	4-5/8-11 UNC-2B	1.26	11	10.31	F05/F07	11.9	19.4	302
4"	100	7.87	4.84	2.05	7.50	8-5/8-11 UNC-2B	1.26	14	10.31	F05/F07	18.6	26.0	600
5"	125	8.39	5.35	2.20	8.50	8-3/4-10 UNC-2B	1.26	14	14.33	F07/F10	23.7	38.7	1022
6"	150	8.90	5.83	2.20	9.51	8-3/4-10 UNC-2B	1.26	17	14.33	F10/F12	31.9	47.6	1579
8"	200	10.24	7.24	2.36	11.75	8-3/4-10 UNC-2B	1.77	22	14.33	F10/F12	43.5	50.0	3136
10"	250	11.50	8.35	2.68	14.25	12-7/8-9 UNC-2B	1.77	22	19.84	F12/F14	50.4	73.2	5430
12"	300	13.27	10.04	3.07	17.01	12-7/8-9 UNC-2B	1.77	27	19.84	F12/F14	80.9	101.0	8250

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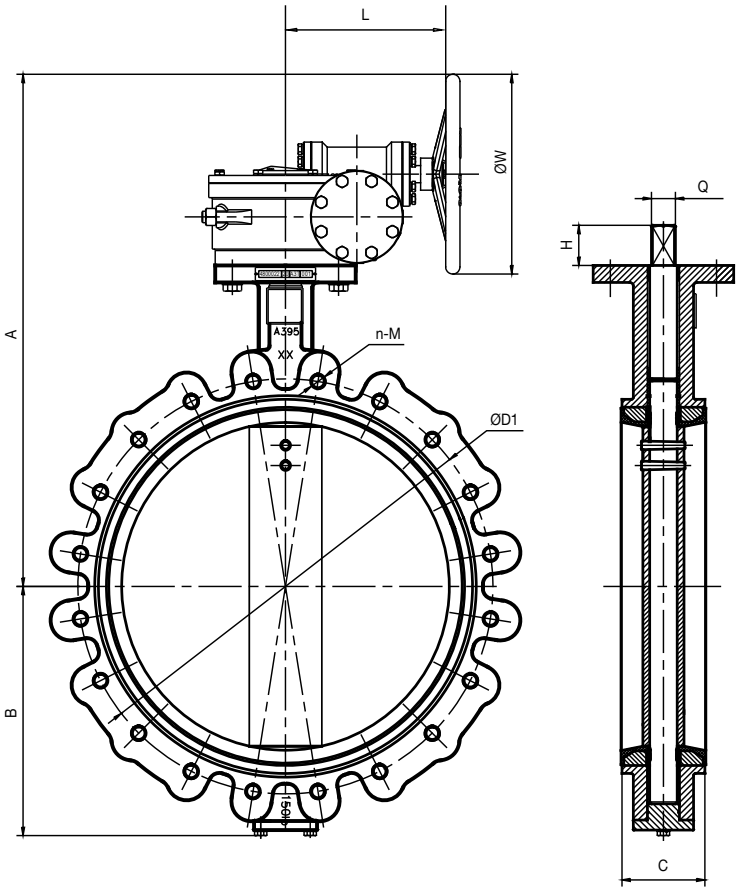
BFL2400 General Purpose Butterfly Valve

Lugged Connection | 14" to 24"



Dimensions											Weight	Cv
Size		A	B	C	ØD	n-M	H	Q	L	ISO 5211		
NPS	DN	in	in	in	in	in	in	mm	in		Gear (lbs)	
14"	350	22.72	10.51	3.07	18.11	12-1-8UN-2B	1.77	27	12.13	F12/F14	168	11917
16"	400	26.54	12.76	4.02	20.28	16-1-8UN-2B	1.77	32	16.77	F12/F14	245	16388
18"	450	27.40	13.50	4.49	22.24	16-1 1/8-8UN-2B	2.01	36	16.77	F12/F14	295	21705
20"	500	29.65	14.76	5.00	24.41	20-1 1/8-8UN-2B	2.48	36	16.77	F12/F14	348	27908
24"	600	33.35	17.13	6.06	28.54	20-1 1/4-8UN-2B	2.75	42	18.86	F14/F16	606	43116

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BFL2400: Part Number Reference

BFL	Size	Process Connection	Body Material	Pressure Rating	Disc Material	Shaft Material	Stem Bushing	Seat Material	Operation & Actuation	-	Control & Feedback	Solenoid Valve	Option
BFL	06	C	2	4	4	5	3	5	6	-	L	S(24)	F

Size

Code	NPS (inch)	DN (mm)
✓ 02	2"	50
✓ 212	2.5"	65
✓ 03	3"	80
✓ 04	4"	100
✓ 05	5"	125
✓ 06	6"	150
✓ 08	08"	200
✓ 10	10"	250
✓ 12	12"	300
✓ 14	14"	350
✓ 16	16"	400
✓ 18	18"	450
✓ 20	20"	500
✓ 24	24"	600

Process Connection

Code	
✓ C	Lugged

Body Material

Code	
✓ 2	A395 60-40-18

Pressure Rating

Code	
✓ 4	250 psi max

Disc Material

Code	
✓ 4	A351 CF8M

Shaft Material

Code	
✓ 5	A182 17-4PH

Stem Bushing

Code	
✓ 3	PTFE

Seat Material

Code	
✓ 1	Buna-N 0°F to 180°F (-18°C to 82°C)
✓ 4	EPDM (NSF 61) -30°F to 275°F (-34°C to 135°C)
✓ 5	EPDM -30°F to 275°F (-35°C to 135°C)
✓ 6	FKM -0°F to 400°F (-18°C to 204°C)

✓ **Standard**

Operation & Actuation

Code	
✓ 3	**Locking Handle**
✓ 5	**Gearbox**
6	Rack & Pinion - Double Acting
7	Rack & Pinion - Fail Close
8	Rack & Pinion - Fail Open
9	Electric Actuator - On/Off
9(M)	Electric Actuator - Modulating
N	2" Nut
5(N)	Gearbox + 2" Nut
C	Chainwheel
X	Bare Stem

Control & Feedback

Code	
	none
L	Limit Switch Box

Solenoid Valve

Code	
	none
S	120VAC
S(24)	24VDC
S(EXP)	120 VAC Ex. Proof
S(24EXP)	24VDC Ex. Proof

Options

Code	
	none
F	Filter/Regulator

Torque

Size		Working Pressure (Wet Media)											
NPS	DN	50psi (3.5 BAR)		75psi (5 BAR)		100psi (7 BAR)		150psi (10 BAR)		200psi (14 BAR)		250psi (17.5 BAR)	
		Nm	lbf-in	Nm	lbf-in	Nm	lbf-in	Nm	lbf-in	Nm	lbf-in	Nm	lbf-in
2"	50	12	106	13	115	13	115	14	124	15	133	27	239
2.5"	65	13	115	14	124	14	124	15	133	17	150	34	301
3"	80	20	177	21	186	21	186	22	195	23	204	41	363
4"	100	31	274	33	292	35	310	37	327	40	354	54	478
5"	125	49	434	51	451	54	478	58	513	62	549	95	841
6"	150	76	673	80	708	85	752	94	832	102	903	149	1319
8"	200	137	1213	145	1283	154	1363	173	1531	192	1699	258	2283
10"	250	215	1903	232	2053	249	2204	286	2531	323	2859	407	3602
12"	300	314	2779	343	3036	371	3284	429	3797	490	4337	583	5160
14"	350	401	3549	434	3841	466	4124	550	4868	625	5532	814	7205
16"	400	499	4417	565	5001	632	5594	755	6682	846	7488	1085	9603
18"	450	653	5780	742	6567	831	7355	1012	8957	1131	10010	1424	12603
20"	500	837	7408	965	8541	1093	9674	1350	11949	1431	12665	1762	15595
24"	600	1308	11577	1494	13223	1679	14860	1966	17401	2111	18684	2301	20366

For dry media (air), multiply the torque by 1.5 before applying safety factor.

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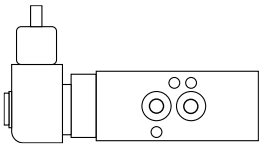
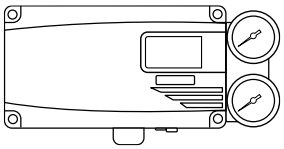
BFL2400: Options & Accessories



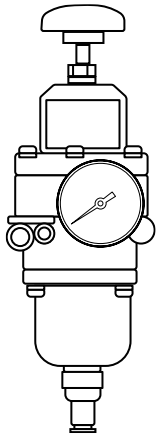
Solenoid Valve

Solenoid valves are used to control the opening and closing of pneumatically actuated valves. NAMUR style valves are typically used for quarter-turn actuators, and inline valves are used for pneumatic cylinders. Both are available with AC or DC coil voltages and with approvals for use in hazardous areas.



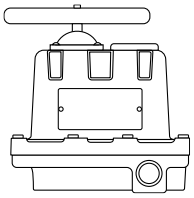
Positioner

Positioners are used in conjunction with pneumatically actuated valves to allow variable opening and closing for flow control based on process conditions. They ensure accurate valve movement to improve efficiency and stability. Hazardous area versions are available, as well as stainless steel enclosures for corrosive environments.



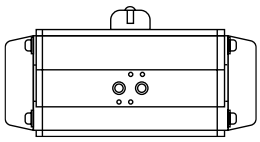
Filter/Regulator

A regulator controls the air pressure used to operate a pneumatically actuated valve. Combined with an air filter and auto-drain to remove any particulate and condensation in the air line, a filter/regulator also provides protection of downstream pneumatic components and improves system reliability.



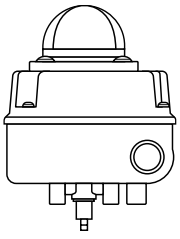
Quarter-Turn Electric Actuator

Quarter-turn electric valve actuators are used to automate ball, butterfly, and plug valves with precise, reliable control in water treatment and industrial process systems. They offer easy integration with existing control systems and can provide accurate positioning with low maintenance. Electric actuators are ideal for remote operations, or where compressed air is unavailable.



Rack & Pinion Pneumatic Actuator

Rack and pinion valve actuators are used to automate quarter-turn valves, such as ball or butterfly valves, in process systems. The compact design delivers consistent torque output and offers reliable, low maintenance control for high cycle applications in water treatment, and industrial automation.



Limit Switch Box

Limit switch boxes provide visual and electrical position feedback for quarter-turn valves by indicating open or closed status. They enable integration with control systems for real-time monitoring and enhance system safety in water treatment, and industrial process applications.

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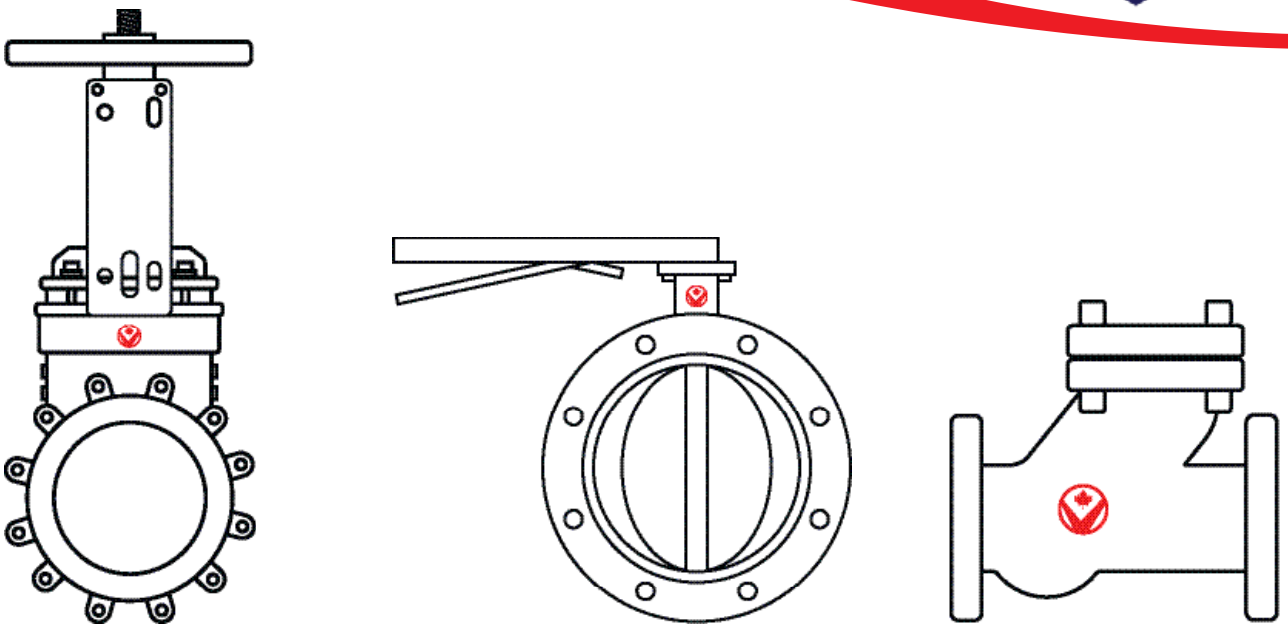

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