



Premium Manufacturer of Sanitary Fittings,
Valves, Pumps, & More

BUTTERFLY VALVES

Butterfly valves are ideal for food and beverage applications. They are offered in a wide range of sizes and connection standards to meet many diverse applications. These valves are proven to be reliable with high viscous products, high temperatures, and corrosive environments. Actuated butterfly valves offer the same features and benefits of our manual butterfly valves, along with pneumatic actuation.

Butterfly valves from Steel & O'Brien are available in clamp and butt weld ends. Other end connections can be furnished upon request.

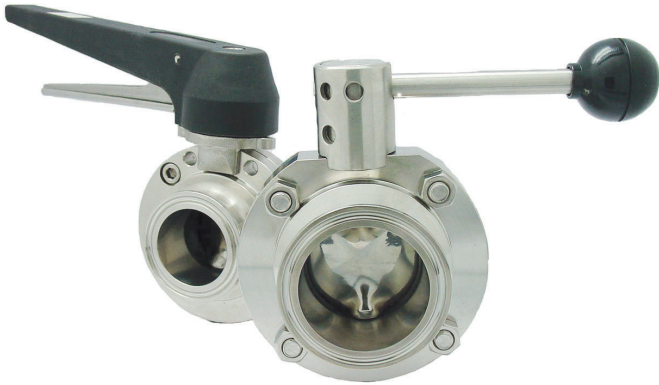


Simplifying Sanitary Through Superior Service™

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Manual Butterfly Valves



Butterfly valves from Steel & O'Brien are available in clamp and butt weld ends. Other end connections can be furnished upon request.

- Available in sizes 1/2" - 6"
- Available in 304ss or 316L ss
- Handle options:
 - 4-position Pull Handle w/ Knob
 - 12-position Trigger Handle (Plastic vs.Stainless)
 - 12-position Trigger Handle (Full Stainless)
- FDA seat materials: Silicone-Red, EPDM, Viton
- Pressure Rating: 145 PSI @ 68°F
- Polished to 32Ra I.D./O.D.
- Low resistance to product flow
- Suitable for low to high viscosity fluids
- Field serviceable
- Self-draining
- 100% pressure tested
- Actuator kit available (easily installed in the field)
- Temperature range +15° to 200°F (-10° to 95°C)

Torque required to fully open and fully close valve

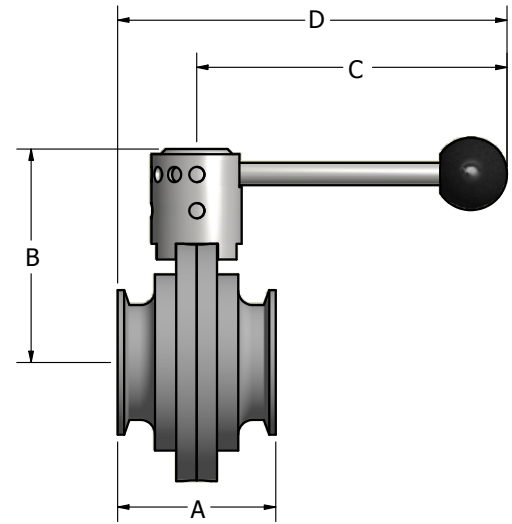
SIZE	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	6"
N*m (Newton meter)	<9.8				13	15	20	30	70
Inch-Pounds	<87				115	133	177	266	620

NOTE: VALUES MAY VARY DEPENDING ON SEAT MATERIAL

Pull Handle – Clamp Ends

REFERENCE DIMENSIONS (inch) OD

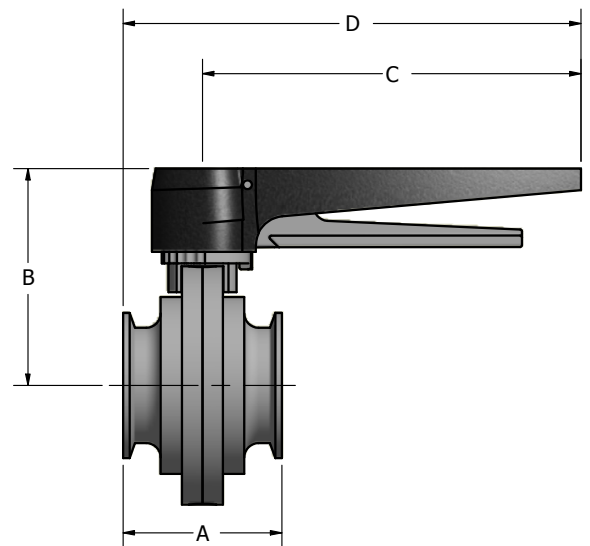
PART#	SIZE	A	B	C	D
BFVPC-.50	1/2"	2.68	3.20	5.49	6.83
BFVPC-.75	3/4"	2.68	3.20	5.49	6.83
BFVPC-1	1"	2.60	3.20	5.49	6.79
BFVPC-1.5	1-1/2"	2.60	3.33	5.49	6.79
BFVPC-2	2"	2.75	3.72	5.49	6.87
BFVPC-2.5	2-1/2"	2.75	3.85	5.49	6.87
BFVPC-3	3"	3.00	4.25	5.49	7.00
BFVPC-4	4"	3.00	4.75	6.87	8.37
BFVPC-6	6"	5.50	6.22	8.25	11.13



Trigger Handle – Clamp Ends

REFERENCE DIMENSIONS (inch)

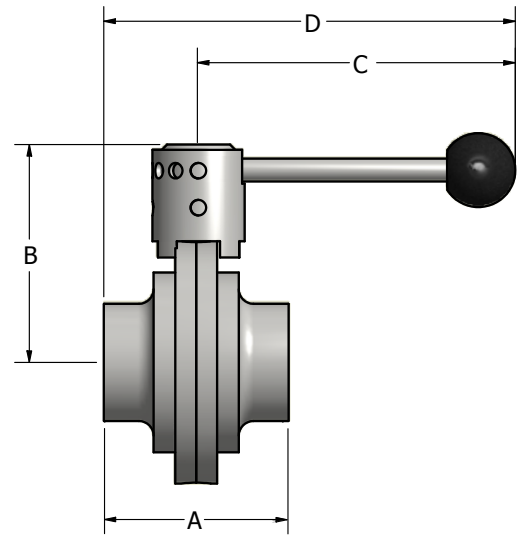
PART#	SIZE	A	B	C	D
BFVTC-.50	1/2"	2.68	3.20	6.58	7.92
BFVTC-.75	3/4"	2.68	3.20	6.58	7.92
BFVTC-1	1"	2.60	3.15	6.58	7.88
BFVTC-1.5	1-1/2"	2.60	3.48	6.58	7.88
BFVTC-2	2"	2.75	3.85	6.58	7.96
BFVTC-2.5	2-1/2"	2.75	3.94	6.58	7.96
BFVTC-3	3"	3.00	4.20	6.58	8.08
BFVTC-4	4"	3.00	4.75	6.58	8.08



Pull Handle – Weld Ends

REFERENCE DIMENSIONS (inch) OD

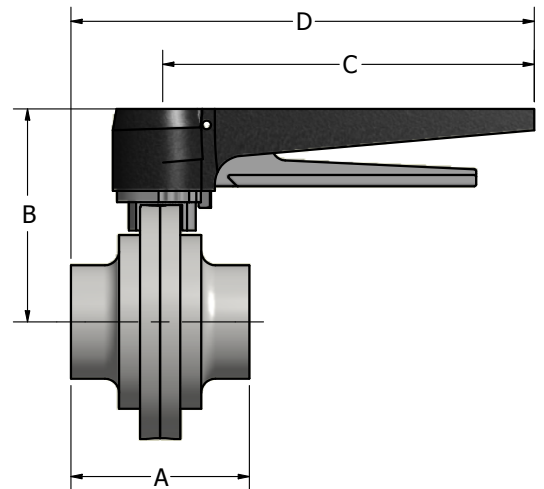
PART#	SIZE	A	B	C	D
BFVPW-1	1"	2.68	3.20	5.49	6.83
BFVPW-1.5	1-1/2"	2.99	3.33	5.49	6.97
BFVPW-2	2"	3.15	3.72	5.49	7.07
BFVPW-2.5	2-1/2"	3.15	3.85	5.49	7.07
BFVPW-3	3"	3.23	4.25	5.49	7.10
BFVPW-4	4"	3.47	4.75	6.87	8.61
BFVPW-6	6"	3.15	6.22	8.25	9.96



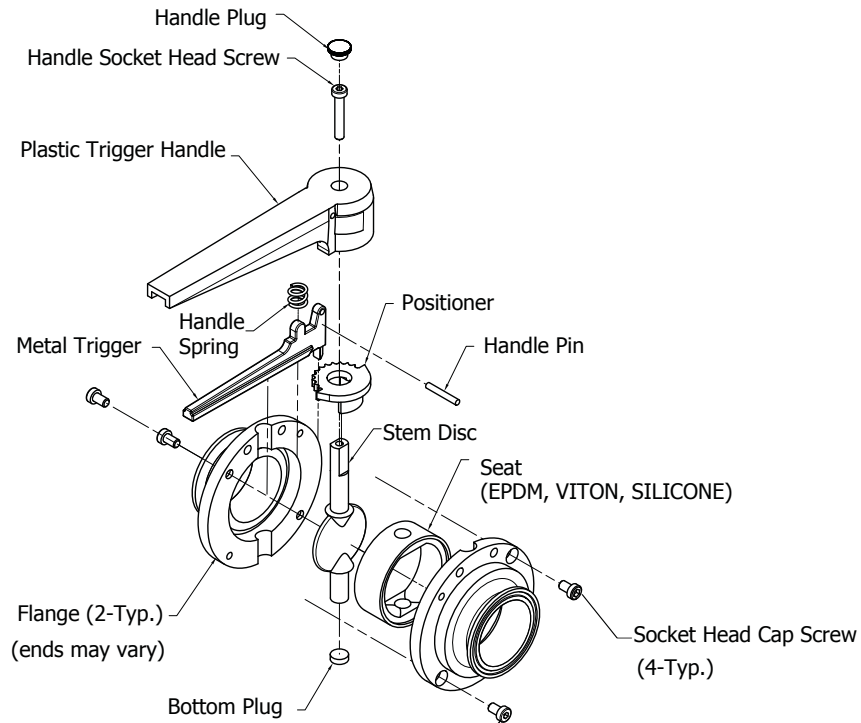
Trigger Handle – Weld Ends

REFERENCE DIMENSIONS (inch)

PART#	SIZE	A	B	C	D
BFVTW-1	1"	2.68	3.15	6.58	7.92
BFVTW-1.5	1-1/2"	2.99	3.48	6.58	8.08
BFVTW-2	2"	3.15	3.85	6.58	8.15
BFVTW-2.5	2-1/2"	3.15	3.94	6.58	8.16
BFVTW-3	3"	3.23	4.20	6.58	8.19
BFVTW-4	4"	3.47	4.75	6.58	8.32



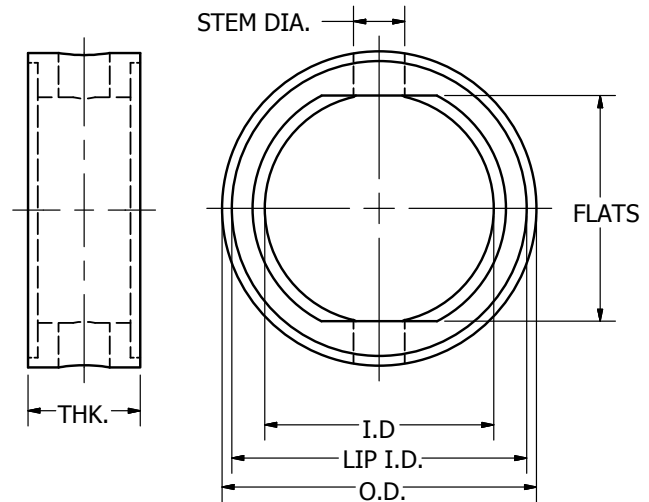
Exploded View & Itemized Part List



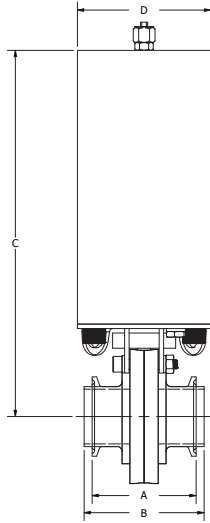
Replacement Seal Identification

BUTTERFLY VALVE SEAT REFERENCE GUIDE						
SIZE	O.D.	I.D.	LIP I.D.	STEM DIA.	FLATS	THK.
1	1.50	0.82	1.28	.42	.77	.92
1.5	2.02	1.34	1.82	.42	1.34	.92
2	2.58	1.91	2.37	.42	1.82	.92
2.5	2.96	2.32	2.69	.42	2.25	.92
3	3.44	2.70	3.17	.42	2.67	.99
4	4.72	3.87	4.35	.57	3.80	1.13
6	6.84	5.79	6.32	.74	5.54	1.71

*** DIMENSIONS ARE FOR REFERENCE ONLY & MAY VARY ***



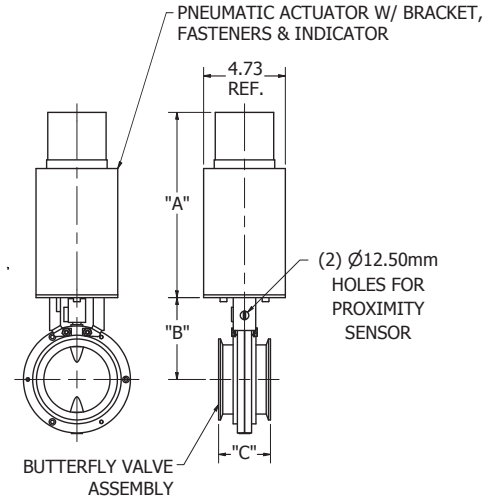
Actuated Butterfly Valves



Features and Specifications

- C3# Actuator - 1/2" through 3" Valves
- Available in Spring Return and Double Acting
- Air supply pressure: Min 73PSI (5bar) Max 130PSI (9bar)
- Air Consumption: 0.266 Liter at 5bar
- Shut-Off time: 1.5 seconds
- Material: 304 stainless steel
- (2) M12x1 threaded holes for proximity sensor mounting
- Actuators are able to be field installed on existing manual valves
- 1/4" to M10x1 compression fitting for 1/4" airline included, (1) for Spring Return and (2) for Double Acting

SIZE	A	B	C	D
1/2"	2.68	N/A	8.91	3.35
3/4"	2.68	N/A	8.91	3.35
1"	2.60	2.68	8.91	3.35
1-1/2"	2.60	2.99	9.02	3.35
2"	2.75	3.15	9.53	3.35
2-1/2"	2.75	3.15	9.58	3.35
3"	3.00	3.23	9.81	3.35



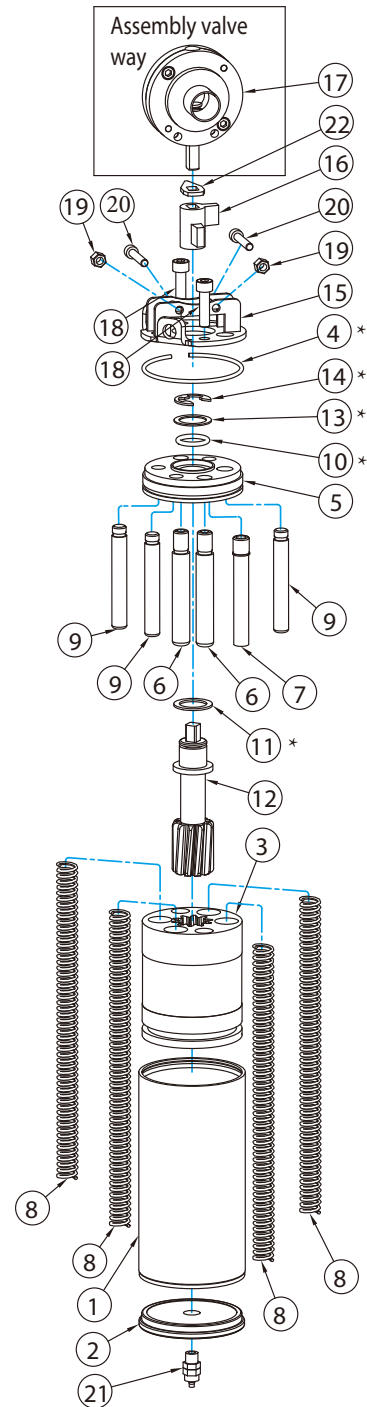
Features and Specifications

- C101 Actuator - 4" Valves
- Available in Spring Return and Double Acting
- Air supply pressure: Min 73PSI (5bar) Max 130PSI (9bar)
- Air Consumption: 0.550 Liter at 5bar
- Shut-Off time: 1.7 seconds
- Material: 304 stainless steel
- (2) 12.5mm holes for proximity sensor mounting
- Actuators are able to be field installed on existing manual valves
- 1/4" to M10x1 compression fitting for 1/4" airline included, (1) for Spring Return and (2) for Double Acting

SIZE	A	B	C
4"	10.71	4.73	3.00

Exploded View & Itemized Part List

Parts List			
Item	Parts name	Q'TY	Material
1	St.St cylinder	1	SS304
2	St.St cylinder cap	1	SS304
3	Piston stem	1	Tenac 4010/SH410
4	Lock wire clip*	1	SS304
5	Lower cylinder end	1	SS304
6	Piston guide part	2	SS304
7	Piston guide part	1	SS304
8	Compress spring	4	SS304
9	Piston guide part	3	SS304
10	Piston axle O-ring*	1	Teflon
11	Teflon gasket*	1	Teflon
12	Coupling axle piece	1	SS304
13	Contact seal*	1	SS304
14	Circlip*	1	SS304
15	Mounting bracket	1	SS304
16	Connection piece	1	SS304
17	Assembly valve way	1	SS 304/316(L)
18	M8x12 ST.ST screw	2	SS304
19	M6 Nut	2	SS304
20	M6x35 ST.ST screw	2	SS304
21	Air connection	1	Cupper
22	Positioning index	1	SS304



* - (2) Piston O-Rings and parts with * are included in spare parts kit

C3# Repair Kit - Part # BFVASPARE-1

C101 Repair Kit - Part # BFVASPARE-4

How To Order

Manual Valve Ordering Matrix

EXAMPLE

PART #: BFTVC-1.5-316-EPDM

S&O 1-1/2" BUTTERFLY VALVE - CLAMP ENDS, FDA EPDM SEAL, 316L BODY & DISC, 12-POSITION PLASTIC/SS TRIGGER HANDLE

VALVE TYPE	END CONNECTION & HANDLE TYPE		SIZE		BODY/DISC MATERIAL		SEAT MATERIAL	
BFV	PC	CLAMP END - PULL HANDLE + KNOB (4-POSITION)	.50	1/2"	304	304 SS	EPDM	FDA EPDM (BLACK)
	TC	CLAMP END - TRIGGER HANDLE PLASTIC/SS (12 POSITION)	.75	3/4"				
	MTC	CLAMP END - TRIGGER HANDLE STAINLESS (12 POSITION)	1	1"				
	PW	WELD END - PULL HANDLE + KNOB (4-POSITION)	1.5	1-1/2"	316	316L SS	VITON	FDA FKM (BLACK)
	TW	WELD END - TRIGGER HANDLE PLASTIC/SS (12 POSITION)	2	2"				
	MTW	WELD END - TRIGGER HANDLE STAINLESS (12 POSITION)	2.5	2-1/2"				
		3	3"					
		4	4"					
		6	6"					

Actuated Valve Ordering Matrix

EXAMPLE

PART #: BFVAC-1.5-NC-316-EPDM

S&O 1-1/2" BUTTERFLY VALVE - CLAMP ENDS, FDA EPDM SEAL, 316L BODY & DISC, 304SS SPRING RETURN CANISTER ACTUATOR, NORMALLY CLOSED

VALVE TYPE & END CONNECTION		SIZE		ACTUATOR & FAIL POSITION		BODY/DISC MATERIAL		SEAT MATERIAL	
BFVAC	CLAMP END - CANISTER ACTUATOR (304SS)	.50	1/2"	NC	SPRING RETURN - NORMALLY CLOSED	304	304 SS	EPDM	FDA EPDM (BLACK)
BFVAW	WELD END - CANISTER ACTUATOR (304SS)	.75	3/4"						
		1	1"	NO	SPRING RETURN - NORMALLY OPEN	316	316L SS	VITON	FDA FKM (BLACK)
		1.5	1-1/2"						
		2	2"	DA	DOUBLE ACTING			SILICONE-RED	FDA SILICONE (RED)
		2.5	2-1/2"						
		3	3"						
		4	4"						

* FOR 6" ACTUATED - SEE TOP-FLO

Replacement Seat Ordering Matrix

EXAMPLE

PART #: BFV-SEAT-1.5-EPDM

S&O REPLACEMENT SEAT FOR 1-1/2" BFV, FDA EPDM

VALVE TYPE	PART TYPE	SIZE		SEAT MATERIAL	
BFV	SEAT	.50	1/2"	EPDM	FDA EPDM (BLACK)
		.75	3/4"		
		1	1"	VITON	FDA FKM (BLACK)
		1.5	1-1/2"		
		2	2"	SILICONE-RED	FDA SILICONE (RED)
		2.5	2-1/2"		
		3	3"		
		4	4"		
6	6"				

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