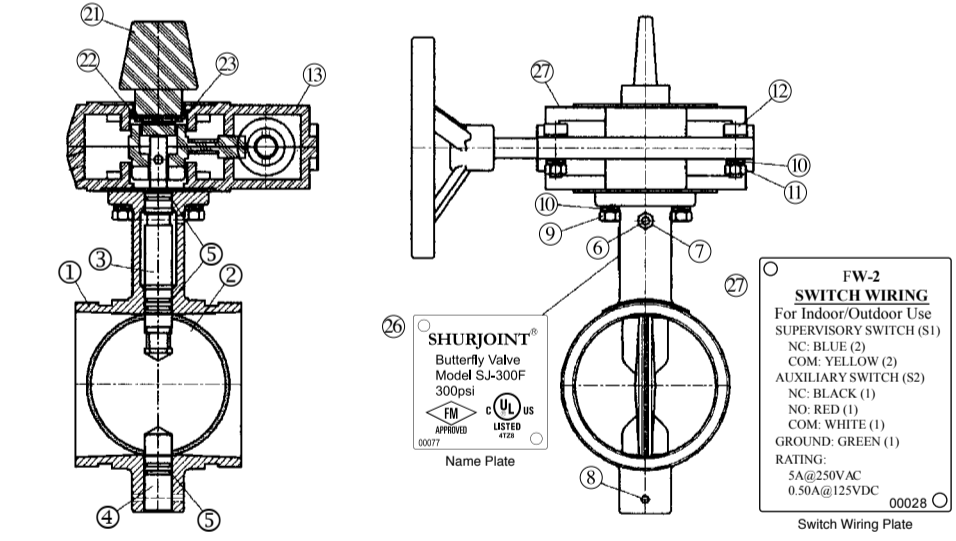
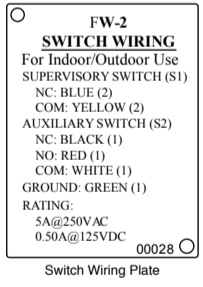


Part List



No.	Part Name	Material
1	Valve Body	DI ASTM A536 Gr. 65-45-12 Epoxy coated (FDA approved)
2	Disc	DI/EPDM (FDA approved) Encapsulated
3	Upper Stem	Stainless Steel AISI 410
4	Lower Stem	Stainless Steel AISI 410
5	O-Ring	EPDM
6	Set Screw	Cr-Mo Steel
7	Hex. Nut	Carbon Steel
8	Spring Pin	Spring Steel
9	Hex. Bolt	Carbon Steel
10	Spring Washer	Spring Steel
11	Hex. Nut	Carbon Steel
12	Set Screw	Cr-Mo Steel
13	Actuator Case	DI ASTM A 536 Gr. 65-45-12
14	Segment Gear	DI ASTM A 536 Gr. 65-45-12
15	Packing	Nitrile
16	Case O-Ring	Nitrile
17	Handwheel Shaft	Carbon Steel SAE 1015
18	Worm Gear	Carbon Steel SAE 1045
19	Washer	Phosphor Bronze
20	Spring Pin	Spring Steel
21	Indicator Flag	DI ASTM A536 Gr. 65-45-12
22	Indicator O-Ring	Nitrile
23	Snap Ring	Carbon Steel
24	Handwheel	DI ASTM A536 Gr. 65-45-12
25	Switches & Wiring	UL listed
26	Name Plate	Aluminum
27	Switch Wiring Plate Model No. FW-1 for 2" ~ 3", FW-2 for 4" ~ 6" and FW-3 for 8" ~ 12"	Aluminum
28	Conduit Fitting	Commercial



MODEL SHURJOINT SJ-300F BUTTERFLY VALVE

Resilient Seated Butterfly Valve from 2" to 12"

Product Description

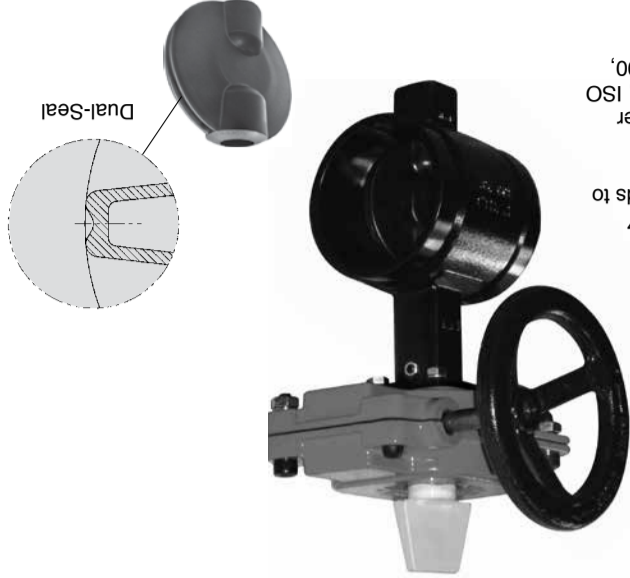
The Model SJ-300F Butterfly Valve is a grooved-end shut-off valve equipped with a worm gear operator and supervisory and wiring.

The Model SJ-300F is cULus* and FM* approved 300 psi (20 Bar, 2.0 MPa) WWP (water working pressure) for indoor and outdoor use. Flow characteristics satisfy UL Specification 1091 and FM Approval Standard 1112.

* For approval information, please visit Shurjoint website, www.shurjoint.com for details.

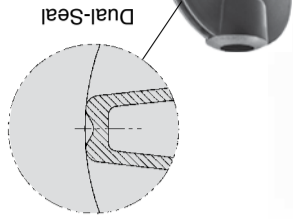
When the Model SJ-300F Butterfly Valve is used in fire protection applications, installations shall conform to NFPA 13 and NFPA 72.

The valve consists of an epoxy powder coated ductile iron body and EPDM rubber encapsulated dual-seal disc. The EPDM disc encapsulation rubber is certified under NSF/ANSI 61 & NSF/ANSI 372 for use in potable water systems.

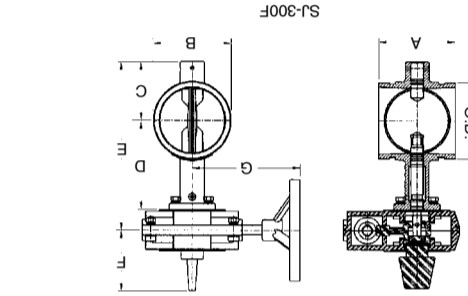


Specifications:
 Overall dimension: MSS SP 67
 End connections: Grooved ends to ANSI/WWA C-606
 Applicable pipe: UL listed or FM approved pipe, ISO 4200, DIN 2448, BSI 1387-3600, NFA 49004

Technical Data:
 Range: 2" - 12"
 Working pressure: 300 psi
 Sealing test: 110% of working pressure
 Shell test: 200% of working pressure



Performance Data

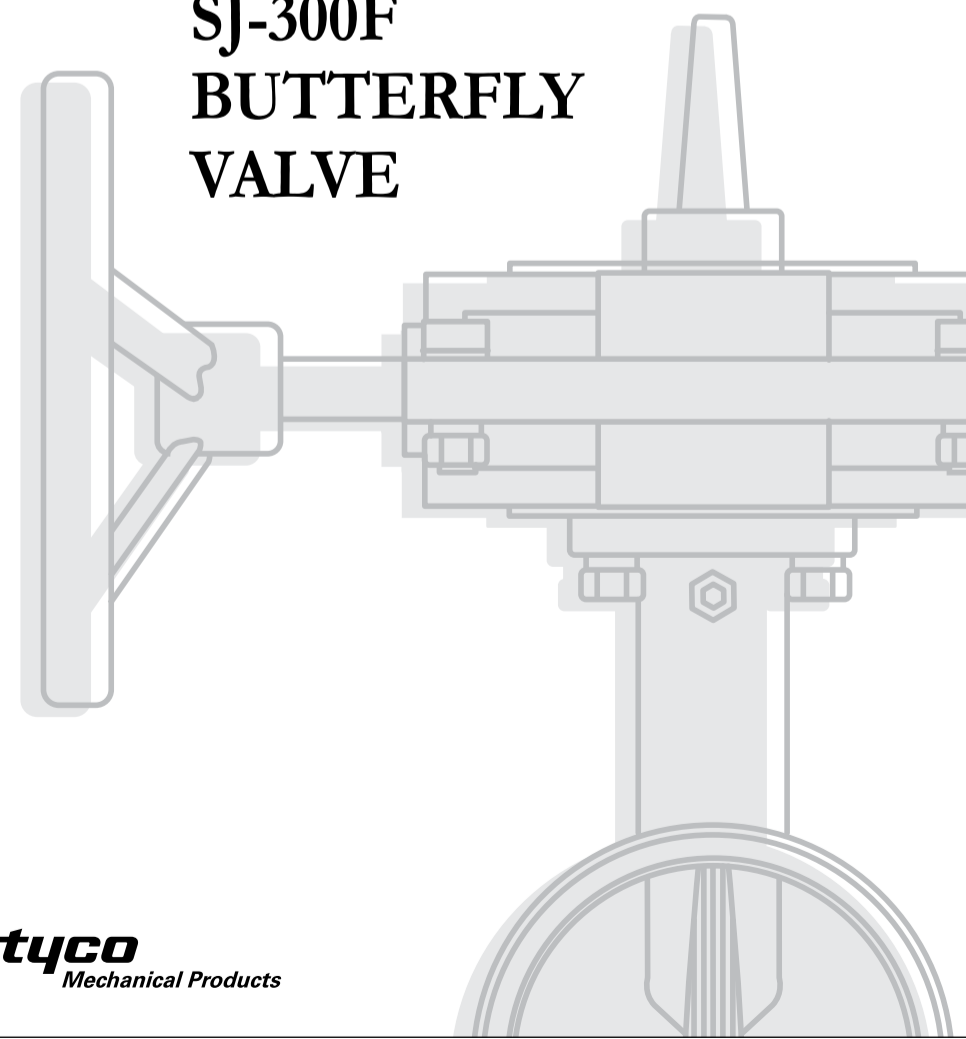


Nominal Pipe Size	Dimensions				Weight ⁽²⁾
	OD	in	mm	G	
2	2.375	3.19	2.66	4.17	7.87
3	3.000	3.81	3.62	3.00	9.17
4	4.500	4.56	4.65	3.50	10.04
5	5.500	5.81	5.71	4.00	11.85
6	6.500	6.81	6.77	4.50	12.95
8	8.625	9.74	9.72	5.51	14.92
10	10.750	12.87	12.87	6.69	17.17
12	12.750	15.50	15.50	8.07	19.53
15	15.750	19.12	19.12	10.24	24.96
20	20.000	24.12	24.12	13.12	31.75
24	24.000	29.12	29.12	16.50	39.69
30	30.000	34.12	34.12	20.31	48.81
36	36.000	39.12	39.12	24.56	59.22
42	42.000	44.12	44.12	29.26	71.04
48	48.000	49.12	49.12	34.41	84.27
54	54.000	54.12	54.12	39.92	98.90
60	60.000	59.12	59.12	45.79	114.93
66	66.000	64.12	64.12	51.92	132.27
72	72.000	69.12	69.12	58.31	150.92
78	78.000	74.12	74.12	64.96	170.87
84	84.000	79.12	79.12	71.87	192.12
90	90.000	84.12	84.12	79.04	214.67
96	96.000	89.12	89.12	86.47	238.42
102	102.000	94.12	94.12	94.15	263.37
108	108.000	99.12	99.12	102.08	289.52
114	114.000	104.12	104.12	110.26	316.87
120	120.000	109.12	109.12	118.69	345.42
126	126.000	114.12	114.12	127.37	375.17
132	132.000	119.12	119.12	136.40	406.12
138	138.000	124.12	124.12	145.69	438.27
144	144.000	129.12	129.12	155.24	471.62
150	150.000	134.12	134.12	165.04	506.17
156	156.000	139.12	139.12	175.13	541.82
162	162.000	144.12	144.12	185.48	578.57
168	168.000	149.12	149.12	196.09	616.42
174	174.000	154.12	154.12	206.96	655.47
180	180.000	159.12	159.12	218.09	695.72
186	186.000	164.12	164.12	229.48	737.27
192	192.000	169.12	169.12	241.13	779.92
198	198.000	174.12	174.12	253.04	823.67
204	204.000	179.12	179.12	265.21	868.52
210	210.000	184.12	184.12	277.64	914.47
216	216.000	189.12	189.12	290.33	961.52
222	222.000	194.12	194.12	303.28	1009.67
228	228.000	199.12	199.12	316.49	1058.92
234	234.000	204.12	204.12	329.96	1109.27
240	240.000	209.12	209.12	343.69	1160.72
246	246.000	214.12	214.12	357.68	1213.27
252	252.000	219.12	219.12	371.93	1266.92
258	258.000	224.12	224.12	386.44	1321.67
264	264.000	229.12	229.12	401.21	1377.52
270	270.000	234.12	234.12	416.24	1434.47
276	276.000	239.12	239.12	431.53	1492.52
282	282.000	244.12	244.12	447.08	1551.67
288	288.000	249.12	249.12	462.89	1611.92
294	294.000	254.12	254.12	478.96	1673.27
300	300.000	259.12	259.12	495.29	1735.72

(1) End to end dimensions conform to MSS SP-67.
 (2) The weight includes the worm gear operator.



SHURJOINT®
 Installation, Operation
 & Maintenance
SJ-300F BUTTERFLY VALVE



Maintenance

Outdoor use:

Always install a weatherproof conduit and conduit connection on the housing to protect the supervisory switches.

Disassembly of valve:

- 1) Drain the fluid completely from the pipeline.
- 2) Leave the valve slightly opened.
- 3) Loosen the coupling bolts and nuts.
- 4) Remove the valve from the pipeline.

Always wear safety glasses, hardhat, and foot protection before attempting to disassemble the Model SJ-300F Butterfly Valve for maintenance. Failure to do so may cause serious personal injury and or property damage.

Maintenance

When the gear operator or other component fails during service, it is recommended to change the whole valve rather than to repair or replace the failed component(s). All replacement parts must be obtained from the manufacturer to assure proper operation of the valve, and to maintain cULus listing and FM approval of the device. Only trained or authorized personnel are allowed to replace the failed component(s). Contact Shurjoint for further details.

Failure to do so may cause improper valve operation, serious personal injury and or property damage.

WARNING

This valve is cULus listed and FM approved as a complete set with the worm gear operator. Use it as factory supplied and do not dismantle the worm gear operator or other components. No modification to lever handle operation or chain-wheel operation is permitted.

Only good for above-ground, ambient temperature use. No submerged use is acceptable.

The valve disc which is encapsulated with EPDM is only good for water and oil-free air services. EPDM rubber is not compatible with petroleum or oil services.

Only good for grooved-end carbon steel pipes. Do not use it with plain-end carbon steel pipe or grooved-end ductile iron pipe.

Failure to do so may cause improper valve operation, serious personal injury and or property damage.

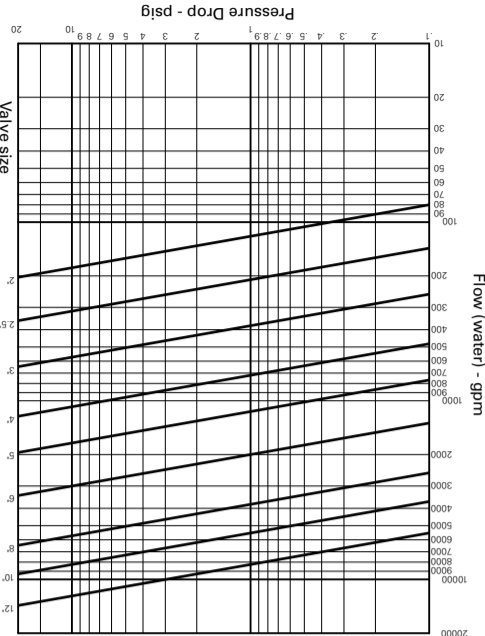
Flow Data / Operating Torque

Operating Torque		Flow Data	
Nominal Size	Pipe OD	Nominal Size	Pipe OD
in / mm	In-Lbs / Nm	in / mm	Torque
2	2.375	50	60.3
2½	2.875	73.0	83.7
3	3.000	76.1	85.7
3½	3.500	80	90.9
4	4.500	100	114.3
5	5.500	139.7	153.9
6	6.625	150	168.3
8	8.625	200	219.1
10	10.750	250	273.0
12	12.750	300	323.9

Notes: The torque values are based on liquid applications. For dry or non-lubricating applications add a 25% service factor to the above values.

Nominal Size (in)	Feet (Meter)	CV Value (Full Open)
2	4.7 (1.4)	210
2½	5.2 (1.6)	380
3	5.5 (1.7)	380
4	6.8 (2.1)	720
5	8.5 (2.6)	1150
6	7.4 (2.3)	2000
8	9.2 (2.8)	3800
10	13.5 (4.1)	5500
12	15.1 (4.6)	8250

Equivalent length and Cv values for flow of water are shown below (water temperature at +20°C or +68°F).



Switch & Wiring

Switch & Wiring

The supervisory switch is designed to supervise in the "open" position and contains two, single pole, double throw, pre-wired switches.

Switch 1 (S1) has two #18 AWG wires per terminal used for connection to supervisory circuit of an UL listed alarm control panel.

Normally closed: (2) Blue
Common: (2) Yellow

Switch 2 (S2) has one #18 AWG wire per terminal for connection to auxiliary devices

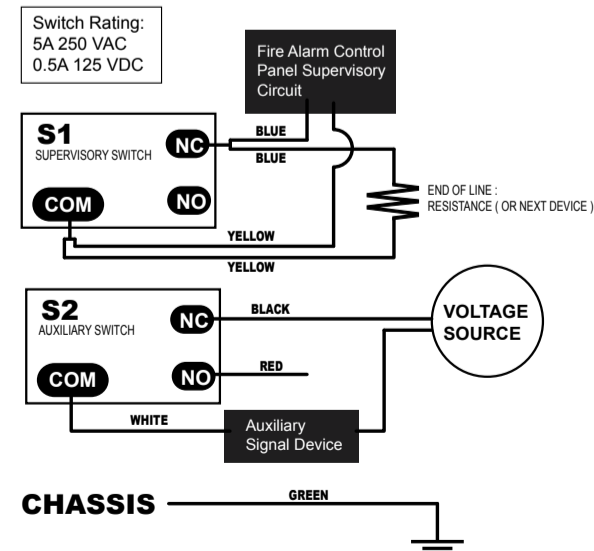
which may be required by the authority having jurisdiction.

Normally closed: (1) Black
Normally open: (1) Red
Common: (1) White

This double circuit provides flexibility to operate two electrical devices at separate locations, such as an indicating light and an audible alarm, in the area that the valve is installed.

Besides, a #14 AWG ground lead (green) is provided.

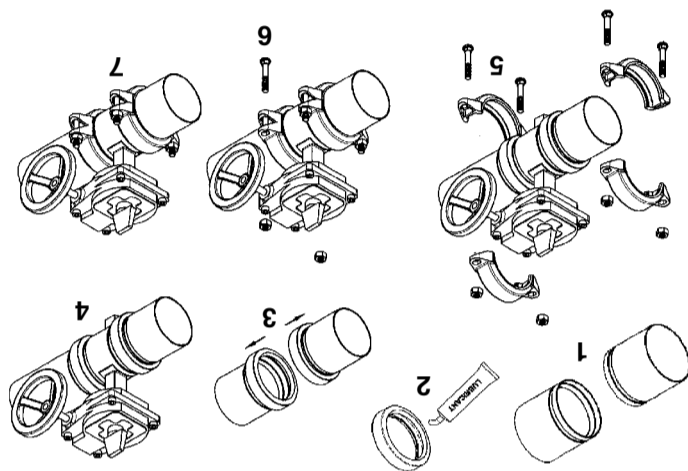
Switch Wiring Diagram



The diagram shows a typical connection between the common terminal and the normally closed terminal. The indicator light and alarm will stay on until the valve is fully open. When the valve is fully open, the indicator light and alarm will go out.

The connection of the alarm switch wiring shall be in accordance with NFPA 72 and the auxiliary switch per NFPA 70 (NEC).

- 1. Pipe End Preparation**
Prepare the right OD pipe to match the valve size and process a groove at each pipe end. Make sure that the seating surface is free from roll marks or other harmful defects that could affect seating.
- 2. Lubricate gaskets**
Apply thin coat of lubricant to gasket lips and complete exterior of gaskets.
- 3. Install gaskets**
Place a gasket on each pipe end, and make sure that gasket lips do not overhang pipe ends.
- 4. Position the butterfly valve**
Position the valve between pipe ends and butt to mating pipe ends. Slide the gasket over the ends and center it between the grooves on the pipe end and valve. No part of the gasket should protrude into the groove of either pipe or valve. The gear-operator should be in a position that an observer can see the indicator clearly and can tell that the valve is open or closed.
- 5. Install coupling halves**
Place the coupling halves over the gasket and make sure that the coupling keys are engaged into the grooves.
- 6. Insert bolts**
Insert the factory supplied bolts and nuts of the couplings. Make sure that the oval neck of the bolt engages into the bolt hole of the housing. Valve position can be adjusted prior to tightening.
- 7. Tighten nuts**
Tighten the nuts alternately and equally until the bolt pads come together, metal-to-metal.



Mounting Instructions