MODEL SJ-400 BUTTERFLY VALVE

The ***Shurjoint*** Model SJ-400 Butterfly Valve is a grooved end stainless steel butterfly valve, supplied with a 10 position lever handle (SJ-400-L) or worm gear operator (SJ-400-W). The body is available in CF8M (type 316) to ASTM A743 with integral neck and ISO 5211 mounting pad. The end-to-end dimensions conform to MSS SP-67. The SJ-400 is UL classified in accordance with ANSI/NSF 61 and Annex G for potable water use to temperature 180°F (82°C).

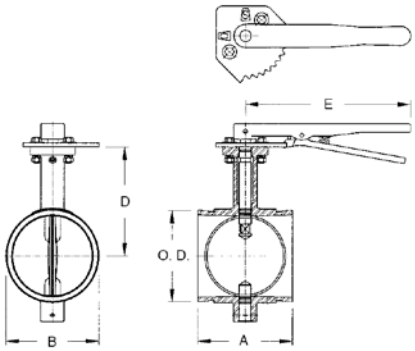
SJ-400-L
2"-12"

SJ-400-W
14"-24"

CLASSIFIED UL WATER QUALITY

MODEL SJ-400-L BUTTERFLY VALVE WITH LEVER HANDLE

The Model SJ-400-L Butterfly Valve is a grooved-end stainless steel butterfly valve designed for 300 psi service, supplied with a 10-position locking lever handle. The end-to-end dimensions conform to MSS SP-67. The body is investment cast in grade CF8M (type 316) to ASTM A743 with integral neck and ISO mounting top flange. The neck height allows for insulation up to two inches. The disc is a dual-seal type, encapsulated either with Gr. E-pw EPDM for cold water services or with Gr. T Nitrile for oil services. SJ-400-L Butterfly Valves with standard disc and Gr. E-pw EPDM seat are UL classified to ANSI/NSF 61 and Annex G.



Model SJ-400-L Butterfly Valve with Lever Handle

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	ASME/ANSI Pressure Class Rating^ @100ºF/@38ºC	Dimensions A	B	C	D	E	Operating Torque	Weight ǂ
in *mm*	in *mm*	PSI *Bar*	PSI *Nom. Class*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	In - Lb *N-m*	Lbs *Kgs*
2 *50*	2.375 *60.3*	300 *20*	300 *150*	3.19 *81*	2.520 *64*	2.480 *63*	4.17 *106*	7.56 *192*	78 *8.80*	5.0 *2.3*
2½ *65*	2.875 *73.0*	300 *20*	300 *150*	3.81 *97*	3.150 *80*	2.677 *68*	4.28 *111*	7.56 *192*	84 *9.50*	7.0 *3.2*
76.1 mm	3.000 *76.1*	300 *20*	300 *150*	3.81 *97*	3.150 *80*	2.677 *68*	4.28 *111*	7.56 *192*	84 *9.50*	7.0 *3.2*
3 *80*	3.500 *88.9*	300 *20*	300 *150*	3.81 *97*	3.622 *92*	2.992 *76*	4.97 *126*	7.56 *192*	95 *10.7*	6.6 *3.5*
4 *100*	4.500 *114.3*	300 *20*	300 *150*	4.56 *116*	4.646 *118*	3.504 *89*	5.33 *135*	9.92 *252*	200 *22.6*	11.0 *5.0*
165.1 mm	6.500 *165.1*	300 *20*	300 *150*	5.81 *148*	6.772 *172*	4.488 *114*	6.62 *168*	9.92 *252*	310 *34.9*	20.2 *9.2*
6 *150*	6.625 *168.3*	300 *20*	300 *150*	5.81 *148*	6.772 *172*	4.488 *114*	7.25 *184*	13.46 *342*	310 *34.9*	20.2 *9.2*
200 JIS	8.516 *216.3*	300 *20*	300 *150*	5.24 *133*	8.740 *222*	5.512 *140*	8.20 *208*	13.46 *342*	400 *45.1*	26.8 *12.2*

Model SJ-400-L Butterfly Valve with Lever Handle

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	ASME/ANSI Pressure Class Rating^ @100ºF/@38ºC	Dimensions					Operating Torque	Weight ǂ
				A	B	C	D	E		
in *mm*	in *mm*	PSI *Bar*	PSI *Nom. Class*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	In - Lb *N-m*	Lbs *Kgs*
8 *200*	8.625 *219.1*	300 *20*	300 *150*	5.24 *133*	8.740 *222*	5.512 *140*	8.20 *208*	13.46 *342*	400 *45.1*	26.8 *12.2*
10 *250*	10.750 *273.0*	300 *20*	300 *150*	6.30 *160*	11.18 *284*	7.32 *186*	9.25 *235*	9.92 *252*	1500 *170*	31.3 *28.3*
12 *300*	12.750 *323.9*	300 *20*	300 *150*	6.56 *166*	13.15 *334*	8.39 *213*	10.24 *260*	14.02 *356*	2000 *226*	88.0 *40.0*

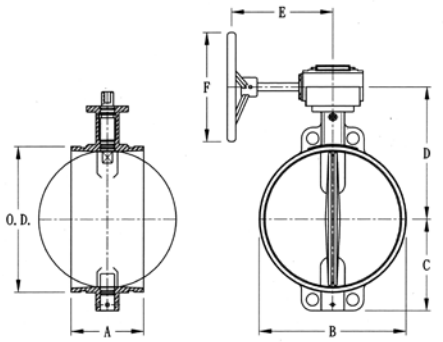
ǂ The weight includes the lever handle.

*Working pressure is based on connection with roll- or cut-grooved standard wall stainless steel pipe.

^ The ASME/ANSI pressure class rating is not the design or maximum pressure rating, rather is provided for those that are accustomed to specifying or using ASME/ANSI pressure class rated components such as flange, valves, etc.

MODEL SJ-400-W BUTTERFLY VALVE WITH GEAR OPERATOR

The Model SJ-400-W Butterfly Valve is a grooved-end stainless steel butterfly valve designed for 300 psi service, supplied with a worm gear operator. The ISO5211 mounting pad allows for the mounting of power actuators. The SJ-400-W is available in sizes from 14" to 24". The end-to-end dimensions conform to MSS SP-67. The body is available in grade CF8M (type 316) to ASTM A743 with integral neck and ISO mounting top flange. The disc is a dual-seal type, encapsulated with Gr. E-pw EPDM for cold water services.



Model SJ-400-W Butterfly Valve with Gear Operator

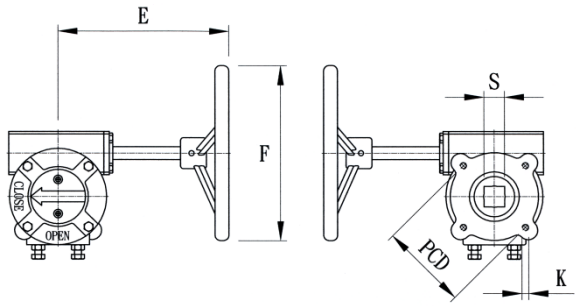
Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	ASME/ANSI Pressure Class Rating^ @100ºF/@38ºC	Dimensions						Weightǂ
				A	B	C	D	E	F	
in *mm*	in *mm*	PSI *Bar*	PSI *Nom. Class*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	Lbs *Kgs*
14 *350*	14.000 *355.6*	300 *20*	300 *150*	7.00 *178*	14.13 *359*	8.82 *224*	10.87 *276*	8.00 *203*	10.0 *254*	130.0 *59.0*
16 *400*	16.000 *406.4*	300 *20*	300 *150*	7.00 *178*	16.14 *410*	9.76 *248*	11.89 *302*	9.50 *242*	12.00 *306*	147.4 *67.0*
18 *450*	18.000 *457.2*	300 *20*	300 *150*	8.00 *203*	18.25 *464*	11.14 *283*	13.78 *350*	9.50 *242*	12.00 *305*	189.2 *86.0*
20 *500*	20.000 *508.0*	300 *20*	300 *150*	8.50 *216*	20.28 *515*	12.36 *314*	15.08 *383*	11.40 *290*	16.20 *412*	292.6 *133.0*
24 *600*	24.000 *609.6*	300 *20*	300 *150*	10.00 *254*	24.25 *616*	14.50 *368*	17.83 *453*	11.40 *290*	16.20 *412*	352.0 *160.0*

ǂ The weight includes the worm gear operator.

* Working pressure is based on connection with roll- or cut-grooved standard wall stainless steel pipe.

^ The ASME/ANSI pressure class rating is not the design or maximum pressure rating, rather is provided for those that are accustomed to specifying or using ASME/ANSI pressure class rated components such as flange, valves, etc.

WORM GEAR OPERATOR



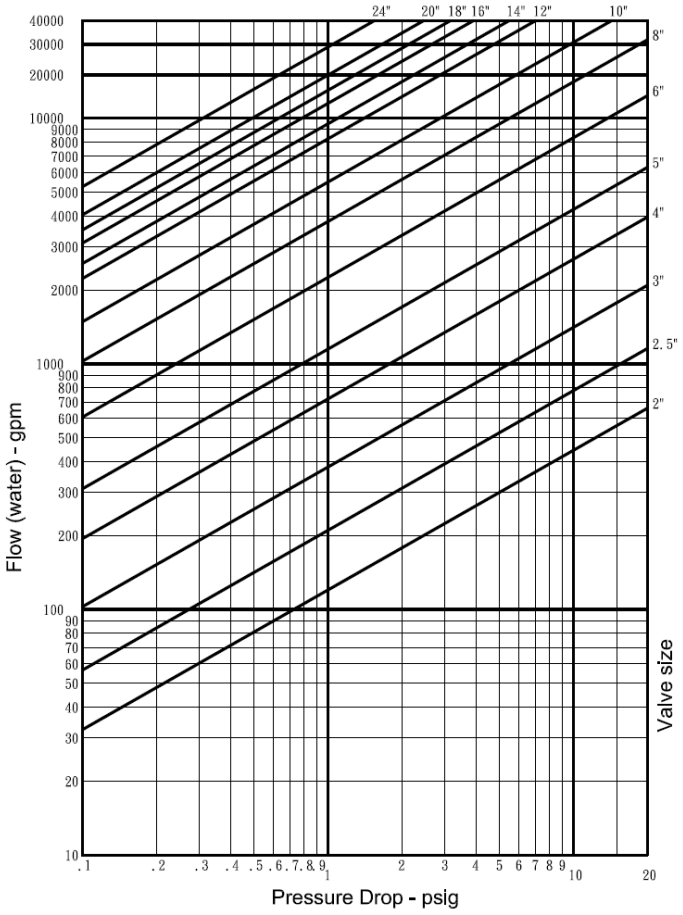
Worm Gear Operator						
Nominal Size	E	F (dia.)	PCD (dia.)	K	S (square □ or round ○)	Wt
in *mm*	in *mm*	in *mm*	in *mm*	mm	in *mm*	lbs *Kgs*
14 *350*	9.58 *203*	10.00 *254*	4.90 *125*	M10	□ 0.94 *24*	12.3 *5.6*
16 *400*	9.50 *242*	12.00 *305*	4.90 *125*	M12	○ 1.44 *36.6*	32.8 *14.9*
18 *450*	9.50 *242*	12.00 *305*	5.50 *140*	M16	○ 1.63 *41.3*	32.8 *14.9*
20 *500*	11.02 *280*	18.00 *457*	6.50 *165*	M20	○ 2.04 *51.9*	67.1 *30.5*
24 *600*	11.02 *280*	18.00 *457*	6.50 *165*	M20	○ 2.04 *51.9*	67.1 *30.5*

Flow Data

Equivalent length and Cv values for flow of water are shown below (water temperature at +86°F or +30°C)
This chart should be used as a general guide.

Nominal Size	Equivalent Length on Sch. 40 pipe*	Cv Values
in	Feet (Meter)	
2	8.1 (2.48)	120
2½	8.1 (2.48)	210
3	8.4 (2.56)	380
4	8.3 (2.53)	720
5	9.8 (2.99)	1150
6	7.4 (2.26)	2250
8	11.0 (3.35)	3800
10	10.5 (3.20)	5500
12	12.0 (3.66)	8250
14	25.0 (7.62)	9500
16	26.0 (7.92)	13000
18	32.0 (9.75)	16000
20	37.3 (11.37)	20000
24	43.7 (13.32)	29000

*At 15 feet/sec. (4.6m/s) velocity of water.



MATERIAL SPECIFICATIONS

• Valve Body:

Gr. CF8M (Type 316) stainless steel to ASTM A743 or A351 or A744 which is UL classified in accordance with ANSI/NSF 61 and Annex G for potable water use to temperature 180ºF (82ºC).

• Stems:

Stainless steel Type 410 to ASTM A582.

• Disc:

Gr. CF8M (Type 316) encapsulated with Gr. E-pw EPDM.

• Disc Encapsulation:

Grade "E-pw" EPDM: EPDM Rubber is classified in accordance with ANSI/NSF 61 and Annex G for potable water use to temperature 180ºF (82ºC)

- ☐ Gr. E EPDM.
- ☐ Gr. T Nitrile.

• O-rings:

EPDM

• Gear Box:

Ductile Iron to ASTM A536, Gr. 65-45-12.

- ☐ Gr. CF8 (Type 304) stainless steel to ASTM A743 or A351.

General Notes:

- *ASME/ANSI Pressure-Temperature Rating* is provided as an aid in selecting a proper coupling to incorporate with other piping components (valves, flanges, and etc.) that are used in the same system and carry the ASME/ANSI rating. Select a Class 150 coupling to incorporate with Class 150 valves and flanges.
- *Maximum Working Pressure (CWP)* listed is the maximum cold water pressure for general piping services tested to ASTM F1476 and or AWWA C606 methods. Figures listed are based on roll- or cut-grooved standard wall carbon steel pipe. For other pipe schedules or pipe materials, contact *Shurjoint* for additional information.
- *Field Joint Test:* For one time only the system may be tested hydrostatically at 1½ times the maximum working pressure listed (AWWA C606 5.2.3).
- *Warning:* Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- *Shurjoint* reserves the right to change specifications, designs and or standard without notice and without incurring any obligations.

Job Name:	System No.	Location:
Contractor:	Approved:	Date:
Engineer:	Approved:	Date: