

## SJ-500 BALL VALVE

### MODEL SJ-500L BALL VALVE WITH LEVER HANDLE

The Model SJ-500L is a ductile iron, grooved-end, two-piece, regular port ball valve designed and tested in conformance with MSS SP-110 and SP-72. The lever handle is equipped with tamper resistant locking holes. The SJ-500L is comprised of a ductile iron body and end cap, virgin TFE seats and chrome-plated carbon steel trim. Also available with stainless steel trim as an option.



### MODEL SJ-500W BALL VALVE WITH GEAR OPERATOR

The Model SJ-500W can be equipped with a worm gear operator. The standard gear operator is supplied with a bracket and extension sleeve. The ISO 5211 mounting pad allows for the mounting of power actuators.

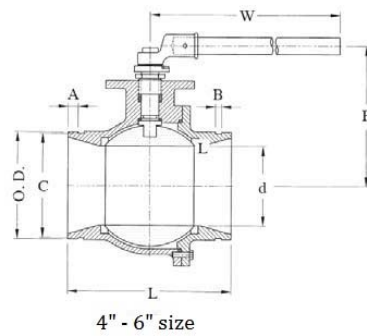
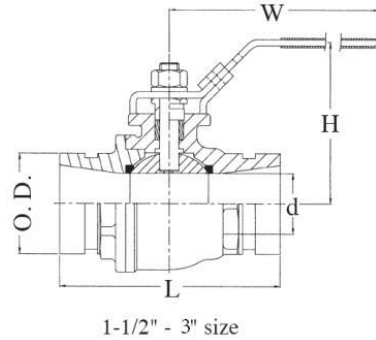


For pressure rating, listing, and approval information, refer to data sheet or visit SHURJOINT website [www.shurjoint.com](http://www.shurjoint.com) for details or contact your SHURJOINT representatives.

#### material specification

- **Body and End Cap:**  
Ductile Iron to ASTM A536, Gr. 65-45-12.
- **Stem:**  
Carbon steel, Nickel plated
  - Type 304 stainless steel.
- **Ball:**  
Type 304 Stainless steel.
- **Seats:**  
Virgin TFE.
- **Body Seal:**  
R-PTFE.
- **O-Ring:**  
Fluoro-elastomer
- **Lever Handle:**  
Carbon steel, zinc plated with plastic grip
  - Type 304 stainless steel.
- **Gear Operator:**  
Manual with handwheel, cast iron body.
- **Bracket:**  
Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448 MPa).
- **Extension Sleeve:**  
Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448 MPa).

## MODEL SJ-500L BALL VALVE WITH LEVER HANDLE



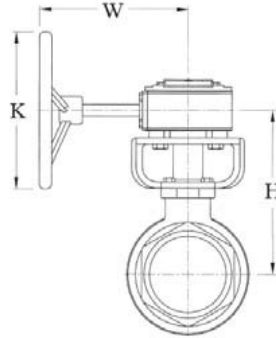
Model SJ-500L Ball Valve with Lever Handle

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Operating Torque†	Dimensions							Weight
				L	H	W	d	A	B	C	
in	in	PSI	lbs-in	in	in	in	in	in	in	in	lbs
mm	mm	Bar	Nm	mm	mm	mm	mm	mm	mm	mm	kg
1½	1.900	1000	62	5.12	3.39	7.00	1.25	0.625	0.312	1.775	3.9
40	48.3	69	7	130	86	178	32	15.9	7.9	45.1	1.8
2	2.375	1000	150	5.50	3.75	7.00	1.50	0.625	0.312	2.250	6.4
50	60.3	69	17	140	95	178	38	15.9	7.9	57.2	2.9
2½	2.875	1000	186	6.25	5.20	10.43	2.00	0.625	0.312	2.720	9.7
65	73.0	69	21	159	132	265	50	15.9	7.9	69.1	4.4
76.1	3.000	1000	186	6.25	5.20	10.43	2.00	0.625	0.312	2.845	9.7
	76.1	69	21	159	132	265	50	15.9	7.9	72.3	4.4
3	3.500	1000	248	6.56	5.63	10.43	2.50	0.625	0.312	3.344	17.2
80	88.9	69	28	167	143	265	63	15.9	7.9	84.9	7.8
4	4.500	800	398	9.45	5.31	14.37	3.50	0.625	0.312	4.334	34.5
100	114.3	56	45	240	135	365	90	15.9	7.9	110.0	15.7
165.1	6.500	800	531	10.15	8.70	23.60	4.92	0.625	0.374	6.453	90.2
	165.1	56	60	258	221	600	125	15.9	9.5	163.9	41.1
6	6.625	800	531	10.15	8.70	23.60	4.92	0.625	0.374	6.453	90.2
150	168.3	56	60	258	221	600	125	15.9	9.5	163.9	41.1

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

† For the first opening or closing of the valve when the valve is not continuously operated, an additional torque of 2.0 - 2.5 times the listed operating torque is normally required.

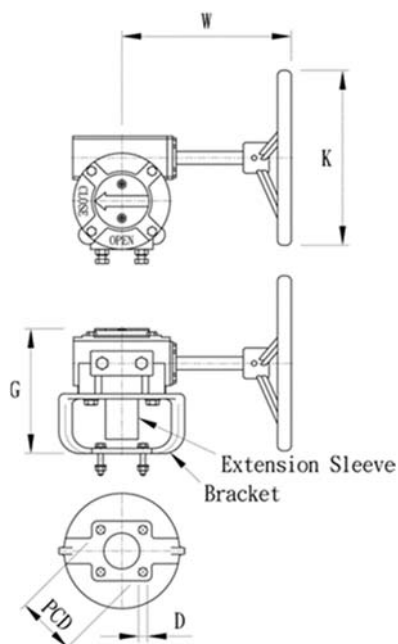
## MODEL SJ-500W BALL VALVE WITH GEAR OPERATOR



Model SJ-500W Ball Valve with Gear Operator

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Dimensions			Weight
			K	H	W	
in	in	PSI	in	in	in	lbs
mm	mm	Bar	mm	mm	mm	kg
2	2.375	1000	5.98	5.38	5.98	18
50	60.3	69	152	137	152	8
2½	2.875	1000	5.98	5.68	5.98	22
65	73.0	69	152	145	152	10
76.1	3.000	1000	5.98	5.68	5.98	22
	76.1	69	152	145	152	10
3	3.500	1000	5.98	7.16	8.00	168
80	88.9	69	152	182	203	14
4	4.500	800	5.98	8.00	8.00	73
100	114.3	56	152	203	203	33
165.1	6.500	800	12.00	10.89	9.53	123
	165.1	56	305	277	242	56
6	6.625	800	12.00	10.89	9.53	123
150	168.3	56	305	277	242	56

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



### Gear Operator & Bracket

Nominal Size	Dimensions					Weight
	W	K	G	PCD	D	
in	in	in	in	in	in	lbs
mm	mm	mm	mm	mm	mm	kg
2	5.98	5.98	5.35	1.97	0.31	11
50	152	152	136	50	8	5
2½	5.98	5.98	5.35	1.97	0.31	11
65	152	152	136	50	8	5
3	8.00	5.98	5.55	2.75	0.40	15
80	203	152	141	70	10	7
4	8.00	5.98	5.55	2.75	0.40	15
100	203	152	141	70	10	7
6	9.53	12.00	6.55	5.50	0.55	44
150	242	305	166	140	14	20

## Flow Data - Cv Values\*

Values for flow of water at +60°F (+16°C).

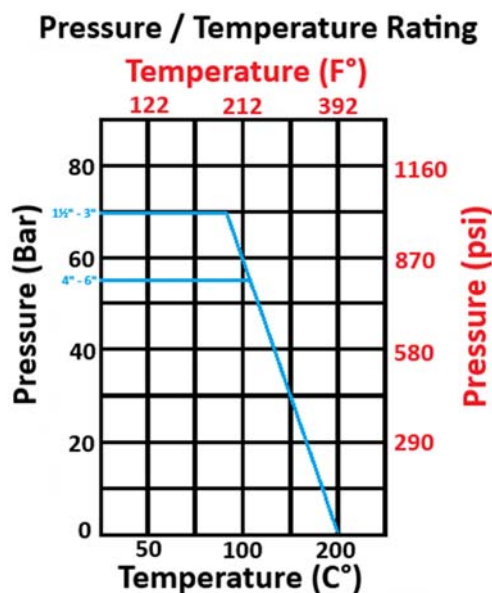
$$Cv = \frac{Q}{\sqrt{\Delta P}}$$

Where: Cv = Flow coefficient

Q = Flow (GPM)

ΔP = Pressure drop (psi)

Model SJ-500 Ball Valve		
Valve Size	Actual O.D.	Cv Value
in	in	
mm	mm	
1½	1.900	130
40	48.3	
2	2.375	180
50	60.3	
2½	2.875	320
65	73.0	
76.1	3.000	320
	76.1	
3	3.500	600
80	88.9	
4	4.500	1020
100	114.3	
165.1	6.500	3300
	165.1	
6	6.625	3300
150	168.3	



## General note

- 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.
- The 10 Year Limited Warranty applies to manufacturing defects only and does not cover severe service/temperature applications or wear parts.
- Shurjoint reserves the right to change specifications, designs and or standard without notice and without incurring any obligations.

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