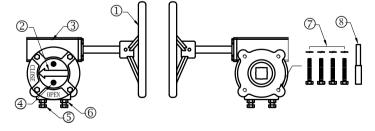
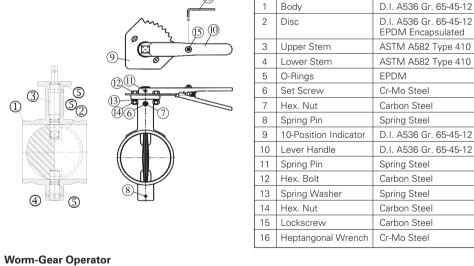
tyco Mechanical Products

tyco Mechanical Products

Part Name Material No. Handwheel D.I. A536 Gr. 65-45-12 Cast Iron A126-B 2 Indicator Cast Iron A126-B 3 Gear Case Carbon Steel Adjusting Screw Stop Screw Carbon Steel 6 Carbon Steel Fixing Nut Set Screws w/ Spring Washers Pin Hole Aligner Carbon Steel



SHURJOINT®



10-Position Indicator and Lever Handle

Part List

MODEL SJ-300N BUTTERFLY VALVE

Resilient Seated Butterfly Valve from 2" to 24"

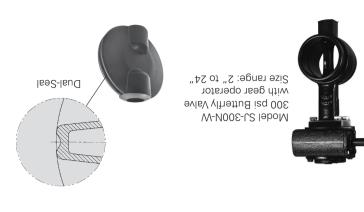
Part Name

Material

with either a 10-position lever handle or a worm gear operator. The epoxy coated characteristic, rated to 300 psi (20 Bar, 2.0 MPa) working pressure. The valve can be supplied The Model SJ-300N Butterfly Valve is a grooved-end shut-off valve with outstanding flow

ductile iron body and rubber encapsulated dual-seal disc offer a bi-directional





(20 Bar, 2.0 MPa)

Range: 2" - 24"

Technical Data:

Working pressure: 300 psi

Shell test: 200% of working pressure Sealing test: 110% of working pressure All valves are tested prior to shipping. Factory tested:

thco

Mechanical Products



BSI1387-3600, NFA 49004

ANSI B36.10, ISO 4200, DIN 2448,

Overall dimension: MSS SP 67

Actuator platform: ISO 5211

□ SHURJOINT®

Nominal	PCD	K	S
Size	(dia.)	(dia.)	(square)
in	in	mm	in
mm	mm		mm
2	2.75	M8	0.39
50	70		10
2½	2.75	M8	0.39
65	70		10
3	2.75	M8	0.39
80	70		10
4	2.75	M8	0.47
100	70		12
5	2.75	M8	0.47
125	70		12
6	2.75	M8	0.63
150	70		16
8	2.75	M8	0.63
200	70		16
10	4.00	M10	0.94
250	102		24
12	4.00		0.94

Nominal	PCD	K	S
Size	(dia.)	(dia.)	(square)
in	in	mm	in
mm	mm	******	mm
2	2.75	M8	0.39
50	70		10
2½	2.75	M8	0.39
65	70		10
3	2.75	M8	0.39
80	70		10
4	2.75	M8	0.47
100	70		12
5	2.75	M8	0.47
125	70		12
6	2.75	M8	0.63
150	70		16
8	2.75	M8	0.63
200	70		16
10	4.00	M10	0.94
250	102		24
12	4.00		0.04

		\mu_	
Nominal	PCD	K	S
Size	(dia.)	(dia.)	(square)
in	in	mm	in
mm	mm		mm
2	2.75	M8	0.39
50	70		10
2½	2.75	M8	0.39
65	70		10
3	2.75	M8	0.39
80	70		10
4	2.75	M8	0.47
100	70		12
5	2.75	M8	0.47
125	70		12
6	2.75	M8	0.63
150	70		16
8	2.75	M8	0.63
200	70		16
10	4.00	M10	0.94
250	102		24
12	4.00	M10	0.94

Nominal Size	PCD (dia.)	K (dia.)	S (square)
		(dia.)	
in	in	mm	in
mm	mm	mm	mm
2	2.75	1.40	0.39
50	70	M8	10
21/2	2.75	1.40	0.39
65	70	M8	10
3	2.75	1.40	0.39
80	70	M8	10
4	2.75	1.10	0.47
100	70	M8	12
5	2.75	1.40	0.47
125	70	M8	12
6	2.75	1.40	0.63
150	70	M8	16
8	2.75	1.40	0.63
200	70	M8	16
10	4.00		0.94
250	102	M10	24
12	4.00		0.94
300	102	M10	24

		1
_	ı	2
		2
		3
		3
		Ę
		Notes: -
		on liquic

The torque values are based iquid applications. For dry or nonlubricating applications add a 25% service factor to the above values.

50	9	
2½ 65	120 14	
3	160	
80	18	
4	450	
100	51 l	
5 125	700 79	
6	900	
150	102	
8	1200	
200	136	
10	1800	
250	203	
12	2500	
300	283	
14	3000	
350	339	
16	4000	
400	452	
18	5500	
450	622	
20	8000	
500	904	
22	8750	
550	989	
24	9500	

Operating T (SJ-300N-W	-
Nominal Size	Tord
in	In I

J.	200	

Performance Data

Worm Gear Operator

(round O or square 🖵)

□ 0.39

10

10

0.47

12

12 0.63

□ 0.63

16 0.94

24 **1** 0.94

□ 0.94

24 O 1.44

O 2.04

51.9

Heptagonal Wrench

(dia.)

2.75

70 2.75

70 2.75

70 4.00

125 5.50

6.50

165 6.50

165

100

200

250 12

550 24 600

10-Position

Indicator and **Lever Handle**

mm

M8

M8

M8

M8

M10

M10

M16

M16

M20

M20

Performance Data / Operating Torque

Weight

9.0 4.1 9.0

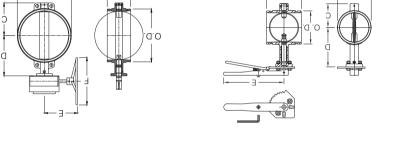
9.0 4.1 9.0

9.0 4.1 12.3

5.6 12.3

5.6 32.8 14.9 32.8

30.5



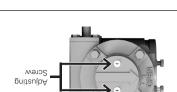
:-///	еаг Туре	2 mioW	PdV	Lever Handle		snoisr	iθmiQ γbo	8 evlsV		əqiA	IsnimoV
tdgiəW	4	3	14gi9W	Operating Torque	3	a))	В	A	.d.0	əziZ
sq7	uị	uị	sq7	97-uI	uị	ui	uị	uị	uị	uį	uị
Kgs	шш	шш	Kgs	шN	шш	шш	шш	шш	шш	шш	шш
13.6	00.9	00.9	8.8	08	99.7	∠l'⊅	2.48	2.52	3.19	2.375	7
2.8	162	195	1.5	6	192	901	63	1/9	18	6.09	09
14.3	00.9	00.8	2.8	120	99.7	75.4	89.2	11.8	3.82	2.875	3/12
6.5	162	195	7.5	tl t	192	III	89	64	۷6	73.0	99
14.3	00.9	00.8	4.8	120	99.7	75.4	89.2	11.8	38.8	3.000	mm 1.8
6.5	162	195	8.6	71	761	111	89	62	<u> </u>	1.97	
0.81	00.9	00.9	0.6	091	99.7	96.4	66.2	3.62	3.82	3.500	3
E.7.	195	Z91	1.4	81	761	126	92	76	Z6	6.88	08
1.91	00.9	00.9	4.11	097	42.01	28.8	3.50	99.4	78.4	4.500	7
7.8	195	195	5.2	19	7607	139	68	811	911	114.3	100
8.12	00.9	00.9	6.91	007	10.24	19.9	4.02	17.8	58.83	009.8	mm 7.88
6.6	195	195	T.T	62	76.01	891	102	971	871	7.951	
8.12	00.9	00.9	6.91	007	10.24	19.9	20.4	17.8	58.83	5.563	9
6.6	195	195	T.T	62	76.01	891	102	971	871	141.3	125
0.82	00.9	00.8	2.02	006	10.24	42.7	67.4	77.9	58.83	0.009.9	աա լ.ժն
4.11	192	195	2.6	102	76.01	181	711	771	871	1.881	
26.3	00.9	00.8	2.02	006	10.24	42.7	67'7	77.9	58.3	6.625	9
9.11	195	195	2.6	1002	70 57	181	711	771	871	6.891	120
9.18	00.9	00.8	8.92	1200	10.24	61.8	18.8	47.8	5.24	916.8	SIL 002
9.41	162	195	2.21	130	70.01	208	071	222	133	216.3	
32.0	00.9	00.8	8.82	1200	10.24	61.8	19.8	47.8	5.24	8.625	8
9.41	162	195	2.21	136	74.02	208	071	222	133	1.912	200
t65	00.8	00.8	4.84	1800	14.02	9.25	69.9	98.01	6.25	0.575	10
7.72	503	503	22.0	204	320	70 37	0/L	927	691	273.0	75
7.57	00.8	90.8	7.57	282	20.41	10.24	70.8	12.87	6.53	12.750	300
33.5	503	503	33.5	787	326	760	508	25 V I	991	323.9	300
130.0	12.00	6.63				98.01	28.8	78.41 385	00.7	14.000	320
0.62 4.741	908	242				947	97.6	365	821	355.6	320
0.78	12.00	9.53				89.11 202	248	91 <i>†</i>	871 871	4.804	00t 9l
189.2	12.00	6.53				87.61	⊅l'll	18.50	00.8	18.000	81
0.98	908	242				320	283	074	203	457.2	097
9.262	16.20	04.11				15.08	12.36	20.75	8.50	20.000	50
133.0	717	590				383	314	ZZ9	216	0.808	009
324.1	16.20	04.11				18.81	13.48	22.75	97.6	22,000	7.5
147.0	712	290				427	343	878	235	0.688	099
362.0	16.20	11.40				£8.71	67.41	24.76	10.00	24.000	24
0.091	717	790				453	368	679	797	9.609	009

moo.qfooyt@tniojnuta.bhow:lism-3 moo.tniojnuta.www:stie deW

9 / N00E-CS / II

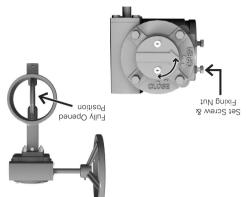
Applicable pipe:

Specifications:

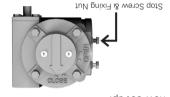


Web site: www.shurjoint.com E-mail: world.shurjoint@tycofp.com

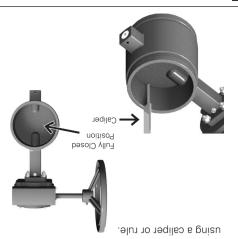
6. Double check to ensure the indicator arrow on top of the gear box is pointing to CLOSE/ OPEN when valve is fully closed/opened. If not, loosen the two adjusting screws besides the indicator arrow, adjust, and fasten the screws accordingly.



5. Turn the disc to fully opened position making the valve disc perpendicular to valve body. Fasten the set-screw on the left to set up fully opened position.



4. Fasten the stop screw on the right (of the word "OPEN" on the gear box) at fully closed position. The fully closed position is

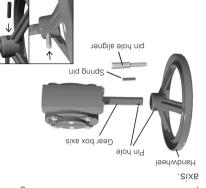


3. Turn the valve disc to fully closed position. Make sure the disc is even on both sides

₽	M20	MGO-4	.50" ~ 24"
Þ	91M	WGO-3	"81 ~ "91
7	StM	WGO-3	"Þ!
Þ	OtM	MGO-1	10" ~ 12"
Þ	8M	MGO-0	"8 ~ "S
۷ť.Ω	Screw	Gear Box	esis evlsV

.bəilqq

2. Afflix the gear box with the four set screws



1. Affix the handwheel to the gear box axis by inserting the spring pin. Use the factory supplied pin hole aligner to help align the pinholes of the handwheel and the gear box

Worm Gear Operator Installation

Tyco Mechanical Products

□ SHURJOINT®

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.

8. Disassembly of valve

7. Tighten nuts: Tighten nuts alternately and equally until the bolt pads come together, metal-to-metal.

6. Insert bolt: Insert bolts and nuts. 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.

5. Install coupling halves:
Place the coupling halves over the gasket and make sure that the coupling keys are engaged into the grooves.

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 clearly

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

3. Install gaskets on each pipe end, and make sure that gasket lips do not overhang pipe ends.

Warning: Do not use the Grade "E" EPDM gaskets for petroleum or other oil services.

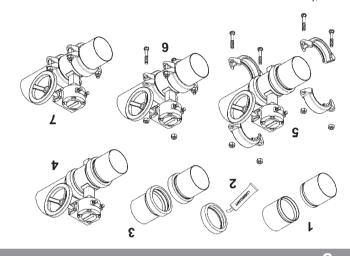
:gninasW



2. Lubricate gaskets
Apply thin coat of lubricant to gasket lips and complete exterior of gaskets.

affect seating.

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



Mounting Instructions

Lever Handle Installation

 As supplied, the lever handle is disassembled and the 10 position indicator is not firmly affixed on the valve.



Caution: Do not detach the indicator plate.

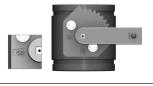
2. Mount the lever handle on the stem. Do not tighten the set screws yet.



3. Turn the lever handle until the disc comes to the fully closed position.



4. Make sure that the lever is positioned to point 'S' on the 10 position indicator plate.



Tighten the nuts firmly and affix the 10 position indicator plate on the valve.



6. Affix the lever handle to the valve stem by inserting the spring pin.



* Reverse Installation of Lever Handle



You may mount the lever handle on the reverse side of the valve only when it is absolutely necessary. Detach the lever handle and indicator plate, and reposition the indicator plate 180° on the opposite side. Then install the lever handle in the same manner as mentioned in 2-6.

Caution: The manufacturer strongly recommends repositioning the entire valve instead of reversing the lever handle.

Warning: Repositioning of the indicator plate other than 180° may cause malfunction.

Maintenance / Flow Data

Maintenance Instructions

The Model #SJ-300N Butterfly Valves require no regular maintenance. We do however recommend that you periodically inspect and verify proper operation of the unit on an annual basis or in accordance with the local authority(s) having jurisdiction. The inspection should include visual check for leakage at the valve pipe connection and the body to operator connection. Inspection and maintenance should be performed by qualified inspection personnel.

\triangle

Caution:

Depressurize and drain the pipeline system Always depressurize and drain the pipeline system before disassembly and removal of any component(s). Failure to do so could result in serious personal injury, joint leakage and or property damage.

\triangle

Caution:

Valves should be handled carefully to avoid any damage, especially to the seating area. If a valve tends to close hard, it usually indicates debris is lodged in the seating area. In such a case, back off the hand wheel and attempt to close the disc again.



SHURJOINT®

Warning:

Do not use a wrench or other tool on the handwheel when opening or closing the valve as this may distort the valve components or score the sealing surface. The pipeline should be properly supported to prevent excess stress on the valve body.

Web site: www.shurjoint.com E-mail: world.shurjoint@tycofp.com

Flow Data

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

Nominal	Equiv. Length of	
Size	Sch. 40 pipe*	Cv Values
(in)	Feet (Meter)	
2	4.7 (1.4)	120
21/2	5.2 (1.6)	210
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
14	19.6 (6.0)	9500
16	21.8 (6.6)	13000
18	23.8 (7.3)	16000
20	27.3 (8.3)	20000
22	30.5 (9.3)	24000
24	33.7 (10.3)	29000

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

