

SURE SEAL®

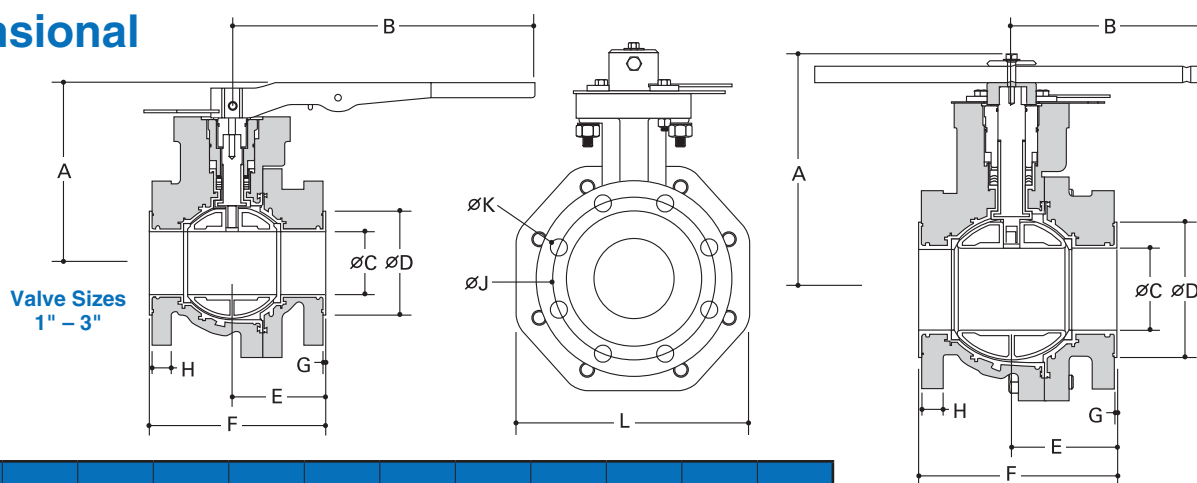
a brand of **NIBCO®**



NIBCO® SURE SEAL® FULL PORT LINED BALL VALVE

Sure Seal's LBV series lined ball valves are strictly produced under a company committed, statistical quality assurance process to assure defect-free products that are delivered to our customers on time. All valves are manufactured utilizing the latest computer aided production methods and molding technology, guaranteeing control of the manufacturing process and reduction of rework. Sure Seal, a brand of NIBCO®, stands behind all of the its industrial valve products sold and serviced.

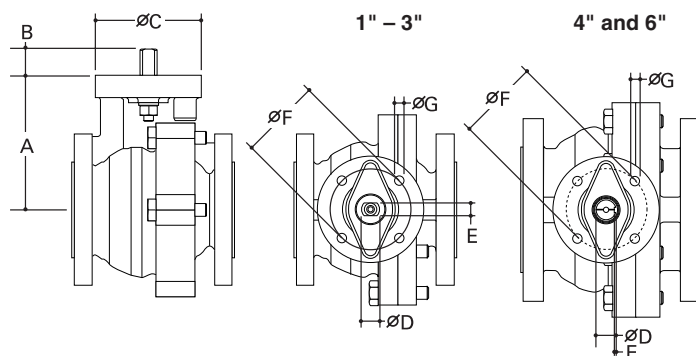
Dimensional Data



Valve Size	A	B	C	D	E	F	G	H	J	K	K1	L
1"	4.88	10.31	.91	2.00	2.73	5.02	.09	.52	3.13	.63	4	4.25
1.5"	5.75	10.31	1.42	2.88	3.50	6.51	.09	.63	3.88	.63	4	5.00
2"	6.15	10.31	1.85	3.63	3.74	7.02	.12	.69	4.75	.75	4	5.81
3"	8.10	13.75	2.85	4.75	4.22	8.02	.12	.82	6.00	.75	4	9.44
4"	10.75	9.00	3.70	6.19	4.76	9.02	.12	1.01	7.50	.75	8	10.63
6"	11.92	12.00	5.70	8.13	5.26	10.52	.12	1.07	9.50	.88	8	13.00

NOTE: All dimensions are in inches, K1 is number of holes per flange

Actuator Mounting Dimensions



Valve Size	ISO Flange	A	B	C	D	E	F	G
1"	F07	3.69	1.13	3.56	.750	.500	2.76	.35
1.5"	F07	4.56	1.13	4.00	.750	.500	2.76	.35
2"	F07	4.97	1.13	4.00	.750	.500	2.76	.38
3"	F10	6.68	1.31	5.25	.875	.625	4.02	.44
4"	F10	8.48	.81	5.25	1.125	.125	4.02	.44
6"	F12	9.66	.81	6.00	1.125	.125	4.92	.56

Ordering Information

SAMPLE ORDERING CODE

Type of Valve	LBV
Size	1.5
Body Material	D
Body Lining	P
Ball	P
Stem	P
Operator	05
Accessories (if applicable)	EP
Options (if applicable)	F

SIZE

1"
1.5"
2"
3"
4"
6"

BODY MATERIAL

D A395 Ductile Iron
· UNS F32800, ASTM A395,
ASME SA395
S CF8M Stainless Steel
· UNS J92900, ASTM A351,
ASME SA351

BODY LINER

P PFA
X Other

BALL

P PFA Lined
Carbon Steel
S PFA Lined 316
Stainless Steel

STEM

P PFA Lined
Duplex Stainless
Steel CD4MCu

OPERATOR

00 Bare Stem
01 Lever Locking Handle
02 Manual Gear
03 Double Acting Pneumatic Actuator
04 Fail Open Pneumatic Actuator
05 Fail Closed Pneumatic Actuator
06 Electric Actuator
07 Hydraulic Actuator

ACCESSORIES

P Pneumatic Positioner
EP Electro Pneumatic
Positioner
PS Proximity Switch Box
LS Micro Limit Switches

OPTIONS

S Solenoid Valve
F Filter Regulator
W/ Gauge
M Manual Override

**For additional options
and materials contact
your NIBCO Salesperson.**

DIRECT ACTUATOR MOUNTING

The ISO 5211 mounting flange allows the direct mounting of actuators; thus eliminating costly automation hardware.

SEPARATE BALL AND STEM

A separate lined ball and stem allows the ball to float. This prevents side loading which creates stem leaks. Some manufacturers use a one piece ball and stem that fail under high pressure situations. The Series 100 valve design prevents this from occurring.

ANSI B16.10 FACE-TO-FACE

Standard take out dimensions allows the Series 100 valve to replace any standard ball, plug or gate valve.

METAL-TO-METAL BODY JOINT

The primary seal is a soft joint between the body halves. In addition to this seal there is a metal-to-metal body joint that prevents possible leakage from temperature changes or line stresses. Damage to the seal can not be caused by over tightening.

SERVICE CONDITIONS

The Series 100 valve can be used in service ranging from full vacuum up to 250 psi.

LOCKED IN LINER

Sure Seal's PFA liner is locked into machined dovetails and slots in the body halves and cast holes in the ball. This design prevents liner break down and blow out in high pressure or vacuum situations that include high temperature ranges.

PRE-LOADED SEATS

A true floating ball design does not seal well at low pressure. The Series 100 valve utilizes interference between the ball and the seats, which under low-pressure, results in a tight shut-off.

LIVE LOADED GLAND FLANGE

The packing is live loaded with Belleville spring washers. It is also externally adjustable so that even with an actuator attached the packing can be easily tightened.

LOCKABLE HAND LEVER

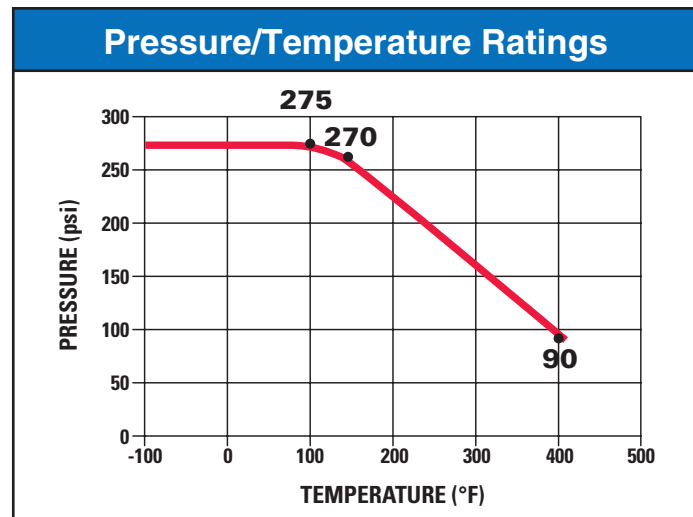
The Series 100 valve has a lockable hand lever which comes standard. This allows user to lock valve in open or closed position. **Sure Seal LBV Series valves can be supplied with an optional hand lever.**

Torque Values*			
Valve Size	Torque**	Cv	Approx. Wt. (lbs)
1"	120	55	14
1.5"	167	215	22
2"	298	290	32
3"	723	672	61
4"	1212	1410	107
6"	1809	2990	160

**Actual operating torques will be lower.*

When sizing actuator, multiply torque values by 1.25 safety factor.

***Torque values are in Inch-Pounds.*



Sure Seal's LBV Series Lined Ball Valve

DESIGN CRITERIA

All Sure Seal LBV Series 100 Ball Valves conform to the following specifications:

ASME B16.5, ASME B16.10, ASME B16.42, ISO 5211 and MSS SP-25.



Direct Actuator Mounting on 1" – 6" Valves

Integrally Cast ISO 5211
Actuator Mounting Flange

