

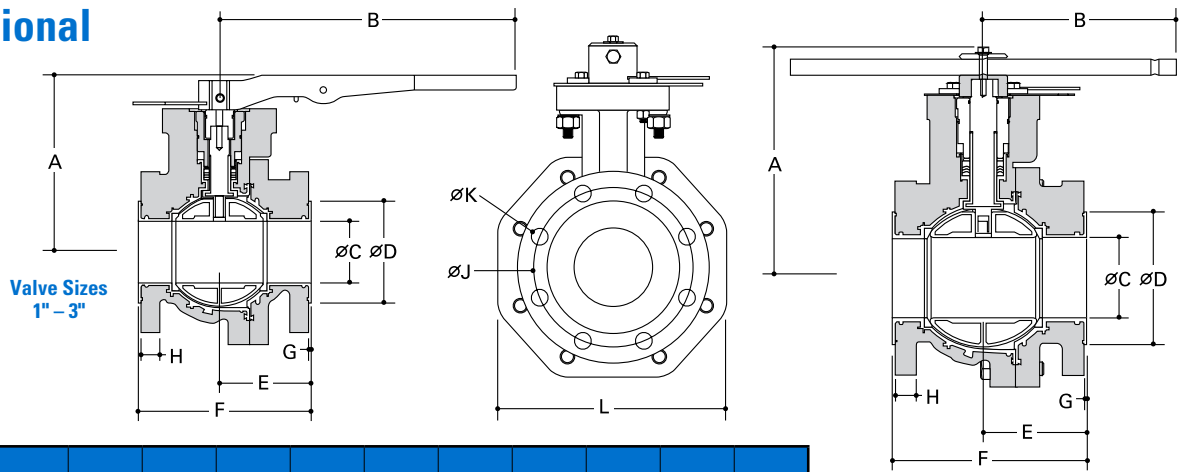
NIBCO® SURE SEAL®

FULL PORT LINED BALL VALVES



NIBCO offers a comprehensive selection of full port lined ball valves for industrial and commercial applications that are available in a broad range of materials, sizes, and pressures. Manufactured with the latest computer-aided production methods and molding technology, Sure Seal® valves will exceed your application expectations and, like all NIBCO products, guarantee superior quality, performance, and service.

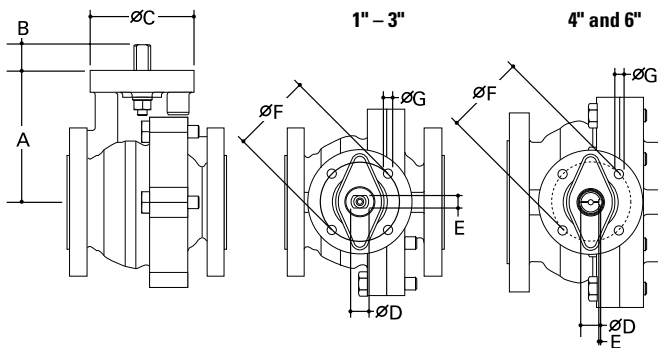
Dimensional Data



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	.88	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

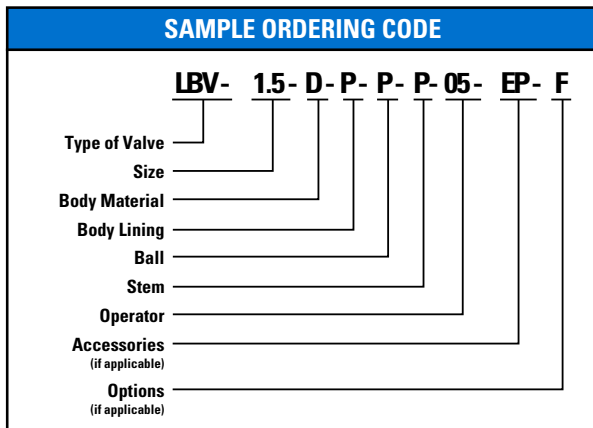
NOTE: All dimensions are in inches, K1 is number of holes per flange

Actuator Mounting Dimensions



Valve Size	ISO Flange	A	B	C	D	E	F	G
		1"	F07	3.69	1.13	3.56	.750	.500
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



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

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

For additional options and materials, contact your NIBCO salesperson.

DIRECT ACTUATOR MOUNTING

The ISO 5211 mounting flange allows the direct mounting of actuators, 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

The Sure Seal 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*

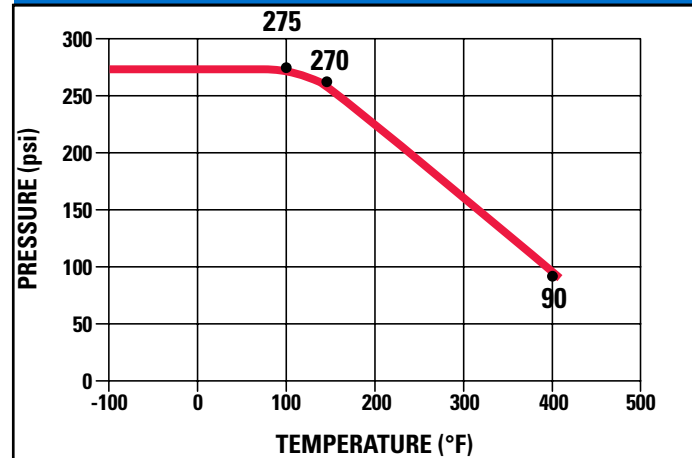
Valve Size	Torque**	Cv	Approx. Wt. (lbs)
1"	120	55	14
1.5"	167	215	22
2"	298	290	32
3"	723	672	61
4"	1212	1410	107
6"	1809	2990	160

*Actual operating torques will be lower.

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

**Torque values are in Inch-Pounds.

Pressure/Temperature Ratings



Quality Assurance

NIBCO Sure Seal Full Port 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. Each valve is individually tested in accordance with the EN558-1/T5 and API 598 specifications and is spark tested with 30,000 volts to assure lining integrity. Each valve is individually designed and tested using applicable standards as a minimum requirement. A PMI process is performed on all critical components allowing total identification. Valves are also subject to visual and dimensional examinations as well as functional tests. Upon successfully completing all testing, each valve is assigned a stainless steel serial numbered identification plate that quickly identifies the valve and assures complete traceability. Mill Test Certificates are available upon request.

NIBCO® Sure Seal® Full Port Series Lined Ball Valves

DESIGN CRITERIA

All NIBCO Sure Seal Series 100 Full Port Lined Ball Valves conform to the following specifications:
ASME B16.5, ASME B16.10, ASME B16.42, ISO 5211 and MSS SP-25.

