

Alfa Laval 5308/5309 Series Ball Valves

Ball valves

Introduction

Alfa Laval 5308/5309 Series Ball Valves are simple and effective full-bore ball valves that minimize turbulence and pressure drop in process lines. They are with manually operated handles, and an optional encapsulated seat to minimize or eliminate product entrapment in critical applications.

Application

The 5308/5309 Series Ball Valves are designed for use as product valves in high-pressure, high-temperature applications as well as applications that require the use of pigging systems. They are ideal for use across the dairy, food, beverage, brewery and many other industries.

Benefits

- Reliable and effective full-flow performance
- Compact, straightforward design
- Ideal for high-pressure, high-temperature applications or applications that require the use of pigging systems
- Minimizes line turbulence and pressure drop
- Easy to inspect and maintain due to welded-end flange screws that enable quick assembly and disassembly

Standard design

The Alfa Laval 5308/5309 Series Ball Valves consist of a stainless steel valve body, two flanges, two PTFE valve seats, ball, and a stem unit. The valve body houses a rotating ball, which is sealed in the body with a PTFE seat that either partially or fully encapsulates the ball. The valve is activated by a stainless steel handle that opens and closes the valve through a quarter turn. The stem and seal design eliminate the risk of dislodging or blowing out the stem.



TECHNICAL DATA

Temperature

Temperature range: -4°F to 302°F

Pressure

Max. product pressure: 580 PSI (40 bar)

Min. product pressure: Full vacuum

PHYSICAL DATA

Materials

Valve body	CF3M9 (316L)
Ball & Stem	1.4401 (316L)
Handle	1.4301 (304)
Surface finish	Ra 20 μ in
Product wetted seals	PTFE
Actuator surface	Epoxy coated
Actuator bracket, coupling and hardware	304 stainless steel

Options

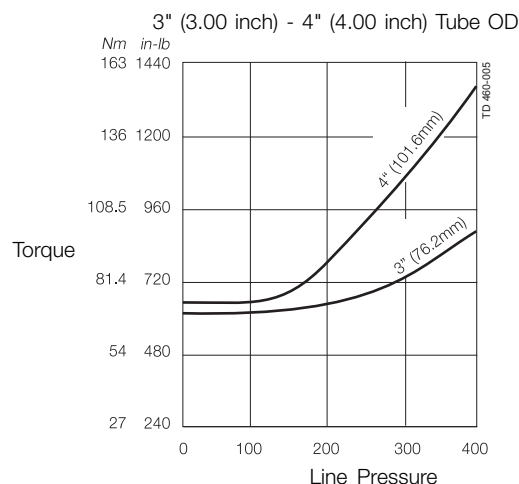
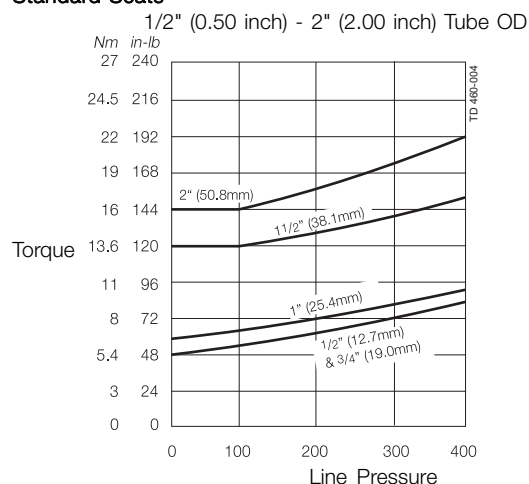
Actuator Function

- A. Pneumatic actuator air to air
- B. Pneumatic actuator air to spring
- C. Reinforced PTFE
- D. Stainless Steel
- E. Actuator bracket, coupling and hardware
 - 1.4301 (304) stainless steel

Note: Actuators cannot be utilized in Europa, as they are not CE marked.

Torque vs. Pressure

Standard Seats

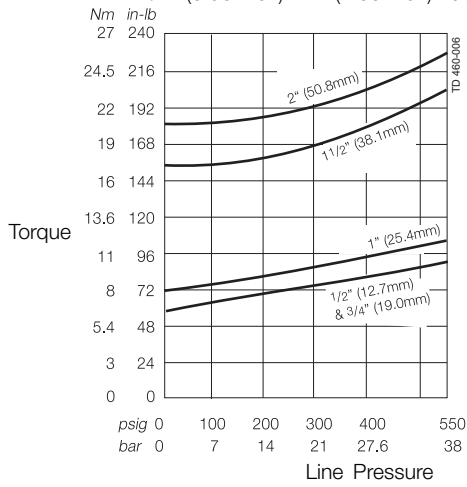


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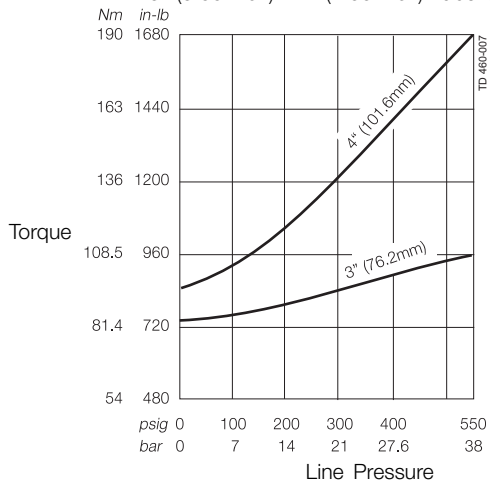
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Encapsulated Seats

1/2" (0.50 inch) - 2" (2.00 inch) Tube OD

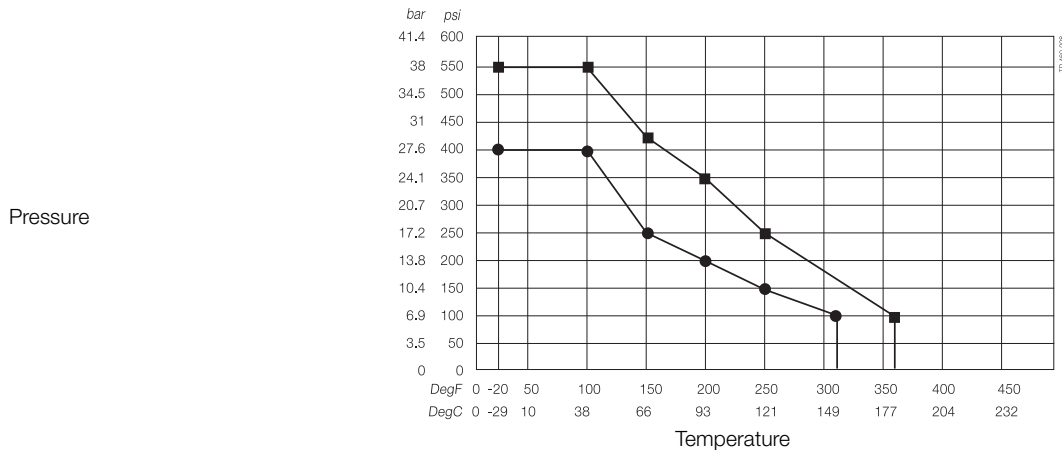


3" (3.00 inch) - 4" (4.00 inch) Tube OD



Use the charts above to determine the amount of torque required to cycle the ball valve.

Standard and Encapsulated Seats: Ratings - Pressure vs. Temperature



■ Reinforced (glass-filled) PTFE

● PTFE

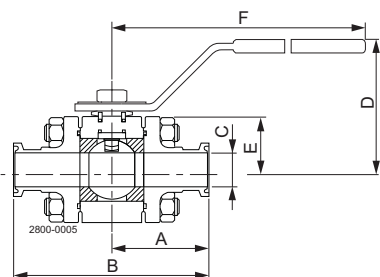


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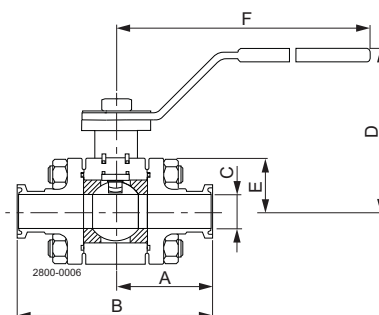
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Dimensions (inch)

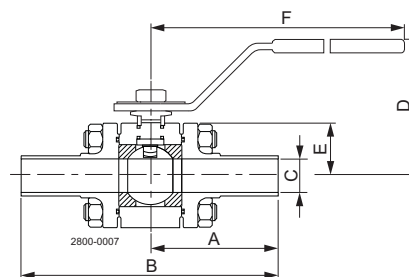
Manual Valve



Tri-Clamp® Ends
Model 5308
Sizes ½" - 2"



Tri-Clamp® Ends
Model 5308
Sizes 3" and 4"



Butt-Weld Ends
Model 5309

Model	Size		A		B		C		D		E		F		Weight (valve + handle)	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lb	kg
5308 Tri-Clamp® (both ends)	½	12.7	1 ¾	44.5	3 ½	88.9	¾	9.5	2 ⅝	58.7	1 ⅞	29.0	5 ¼	134	2	0.9
	¾	19.0	1 ¾	44.5	3 ½	88.9	⅝	15.9	2 ⅞	61.9	1 ⅞	29.0	5 ¼	134	2	0.9
	1 ½	25.4	1 ¾	44.5	3 ½	88.9	27/32	21.4	2 ⅝	58.7	1 19/64	33.0	5 ¼	134	3	1.4
	2	50.8	2 ½	63.5	5	127.0	1 56/64	47.2	4 ⅛	104.8	2 3/16	55.5	8 9/64	207	10	4.5
	3	76.2	3 7/8	98.4	7 ¾	196.9	2 55/64	72.6	7	177.8	4 9/16	115.5	11 ¾	298.4	30	13.6
	4	101.6	4 ¾	120.7	9 ½	241.3	3 13/16	81.0	7 ½	190.5	5 ¼	113.5	13 ¼	336.5	47	21.3
5309 Butt-Weld (both ends)	½	12.7	2 11/16	68.3	5 ¾	136.5	¾	9.5	2 ⅝	58.7	1 ⅞	29.0	5 ¼	134.0	2	0.9
	¾	19.0	2 13/16	71.4	5 ⅝	142.9	⅝	15.9	2 ⅞	61.9	1 ⅞	29.0	5 ¼	134.0	2	0.9
	1	25.4	3 7/32	81.8	6 7/16	163.5	27/32	21.4	2 ⅝	58.7	1 19/64	33.0	5 ¼	134.0	3	1.4
	1 ½	38.1	3 5/8	92.1	7 ¼	184.2	1 23/64	34.5	3 ¾	95.3	1 37/64	40.0	6 11/16	170.0	6	2.7
	2	50.8	3 13/16	81.0	7 5/8	193.7	1 55/64	47.2	4 ⅛	104.8	23/16	55.5	8 9/64	207.0	10	4.5

Valves with Pneumatic Actuators

Alfa Laval offers two types of pneumatic actuators, available in air-to-air or air-to-spring. Air-to-spring is available in normally open or normally-closed models. All models are offered with epoxy-coated aluminium alloy or optional 304 stainless steel housing. Pneumatic actuator air pressure requirements are:

Air-to-Air: 25 to 100 psi (1.7 to 6.9 bar)

Air-to-Spring: 80 to 100 psi (5.5 to 6.9 bar)

Note: Air pressure requirements are dependent upon the valve scope and operating conditions.

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.us to access the information direct.



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