

## Simple and Effective, The Tri-Clover® Ball Valve

### 5308/5309 Series Ball Valves

3.6

#### Application

Tri-Clover ball valves are ideal for applications requiring a full flow body design to minimize line turbulence and pressure drop. An encapsulated seat option is available for critical process applications requiring maximum reduction of potential for product entrapment.

#### Standard Design

The Tri-Clover ball valve consists of a stainless steel body that houses a rotating ball. The rotating ball 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 valve can also be operated by an optional ¼ turn pneumatic or electric actuator. External thrust springs maintain constant pressure on the stem packing. The stem and packing design eliminate the possibility of the stem becoming dislodged or blown out.

#### Actuator Function

- Pneumatic actuator air to air
- Pneumatic actuator air to spring
- Electric actuator

#### Materials

Elastomers	PTFE (standard)
	Reinforced PTFE (optional)
Valve Body	316L cast stainless steel
Handle	304 stainless steel
Ball & Stem	316L stainless steel
Actuators	Epoxy coated (standard)
	Stainless Steel (optional)
Actuator bracket, coupling and hardware	304 stainless steel

#### Sizes

##### Model 5308 (Tri-Clamp connections):

½" to 4" (12.7mm to 101.6mm) Tube OD (2 way)

##### Model 5309 (Butt-Weld connections):

½" to 2" (12.7mm to 50.8mm) Tube OD (2 way)

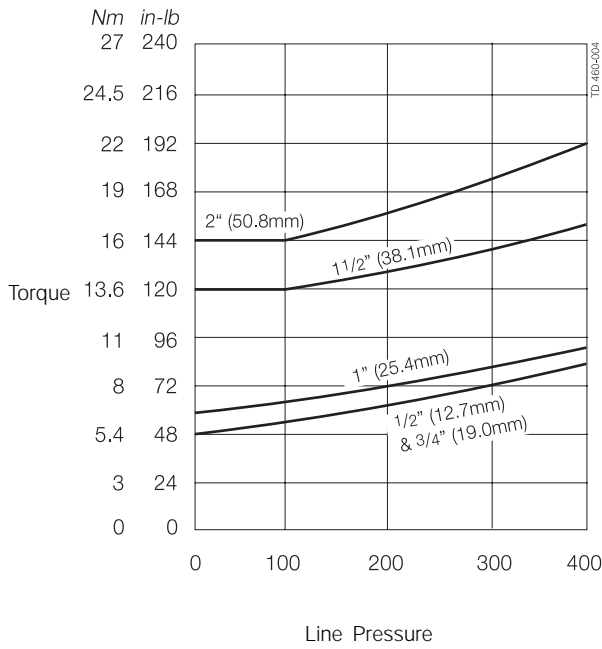


5308 Ball Valve

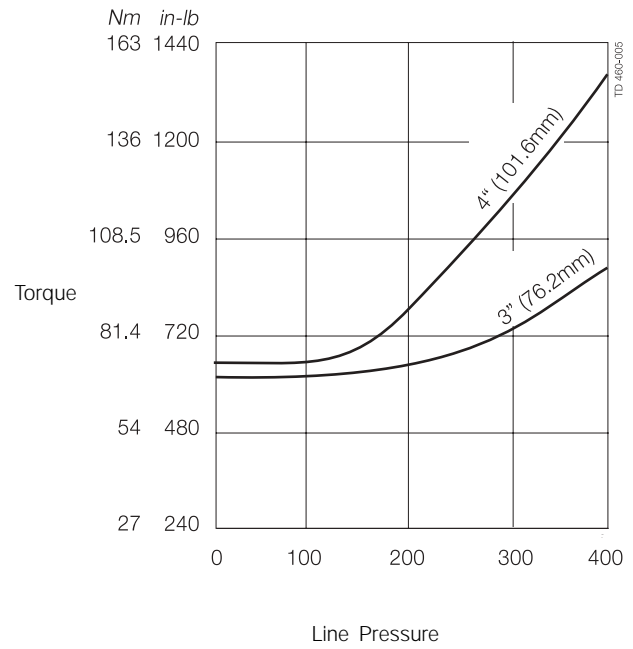
Torque vs. Pressure

Standard Seats

1/2" (12.7mm) - 2" (50.8mm) Tube OD

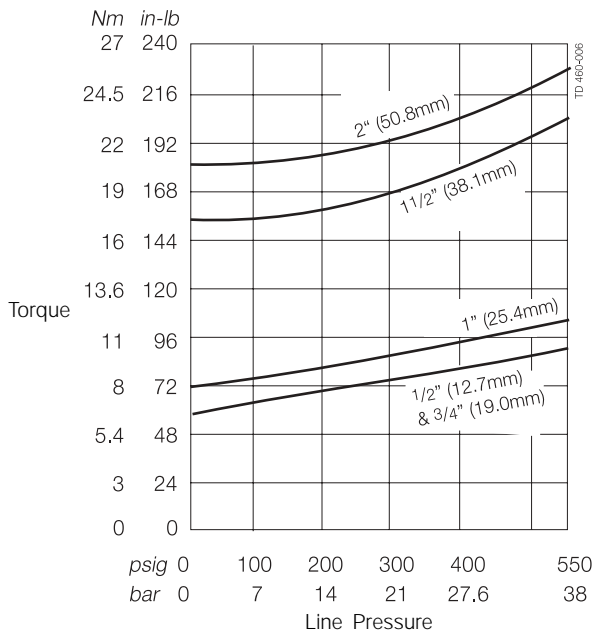


3" (76.2mm) - 4" (101.6mm) Tube OD

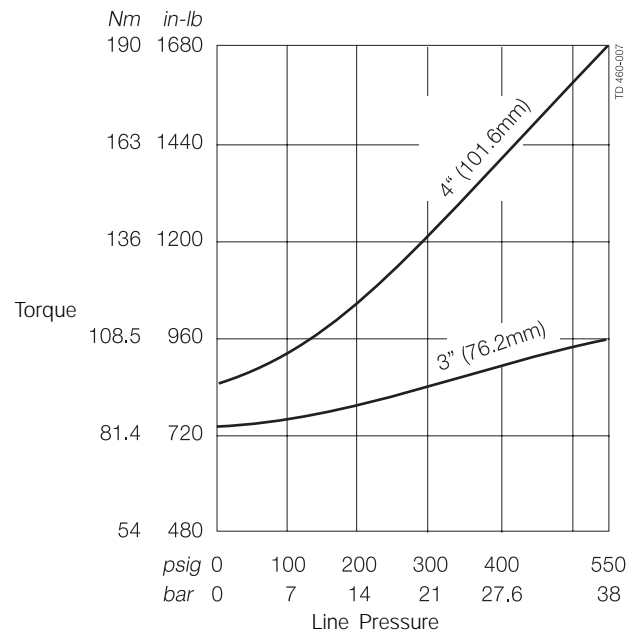


Encapsulated Seats

1/2" (12.7mm) - 2" (50.8mm) Tube OD

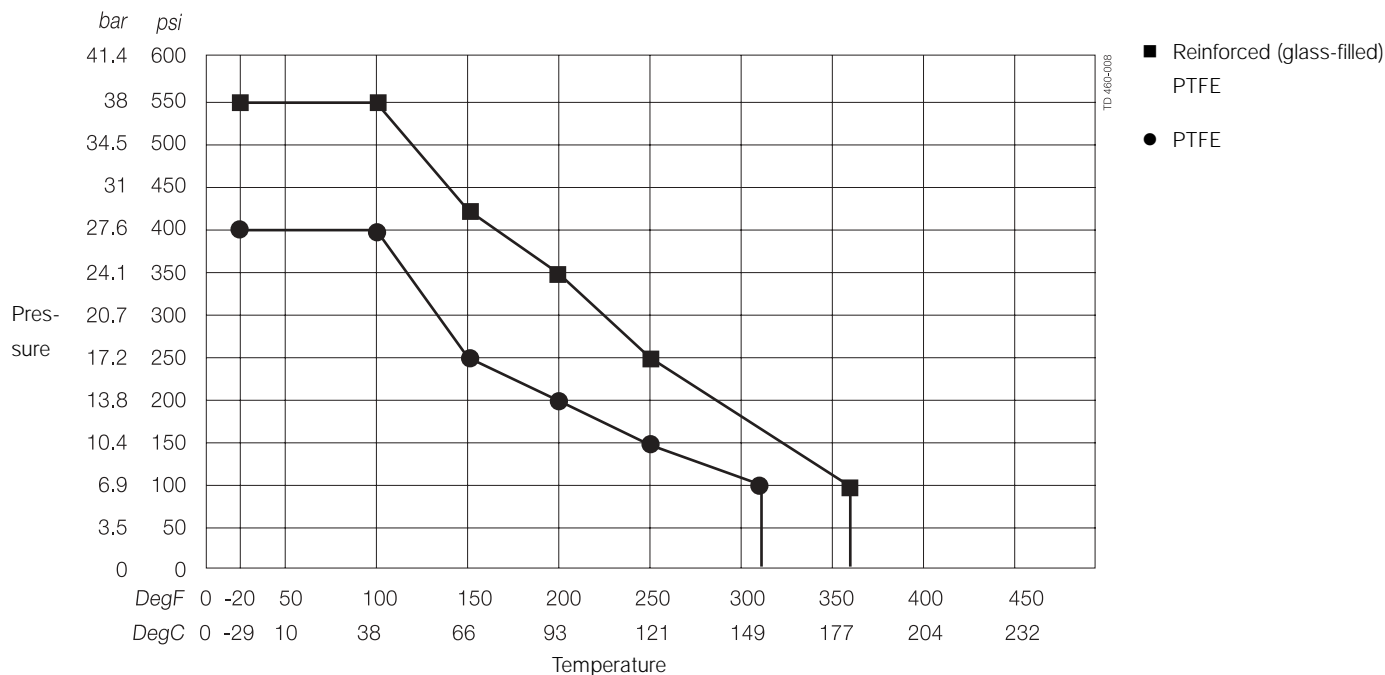


3" (76.2mm) - 4" (101.6mm) Tube OD



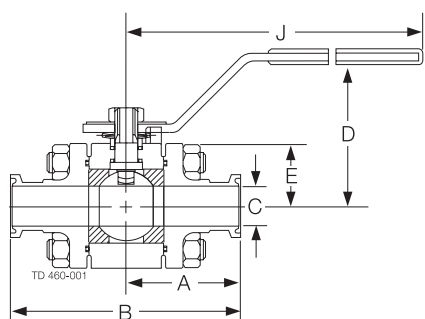
Use the charts above to determine the amount of torque required to cycle the ball valve.

Standard and Encapsulated Seats: Ratings - Pressure vs. Temperature

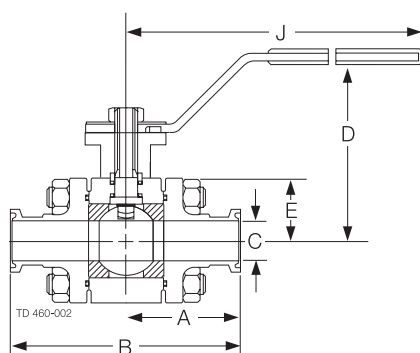


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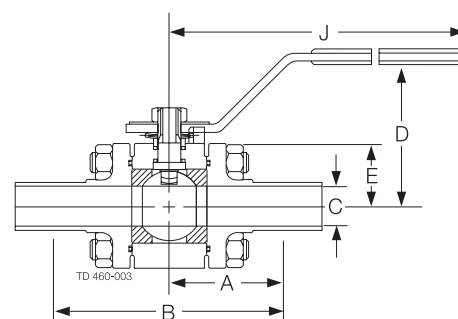
Manual Valve Dimensions



Tri-Clamp® Ends  
Model 5308  
Sizes 1/2" - 2"



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



Butt-Weld Ends  
Model 5309

Model	Size		A		B		C		D		E		J		Weight (valve + handle)	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	lb	kg
5308 Tri-Clamp® (both ends)	1/2	12.7	1 3/4	44.5	3 1/2	88.9	3/8	9.5	2 5/16	58.7	1 9/64	29.0	5 1/4	134	2	0.9
	3/4	19.0	1 3/4	44.5	3 1/2	88.9	5/8	15.9	2 7/16	61.9	1 9/64	29.0	5 1/4	134	2	0.9
	1 1/2	25.4	1 3/4	44.5	3 1/2	88.9	27/32	21.4	2 5/16	58.7	1 19/64	33.0	5 1/4	134	3	1.4
	1 1/2	38.1	2 1/4	57.2	4 1/2	114.3	1 23/64	34.5	2 3/4	95.3	1 37/64	40.0	6 11/16	170	6	2.7
	2	50.8	2 1/2	63.5	5	127.0	1 56/64	47.2	4 1/8	104.8	2 3/16	55.5	8 9/64	207	10	4.5
	3	76.2	3 7/8	98.4	7 3/4	196.9	2 55/64	72.6	7	177.8	4 9/16	115.5	11 3/4	298.4	30	13.6
5309 Butt-Weld (both ends)	1/2	12.7	2 11/16	68.3	5 3/8	136.5	3/8	9.5	2 5/16	58.7	1 9/64	29.0	5 1/4	134.0	2	0.9
	3/4	19.0	2 13/16	71.4	5 5/8	142.9	5/8	15.9	2 7/16	61.9	1 9/64	29.0	5 1/4	134.0	2	0.9
	1	25.4	3 7/32	81.8	6 7/16	163.5	27/32	21.4	2 5/16	58.7	1 19/64	33.0	5 1/4	134.0	3	1.4
	1 1/2	38.1	3 5/8	92.1	7 1/4	184.2	1 23/64	34.5	3 3/4	95.3	1 37/64	40.0	6 11/16	170.0	6	2.7
	1 1/2	38.1	3 5/8	92.1	7 1/4	184.2	1 23/64	34.5	3 3/4	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 1/8	104.8	2 3/16	55.5	8 9/64	207.0	10	4.5