



Phone: (973)-340-9955

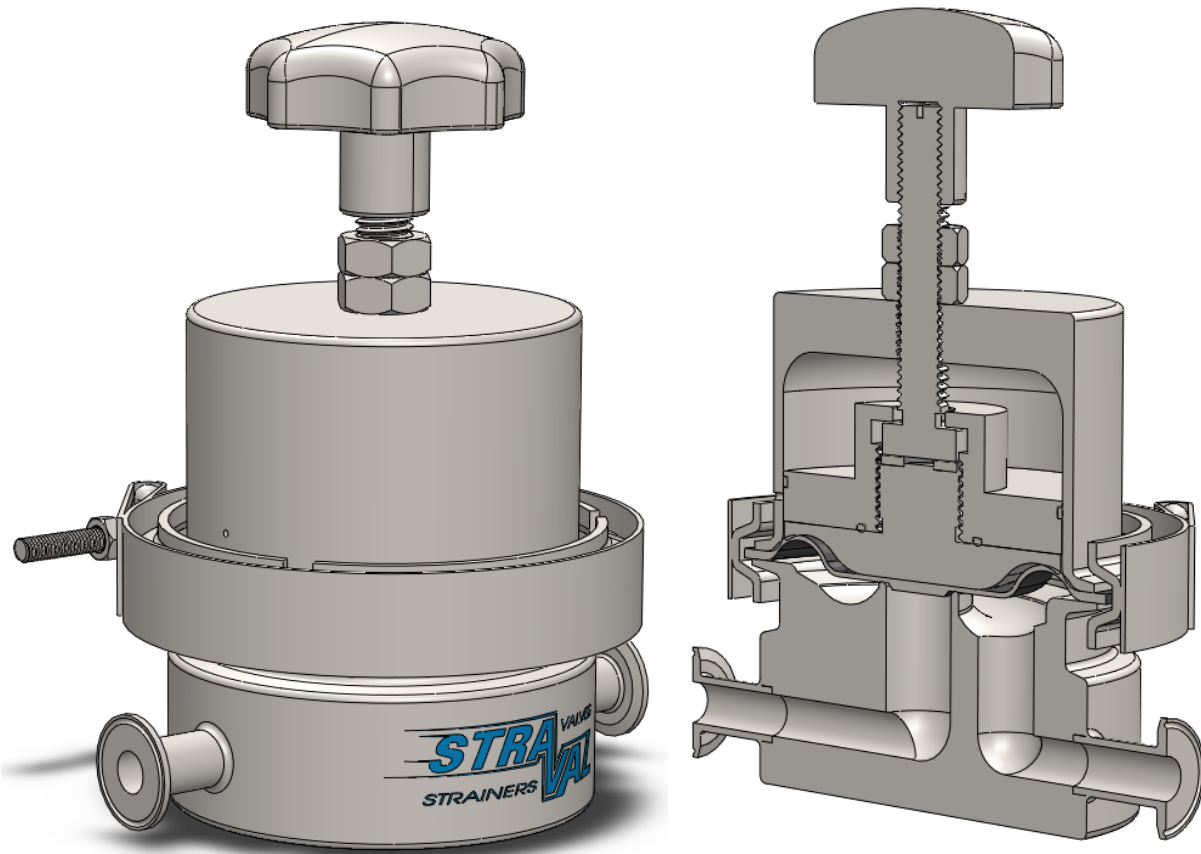
Fax: (973)-340-9933

Location: 20 Bushes Lane
Elmwood Park, NJ 07407

Website: www.straval.com

Model SOV09i-TC

In-Line Sanitary Tri-Clamp Flange Shut Off Valve



- In-Line, Self-Draining Design
- Diaphragm or Piston Operated
- 1/2" - 2 1/2" Sanitary Tri-Clamp Connections
- Inlet Pressures Up To 150 PSIG (10.3 BAR)
- In Line Serviceable
- Internal 20 RA or Electropolish Surface Finish
- ANSI Class VI Seat Leakage

Features

Manually operated adjusting knob: The manually operated knob allows for precise control over the valve's open or closed position, ensuring reliable shutoff when needed.

Vent hole: The valve features a vent hole that detects diaphragm or seat failure, providing early leak detection and protecting non-wetted components. This feature ensures the valve's suitability for sanitary applications requiring strict hygiene and process integrity.

Pressure-Containing Parts: The valve's pressure-containing components are machined from solid bar stock materials, providing consistent wall thickness and superior structural integrity compared to castings, which can have variations in wall thickness.

Body and Trim: Standard material is type 316L stainless steel mechanically polished to a uniform 20 RA surface finish. Electropolishing for enhanced surface finish is offered at an additional cost.

Housing & Internal Components: The housing and its internal components are non-wetted parts, meaning they do not come into contact with the process fluid or gas. These components are typically made from 316L stainless steel, providing excellent corrosion resistance and durability.

Self-Draining: The inclined toroidal geometry connecting the inlet to the flow chamber allows the valve to self-drain.

In-Line Porting: In line Sanitary Tri-Clamp connections are standard. Mounting in the horizontal upright position is highly recommended as it is the only position that drains water away from the valve trim, otherwise the valve can operate in any orientation.

Inline Serviceable: Capable of being serviced inline. The process lines must be depressurized before any servicing of this product. All trim components can be replaced, inspected, or cleaned by removing the sanitary clamp.

Applications

This product is used for sanitary shut-off applications in process systems that require the highest levels of cleanliness and sterility. Typical applications include isolating sections of piping to prevent cross-contamination between different stages of production, controlling the flow of fluids in sensitive processes, and maintaining sterile conditions in food and beverage production lines. The valve is essential in systems where precise control and complete isolation of media are necessary to ensure product quality and safety. It is suitable for handling a variety of clean, non-abrasive liquids and gases, including water, chemicals, gases, and other fluids that are compatible with the selected elastomers and valve materials. High temperature and demanding process conditions can be managed through the careful selection of materials, ensuring reliable operation in a wide range of sanitary applications.

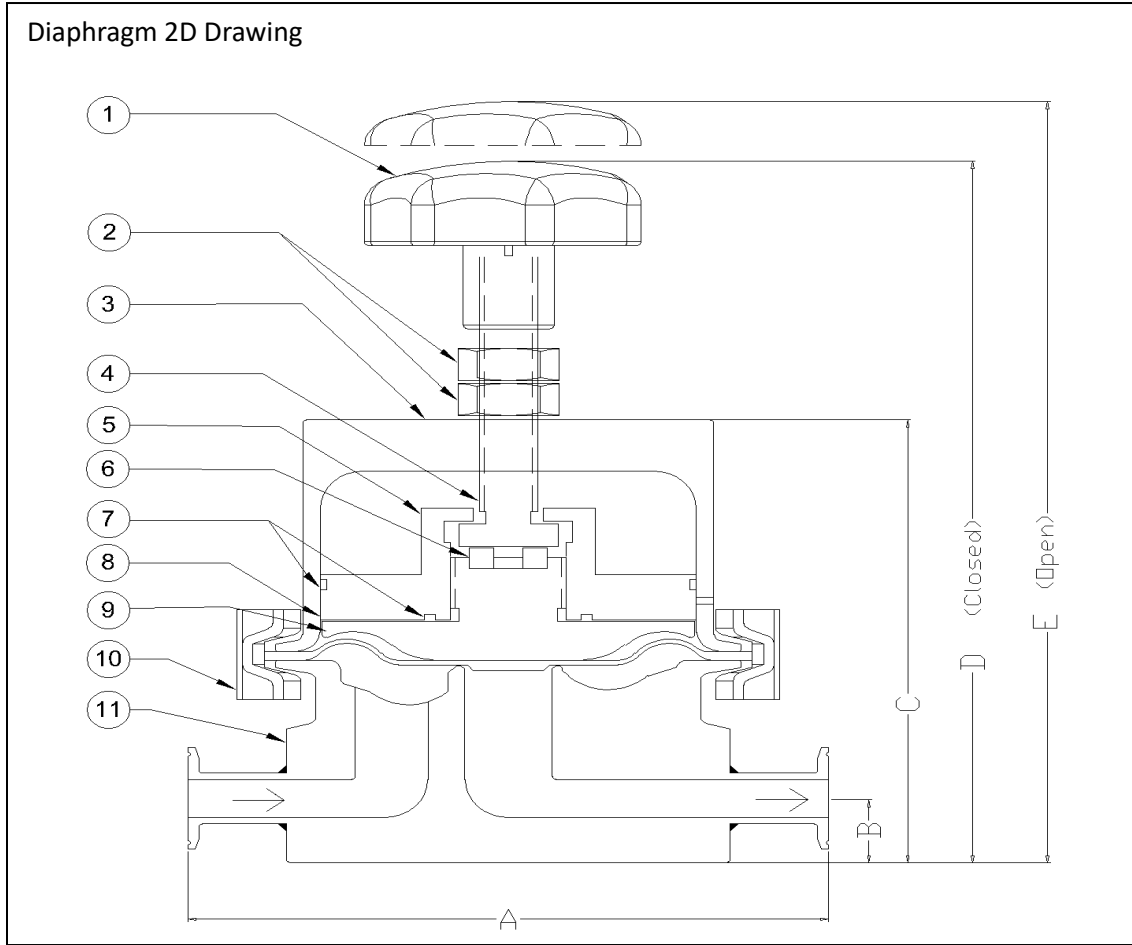
Principles of operation

This valve is operating using a rotating stem controlled by a manual adjustment knob. To close the valve, simply turn the adjustment knob clockwise until the valve is fully shut, creating a secure seal that isolates the flow. To open the valve, rotate the adjustment knob counterclockwise, allowing the process media to flow freely through the system. This straightforward design ensures precise control and reliable operation. When the valve is in the open position, the media flows through an unobstructed path that minimizes turbulence and potential contamination. When closed, a sealing element, such as a diaphragm or seat, creates a tight barrier, preventing cross-contamination and maintaining process sterility.

Options

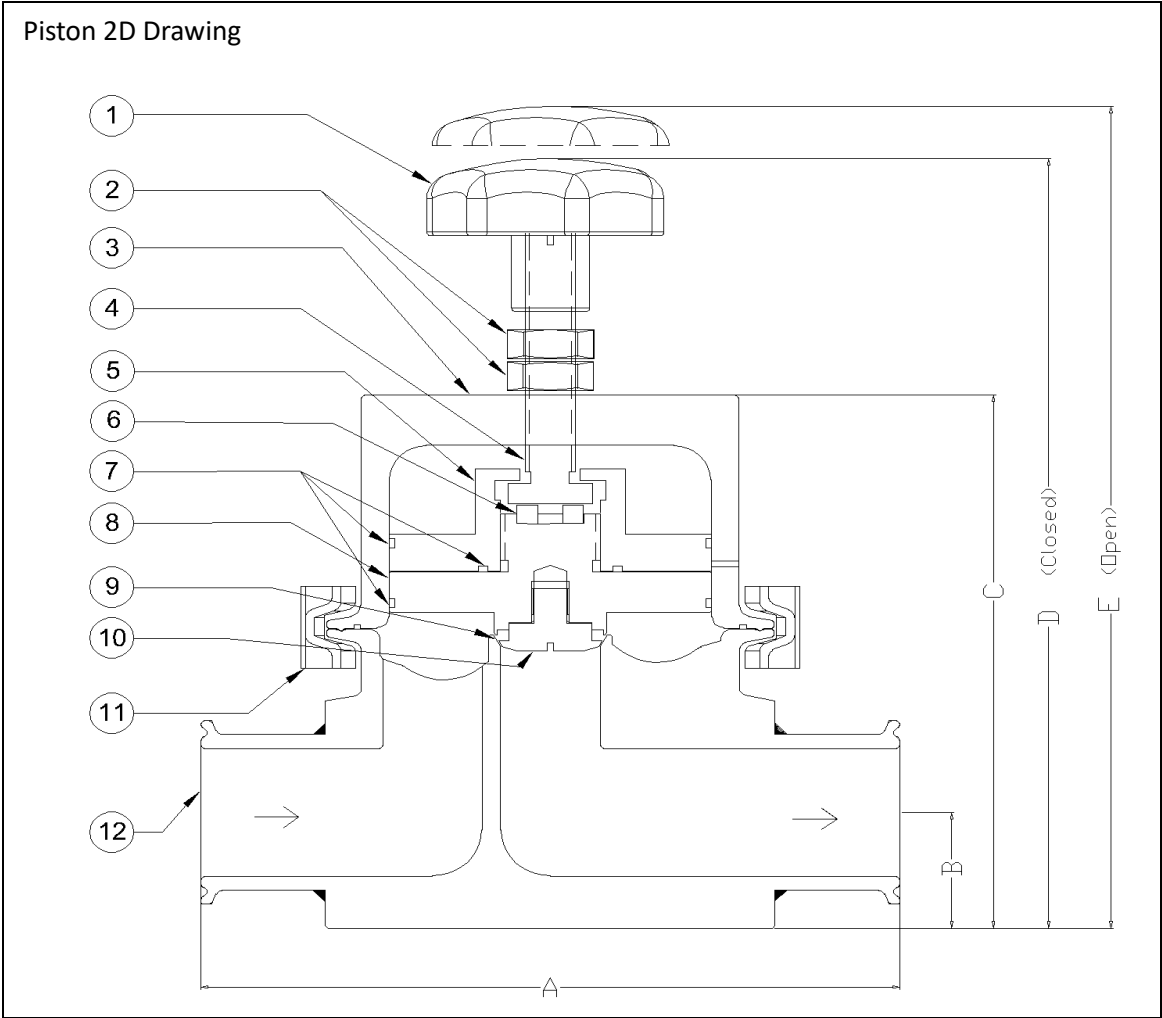
- Diaphragm Sensing ($\frac{1}{2}$ "-1")
 - Viton Backing with PTFE Film (wetted side), Buna Backing with PTFE Film (wetted side), EPDM
- Piston Sensing (1 $\frac{1}{2}$ "- 2 $\frac{1}{2}$ ")
 - Seat: Viton, EPDM, Buna, Kalrez
- Surface Finish: 20 RA mechanical polish, Electropolished

Model SOV09i-TC Schematics



Material List & Specification (1/2", 3/4", 1") – Diaphragm Operated

Part		Material
1	Adjusting Knob	316L Stainless Steel
2	Jam Nuts	316L Stainless Steel
3	Housing	316L Stainless Steel
4	Stem	316L Stainless Steel
5	Stem Guide	316L Stainless Steel
6	PTFE Ring	PTFE
7	O-Rings	Viton, Buna, EPDM
8	Diaphragm Brace	316L Stainless Steel
9	Diaphragm	PTFE/Viton, PTFE/Buna, EPDM
10	V-Band Clamp	316L Stainless Steel
11	Body	316L Stainless Steel



Material List & Specification
(1-1/2", 2", 2-1/2") – Piston Operated

Part		Material
1	Adjusting Knob	316L Stainless Steel
2	Jam Nuts	316L Stainless Steel
3	Housing	316L Stainless Steel
4	Stem	316L Stainless Steel
5	Stem Guide	316L Stainless Steel
6	PTFE Ring	PTFE
7	O-Rings	Viton, Buna, EPDM
8	Piston	316L Stainless Steel
9	Seat	Viton, Buna, EPDM, Kalrez
10	Seat Holder	316L Stainless Steel
11	V-Band Clamp	316L Stainless Steel
12	Body	316L Stainless Steel

Dimensions (inches)						
Size	CV	A	B	C	D	E
1/2"	1.98	5 - 1/2"	5/8"	4 - 3/8"	6 - 7/8"	7 - 1/10"
3/4"	5.43	5 - 1/2"	5/8"	4 - 3/8"	6 - 7/8"	7 - 1/10"
1"	10.82	5 - 7/8"	1 - 1/8"	5 - 1/8"	7 - 5/8"	7 - 7/8"
1 1/2"	14.13	7"	1 - 1/4"	5 - 3/4"	8 - 3/10"	8 - 1/2"
2"	22	8 - 7/10"	1 - 1/2"	7"	9 - 6/10"	9 - 7/8"
2 1/2"	24.35	9 - 3/8"	1 - 7/8"	7 - 7/8"	10 - 1/2"	10 - 5/8"

All dimensions are nominal and subject to change without notice. Please contact factory for certified dimensional drawings

Ordering Instructions and Nomenclature					
Valve Type	Straval Identification number	Porting	Connection Size	Connection Type	Sensing Mechanism
SOV- Shut Off Valve	09	i-Inline	05: 1/2" 07: 3/4" 10: 1" 15: 1 1/2" 20: 2" 25: 2 1/2"	TC: Sanitary Tri-Clamp	D-Diaphragm D-Diaphragm D-Diaphragm P-Piston P-Piston P-Piston

SOV09i-10TC-D