GENERANT

SHUT OFF VALVE
1/8” - 1/2" Dual Ferrule Tube, NPT
0 – 3000 Psig (207 Bar)

SOV SERIES

Description

Series SOV Shut Off Valves offers low torque, quarter turn, positive shut off of forward flow up to 3000 Psig (207 Bar). These valves feature a one piece body construction with a machined metallic replaceable plug Stem. Sealing is accomplished with a standard elastomeric O-Ring seal. Larger size valves utilize Teflon Backup Rings to reduce operating torque and provide long service life. The Series SOV can be ordered Cleaned for Oxygen Service.



Features

- Straight-Through Flow Path
- Large Orifices Provide Higher Flows
- Handle Orientation Indicates Flow
- Optional Downstream Vent
- Unique Soft Open Plug Stem
- NPT or Dual Ferrule Tube Connections
- 100% Factory Tested for Leakage



Technical Data

Maximum Operating Pressure @ 100º F

Brass and Stainless: 3000 Psig (207 Bar)

Notes: 1-1/8" (28.6 mm) Square Brass Body Valves downgraded to 2000 Psig (137 Bar) Max. If reverse flow occurs, differential pressure is limited to 150 Psid (10.3 Bar) Max. Attempting to meter flow in the reverse flow direction may damage O-Ring.

Leakage: Zero both Internal and External

100% Factory tested for leakage at 150 Psig (10.3 Bar)



Downstream Vent Option - Downstream pressure is relieved to atmosphere when valve is in the closed position. Maximum operating pressure is downgraded to 150 Psig (10.3 Bar).

Downstream Vent Orifice:

5/8" (15.9 mm) and 3/4" (19.1 mm) Square Body Valves: 0.04" (1.0 mm)

1-1/8" (28.6 mm) Square Body Valves: 0.09" (2.3 mm)



Temperature Range:

Seal Dependent (See How To Order)

Materials of Construction

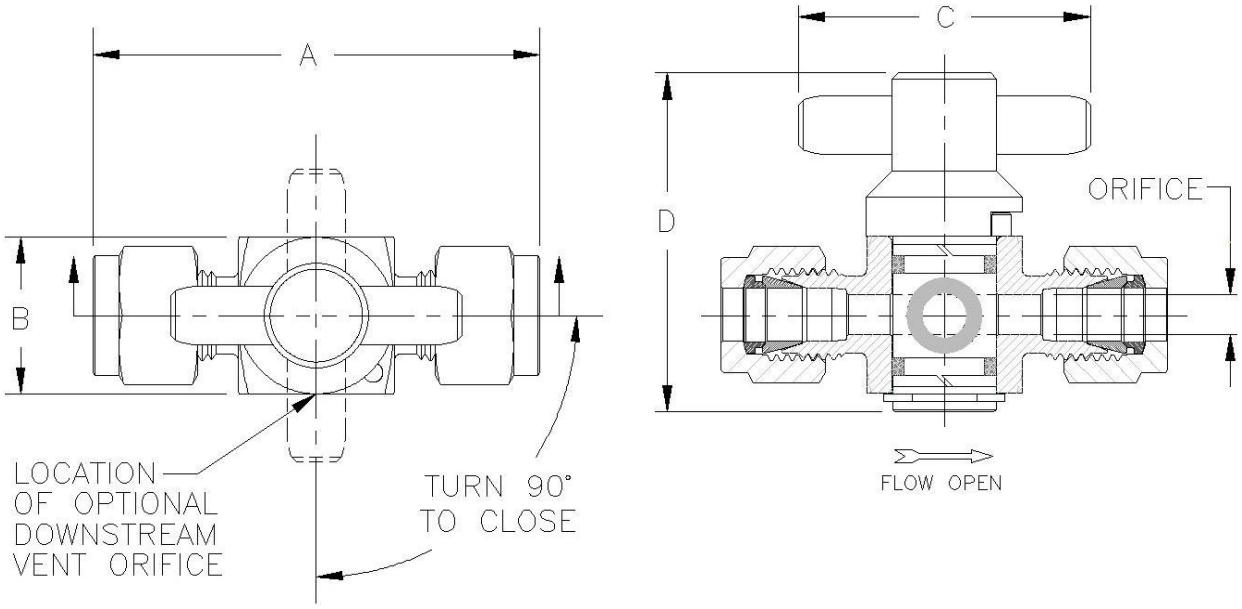
Component	Brass	Stainless Steel
Body, Plug Stem, Nuts and Ferrules	Brass, ASTM B16	316SS, ASTM A479
Handle	6061 Aluminum, ASTM B211, Anodized per Mil-A-8625	
Orifice/Body Seals	Buna-N, Neoprene, Ethylene Propylene, or Viton®	
Backup Ring[1]	PTFE	
Retaining Ring	PH 15-7 Mo SS, AISI 632	
Stop Pin	18-8 SS	

[1] 5/8" Square Body Valves are not supplied with PTFE Backup Rings
Plug Stem and O-Rings are lubricated with Krytox®.





SHUT OFF VALVE



Dimensional Data

MODEL CODE	PORT CONFIGURATION		FLOW COEFFICIENT Cv	Dimensions in inches (mm)				
	INLET	OUTLET		VALVE ORIFICE	A OVERALL LENGTH	B BODY (SQ)	C HANDLE	D HEIGHT
SOV-2T	1/8" Dual Ferrule Tube		0.05	0.093 (2.4)	1.89 (48.0)	0.625 (15.9)	1.19 (30.2)	1.41 (35.8)
SOV-4T	1/4" Dual Ferrule Tube		0.72	0.187 (4.7)	2.15 (54.6)	0.75 (19.1)	1.40 (35.6)	1.63 (41.3)
SOV-6T	3/8" Dual Ferrule Tube		1.45	0.281 (7.2)	2.68 (68.1)	1.125 * (28.6)	2.50 (63.5)	2.14 (54.4)
SOV-8T	1/2" Dual Ferrule Tube		2.34	0.343 (8.71)	2.88 (73.2)	1.125 * (28.6)	2.50 (63.5)	2.14 (54.4)
SOV-2F	1/8" Female NPT		0.30	0.125 (3.2)	1.69 (42.9)	0.625 (15.9)	1.19 (30.2)	1.41 (35.8)
SOV-4F	1/4" Female NPT		0.72	0.187 (4.7)	1.87 (47.5)	0.75 (19.1)	1.40 (35.6)	1.63 (41.3)
SOV-6F	3/8" Female NPT		2.34	0.343 (8.71)	2.75 (69.9)	1.125 * (28.6)	2.50 (63.5)	2.14 (54.4)
SOV-8F	1/2" Female NPT		2.34	0.343 (8.71)	2.88 (73.2)	1.125 (28.6)	2.50 (63.5)	2.14 (54.4)
SOV-2P	1/8" Male NPT		0.30	0.125 (3.2)	1.5 (38.1)	0.625 (15.9)	1.19 (30.2)	1.41 (35.8)
SOV-4P	1/4" Male NPT		0.30	0.125 (3.2)	1.69 (42.9)	0.625 (15.9)	1.19 (30.2)	1.41 (35.8)
SOV-8P	1/2" Male NPT		2.34	0.343 (8.71)	2.64 (67.1)	1.125 * (28.6)	2.50 (63.5)	2.14 (54.4)
SOV-4PT	1/4" Male NPT	1/4" Dual Ferrule Tube	0.72	0.187 (4.7)	2.00 (50.8)	0.75 (19.1)	1.40 (35.6)	1.63 (41.3)
SOV-4PF	1/4" Male NPT	1/4" Female NPT	0.72	0.187 (4.7)	1.84 (46.7)	0.75 (19.1)	1.40 (35.6)	1.63 (41.3)
SOV-4FP	1/4" Female NPT	1/4" Male NPT	0.72	0.187 (4.7)	1.84 (46.7)	0.75 (19.1)	1.40 (35.6)	1.63 (41.3)

Notes: Dimensions shown with dual ferrule tube fitting nuts finger-tight. Dimensions are in inches (millimeters), for reference only and subject to change.
Restrictions in inlet or outlet piping may reduce flow.
NPT Threads per ASME B1.20.1
* 1–1/8" Brass body valves have a maximum operating pressure of 2000 psig (137 Bar).

How to Order

S O V - 4 T S S - V - X

Model Code
SOV - Shut Off Valve

Material Code
B - Brass
SS - 316 Stainless Steel

Options
X- Cleaned and Packaged for Oxygen Service
E - Downstream Vent - Downstream pressure is relieved to atmosphere when valve is in the closed position

Seal Material
B - Buna-N, -40° F to 250° F (-40° C to 121° C)
V - Viton®, -10° F to 375° F (-23° C to 190° C)
N - Neoprene, -40° F to 300° F (-40° C to 148° C)
EP - Ethylene Propylene, -65° F to 300° F (-54° C to 148° C)

Krytox® and Viton® are registered trademarks of DuPont.

PROPER COMPONENT SELECTION – When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

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