

Techflow TV - Series

Tube Series Vacuum Jacketed Valves

High quality, efficient control manufactured by Technifab.

Benefits

- Vacuum jacketed valves save you money by operating twenty times more efficient than non-vacuum jacketed valves, meaning less cryogen use.
- The bubble tight closure reduces potential equipment problems at cryogenic temperatures.
- Compact design offers control for smaller diameter pipe, lower flow requirements, and limited space applications.
- Low torque provides easier on/off operation.
- Quick and easy seal replacement lessens downtime.
- Optional: flow plug allows control for variable cryogen delivery to end use equipment.

Features

- Self-aligning, PCTFE seat designed for flexibility and solid closure at cryogenic temperatures.
- Pneumatic and electric actuators available for automatic operation.
- Shallow plug style valve functions best for quick opening applications.
- One year warranty if sold separately.

Linear flow plug option available.

Applications

- Transfer Hose Shut-offs
- Point-of-Use Valves
- Laboratory Uses
- Liquid Helium Stingers



500 Series Valve Specifications

Cryogenic Tubing Diameter	1/2" ODT 0.43" (11mm) ID
Temperature Range	-450° to 150°F (4 to 340K)
Operating Pressure: 'Bubble Tight' Proof Pressure	150 psig (10.3 Bar) ¹ 300 psig (20 Bar)

Globe Valve (0500-GM & GP¹)

Heat Leak with Liquid Nitrogen	5.6 BTU/Hr at 400°F ΔT (1.6 W at 220°C ΔT)
Flow Coefficient Flow Factor	C _v = 0.84 K _v = 0.72

Globe Valve (0500-GM & GP¹ - 4)

Heat Leak with Liquid Nitrogen	5.6 BTU/Hr at 400°F ΔT 1.6 W at 220°C ΔT
Flow Coefficient Flow Factor	C _v = 0.33 K _v = 0.28

Right Angle Valve (0500-AM, AP¹ & 0500 - AM/AP¹ - 4)

Heat Leak with Liquid Nitrogen	
Flow Coefficient Flow Factor	C _v = 1.2 K _v = 1.0

¹60 psig Actuated Valves

0500 Series Valve Installation Dimensions

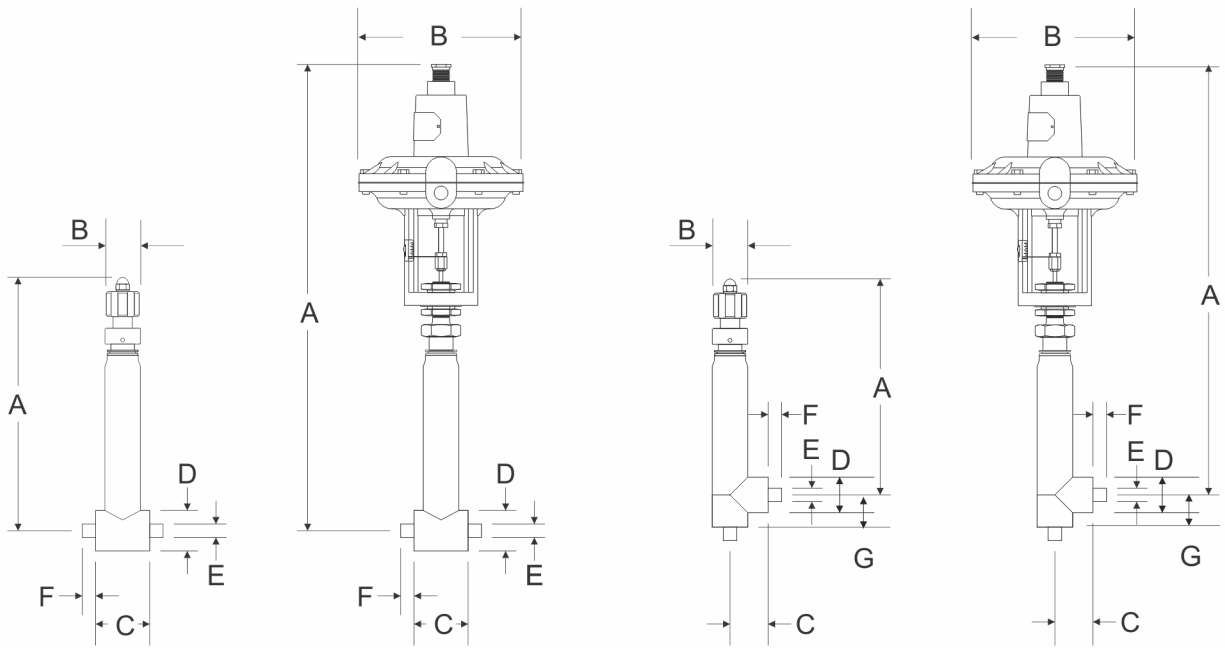


Figure 1
0500-GM
0500-GM-4

Figure 2
0500-GP
0500-GP-4

Figure 3
0500-AM
0500-AM-4

Figure 4
0500-AP
0500-AP-4

¹ Fully open

Dimensions in Inches (mm)

	Model	A	B	C	D	E	F	G
Figure 1	0500-GM	9.3 (236) ¹	1.3 (33)	2 (51)	1.5 (38)	1/2	.50 (13)	N/A
Figure 1	0500-GM-4	9.3 (236) ¹	1.3 (33)	2 (51)	1.9 (48.3)	1/2	.50 (13)	N/A
Figure 2	0500-GP	16.7 (424)	6.5 (165)	2 (51)	1.5 (38)	1/2	.50 (13)	N/A
Figure 2	0500-GP-4	16.7 (424)	6.5 (165)	2 (79)	1.9 (48.3)	1/2	.50 (13)	N/A
Figure 3	0500-AM 0500-AP-4	8.0 (203) ¹	1.3 (33)	1.4 (35.6)	1.315 (33.4)	1/2	.50 (13)	1.2 (30.5)
Figure 4	0500-AP 0500-AP-4	16.5 (419)	6.5 (165)	1.4 (35.6)	1.315 (33.4)	1/2	.50 (13)	1.2 (30.5)

Valve Nomenclature

T V

0500

1/2" ODT
Tube Valve

G

G = Globe
A = Angle

M

M = Manual
O = Actuated
Normally Open
P = Actuated
Normally closed

S

S = Tube Stub

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3 = Cold Box Cuff
4 = Flow Plug