

# 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 down-time.
- 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.

## Applications

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



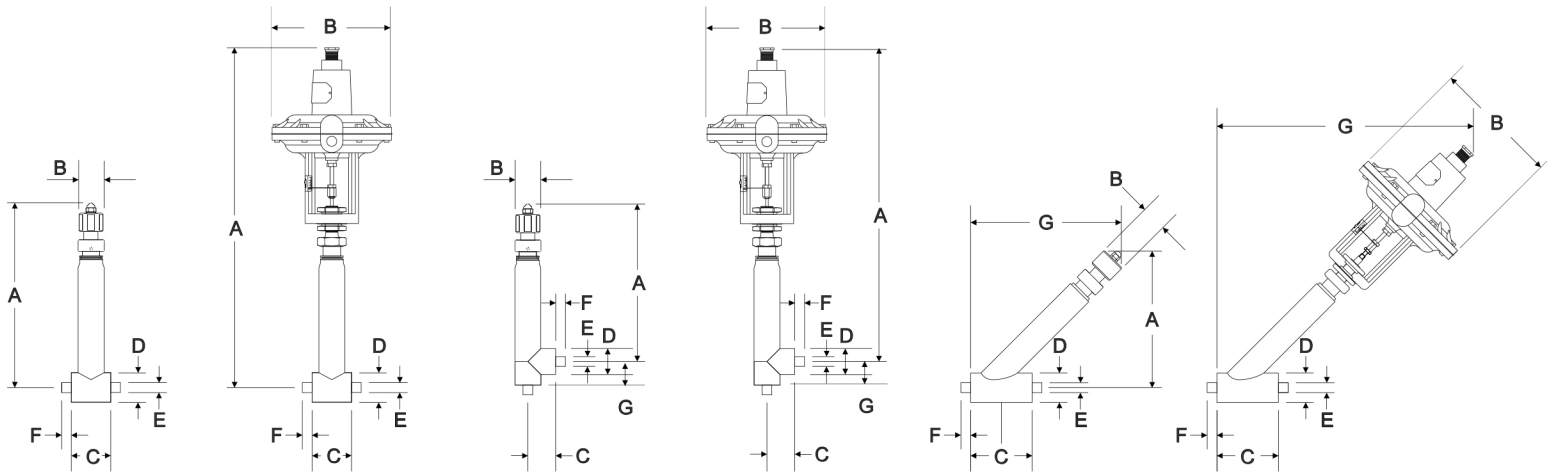
## 500 Series Valve Specifications

Cryogenic Tubing Diameter	1/2" ODT .43" (11mm) ID
Temperature Range	450° to 150° <sup>oF</sup> (4 to 340K)
Operating Pressure: 'Bubble Tight' Proof Pressure	150 psig (10.3 Bar) <sup>1</sup> 300 psig (20 Bar)
Heat Leak	5.6 BTU/Hr at 40° <sup>oF</sup> ΔT
Heat Leak with Nitrogen	1.6 W at 220° <sup>oC</sup> ΔT

	Flow Coefficient (C <sub>v</sub> )	Flow Factor (K <sub>v</sub> )
0500-GM & GP <sup>1</sup>	.84	.72
0500-GM & GP <sup>1</sup> - FC	.33	.28
0500-AM & AP <sup>1</sup>	1.16	1.0
0500-AM & AP <sup>1</sup> - FC	.59	.51
0500-YM & YP	1.2	1.0

<sup>1</sup>60 psig Actuated Valves

## 0500 Series Valve Installation Dimensions



**Figure 1**  
0500-GM  
0500-GM-FC

**Figure 2**  
0500-GP  
0500-GP-FC

**Figure 3**  
0500-AM  
0500-AM-FC

**Figure 4**  
0500-AM  
0500-AM-FC

**Figure 5**  
0500-YM

**Figure 6**  
0500-YP

	Model	A	B	C	D	E	F	G
Figure 1	0500-GM	9.3 (236.2) <sup>1</sup>	1.3 (33)	2 (50.8)	1.5 (38.1)	1/2	.5 (13)	N/A
Figure 1	0500-GM-FC	9.3 (236.2) <sup>1</sup>	1.3 (33)	2 (50.8)	1.9 (48.3)	1/2	.5 (13)	N/A
Figure 2	0500-GP	16.7 (424.2)	6.5 (165.1)	2 (50.8)	1.5 (38.1)	1/2	.5 (13)	N/A
Figure 2	0500-GP-FC	16.7 (424.2)	6.5 (165.1)	2 (50.8)	1.9 (48.3)	1/2	.5 (13)	N/A
Figure 3	0500-AM 0500-AP-FC	8 (203.2) <sup>1</sup>	1.3 (33)	1.4 (35.6)	1.3 (32)	1/2	.5 (13)	1.2 (30.5)
Figure 4	0500-AP 0500-AP-FC	16.5 (419.1)	6.5 (165.1)	1.4 (35.6)	1.3 (32)	1/2	.5 (13)	1.2 (30.5)
Figure 5	0500-YM	6.95 (176.5)	1.3 (33)	3.12 (79.2)	1.5 (38.1)	1/2	.5 (13)	N/A
Figure 6	0500-YP	12.3 (312.4)	6.5 (165.1)	3.12 (79.2)	1.5 (38.1)	1/2	.5 (13)	N/A

Dimensions in Inches (mm)

<sup>1</sup> Fully open

### Valve Nomenclature

0500

1/2" ODT  
Tube Valve

G

G = Globe  
A = Angle  
Y = WYE

M

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

S

S = Tube Stub

- -

3 = Cold Box Cuff  
4 = Flow Plug