

Techflow TV - Series Vacuum Jacketed Cryogenic Valves

Manufactured by Technifab to Provide Minimal Cryogen Losses

Benefits

- Twenty times less cryogen loss versus non-vacuum jacketed cryogenic valves equates to lower operation costs.
- Bubble tight closure means tighter seal at cryogenic temperatures preventing possible equipment problems.
- Vacuum jacketed insures safe to touch usage.
- Low torque for easy on/off operation.
- Quick and easy seal replacement reduces downtime.

Features

- Self-aligning, PCTFE seat designed for flexibility and solid closure at cryogenic temperatures.
- Port on bonnet for relief valve, purge valve, or pressure gauge installation.
- Pneumatic or electric actuators available for automated operation.
- ASME B16.34 code compliant available.
- One year warranty if sold separately.

Applications

- Bulk Tank Shut-offs.
- System Branches for Pipe and Equipment Isolation.
- Point-of-Use Valves.
- System Expansion / Re-Routing Connections.
- Cold Boxes.



TV Pipe Series Valve Specifications

All Valves:

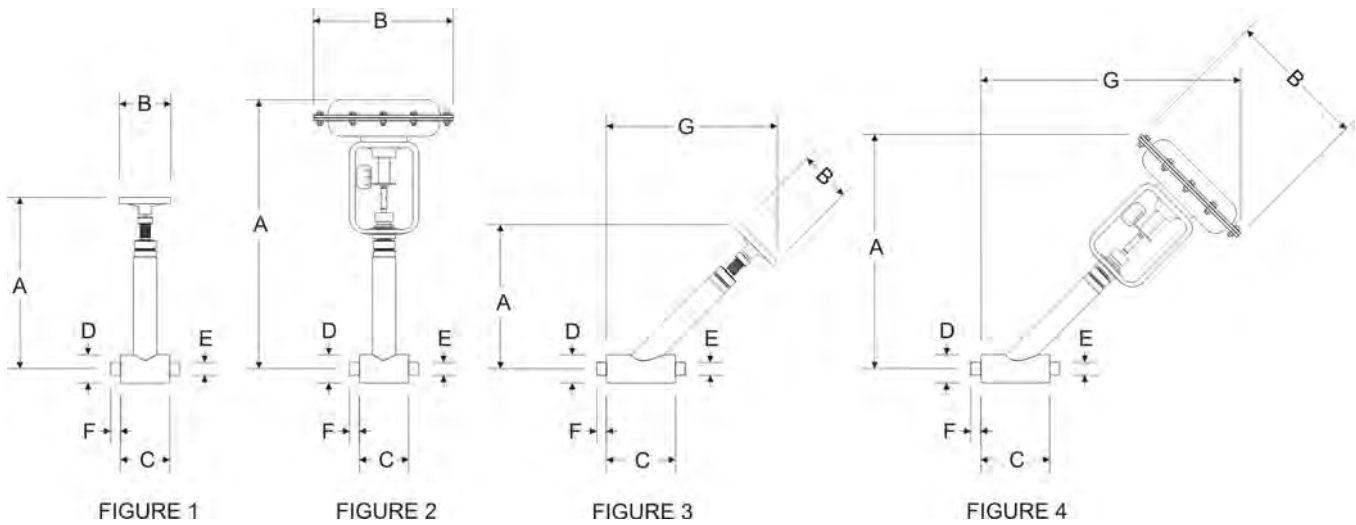
Temperature Range -450° to 150°F (4 to 340K)
 Operating Pressure:
 'Bubble Tight' 150 psig (10.3 Bar)
 Proof Pressure 300 psig (20 Bar)
 Class 300 (ASME B16.34)

Model	840	1315	2375	4500
Inner Pipe Size	1/2" NPS	1" NPS	2" NPS	4" NPS
Pipe Inner Diameter	.710 in (18.0 mm)	1.185 in (30.1 mm)	2.209 in (57.0 mm)	4.125 in (104.8 mm)
C _v (K _v) - Globe	4.66 (4.02)	17.2 (14.8)	20 (17.2)	191 (165.2)
C _v (K _v) - "Y" pattern	4.96 (4.28)	15.6 (5.17)	N/A	N/A
Heat Leak in BTU/Hr (Watts)	3.55 (1.0) ¹	6.25 (1.86) ¹	6.46 (1.89) ¹	15.34 (4.5) ¹

¹At 400°F (220°C) ΔT using Liquid Nitrogen.

Additional dimensions on the back of this sheet.

0840/1315/2375/4500 Series Valve Installation Dimensions



All Dimensions in Inches (mm)

Model		A	B	C	D	E	F	G
TV-0840-GM	Figure 1	14.4 (365) ¹	2.6 (66)	3.0 (76)	2.375 (60.3)	.840 (21.4)	0.50 (13)	N/A
TV-0840-GP	Figure 2	21.4 (545)	8.5 (220)	3.0 (76)	2.375 (60.3)	.840 (21.3)	0.50 (13)	N/A
TV-0840-YM	Figure 3	11.2 (284) ¹	2.6 (66)	4.0 (102)	2.375 (60.3)	.840 (21.3)	0.50 (13)	12.9 (330) ¹
TV-0840-YP	Figure 4	16.4 (417)	9.0 (230)	4.0 (102)	2.375 (60.3)	.840 (21.3)	0.50 (13)	17.81 (453)
TV-1315-GM	Figure 1	18.7 (476) ¹	6.0 (150)	5.0 (130)	2.875 (73.0)	1.315 (33.4)	1.0 (25)	N/A
TV-1315-GP	Figure 2	24.6 (625)	11.5 (292)	5.0 (130)	2.875 (73.0)	1.315 (33.4)	1.0 (25)	N/A
TV-1315-YM	Figure 3	15.8 (402) ¹	6.0 (150)	7.0 (180)	2.875 (73.0)	1.315 (33.4)	1.0 (25)	19.6 (498) ¹
TV-1315-YP	Figure 4	20.2 (513)	11.5 (292)	7.0 (180)	2.875 (73.0)	1.315 (33.4)	1.0 (25)	23.0 (583)
TV-2375-GM	Figure 1	23.8 (605) ¹	6.0 (150)	7.0 (180)	4.50 (115)	2.375 (60.3)	1.5 (38)	N/A
TV-2375-GP	Figure 2	31.3 (795)	13.5 (343)	7.0 (180)	4.50 (115)	2.375 (60.3)	1.5 (38)	N/A
TV-4500-GM	Figure 1	36.2 (920)	10.0 (254)	14.0 (356)	6.625 (169)	4.5 (115)	1.5 (38)	N/A
TV-4500-GP	Figure 2	59.33 (1507)	16.0 (254)	14.0 (356)	6.625 (169)	4.5 (115)	1.5 (38)	N/A

¹ Fully Open

VALVE NOMENCLATURE

