

# Techniguard B-Series Bendable Vacuum Jacketed Pipe

## Bendable, Vacuum Insulated Pipe

Techniguard vacuum jacketed pipe is a low heat leak, high performance vacuum insulated pipe designed to transfer cryogenic liquids.

Our vacuum jacketed insulated piping systems are manufactured in easy-to-assemble sections with high-efficiency, low heat leak bayonet connections.

### Benefits

- Provides a more cost effective installation than rigid pipe with only a small loss in performance.
- Utilizes a bendable pipe design that minimizes heat leakage when VJP is bent.
- Low maintenance Vacuum Jacketed Pipe (VJP) doesn't require external vacuum pumps or pump maintenance.
- Close-tolerance bayonets eliminate the need for field welding or soldering and allow easy system reconfiguration.
- Can be coiled for less expensive packaging and shipping.

### Easy to Install

- Simplifies cryogenic system layout; reduces the need for precise system measurements.
- Lower install cost than foam covered pipe or foam jointed pipe.
- Easy connections with our standardized bayonets to other R-Series and B-Series VJP.
- No cryogenic piping experience is required for installation.



### Construction

- Stainless steel inner and outer construction for maximum strength and corrosion resistance.
- Vacuum and multi-layer super insulation creates a low heat transfer rate which minimizes cryogenic liquid boil-off.
- Pipe is heated during evacuation to remove molecules that can outgas later.
- Embedded getter materials absorb outgassed molecules in the vacuum space.
- Bayonet connections provide an easy connection between cryogenic lines.
- Liquid nitrogen, CO<sub>2</sub>, argon, and hydrogen ready; Liquid oxygen option is available.



## Bendable Pipe Specifications

Model	Inner Diameter Inches (mm)	Available Outer Coverings	Outside Diameter Inches (mm)	MAWP in psig (bar)	Minimum Bend Radius Inches (cm)	Dry Weight lb/ft (kg/m)
B50	1/2 (13)	Heat Shrink; Armor, Braided	1-7/8 (48) 2 (51)	150 (10.3)	10 (25)	1.0 (1.5)
B65	5/8 (16)	Heat Shrink, Armor	2-1/4 (57) 2-1/2 (64)	150 (10.3)	13 (33)	1.6 (2.3)
B100	1 (25)	Heat Shrink, Armor	2.6 (66) 3.1 (79)	150 (10.3)	15 (38)	2.3 (3.4)
B125	1-1/4 (32)	Heat Shrink, Armor; Braided	3.5 (89) 3.9 (97)	150 (10.3)	17 (43)	3.1 (4.6)
B150	1-1/2 (38)	Braided	4 (100)	150 (10.3)	19 (48)	4.0 (6.0)
B200	2 (51)	Braided	5.1 (130)	150 (10.3)	27 (69)	5.9 (8.8)

## Variety of Options

- Lengths up to 60 feet (19 meter).
- Choice of external covering to best fit your application needs.
- Choice of end connections.
- Valves, gas traps, gas vents, and thermocouple vacuum gauge tubes can be added.
- ASME B31.3, CRN (Canadian Registration Number) and liquid oxygen certification available.



## Quality Assurance

Techniguard is fully guaranteed to be free of defects and is backed by a 3-year warranty, the best in the business. Ask for details.

Technifab manufactures and installs vacuum jacketed pipe, transfer hoses, dewars, valves, and other cryogenic equipment. We also provide the industry leading warranty and service to back it up.

Satisfying customers since 1992 because, *We Know Cryo*®...