TriFlex

TriFlex VI hose is specifically designed to eliminate two-phase flow of LN_2 to use points. Fully stainless steel construction with highest flexibility in the industry.

Modular sections allow for easy of assembly and disassembly and provide greater flexibility in piping system arrangement.

Available in Static or Dynamic Vacuum System.

All Triflex products come with CSM renowned customer service, from conceptual design to implementation, and are backed by a 3-years Vacuum Warranty, & 1-year Defect Warranty.

TriFlex VI Hose

TriFlex transfer hose when use together with atmospheric Phase Separator system delivers liquid nitrogen (LN_2) in pure liquid form at atmospheric pressure. This system ultimately eliminates two-phase flow to use points by constantly venting gaseous vapor to the atmosphere via phase separator. By separating vapor and venting them prior to liquid delivery, only sub-cooled LN_2 will be delivered to each use point through gravity.

TriFlex are commonly used in applications where single-phase liquid is critical to the production process such as MBE, LN_2 Doser, Cryopreservation or any critical process that demands pure LN_2 supply.

TriFlex is available in either static or dynamic vacuum insulation. For Dynamic TriFlex, it requires an external pump to continuously evacuate its vacuum annular space to ensure its vacuum insulation integrity. Both static and dynamic systems come with Triax female bayonet connection, elbow, tee, valve or customize connections e.g. A5, A10 or TAL, to the point of use.

Related Products:

Modular T-valve

Modular Tee
or Modular Tee with Jumper Hose
& Zone Valve in dynamic vacuum set up

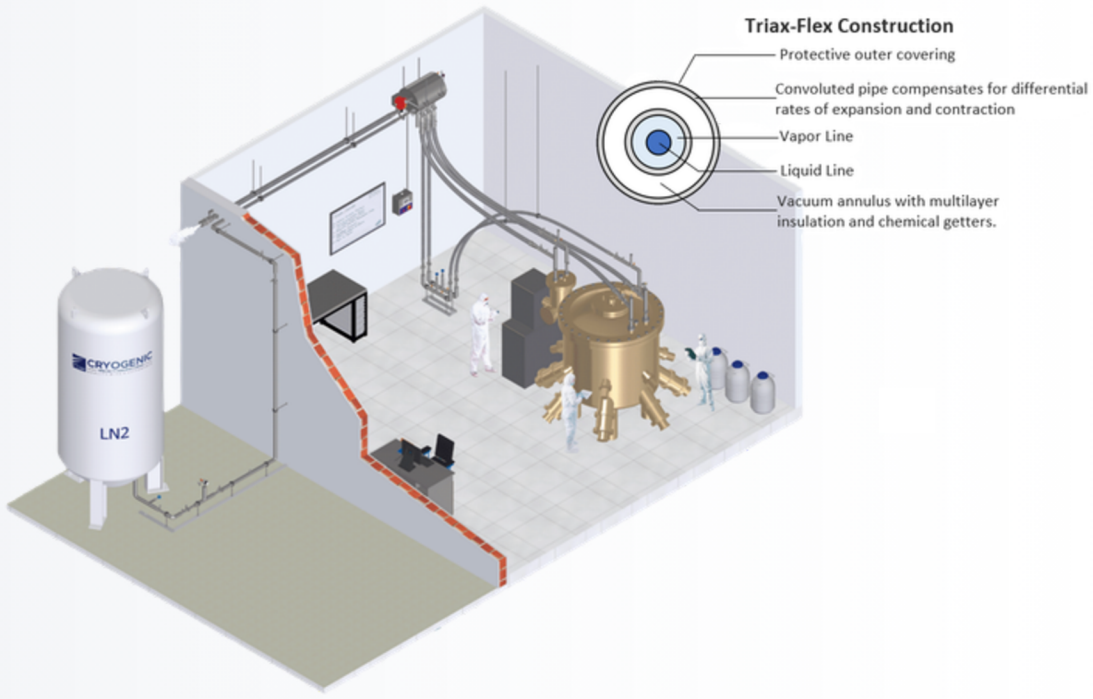
Features and Benefits

- Superior vacuum insulation eliminates moisture, condensation and frost build-up.
- Due to very low heat gain, liquid nitrogen losses can be reduced by 10 to 20 times.
- Quick delivery of LN_2 to equipment improves cooling performance and production cycle time.
- Bendable nature facilitates installation in tight spaces such as research laboratory.

TriFlex Static Specifications

Model	TF16	TF25	TF32
Inner Diameter	DN16 $^{5}/_{8}$" (16.2 mm)	DN25 1" (25.1 mm)	DN32 1 $^{3}/_{8}$" (34.2 mm)
Outer Diameter	DN40 (52.1 mm)	DN50 (62.8 mm)	DN65 (81.2 mm)
Steady State Heat Leak	1.4 BTU/hr/ft (1.3 W/m)	1.5 BTU/hr/ft (1.4 W/m)	1.6 BTU/hr/ft (1.5 W/m)
Bayonet Heat Leak	4.0 BTU/hr (1.2 W)	8.1 BTU/hr (2.4 W)	8.1 BTU/hr (2.4 W)
Max. Operating Pressure (Bayonet)	200 psi (13.8 bar)	200 psi (13.8 bar)	200 psi (13.8 bar)
Weight (exclude Bayonet)	1.6 lb/ft (2.4 kg/m)	2.1 lb/ft (3.2 kg/m)	3.0 lb/ft (4.5 kg/m)
Min. Bend Radius (Flexible)	12" (300 mm)	16" (400 mm)	24" (450 mm)
Min. Bend Radius (Static)	10" (250 mm)	12" (300 mm)	20" (500 mm)
Vacuum Insulation Type	Static or Dynamic Vacuum		
Protective Outer Covering	RFB - Regular Flex Braid, SW - Spiral Wrap		
Flow Rate / Pressure Drop	Consult Factory		
Material Construction	Stainless Steel Series 300		
Standard Testing	Dimensional Check He Leak Test @ 1.0 x 10^{-9} cc/s		
Optional	Pneumatic pressure test, Vacuum retention testing, LN_2 cold shock, pre-material certs., X-ray, ASME B31.3 certification, CFOS cleaning for O_2 services, RPTSTD-8070-0001		

Typical TriFlex Installation in MBE



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