



Triax-Flex™

Triax-Flex transfer hose specifically designed to eliminate two-phase flow of LN2 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 Triax-Flex products comes with CSM renowned customer service, from conceptual design to implementation, and are backed by a one year warranty

Triax-Flex Transfer Hose

Triax-Flex® transfer hose when use together with atmospheric Phase Separator system delivers liquid nitrogen (LN2) 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 LN2 will be delivered to each use point through gravity.

Triax-Flex® are commonly used in applications where single-phase liquid is critical to the production process such as MBE, LN2 Doser, Cryopreservation or any critical process that demands pure LN2 supply.

Triax-Flex® is available in either static or dynamic vacuum insulation. For Dynamic Triax-Flex®, 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 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 LN2 to equipment improves cooling performance and production cycle time.
- Bendable nature facilitates installation in tight spaces such as research laboratory

Triax-Flex Specifications

Hose Model	TF16	TF25	TF32
Inner Diameter (I.D.)	DN 16 5/8" (16.2 mm)	DN 25 1" (25.1 mm)	DN 32 1-3/8" (34.2 mm)
Outer Diameter (O.D.)	DN 40 (52.1 mm)	DN 50 (62.8 mm)	DN 65 (81.2 mm)
Steady State Heat Leak	1.4 btu/hr/ft (1.3 watts/m)	1.5 btu/hr/ft (1.5 watts/m)	1.6 btu/hr/ft (1.5 watts/m)
Bayonet Heat Leak	4.0 btu/hour (1.2 watts)	8.1 btu/hour (2.4 watts)	8.1 btu/hour (2.4 watts)
Max. Operating Pressure	200 psi (13.8 bar)	200 psi (13.8 bar)	200 psig (13.8 bar)
Weight	1.6 lbs/ft (2.4 kg/m)	2.1 lbs/ft (3.2 kg/m)	3.0 lbs/ft (4.5 kg/m)
Min. Bend Radius (Flexible)	12" (300 mm)	16" (400 mm)	24" (450 mm)
Min. Bend Radius (Static)	10" (250mm)	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 checked 1 x 1 0 - 9 cc/s		
Optional	Pneumatic pressure test, Vacuum retention testing, LN2 cold shock, pre-material certs., X-ray, ASME B31.3 certification, CFOS cleaning for O2 services		

Typical Triax-Flex Installation in MBE

