



SemiFlex

Dynamic

Pre-engineered modular SemiFlex Vacuum Insulated (VI) hose has added advantage over the traditional rigid VJP, especially when system upgrade is frequently done.

This option is cost saving as the flexibility of the pipe reduces the necessity for precise system layout measurements. It allows the whole system to be easily reused if use-point locations and plant layout are changed. SemiFlex can be added if required to the existing system without major rework expenses.

SemiFlex facilitate users to design and construct their own LN2 delivery system with minimum piping engineering experience or knowledge.

All SemiFlex products come with CSM renowned customer service, from conceptual design to implementation, and are backed by 1-year Defect Warranty.

SemiFlex VI Hose

SemiFlex, a semi-rigid bendable pipe with optimal flexibility is suitable for long distance piping system application, an alternative to traditional rigid piping. It's lightweight stainless steel construction reduces cool-down losses to an absolute minimum.

SemiFlex hoses are protected by a high quality and wear resistant stainless steel braided outer covering. Typical hoses are manufactured with pipe thread ends or bayonet connection.

These hoses are used in a wide variety of applications as main transfer hose for LN2 such as food freezing, semiconductor test handlers, MBE and LN2 dosing applications.

Related Products:



Modular T-Valve



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

Features and Benefits

- Tees, elbows, bayonets and valves can be incorporated with SemiFlex VI hose for a customized LN2 piping system application
- Both flexible and rigid sections can be combined as one spool
- Select hoses are stocked for immediate delivery
- Special MLI system ensure fast pump down speed down to 10^{-4} Torr
- Helium leak checked at 1×10^{-9} std cc/sec and liquid nitrogen cold shocked before shipping
- Vacuum insulation eliminates frost, ice and related safety hazards

SemiFlex Dynamic Specifications

Model	SF16	SF25	SF32	SF40	SF50
Inner Diameter	DN16 (16.3 mm)	DN25 (25.8 mm)	DN32 (34.6 mm)	DN40 (40.5 mm)	DN50 (50.8 mm)
Outer Diameter	DN32 (43.0 mm)	DN50 (62.5 mm)	DN65 (80.9 mm)	DN80 (97.4 mm)	DN100 (118.2 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)	1.8 BTU/hr/ft (1.7 W/m)	1.7 BTU/hr/ft (1.6 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)	9.2 BTU/hr (2.7 W)	11.3 BTU/hr (3.3 W)
Max. Operating Pressure (Bayonet)	200 psi (13.8 bar)	200 psi (13.8 bar)	200 psi (13.8 bar)	200 psi (13.8 bar)	200 psi (13.8 bar)
Weight (exclude Bayonet)	1.0 lb/ft (1.4 kg/m)	1.3 lb/ft (1.9 kg/m)	3.0 lb/ft (4.5 kg/m)	5.3 lb/ft (7.9 kg/m)	5.5 lb/ft (8.2 kg/m)
Min. Bend Radius	12" (30 cm)	16" (40 cm)	18" (45 cm)	24" (60 cm)	28" (72 cm)
Max. Length	Single Spool 59 ft (18.00 m)				
Vacuum Insulation Type	Dynamic Vacuum				
Material Construction	Stainless Steel Series 300				
Protective Outer Covering	RFB - Regular Flex Braid				
Standard Testing	Dimensional Check He Leak Test at 1.0×10^{-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, RPTSTD-8070-0001				

SemiFlex Dynamic, Pre-engineered Modular Piping System

