



UltraFlex

UltraFlex vacuum insulated hose offers high flexibility, sturdy & kink-resistant spiral wrap outer jacket, suitable for rough handling usage such as cryogenic liquid cylinder (LGC / dewar) refilling; and liquid withdrawal from pressurized dewar to test handler.

Smooth spiral wrap design ensures zero risk of hand injury due to wire piercing commonly occur in traditional wire braided hose.

UltraFlex VI Hose

UltraFlex VI hose is an ultra-flexible, vacuum insulated LN₂ transfer hose with high flexibility. It has the lowest dynamic bend radius among all cryogenic hoses in the market.

Due to its lightweight stainless steel construction, cool-down loss can be reduced to an absolute minimum.

UltraFlex hoses are protected by a tough and anti-kink stainless steel spiral wrap outer covering, its non wire braid prevent potential operator injury due to sharp wire found in traditional braided sleeve.

Typical hoses are manufactured with pipe thread ends or female flare 1/2" JIC / CGA fittings or C5 bayonet. These hoses are used in a wide variety of applications including tool connections with portable dewars supplying LN₂ to test handlers, LN₂ doser, or any moving reservoirs and custom OEM applications.

Features and Benefits

- Tees, elbows, bayonets and valves can be incorporated with UltraFlex transfer 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.
- Super insulation and proprietary chemical getters ensures long lasting vacuum integrity
- Each hose is evacuated (10^{-6} torr), helium leak checked (1×10^{-9} std cc/sec) and liquid nitrogen cold shocked before shipping
- Vacuum insulation eliminates frost, ice and related safety hazards

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

UltraFlex application in Test Handlers



UltraFlex Specifications

Model	UF8	UF12
Inner Diameter	DN8 5/16" (8.2 mm)	DN12 1/2" (12.1 mm)
Outer Diameter	DN25 (39.0 mm)	DN32 (49 mm)
Steady State Heat Leak	2.7 BTU/hr/ft (2.6 W/m)	3.2 BTU/hr/ft (3.0 W/m)
Bayonet Heat Leak	4.3 BTU/hr (1.3 W)	
Max. Operating Pressure	150 psi (10.3 bar)	
Weight	0.7 lb/ft (1.1 kg/m)	0.8 lb/ft (1.2 kg/m)
Min. Bend Radius - Flexible - Static	8" (203 mm) 6" (152 mm)	10" (254 mm) 8" (203 mm)
Max. Length	Singe Line Length 19.7 ft (6.00 m)	Singe Line Length 39.4 ft (6.00 m)
Vacuum Insulation Type	Static Vacuum	
Material Construction	Stainless Steel Series 300	
Protective Outer Covering (Standard / Option)	SW - Spiral Wrap / 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	

Typical UltraFlex Vacuum Insulated Hose

