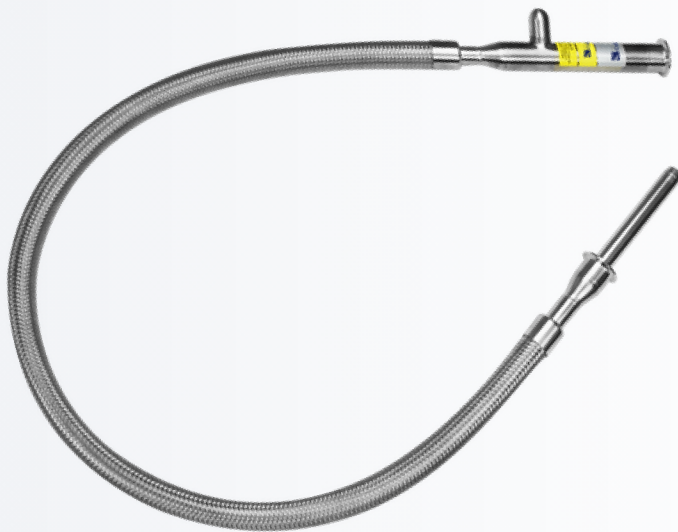




# CryoFlex

Flexible transfer hose mainly used to overcome misalignment in rigid piping system; and as a final tie-in from rigid piping to equipment such as bulk tank & process equipment.

All hoses come with static vacuum as standard or dynamic vacuum as option. Static vacuum hose is vacuum sealed at the factory, providing many years of trouble free vacuum insulation.

*Remark: LCO<sub>2</sub> application must be moisture-free to prevent vacuum degradation*

## CryoFlex VI Hose

CryoFlex is a vacuum insulated stainless steel flexible hose designed to meet high flow capacity without compromising its flexibility.

Engineered as modular section with close tolerance bayonet connections. It can be used on its own, or as part of StatiRigid sections for misalignment offset. CryoFlex pipe is evacuated and sealed at the factory as a static vacuum and is available in dynamic vacuum.

CryoFlex are available in wide variety of sizes from DN16 up to DN50 to meet most the standard or custom requirements.

CSM offers a complete line of components such as in-line venting devices, phase separators and gas traps to maximize the system performance.

CryoFlex is used in a wide variety of applications including biotech, cryogenic storage, food and beverage, nanotech, environmental temperature chambers and R&D applications.

All Semiflex 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.



*CryoFlex with Dynamic Vacuum option*

## 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
- Flexibility of Cryoflex facilitates installation especially above drop tile ceilings and below raised test floors

# CryoFlex Specifications

| Model                                | CF16                                                                                                                                                                        | CF25                       | CF32                       | CF40                       | CF50                       |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Inner Diameter                       | DN16<br>5/8" (16.2 mm)                                                                                                                                                      | DN25<br>1" (25.1 mm)       | DN32<br>1 3/8" (34.2 mm)   | DN40<br>1 1/2" (40 mm)     | DN50<br>2" (50.1 mm)       |
| Outer Diameter                       | DN40<br>(52.1 mm)                                                                                                                                                           | DN50<br>(62.8 mm)          | DN65<br>(81.2 mm)          | DN100<br>(120 mm)          | DN100<br>(120 mm)          |
| Steady State Heat Leak               | 1.4 BTU/hr/ft<br>(1.3 W/m)                                                                                                                                                  | 1.5 BTU/hr/ft<br>(1.4 W/m) | 1.6 BTU/hr/ft<br>(1.5 W/m) | 1.8 BTU/hr/ft<br>(1.7 W/m) | 1.7 BTU/hr/ft<br>(1.6 W/m) |
| Bayonet Heat Leak                    | 4.0 BTU/hr<br>(1.2 W)                                                                                                                                                       | 8.1 BTU/hr<br>(2.4 W)      | 8.1 BTU/hr<br>(2.4 W)      | 9.2 BTU/hr<br>(2.7 W)      | 11.3 BTU/hr<br>(3.3 W)     |
| Max. Operating Pressure<br>(Bayonet) | 200 psi <sup>[1]</sup><br>(13.8 bar)                                                                                                                                        |                            |                            |                            |                            |
| Weight (exclude Bayonet)             | 1.6 lb/ft<br>(2.4 kg/m)                                                                                                                                                     | 2.1 lb/ft<br>(3.2 kg/m)    | 3.0 lb/ft<br>(4.5 kg/m)    | 5.3 lb/ft<br>(7.9 kg/m)    | 5.5 lb/ft<br>(8.2 kg/m)    |
| Min. Bend Radius                     | 8" (20 cm)                                                                                                                                                                  | 12" (30 cm)                | 18" (45 cm)                | 24" (60 cm)                | 28" (72 cm)                |
| Max. Length                          | Single Line Length 33 ft (10.00 m)                                                                                                                                          |                            |                            |                            |                            |
| Vacuum Insulation Type               | Static or Dynamic Vacuum                                                                                                                                                    |                            |                            |                            |                            |
| Material Construction                | Stainless Steel Series 300                                                                                                                                                  |                            |                            |                            |                            |
| Protective Outer Covering            | RFB - Regular Flex Braid                                                                                                                                                    |                            |                            |                            |                            |
| Standard Testing                     | Dimensional Check<br>He Leak Test at $1.0 \times 10^{-9}$ cc/s                                                                                                              |                            |                            |                            |                            |
| Optional                             | Pneumatic pressure test, Vacuum retention testing, LN2 cold shock, pre-material certs.,<br>X-ray, ASME B31.3 certification, CFOS cleaning for O2 services, RPTSTD-8070-0001 |                            |                            |                            |                            |

<sup>[1]</sup> 363 psi (25 bar) for LCO<sub>2</sub> application.

## Typical CryoFlex Transfer Hose

