



## StatiFlex Vacuum Insulated Flexible Piping

StatiFlex is an all stainless steel coaxial vacuum insulated pipe pumped down and sealed at the factory. Modular by design, StatiFlex spools are joined together with close tolerance bayonet connections.

Available in two standard sizes: S625 (0.625" ID) and S1250 (1.25" ID) with stainless steel flexible braid outer. Cryotech offers a complete line of components including in-line venting devices, phase separators, gas traps, tees, and elbows to maximize the system performance and design.

### Features

- **Pre-evacuated and Sealed Vacuum** – no pump maintenance to maintain system vacuum
- **Triax Compatible** – eliminates two phase flow of liquid nitrogen to use points when combined with Phase Separator
- **Modular Design** – the bendable nature of StatiFlex allows for re-usability
- **Three Year Warranty** – covers material and workmanship defects
- **Close Tolerance Bayonets** – provides ideal gas seal for leak tight connection between sections
- **Minimal Cool Down Losses** – light weight stainless steel design results in less nitrogen cool down consumption

### Key Benefits

- **Space Conservation** – regain valuable floor space by eliminating the need for on-site dewars
- **Minimize Safety Issues** – eliminate many of the hazards associated with filling and transporting dewars
- **Easy Installation & Modifications** – bendable, lightweight, and its plug and play approach facilitates easy installation and allows for on-site layout changes
- **Future Expansion** – any bayonet joint can accommodate expansion due to its bendable nature



StatiFlex Tee



Close Tolerance Bayonets

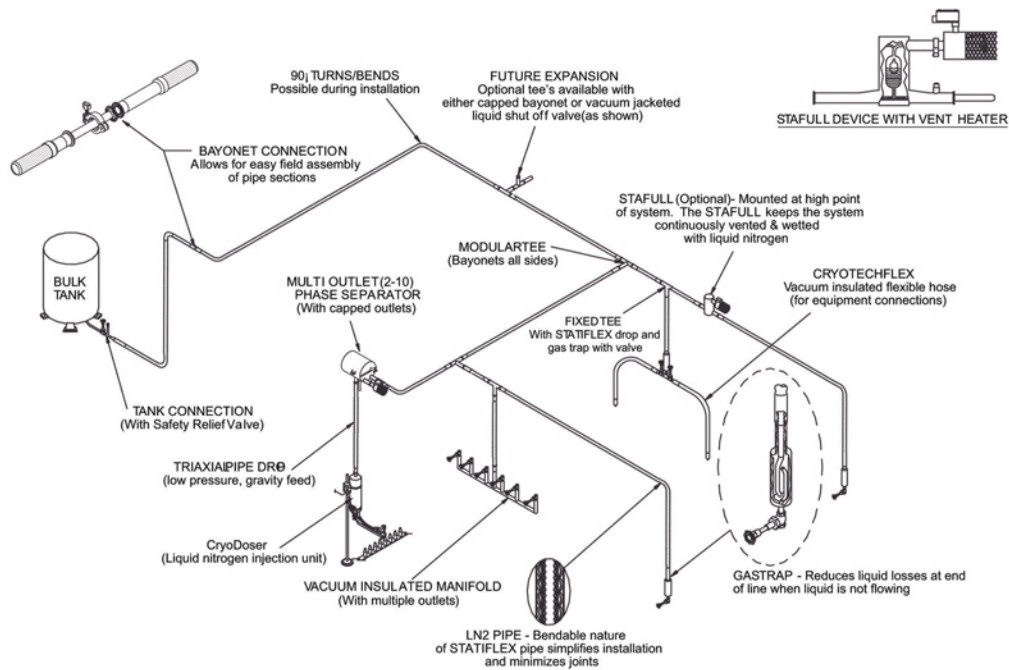


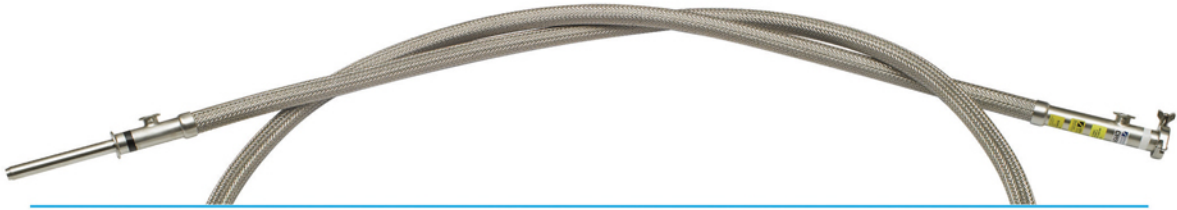
- Protective outer covering
- Convoluted pipe compensates for differential rates of expansion and contraction
- Vacuum annulus with multilayer insulation and chemical getter

## StatiFlex Technical Specifications

	S625	S1250
Inner Diameter	0.625" (15.9mm)	1.25" (31.8mm)
Outer Diameter	1.8" (45.7mm)	2.6" (66.0mm)
Steady State Heat Loss	1 btu/hr/ft (0.96 watts/meter)	2 btu/hr/ft (1.9 watts/meter)
Bayonet Heat Loss	6 btu/hr (1.8 watts)	12 btu/hr (3.5 watts)
Maximum Operating Pressure	200 psi (13.8 bar)	125 psi (8.6 bar)
Weight	0.9 lbs/ft (1.3 kg/m)	1.4 lbs/ft (2.1 kg/m)
Minimum Bend Radius	18" (45.7mm)	30" (76.2mm)
Maximum Length (Single Spool)	60 ft (18.29m)	
Pipe Construction	All SST 300 construction	
Protective Outer Cover	BR - Braided Flex	
Standard Testing	He Mass Spectrometer, Vacuum Retention, LN2 Cold Shock (AQL Lot Sampling)	
Optional Testing	Certificate of Conformance, Leak Test Certification, Vacuum Certification, Material Certificate, 100% LN2 Cold Shock, Pressure Testing, X-Ray, O2 Cleaning	

## StatiFlex Piping System Typical Layout





## DynaFlex Vacuum Insulated Flexible Piping

**DynaFlex is an all stainless steel coaxial vacuum insulated pipe that utilizes an external vacuum pump to maintain the system vacuum.** Modular by design, DynaFlex spools are joined together with close tolerance bayonet connections. Jumper hoses are used to connect the vacuum annulus of each section of pipe.

Available in two standard sizes: D625 (0.625" ID) and D1250 (1.25" ID) with stainless steel flexible braid outer. Cryotech offers a complete line of components including in-line venting devices, phase separators, gas traps, tees, and elbows to maximize the system performance and design.

### Features

- **On-site Vacuum Pump** – continually operating pump maintains vacuum levels of 10-5 torr or better
- **Triax Compatible** – eliminates two phase flow of liquid nitrogen to use points when combined with Phase Separator
- **Modular Design** – the bendable nature of DynaFlex allows for re-usability
- **Three Year Warranty** – covers material and workmanship defects
- **Close Tolerance Bayonets** – provides ideal gas seal for leak tight connection between sections
- **Minimal Cool Down Losses** – light weight stainless steel design results in less nitrogen cool down consumption

### Key Benefits

- **Space Conservation** – regain valuable floor space by eliminating the need for on-site dewars
- **Minimize Safety Issues** – eliminate many of the hazards associated with filling and transporting dewars
- **Monitor Vacuum Levels** – on site pump and vacuum read out displays the system vacuum levels for quick system verification
- **Easy Installation & Modifications** – bendable, lightweight, and its plug and play approach facilitates easy installation and allows for on-site layout changes
- **Future Expansion** – any bayonet joint can accommodate expansion due to its bendable nature



DynaFlex Tee with Jumper Hose



Close Tolerance Bayonets

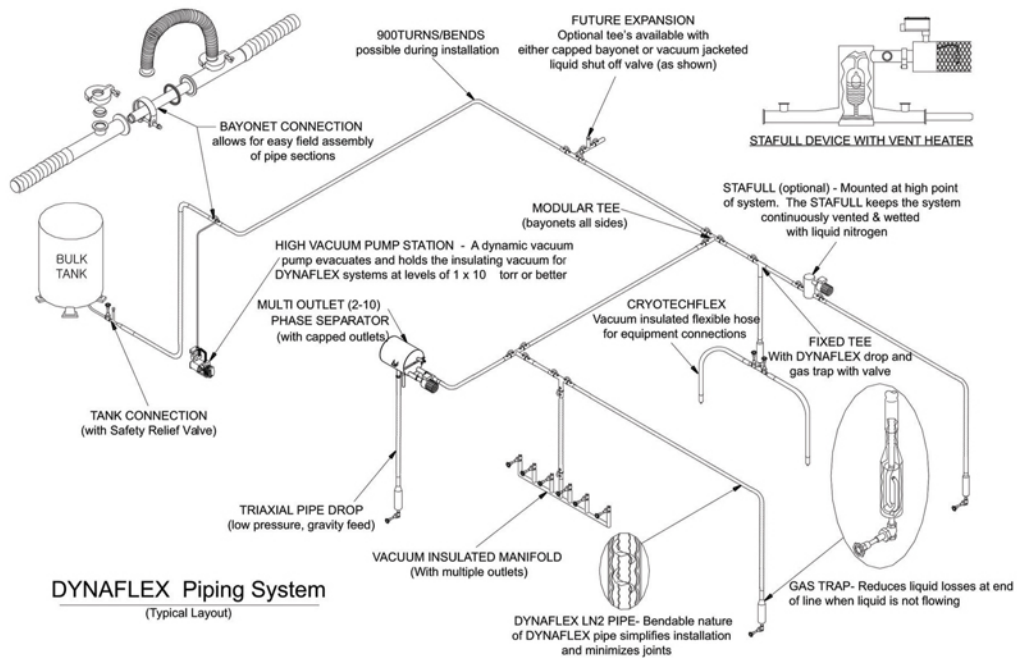


- Protective outer covering
- Convoluted pipe compensates for differential rates of expansion and contraction
- Vacuum annulus with multilayer insulation and chemical getter

## CryotechFlex Specifications

	D625	D1250
Inner Diameter	0.625" (15.9mm)	1.25" (31.8mm)
Outer Diameter	1.8" (45.7mm)	2.6" (66.0mm)
Steady State Heat Loss	1 btu/hr/ft (0.96 watts/meter)	2 btu/hr/ft (1.9 watts/meter)
Bayonet Heat Loss	6 btu/hr (1.8 watts)	12 btu/hr (3.5 watts)
Maximum Operating Pressure	200 psi (13.8 bar)	125 psi (8.6 bar)
Weight	0.9 lbs/ft (1.3 kg/m)	1.4 lbs/ft (2.1 kg/m)
Minimum Bend Radius	18" (45.7mm)	30" (76.2mm)
Maximum Length (Single Spool)	60ft (18.29m)	
Pipe Construction	All SST 300 construction	
Protective Outer Cover	BR - Braided Flex	
Standard Testing	He Mass Spectrometer, Vacuum Retention, LN2 Cold Shock (AQL Lot Sampling)	
Optional Testing	Certificate of Conformance, Leak Test Certification, Vacuum Certification, Material Certificate, 100% LN2 Cold Shock, Pressure Testing, X-Ray, O2 Cleaning	

## DynaFlex Piping System Typical Layout



## CryoRigid Specifications

Model/PN - Standard Sizes	SR50	SR100	SR150	SR200
Inner Diameter	12.7 mm	25.4 mm	38.1 mm	50.8 mm
Outer Diameter Sch. No.5	50.8 mm 2.4" / 60.9 mm	63.5 mm 2.9" / 73.7 mm	76.2 mm 3.5" / 88.9 mm	101.6 mm 4.5" / 114.3 mm
Steady State Heat Loss	0.32 btu/ft/hr 0.31 watts/meter	0.47 btu/ft/hr 0.45 watts/meter	0.57 btu/ft/hr 0.55 watts/meter	0.78 btu/ft/hr 0.75 watts/meter
Bayonet Heat Loss	7 btu/hr (2.1 watts)	11.7 btu/hr (3 watts)	15.2 btu/hr (4.5 watts)	17.8btu/hr (5.2 watts)
Maximum Operating Pressure	200 psig (13.8 bar)	150 psig (10.3 bar)	150 psig (10.3 bar)	150 psig (10.3 bar)
Weight	4 lbs/ft (6.0 kg/m)	4.5 lbs/ft (6.7 kg/m)	5.5 lbs/ft (8.2 kg/m)	7 lbs/ft (10.4 kg/m)
Maximum Length (Single Line)	All SST 300 Construction, Max. single line length 40' (12.2 m), Standard end terminations: MPT, Bayonet, Low Loss Gas Trap			
Testing	He leak checked and LN2 cold shock (x-ray pneumatic pressure, material certs. ASME B31.3 certification, O2 cleaning & vacuum retention testing are also available)			

Options include TC vacuum gauge tubes on each section, external expansion joints, flexible sections for offsets and system/drop flexibility, pressure testing, vacuum retention testing, x-ray O2 cleaning, material traceability, ASME B31.3 certification and scotch brite finish.

## CryoRigid Piping System Typical Layout

