

# StatiRigid-T

StatiRigid-T comes with high-purity tubes compliance to semiconductor or Biopharmaceutical specification with minimum contamination to customer process.

The spool fabrication is done in a clean and controlled environment with orbital welding procedure.

Both inner & outer pipe surface are polished, degreased, ultrasonic cleaned, and final-rinsed with high purity RO water, before it is used in process application.

## StatiRigid-T

Engineered as modular sections, these stainless steel coaxial vacuum insulated piping spools are joined together with close tolerance bayonet connections, or welded connection forming a complete cryogenic transfer system.

Each section is evacuated, sealed and tested for vacuum integrity to ensure minimal heat gain. StatiRigid-P comes with internal bellows at required intervals to serve as thermal compensators with 10,000 fatigue cycles calculated based on EJMA standard. The pipe comes with smooth inner bore to minimize pressure drop and improve flow characteristics.

Installation for StatiRigid-T can be done easily both indoor and outdoor, by incorporating CryoFlex sections strategically to offset misalignments.

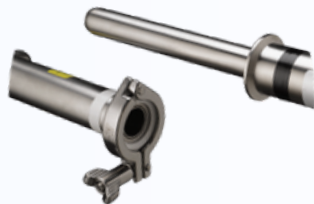
CSM offers a complete line of components including in-line venting devices, phase separators and gas traps to maximize the cryogenic system performance.

## Features and Benefits

- Fabricated by orbital welding to ensure process integrity
- Polished outer jacket provides clean pipe surface for cleanroom requirement
- StatiRigid-T pipes are durable, easy to install and practically maintenance free
- Excellent flow characteristics make Rigid-T an ideal for pipe mains
- Super insulation and proprietary chemical getters ensure long lasting vacuum integrity



All StatiRigid-P products come with CSM renowned customer service, from conceptual design to implementation, and are backed by 10-years Vacuum Warranty, & 1-year Defect Warranty.



Bayonet Connection

# StatiRigid-T Performance Specifications

Model	R2T	R5T	R10T	R15T	R20T
Process Tube	0.5" ODT (12.7 mm OD)	0.75" ODT (19.05 mm OD)	1.125" ODT (29 mm OD)	1.5" ODT (38.1 mm OD)	2" ODT (50.8 mm OD)
Jacket Pipe (Sch 5)	1.5" IPS (48.3 mm OD)	2.0" IPS (60.3 mm OD)	2.5" IPS (73.03 mm OD)	3.0" IPS (88.9 mm OD)	3.5" IPS (101.6 mm OD)
Steady State Heat Leak	0.17 BTU/hr/ft (0.16 W/m)	0.42 BTU/hr/ft (0.40 W/m)	0.49 BTU/hr/ft (0.47 W/m)	0.62 BTU/hr/ft (0.59 W/m)	0.71 BTU/hr/ft (0.69 W/m)
Bayonet Heat Leak	6.1 BTU/hr (1.8 W)	4.0 BTU/hr (1.2 W)	8.1 BTU/hr (2.4 W)	7.8 BTU/hr (2.3 W)	11.3 BTU/hr (3.3 W)
Max. Operating Pressure (Bayonet)	150 psi (10.3 bar)	150 psi (10.3 bar)	150 psi (10.3 bar)	150 psi (10.3 bar)	150 psi (10.3 bar)
Weight (exclude Bayonet)	1.8 lb/ft (2.7 kg/m)	2.0 lb/ft (3.0 kg/m)	3.1 lb/ft (4.6 kg/m)	4.4 lb/ft (6.5 kg/m)	5.2 lb/ft (7.8 kg/m)
Max. Length	Max. Spool Length 40' (12.2 m)				
Material Construction	Stainless Steel Series 300				
Vacuum Insulation Type	Static or Dynamic Vacuum				
Standard Testing	Dimensional Check He Leak Test at $1.0 \times 10^{-9}$ 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				

Options include TC vacuum gauge tubes on each section, Low Loss Gas Trap

## Typical StatiRigid-T, Engineered Modular Piping System

