



Stainless SEMIFLEX

U.S. PATENT NO. 3,490,496

VACUUM INSULATED FLEXIBLE LIQUID NITROGEN PIPE

Stainless SEMIFLEX is vacuum jacketed, flexible liquid nitrogen piping manufactured by Vacuum Barrier. Available in both sealed and dynamic styles, stainless SEMIFLEX provides the lowest cool down and steady-state heat loss. With this superior thermal performance, frost and moisture problems common in uninsulated or foam-insulated lines are eliminated. Combined with CobraFlex hoses, stainless SEMIFLEX provides an efficient and flexible connection to use points.

Quality and Craftsmanship

- Our cryogenic craftsmen have years of high-end welding experience and a demonstrated track record of quality.
- Combining chemical getters and insulation with a specialized bake-out and sealing process ensures a highly efficient piping system.
- Manufacturing quality is validated during cold-shock tests and helium leak detection.

Stainless SEMIFLEX Engineering Data

Size	S-5	FS-5	S-10	FS-10
Material	Authentic Stainless Steel			
Inside Diameter				
Inches	0.66	0.62	1.40	1.00
Millimeters	17	16	36	25
Outside Diameter				
Inches	2.0	1.90	3.0	2.79
Millimeters	51	48	76	71
Steady State Heat Loss				
BTU per hour per foot	0.9	0.9	1.8	2.8
Watts per meter	0.9	0.9	1.7	2.7
Cool Down Heat Loss				
BTU per foot	4	6	9	16.5
Watts - hour per meter	4	6	9	16
Bayonet Heat Loss				
BTU per hour	5	5	6	6
Watts	1.5	1.5	1.8	1.8
Design Pressure				
PSI	175	175	175	175
Bar	12	12	12	12
Weight				
Lbs. per foot	1.2	0.9	1.7	2.0
Kg per meter	1.8	1.3	2.5	3.0
Minimum Bend Radius				
Inches	12	8	18	10
Centimeters	30	20	46	25
Flow Rate	Consult factory			