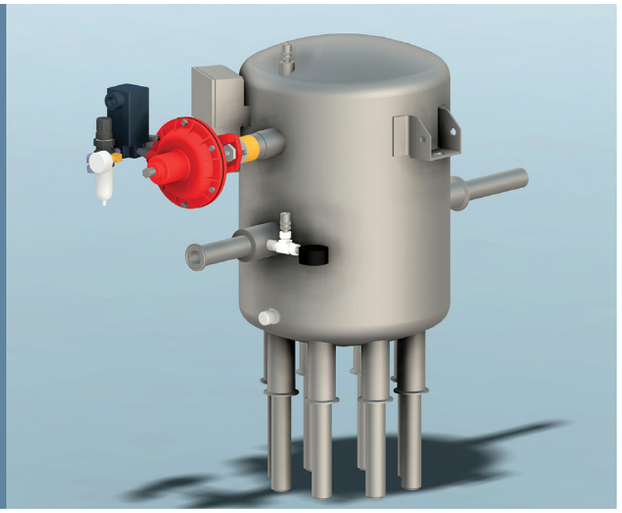
Modulating Valve Phase Separator



Purpose

Separate and vent nitrogen vapor in a SEMIFLEX® LN_2 pipe system to provide gravity-fed, sub-cooled, single-phase liquid nitrogen to the use point.

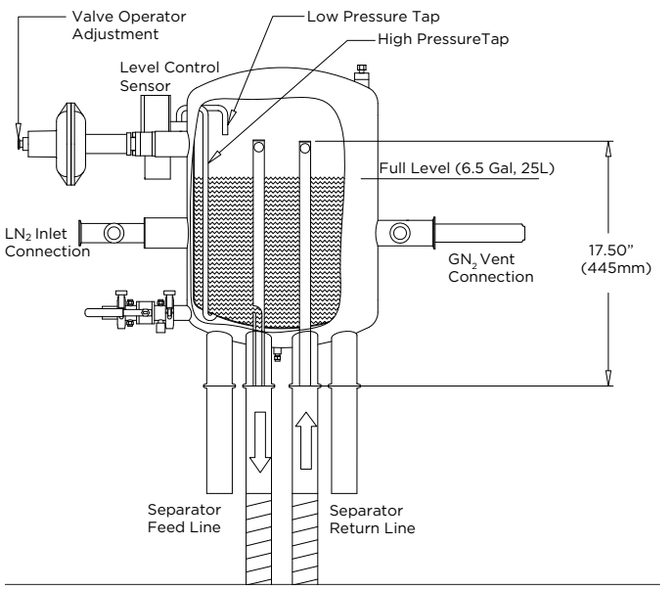
How it works

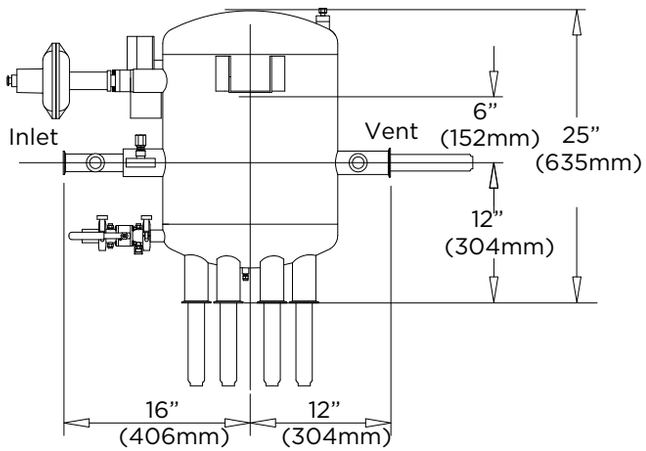
LN_2 from a source, such as a customer's storage tank, enters through an A-5 female bayonet, passes through a pneumatically operated modulating valve, and enters the inner vessel. Liquid, which is heavier, collects at the bottom while the lighter vapor passes out the A-10 male vent bayonet. Vertical outlet bayonets are supplied for connections of Triax or SEMIFLEX lines leading to use points.

The control of the modulating valve separator liquid level is accomplished by sensing differential head pressure in the phase separator. The differential head pressure is converted into air pressure that opens the inlet valve to the proper amount. A separate display console is connected to the modulating valve assembly to monitor this process.

Features

- Four and eight outlet options available
- Dynamic and sealed vacuum
- Stainless steel and entirely vacuum jacketed





VACUUM BARRIER CORPORATION

Specifications

Composition	Vacuum Jacketed Austenitic Steel
Upstream Pressure Relief Valve	175PSIG (12.1 bar)
Downstream Pressure Relief Valve	15PSIG (1.0 bar)
Upstream Pressure Gauge For LN_2 Supply Pressure	0-160PSIG (0-11 bar)
Drain Plug	Yes
Vacuum Ball Valve Assembly	To Upstream Piping
Annulus Relief Valve/ Vacuum Valve on Separator Side	25PSIG (1.7 bar)
Pneumatic Valve	30-100PSIG (2.1-6.9 bar) Dry Air or N_2 required
Liquid Nitrogen Capacity	6.5 gal (25 L) or 44 lbs (20 kg)
Heat Loss	60 Btu/hr + 6 Btu/hr per outlet (7 lbs/hr + 0.7 lbs/hr per outlet)
Empty Weight	70 lbs + 3 lbs per outlet (31.8 kg + 1.4 kg per outlet)
Electrical Power	85-265 VAC, 47-440 Hz
Orientation	Axis of Inlet and Vent Bayonets Parallel to Floor Liquid Triax Outlets Vertical

VACUUM BARRIER CORPORATION

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