

Vacuum Insulated Reservoir

CRYOWORKS

A CryoWorks Vacuum Insulated Reservoir is designed to accumulate and maintain high-quality liquid for on-demand withdrawal at line pressure. The reservoir consists of a vacuum insulated container and keepfull vent device. Reservoirs, also known as accumulators, create an area for liquid/gas phase separation to occur. When coupled with the keepfull vent device, the gas rises to the top to be vented, and high-quality liquid is dispensed from the bottom. The reservoir generates a reserve of liquid that helps eliminate the issues associated with two-phase flow coming from upstream supply lines. Two-phase flow can be caused by undersized or oversized supply lines, incorrect sloping, and sometimes other existing system inefficiencies.

Features:

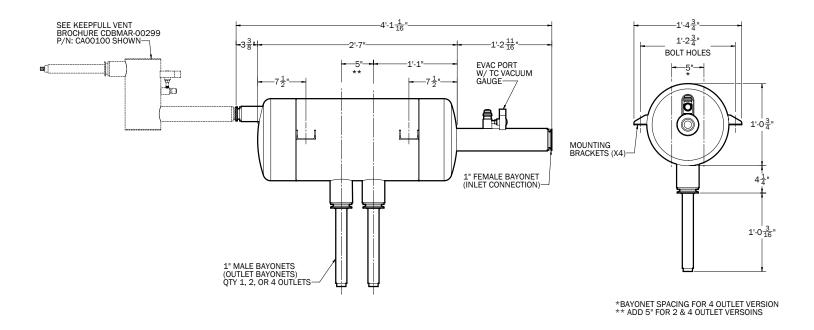
- Incorporated Keepfull Vent Device: Mechanically controls the venting of gas but retains the liquid.
- Thermal Performance: Vacuum insulated container prevents frost, ice buildup, and minimizes losses.
- Horizontal and vertical configurations.
- Various bayonet configurations and sizes available.

Benefits:

- Reconditions Liquid: Delivers high-quality liquid.
- Line Pressure Phase Separation: High-quality liquid for on-demand performance.
- Versatile Design: Integrate into main lines, branches, or above critical use points.
- Simple Operation: Little to no maintenance, no controller required.
- Related Components: CryoWorks Rigid VIP, Flexible VIP (Coaxial and Triaxial), Vacuum Insulated Valves, Keepfull Vent Device, and Vent Heaters.

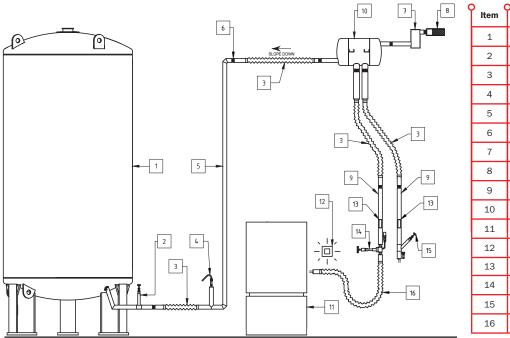
Technical Specification	ons:	
Liquid Capacityo	10 Gallons (38 Liters)	
Outlets / P/No	1 Outlet: CA01717 2 Outlets: CA01718 4 Outlets: CA01719	
Service / MAWP	Liquid Nitrogen (LN2): 150 PSIG Max	
Vent Heater ————————————————————————————————————	Standard: 100 - 120 VAC (50 - 60 Hz) Optional: 220 - 240 VAC (50 - 60 Hz)	Let CryoWorks design and set up
Weight	Dry: 145 lbs. (66 kg) – 245 lbs. (111 kg) Full: 185 lbs. (84 kg) – 330 lbs. (150 kg)	a Vacuum Insulated Reservoir
Vacuum Insulation ————————————————————————————————————	Standard: Static Vacuum Design Optional: Dynamic Vacuum Design	for your cryogenic application.
Materials ————————————————————————————————————	304/304L Stainless Steel	
Codes and Certifications— \circ	Assembly: Built to ASME B31.3 Process Piping	
Options ————————————————————————————————————	Customization, Vertical Orientation, Oxygen an For Adjustable Pressure or Gravity Fed Phase S See CryoWorks APPS & GFPS Literature.	, 0

Diagram:



System Schematic:

A CryoWorks Vacuum Insulated Reservoir can be used on any application that requires high-quality liquid delivery at a pressure that is equal to the bulk tank or branch line pressure. Ideal applications include Cold Plates, Storage Freezers, Environmental Test Chambers, and Thermal Vacuum Chambers.



Item	Description	
1	LN2 Bulk Tank	
2	Vacuum Insulated Withdrawal Valve and Bayonet	
3	Vacuum Insulated Flex Section	
4	Safety Relief Valve (SRV)	
5	Rigid Vacuum Insulated Pipe (RVIP)	
6	Bayonet Connection	
7	Keepfull Vent Device (End of Line)	
8	Vent Heater	
9	Vacuum Insulated Supply Line	
10	Vacuum Insulated Reservoir	
11	Customer Equipment	
12	Oxygen Monitor	
13	Internal Gas Trap	
14	Bronze Cryo-Valve with Safety Relief Valve (SRV)	
15	Vacuum Insulated Manual Valve	
16	Vacuum Insulated Transfer Hose	

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