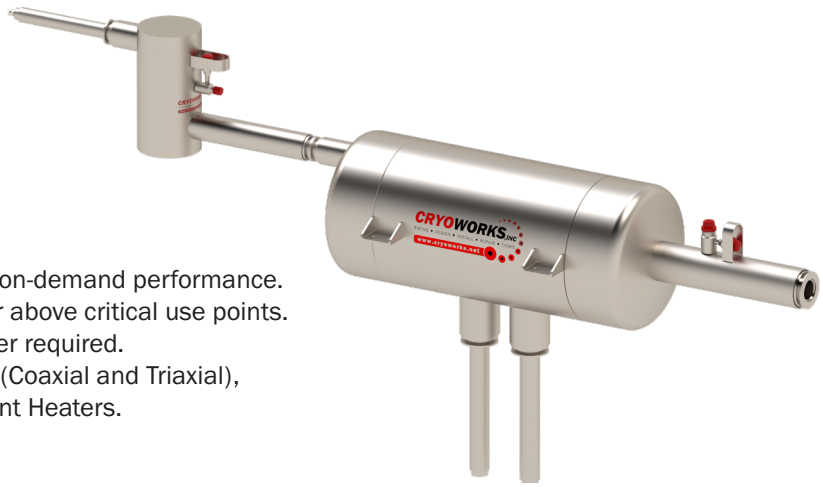
Vacuum Insulated Reservoir

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.

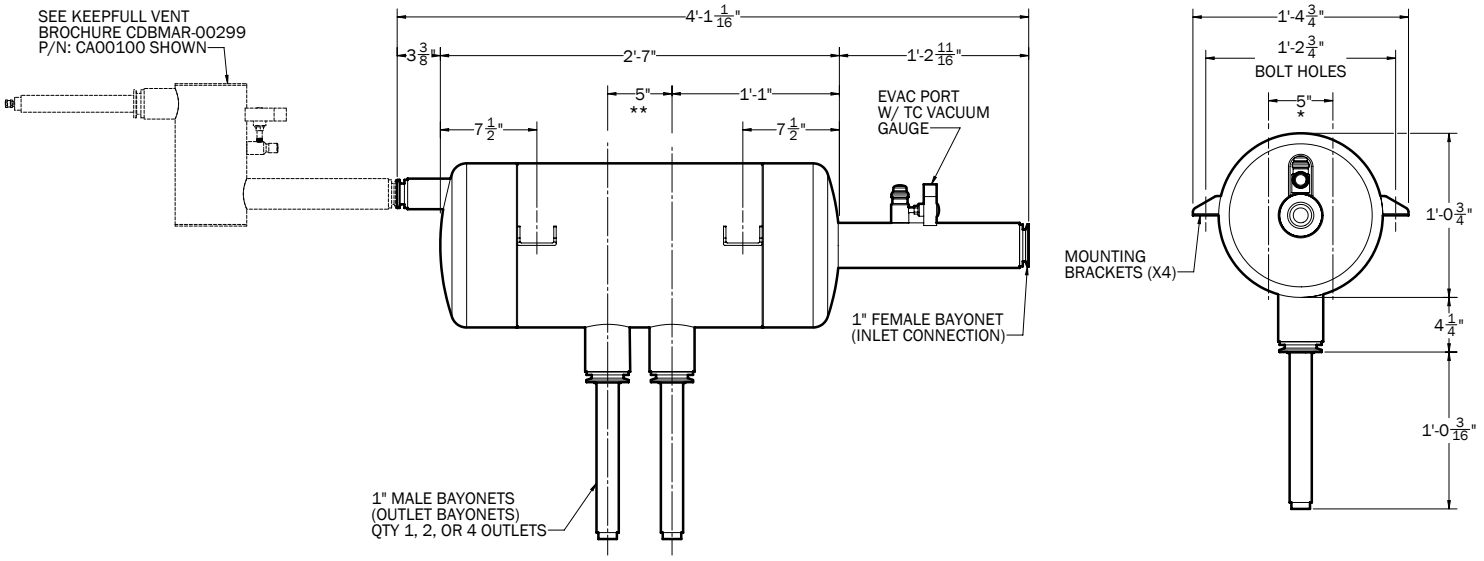
Technical Specifications:

Liquid Capacity	10 Gallons (38 Liters)
Outlets / P/N	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)
Weight	Dry: 145 lbs. (66 kg) – 245 lbs. (111 kg) Full: 185 lbs. (84 kg) – 330 lbs. (150 kg)
Vacuum Insulation	Standard: Static Vacuum Design Optional: Dynamic Vacuum Design
Materials	304/304L Stainless Steel
Codes and Certifications	Assembly: Built to ASME B31.3 Process Piping
Options	Customization, Vertical Orientation, Oxygen and Facility Monitor Integration. For Adjustable Pressure or Gravity Fed Phase Separator Designs - See CryoWorks APPS & GFPS Literature.

Let CryoWorks design and set up a Vacuum Insulated Reservoir for your cryogenic application.

CryoWorks, Inc.® | 951.360.0920 | www.CryoWorks.net | 3309 Grapevine Street, Jurupa Valley, CA 91752

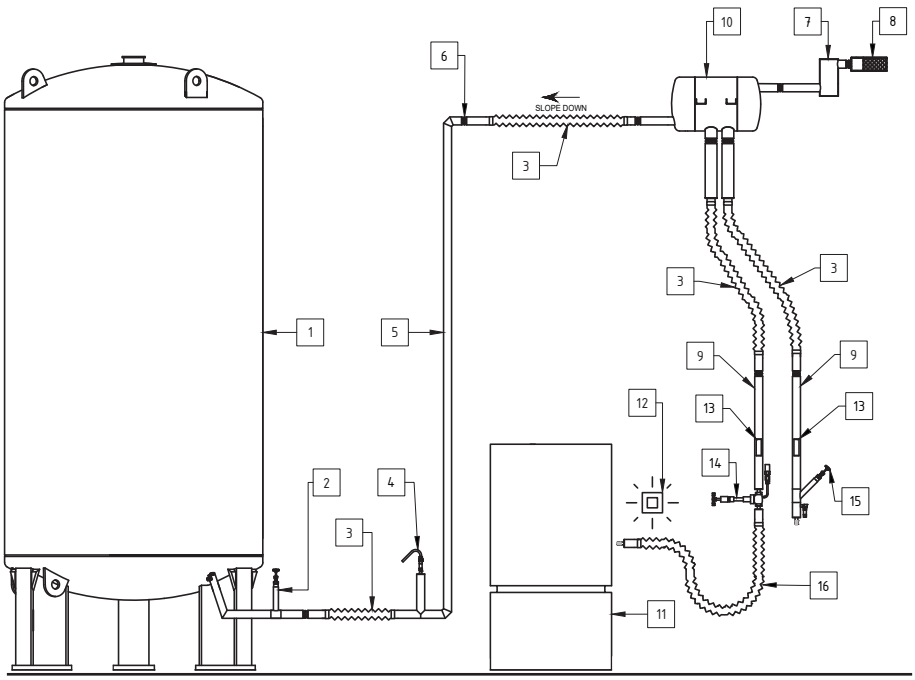
Diagram:



*BAYONET SPACING FOR 4 OUTLET VERSION
** ADD 5" FOR 2 & 4 OUTLET VERSOINS

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

