Keepfull Vent Device

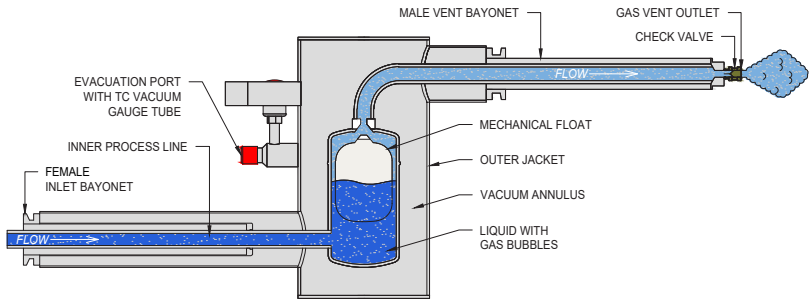
Get an uninterrupted, instantaneous supply of liquid when you incorporate a CryoWorks Keepfull Vent Device into your Vacuum Insulated Piping (VIP) system. Properly designed systems will incorporate Keepfulls at all system highpoints to keep your system full of liquid at all times. CryoWorks Keepfull Vent Device has an internal mechanical float that drops to allow accumulated gas to vent. Once all of the gas vents, the float rises to seal off the vent orifice. This simple design requires no field adjustments, sensors, pneumatics, or electronics.

Features

- Provides Liquid on Demand Performance.
  -Install Keepfull Vent Devices at all system highpoints.
  -Slope piping up to each keepfull.
  -Properly size your VIP lines for the required flow rate.
  -Ensure all piping, valves and connections are vacuum insulated to minimize heat gain.
- Various bayonet connections and sizes available.
- Available in End of Line, Inline, and Vertical configurations.

Benefits

- Higher quality LN2 at each point of use.
- Venting of gas is controlled while retaining liquid nitrogen.
- Proven industry standard connection.
- Vent Check Valve prevents moisture from back streaming back through the vent.



Vent Options

- Vent Heater
- Ambient Ventline Heater (AVH)
- Vacuum Insulated Extended Vent Line
- Bayonet to Copper Adapter

Technical Specifications

Vacuum Insulation — Standard: Static Vacuum Design
Optional: Dynamic Vacuum Design

Standard Materials — 304/304L Stainless Steel

Codes and Certs — Built to ASME B31.3 Process Pipe

Custom Options — Dual Floats and Custom Configurations

Vent Flow Data:

PSIG	SCFM	Lb/Hr.	Kg/Hr.
150	14.5	63.8	29.0
125	12.2	53.7	24.4
100	10.0	44.0	20.0
75	7.8	34.3	15.6
50	5.5	24.2	11.0
25	3.0	13.2	6.0

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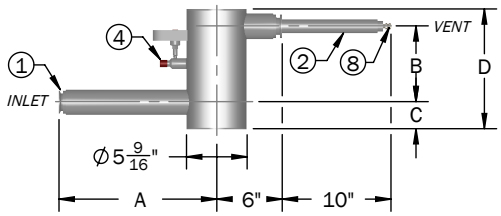
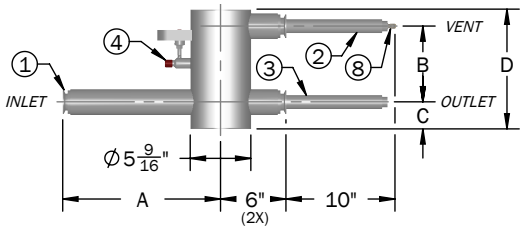
Keepfull Vent Device

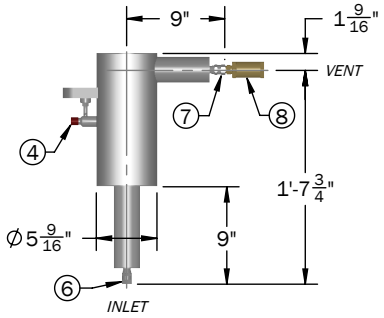
Assembly Diagram



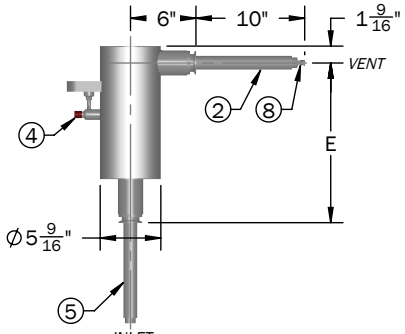
END OF LINE



INLINE



EQUIPMENT
P/N CA02690



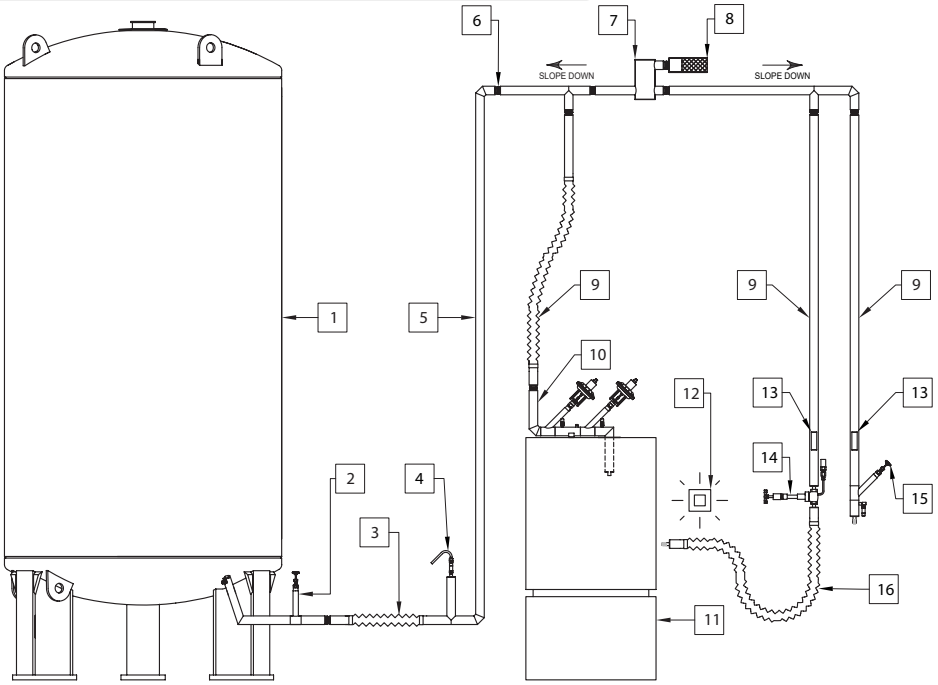
VERTICAL

1. Inlet Female Bayonet
2. Vent 1/2" Male Bayonet
3. Outlet Male Bayonet
4. Evac Port w/Vacuum Gauge
5. Inlet Male Bayonet
6. Inlet 1/2" Female Flare
7. Outlet 1/2" Female Flare
8. Vent Check Valve

End of Line Part Number	Inline Part Number	Vertical Part Number	Inlet Bayonet Line Size	A	B	C	D	E
CA02710	CA02750	CA00414	5/8"	1' - 0"	7"	2 1/2"	11 1/16"	1' - 2 3/4"
CA02790	CA02830	CA00416	1 1/4"	1' - 2 1/2"	7"	2 1/2"	11 1/16"	1' - 2 3/4"
CA00020*	CA00060*	CA00410*	1/2"	1' - 2 1/2"	7"	2 1/2"	11 1/16"	1' - 2 3/4"
CA00100*	CA00140*	CA00411*	1"	1' - 3"	7"	2 1/2"	11 1/16"	1' - 2 3/4"
CA00260*	CA00300*	CA00412*	1 1/2"	1' - 9 1/2"	8 1/4"	2 1/2"	1' - 1 1/4"	1' - 3 3/4"
CA00340*	CA00380*	CA00413*	2"	1' - 9 1/2"	8 1/4"	3"	1' - 1 3/4"	1' - 3 3/4"

*Stocked Items on Shop.CryoWorks.Net - Subject to Prior Sale

Assembly Schematic



ITEM #	DESCRIPTION
1	LN2 BULK TANK
2	VACUUM INSULATED WITHDRAWAL VALVE AND BAYONET
3	VACUUM INSULATED FLEX SECTION
4	SAFETY RELIEF VALVE (SRV)
5	VACUUM INSULATED RIGID PIPE
6	BAYONET CONNECTION
7	KEEPFULL VENT DEVICE (INLINE)
8	VENT HEATER
9	VACUUM INSULATED SUPPLY LINE
10	LN2 CONTROL MANIFOLD
11	CUSTOMER EQUIPMENT
12	OXYGEN MONITOR
13	INTERNAL GAS TRAP
14	BRONZE CRYO-VALVE W/SRV
15	VACUUM INSULATED MANUAL VALVE
16	VACUUM INSULATED TRANSFER HOSE

