



Chart Inc., 407 7th Street N.W., New Prague, MN 56071
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Cryovent User Manual



A Cryovent offers a reliable method to maintain liquid nitrogen or liquid argon in your vacuum insulated piping system. It requires no electricity to operate. A float operated valve allows gas to be vented from the system to ensure a liquid full piping system.

Installation:

The cryovent should be located near the end of the vacuum insulated piping system, away from the supply tank. The vacuum insulated piping system needs to rise continuously to the cryovent so that, as gas is created, it will bubble up to the cryovent and be vented. The cryovent is installed on a bayonet or a ½" male pipe thread. The body of the cryovent must be installed vertical with the vent side up. If possible, purge the piping system before installation of the cryovent to prevent particles from being driven through the cryovent. Use care to assure no sealant is allowed to enter the cryovent. The vent side of the cryovent should be vented outside the building using a ½" copper tube. The uninsulated portions of the inlet and outlet plumbing can be insulated with foam pipe wrap or similar insulation. If these portions are left without insulation, they will frost and likely drip condensation during use.



Note: If a Cryovent Exhaust Heater is needed, please reference PN 11805541 for installation on an indoor model or PN 11845607 for installation of an outdoor model.

Operation:

A cryovent is designed to remove gas from a full line created by the heat leak of the pipe. Ideal system operation is 24/7 with the cryovent open. If the system is shut down at the source, the cryovent should also be closed. When the source is turned back on, the line should be cooled down with a vent valve at the use point then, when liquid shows, the cryovent may be opened. The cryovent may be turned off at any time without enduring damage to itself but should not be turned back on until the system is cooled down.



Note: The cryovent is operated by opening or closing the valve on its vent.



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Maintenance:

No normal maintenance is required. If the cryovent is removed from the piping system, ensure all pressure is released before the connections are loosened.



Note: The cryovent is **NOT** a safety relief valve. A safety relief valve **MUST** be installed in any portion of a piping system where liquid nitrogen may be trapped.

Specifications:

Part Number	Description
11897221	Cryovent Ext 1/2" FPT / 1/2" MPT
11897263	Cryovent Ext 1/2" F Horiz / 1/2" M Bayo
11897247	Cryovent Ext 1/2" F Horiz / 1/2" MPT
11897271	Cryovent Ext 1/2" M Vert / 1/2" M Bayo
11897255	Cryovent Ext 1/2" M Vert X MPT
11897301	Cryovent Ext 1" F Horiz / 1/2" M Bayo
11897280	Cryovent Ext 1" F Horiz / 1/2" MPT
11897319	Cryovent Ext 1" M Vert / 1/2" M Bayo
11897298	Cryovent Ext 1" M Vert X MPT
13029048	Cryovent Ext 1" F Vert / 1/2" MPT
13442326	Cryovent Ext 1" F Vert / 1/2" M Bayo
11897327	Cryovent Ext 1-1/2" F Horiz / 1/2" M Bayo
11897642	Cryovent Ext 1-1/2" F Horiz / 1/2" MPT
11897335	Cryovent Ext 1-1/2" M Vert X MPT
14677389	Cryovent Ext 1-1/2" M Vert X 1/2" M Bayo
11897351	Cryovent Ext 2" F Horiz / 1/2" M Bayo
11897343	Cryovent Ext 2" F Horiz / 1/2" MPT
11897239	Cryovent Ext CO2

Service: Liquid Nitrogen or Liquid Argon
 Vent Connection: 1/2" OD tube compression fitting
 Maximum Operating Pressure: 150 psig