



# CryoVent

## Mechanical

The CryoVent is designed to remove excess vapor from cryogenic piping systems when the liquid stops flowing, ensuring that your cryogenic system is always filled with liquid. It is modular and pre-engineered for easy installation and flexible arrangement in any piping system.

### CryoVent

The CryoVent is installed to enhance the liquid delivery performance of a piping system. Under normal operational circumstances, the liquid in the system is constantly vaporizing into gaseous nitrogen due to a constant heat leak. If the accumulated gas in the pipeline is not removed, it will block the liquid flow to the use points. The CryoVent plays an important role in removing the gas from the pipeline by automatically venting it to the atmosphere.

The CryoVent uses a mechanical (buoyancy) control principle. It allows only gas/vapor to vent while retaining the liquid medium in the pipeline. This ensures that quality liquid is readily available at all times in the pipeline, improving the liquid delivery efficiency. The CryoVent is maintenance-free and requires no field adjustments. Its operation requires no electrical power, sensors, pneumatics, or electronics.

### Typical Applications

- This device functions as both a gas venting and pre-cooling device in a vacuum-jacketed piping system.
- It is suitable for use with inert gases such as liquid nitrogen and argon. Optional CFOS cleaning is available for oxygen service.

### Features and Benefits

- The CryoVent is available with either bayonet or pipe threaded termination
- It uses a bayonet connection to facilitate future expansion of the piping system
- The CryoVent ensures consistent and efficient liquid supply from bulk storage to the end application
- It maintains the liquid level in the piping system at all times

All CryoVent comes with CSM renowned customer service, from conceptual design to implementation, and are backed by a 5-years Vacuum Warranty, and 1-year Defect Warranty.

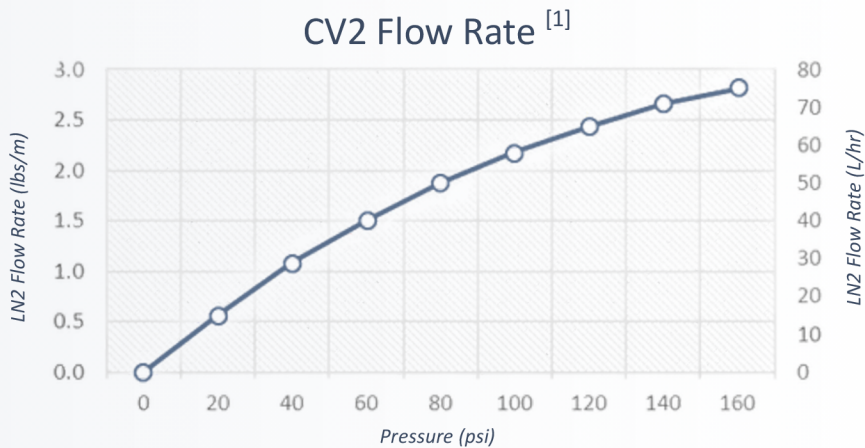
### Related Products:



Vent Heater

# CryoVent Specifications

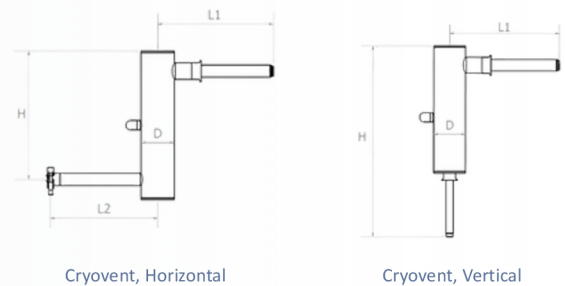
Model	CV2	CV5
Vessel Capacity	0.6 gal (2 L)	1.4 gal (5 L)
Control Principle	Mechanical / Buoyancy Force	
Max. Venting Capacity	1.5 Nm <sup>3</sup> /hr	
Orifice Size	Fixed Orifice	
Insulation	Static / Dynamic Vacuum	
Cleanliness Level	Cleaned, oil and grease-free	
Maximum Operating Pressure	200 psi (13.8 bar)	
Material Construction	Stainless Steel Series 300	
Standard Testing	Dimensional Check He Leak Checked @ $1 \times 10^{-9}$ cc/s	
Optional	Pneumatic Pressure Test, Vacuum Retention Testing, LN2 Cold Shock, Pre-Material Certs., X-ray Inspection, ASME B31.3 Certification, CFOS Cleaning for O2 Services	



<sup>[1]</sup> Depending on liquid supply quality or liquid storage saturated pressure, i.e. gas & liquid mixture ratio. Larger saturation results in lesser liquid flow output

## Mechanical CryoVent Dimensions

Part Number	H	L1	L2	D
CV2-H-C5F	18.1" (460.1 mm)	11.9" (302 mm)	12.8" (326 mm)	4.0" (102 mm)
CV2-H-C10F	16.9" (429.5 mm)		12.6" (320 mm)	
CV2-B-C5M	24.2" (614 mm)		-	
CV2-B-C10M	25.7" (654 mm)		-	



All dimensions provided are for indication purposes only and may not accurately represent the actual product dimensions. Please contact us for updated and actual measurements.