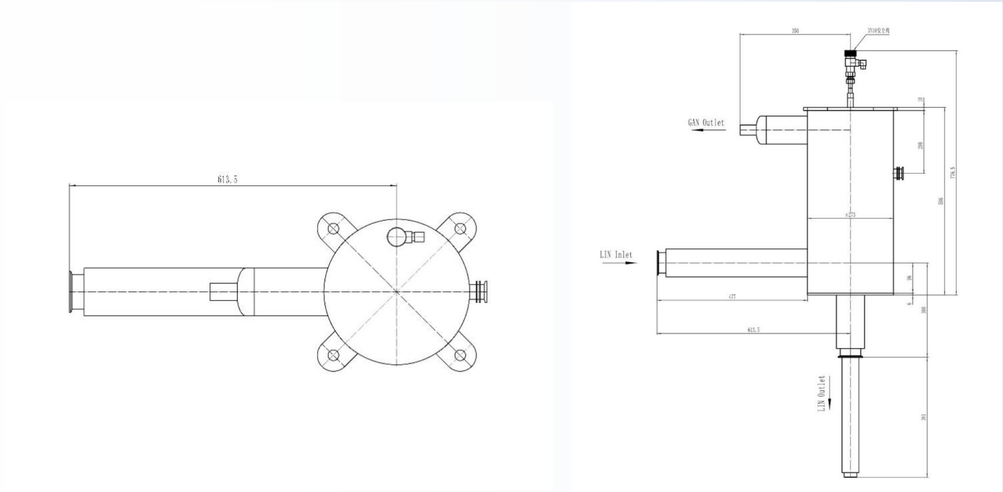
Vacuum Insulated Degasser

Degasser is one of most important part of the liquid nitrogen vacuum insulated piping system, which can effectively discharge nitrogen from the liquid nitrogen piping.

VI Degasser needs to be installed at the highest point of VI Piping. It has 1 LIN Inlet, 1 LIN Outlet and 1 GAN Outlet. It works on buoyancy principle, so no power is needed. For pressure and flow control, select the phase separator series.



**The Inlet and Outlet directions, specifications, lengths, and connection/coupling types can be customized as required.*

Major Parameters

Model	HLSP500
Maximum Volume	8 L
Pressure Regulating Function	No
Diameter of LIN Inlet	DN15~DN50
Diameter of GAN Outlet	DN25~DN65
Diameter of LIN Outlet	DN15~DN50
Coupling Type	Welded Coupling/ Vacuum Bayonet Coupling/ Screw Thread Coupling
Flow of Liquid Nitrogen	Depending on pipe diameter and pressure
Materials	300 Series Stainless Steel
Medium	Liquid Nitrogen
Design Temperature	-196~90℃
Vacuum Jacket/Insulation	Yes
Layer No. of Insulated Material	30
Vacuum of Jacketed Chamber	≤6×10^{-2}Pa (20℃) ≤2×10^{-2}Pa (-196℃)
Leakage Rate of Vacuum	≤1×10^{-10}Pa.m^3/s
Heat Loss When Filling Liquid Nitrogen	190 W/h
Heat Loss When Is Stable	14 W/h

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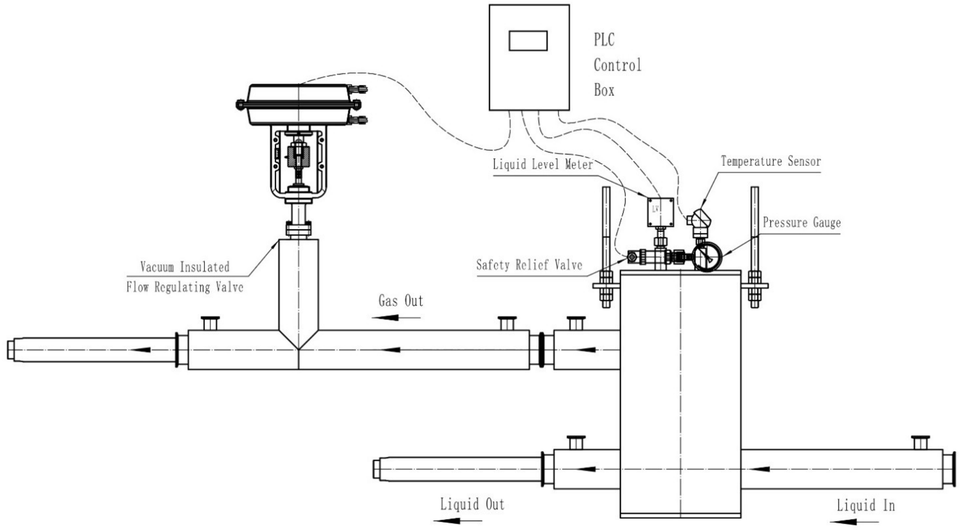
D-Model Vacuum Insulated Phase Separator

Phase Separator is one of most important part of the liquid nitrogen vacuum insulated piping system, which can effectively discharge nitrogen from the liquid nitrogen piping.

D-Model Phase Separator is an electrically controlled device. It realizes the control function by working together with the liquid level meter, temperature sensor and pressure gauge.

D-Model Phase Separator needs to be installed at the highest point of VI Piping. It has 1 LIN Inlet, 1 LIN Outlet, 1 GAN Outlet and a set of valves.



**The Inlet, Outlet and Venting Pipe's directions, specifications, lengths, and connection/coupling types can be customized as required.*

Major Parameters

Model	HLSP1000D
Maximum Volume	25 L
Pressure Regulating Function	No
Diameter of LIN Inlet	DN15~DN50
Diameter of GAN Outlet	DN25~DN65
Diameter of LIN Outlet	DN15~DN50
Coupling Type	Welded Coupling/ Vacuum Bayonet Coupling/ Screw Thread Coupling
Flow of Liquid Nitrogen	Depending on pipe diameter and pressure
Materials	300 Series Stainless Steel
Medium	Liquid Nitrogen
Design Temperature	-196~90℃
Vacuum Jacket/Insulation	Yes
Layer No. of Insulated Material	30
Vacuum of Jacketed Chamber	≤6×10^{-2}Pa (20℃) ≤2×10^{-2}Pa (-196℃)
Leakage Rate of Vacuum	≤1×10^{-10}Pa.m^3/s
Heat Loss When Filling Liquid Nitrogen	225 W/h
Heat Loss When Is Stable	20W/h

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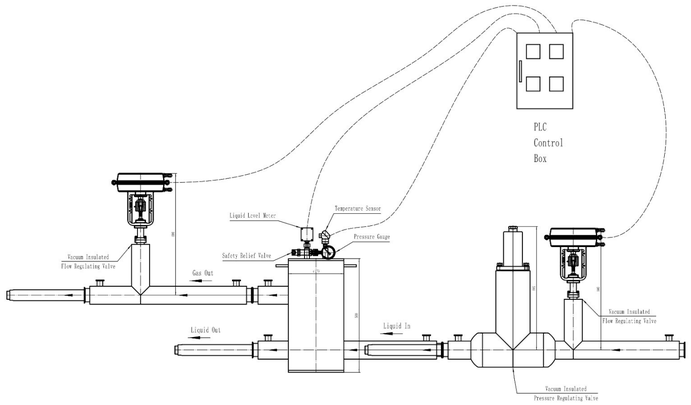
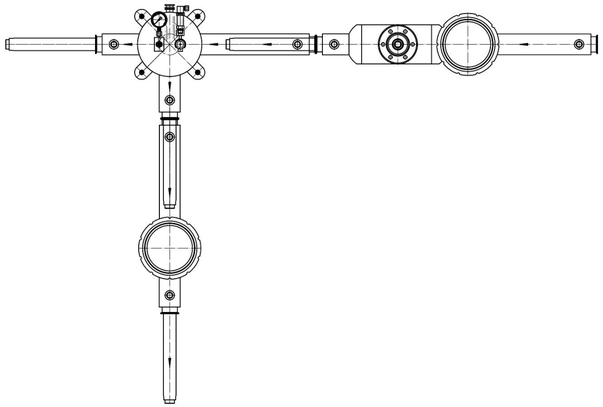
J-Model Phase Separator

The J-Model Phase Separator has all the functions of the D-Model. The difference is that J-Model can adjust the pressure of the vacuum insulated piping system, while D-Model does not have such a function.





**The Inlet, Outlet and Venting Pipe's directions, specifications, lengths, and connection/coupling types can be customized as required.*

Major Parameters

Model	HLSP1500J
Maximum Volume	25 L
Pressure Regulating Function	Yes
Diameter of LIN Inlet	DN15~DN50
Diameter of GAN Outlet	DN25~DN65
Diameter of LIN Outlet	DN15~DN50
Coupling Type	Welded Coupling/ Vacuum Bayonet Coupling/ Screw Thread Coupling
Flow of Liquid Nitrogen	Depending on pipe diameter and pressure
Materials	300 Series Stainless Steel
Medium	Liquid Nitrogen
Design Temperature	-196~90℃
Vacuum Jacket/Insulation	Yes
Layer No. of Insulated Material	30
Vacuum of Jacketed Chamber	≤6×10^{-2}Pa (20℃) ≤2×10^{-2}Pa (-196℃)
Leakage Rate of Vacuum	≤1×10^{-10}Pa.m^3/s
Heat Loss When Filling Liquid Nitrogen	225 W/h
Heat Loss When Is Stable	20W/h

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FAQs

The Reasons of Choosing HL CRYO.

The customized coupling which is on the basis of the welded coupling, any joint can be re-welded to its inner pipe, like Flange, Screw Thread or any customized joint.
The customized couplings is mainly used for connecting VI Piping to user equipment. Most of customized couplings require on-site insulation treatment.

The Scope of Supply.

The following equipment is suitable for cryogenic services.

- Vacuum Insulated/Jacketed Pipe Series
- Phase Separator/Degasser Series
- Dynamic Vacuum Pump Unit Series
- Vacuum Insulated/Jacketed Flexible Hose Series
- Vacuum Insulated Valve Series
- PLC Automatic Control System for VI Piping
- Other cryogenic support equipment related to VI piping, such as Safety Relief Valve, Filter, Heater of Venting Pipe, Pressure Control System etc.

The Main Service Areas.

- Air Separator/ Cold Box
- Aerospace Industry
- Biostorage/Biobank and Pharmaceutical
- Aluminum Extrusion
- Bulb Production
- Rare Gas
- Test Platform
- Chip: MBE and Packaging&Testing
- Liquid Hydrogen & Liquid Helium
- Motor and Engine
- Food & Beverage Production
- Rubber Tyre Production
- Receiving and Filling Station
- Research Institute Project

Getting A Quotation

Provide the following information as much detail as possible in order to get an accurate quotation quickly.

1. Industry/product application, and medium.
2. Pipe specifications and quantity, or quantity of flow.
3. Work pressure or design pressure.
4. Material of piping system.
5. If valves, phase separator and other equipment are needed, it is recommended to provide drawings.
6. Commercial terms, including currency, country/port, and the Incoterm (EXW, FOB or CIF) etc.
7. Other requirements.

- If not sure about any above information, please contact HL CRYO.

The Manufacture Standard.

ASME B31.3

The Raw Materials.

Usually, ASTM/ASME 300 Series Stainless Steel (Acid Pickling、Mechanical Polishing、Bright Annealing and Electro Polishing).

The Minimum Order.

There is no limited for minimum order.

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