

...WHEN FAILURE ISN'T AN OPTION



AIR
PRODUCTS 

Air Products is your **complete** cryogenic supplier, growing with your storage needs, every step of the way

Our cryogenic storage solutions suit users of all sizes. Whether you need a single dewar or the project management of a large cryogenic laboratory, our experts will work with you to find the right offering.

Small scale

Dewar storage, liquid gas deliveries as required.



Liquid & cylinder delivery



Storage dewars

Medium scale

Cryogenic freezer with dry sample storage, liquid gas bulk container refilled on site.



Microbulk liquid delivery



Microbulk storage



Cryogenic freezers

Large scale

Complete project management, remote monitoring of onsite liquid gas levels, pipeline to network of cryogenic storage freezers.



Bulk liquid delivery



Bulk storage



Insulated pipeline



Project management



Dry vapour shipping

By partnering with Chart BioMedical, world leaders in cryogenic storage vessels, we are uniquely placed to offer all aspects of cryogenic sample storage, from all sizes of cryo-storage vessels to liquid nitrogen supply. Ensuring you have the safest and most economical storage solution for your samples. Air Products is the preferred distributor for UK & Ireland for the Chart MVE range of Cryogenic equipment.

An easy-to-use, efficient and safer solution for sample storage

The Chart MVE range of cryogenic freezers offers a variety of benefits for your sample storage needs, including:

- **Efficiency**

Lowest liquid nitrogen consumption in the industry.

- **Stability**

Lowest below-the-lid nitrogen vapour temperatures. Chart is the only manufacturer who will certify -190°C below the lid.

- **Sample security**

The units can maintain temperatures for up to 23 days without liquid nitrogen supply.

- **Ease of access**

The offset lid and free-moving turntable on the High Efficiency series means the samples are brought to you for ease of removal. The integrated double step (1500 and 1800 series) provides the lowest lift-over height in the industry.

- **Improved safety**

Nitrogen vapour storage considerably reduces the risk of liquid nitrogen “drag-out” when removing samples from the freezer, hence minimising the splashing hazard for the operator.

- **Reduced carbon footprint**

The award-winning MVE Variō is the energy saving alternative to -20°C to -150°C mechanical freezers. The low power consumption of the freezers means that the energy requirement is less than 1% of that of conventional mechanical freezers. In addition, there is no heat emitted so you won't require expensive air conditioning, thus minimising your carbon footprint.

- **Optimised capacity**

Chart freezers are available with extra height options, allowing you to store a greater quantity of samples for the footprint of your freezer. This is an ideal solution where floor space is very limited.

- **Easy operation**

The MVE TS (Touchscreen) controller employs a variety of advanced features that enable the controller to monitor and control the environment inside the freezer with a high level of precision.

Features include:

- Auto-fill system
- Integrated hot gas by-pass facility
- Keyless security system
- Level and temperature controls with both visible and audible alarms
- A standard Ethernet connection is available on the MVE TS controller for network connectivity
- An independent RS-485 interface port is available for communication with other MVE TS controllers, remote PCs or printers
- Stores time and date-stamped information on 30,000 most recent events, which can be easily downloaded via the USB port and imported into a spreadsheet
- Optional battery back-up

The right fit for you and your samples

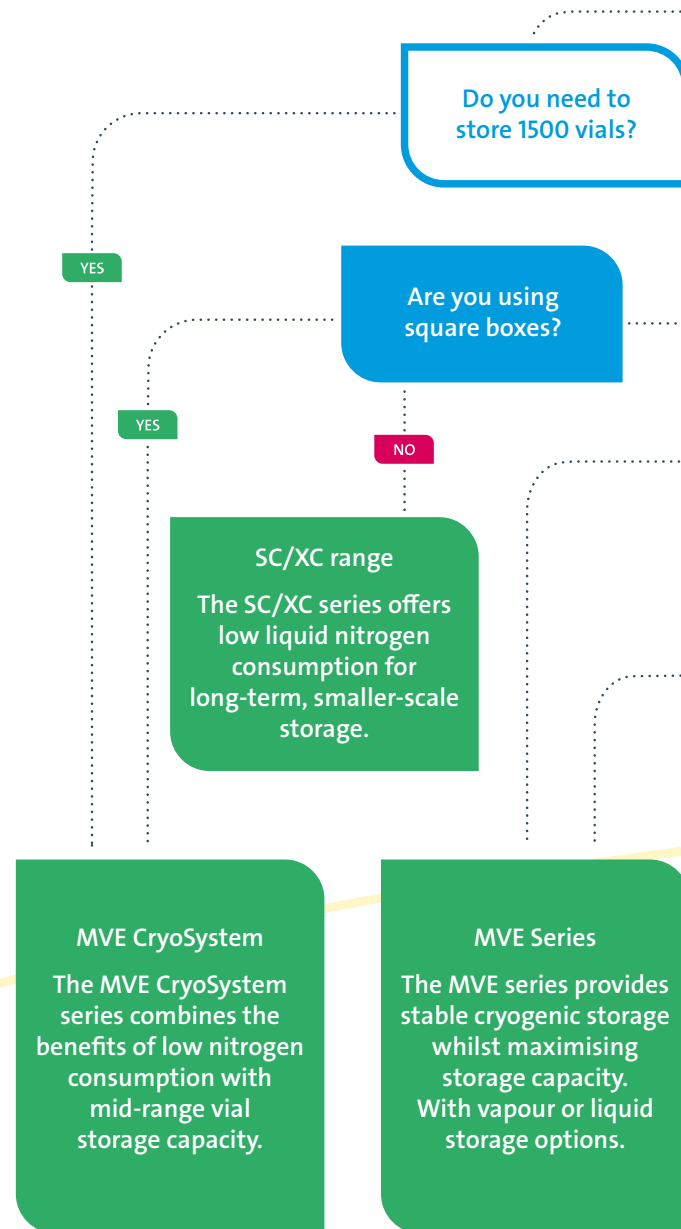
Chart BioMedical produces the widest range of liquid nitrogen storage vessels on the market, including high-capacity, low-emission -190°C nitrogen vapour freezers, aluminium liquid nitrogen freezers, vapour shippers and storage dewars. Use the selector guide to help you choose the model that best suits your needs.

In addition, our trained sales team is available to give you recommendations to suit your requirements, on **0800 389 0202**.

Total product solution

Air Products has developed a fully comprehensive project management solution from gas supply, laboratory design, installation, sample storage and training, through to ongoing maintenance and support. With our strong knowledge of liquid nitrogen and leading range of Chart freezers, we are able to provide the optimum turnkey solution for your needs.

Air Products is one of the only companies that can offer a total cryogenic storage solution. Our expertise has been gained over 30 years, during which time we have assisted in hundreds of installations from fertility labs, blood and cell storage, to stem cell research within the UK and Ireland.



Do you need to store in vapour?

YES

Do you want to adjust and control how cold the temperature is inside the freezer between -20°C and -150°C.

YES

Variö Series
Completely dry sample storage between -20°C and -150°C, the Variö range offers an energy efficient alternative for ultra low temperature storage.

NO

Do you require -190°C top box temperature?

NO

For -160°C to -170°C temperature, do you want easy access to the samples and a self-sustaining freezer?

YES

MVE HEco Series (800, 1500, 1800)
The HEco series is a highly efficient range of vapour freezers. Streamlined plumbing, a unique design and vacuum jacketed transfer hose ensure minimal liquid nitrogen usage.

YES

MVE Fusion
The world's first self-sustaining cryogenic freezer which doesn't require a constant supply of liquid nitrogen, ideal for remote locations and high elevation facilities.

NO

MVE CryoSystem 6000 Fully Auto
The combination of compact dewar storage with monitoring and fill features of the TEC3000 control system.

YES

Do you need to store 6000 or more vials or straws?

NO

NO

NO

OR

Cryo-room design and installation

Air Products can provide design and installation services for the set-up of a new cryopreservation laboratory or the expansion of an existing laboratory. Managing a cryo-room project is a very complex process; Air Products can assist with the many factors that need to be taken into consideration, including:

- Cryo-room location and layout
- Current vs future requirements
- The right equipment
- Siting of the freezers
- Storage options
- The right materials for the room
- Pipework considerations
- Filling options
- Extraction systems
- Oxygen level monitoring
- Health and safety
- Security of access
- The right partners

Gas supply

Nitrogen and carbon dioxide

Air Products is one of the largest liquid nitrogen suppliers in the UK. We operate a specialised delivery fleet, optimised for this application from van-based services for city centre work, to our high-capacity rigid tankers. We offer a full range of supply options from cylinders to large liquid bulk tanks.

Liquefied gas storage vessels

Storage vessel options extend from desk flasks to bulk vessels, and we offer lease facilities to match your budgetary requirements.



Other **products** and **services** you may be interested in:



Pipework

We can help you to design and install a laboratory, including high purity pipework, both liquid and gaseous products, as well as specialist gas control equipment.



Carbon dioxide

We offer a unique and scalable solution to the supply of liquid carbon dioxide for incubators, ranging from traditional cylinder options, to the innovative CarboStore mini-bulk storage technology and full bulk supply.



Nitrogen

Where multi-gas incubators are used, we can supply liquid nitrogen and storage vessels to suit customer specifications. For smaller capacities, we can offer cylinder gas options for both carbon dioxide and nitrogen.



Pharma Grade gases

Where gas quality and full traceability are critical, our Pharma Grade gases meet all legal requirements.



Analytical and speciality gases

Precision gas mixtures and pure gases are available in a full range of refillable and non-refillable cylinders.

Model range

Product Range	Description	Capacity
Variö Series	Stainless steel Variable rate freezer -20°C to -150°C	Up to 94,500 vials(1) Up to 6,432 blood bags(2)
HEco Series	Stainless steel vapour freezer -190°C top box temperature	Up to 94,500 vials(1) Up to 6,432 blood bags(2)
MVE Series	Stainless steel liquid or vapour freezer	Up to 39,000 vials(1) Up to 3,968 blood bags(2)
MVE Fusion	Stainless steel Self-sustaining vapour freezer	Up to 31,200 vials(1) Up to 2,296 blood bags(2)
Cryocart	Portable vapour workbench	N/A
MVE CryoSystem	Aluminium canister liquid freezer	Up to 6,000 vials(1)
SC/XC Series	Aluminium canister liquid freezer	Up to 1,320 vials(1) Up to 6,200 straws
Shippers	Dry vapour shipper for samples	Up to 1,134 vials(1) Up to 7,410 straws Up to 10 blood bags(2)
Doble Series	Liquid storage Vapour shipment	Up to 1,320 vials(1) Up to 4,500 straws
Lab Series	Liquid nitrogen dewar	4-50L

(1) Vial capacity based on 1.2-2.0ml vials (dependent upon inventory design).

(2) Blood bag capacity based on compact (25ml) blood bags (dependent on inventory design).
For capacities with other media, please refer to our literature.

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