



August 2012

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MVE Chart Tech Tips

PRODUCT INFORMATION

Chart MVE 1536PD-150 Dry Shipper

The MVE 1536PD Dry Shipper is a unique dry shipper freezer specifically designed to provide easy transport of biological samples from facility to facility in vapor storage. The design offers facilities peace-of-mind when shipping and relocating samples via its unique crate design assembly. This unique feature will allow any type of pallet jack or forklift to lift the dry shipper and ship from facility to facility.

Features include:

- * Liquid nitrogen absorbent can be charged for dry shipment
- * Hold time up to 20 days when properly charged
- * Rigid steel frame can be moved with pallet jack/forklift
- * Sized to fit in a wide-body aircraft
- * Inventory tray locks to prevent rotation during transit
- * Locking lid
- * Includes PDF Logger to monitor and record sample temperature during shipment or relocation
- * Inner vessel may be decontaminated after shipping if necessary
- * Two year standard warranty
- * Three year vacuum warranty

To order, please use PN #11515042.



Large and Mini Racks for the MVE 1536PD-150 Dry Shipper

Chart offers large and mini racks that can hold 2" large and small boxes that fit the dry shipper. Their respective part numbers are listed below:

- Stainless Steel 13 shelf large rack P/N 10544431 28.25 inches (718mm) tall
- Aluminum rack 13 shelf large rack P/N 10544440 28.25 (718mm) tall
- Stainless Steel 13-2 mini P/N 10544685 28.25 (718mm) tall
- Aluminum rack 13-2 mini P/N 10544693 28.25 (718mm) tall

Chart MVE Temperature Reduction Hanging Sleeves for the MVE Series

Chart has designed temperature reduction sleeves to provide a lower temperature difference when storing vapor. Chart manufactures these sleeves specific to Chart MVE series freezers only. The estimated temperature reduction is approximately 10°C (18°F) for the MVE 200, MVE 500, and the MVE 600 Series. The estimated temperature reduction is approximately 20°C (36°F) for the MVE 1400 and MVE 1800 Series. Please note, the use of these sleeves will lead to a higher use of LN2.

Part numbers are listed below for the specific MVE Series:

- MVE200 Series P/N 11900477
- MVE500 Series P/N 11905227
- MVE600 Series P/N 11937317 (Hanging design on the edge of freezer)
- MVE1400 Series P/N 11934044 (Hanging design on the edge of freezer)
- MVE1800 Series P/N 11941105 (Hanging design on the edge of freezer)

Note: Chart recommends using the MVE High Efficiency (HE) Series freezers when storing biological samples in vapor at temperatures in the range of -125°C (-193°F) to -190°C (-310°F).

Chart MVE CryoCart

Chart MVE CryoCart is designed to be used as a temporary cryogenic work station. It is equipped with a vapor platform to allow for a working area. With the level of LN2 at or below the working level of the vapor platform, the temperature range is approximately -125°C to -150°C at the vapor platform. This design allows for the safe loading of biological samples into canes, boxes, racks, or frames. When used as a portable workbench, the MVE CryoCart will provide a safe and controlled environment for biological samples for up to eight hours (approximately) with the lid open. The MVE CryoCart is ideal for transporting large quantities of samples from one freezer to another within the same facility. The high efficiency cart is the safest and most convenient method to protect the viability of biological samples. A pre-cooled CryoCart with the lid closed should hold for approximately 18 hours.



Features Include:

- Approximate hold time of 18 hours with the lid closed
- Omega temperature monitor with type T Thermocouple (Not an automatic LN2 controller)
- Traceable calibration certificate with RS232 PC interface
- LN2 transfer hose plumbing connection with a manual lever valve and 50PSI relief valve

CryoCart Product Specifications:

SPECIFICATIONS:

LN2 Capacity To Top of Platform (liters)	53
Weight Empty (lbs)	241 (109 kg)
Weight w/LN2 Filled To Top Of Platform (lbs)	356 (161 kg)
Approximate Hold Time With Lid On (hrs)	18

DIMENSIONS

Overall Length	51-11/16 (1313 mm)
Overall Width	17 9/16 (192 mm)
Overall Height	38-7/8 (987 mm)
Lift Overall Height	36-5/16 (922 mm)
Inside Length	41 (1041 mm)
Inside Width	13 1/4 (337 mm)
Inside Depth	15 7/16 (392 mm)
Platform Height	6 (152 mm)

Recommended Accessories for the Chart MVE CryoCart:

- Square Racks - stainless steel or aluminum
- Cardboard Boxes
- Plastic Boxes
- Canes and Protectors
- Cryogenic Gloves / Apron

HELPFUL HINTS / FAQS

Chart MVE TEC3000 Hi Liquid Usage Display

Q. A new Chart MVE or HE (High Efficiency) Freezer was just installed and the "high liquid usage" warning is displaying on the TEC3000. What can be done?

A. First, consider the environment of the freezer. This warning is acceptable if the freezer has undergone its first fill process, has experienced the recent removal or insertions of racks and samples, or if the lid has been left open for an extended period of time. If none of these conditions apply to the freezer, please recycle the power to the controller using the procedure outlined below.

Q: The TEC3000 displays the high liquid usage warning and none of the conditions stated above apply to the freezer. How do I recycle the power to the controller?

A: Using the "Advanced Menu" on the TEC3000, recycle the power to the controller. The display should then reset itself to "0". Depending on the freezer series, this "recharge" may take up to 12 hours. If after 24 hours the TEC3000 continues to display the high liquid usage warning, Chart recommends that you contact our Technical Support team.

Chart MVE Aluminum Lids, Lid Kits, Neck Rings, and Canisters

When it becomes necessary to replace aluminum dewar lids, neck rings, lid kits, and canisters you will need to provide the serial number and a precise description of the dewar (SC20/20, XC34/18, XC34/18 Plus, etc). In some cases it may also be necessary to provide a photograph of the dewar.

The red lids and kits for older vintage aluminum dewars have been obsoleted. Chart continues to provide support for these dewars through our current model of lid kits.

The current model of lid kits contain screws in their assembly opposed to epoxy present in older vintage models. For cases where lid kits do not fit successfully, Chart recommends replacing older vintage dewars with newer updated aluminum tanks.

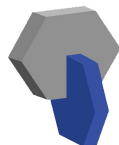
ACCESSORIES

Chart MVE Blood Bag Rack (Heart Valve Rack)

Chart manufactures blood bag racks (Heart Valve Rack) for the Cryoshipper. The rack dimensions are 6.56" (16.7cm) L x 5.12" (13cm) W x 10.81" (27.5cm) OAH. The blood bag rack comes standard only with the Cryoshipper. The blood bag rack can be ordered if extra racks are needed using PN #10524991.

Chart MVE 5-2 Level Rack (5-2 Rack)

Chart manufactures a 5 level rack for 2 inch boxes. The 5- 2 rack dimensions are 5.53" (14cm) L x 5.56" (14.1cm) W x 10.83" (27.5cm) OAH. The rack can be used in the Cryoshipper P/N 10508967, Cryoshipper XC P/N 11015195, and the IATA (International Air Transport Association) P/N 10777411. However, the 5-2 rack may fit loosely in the Cryoshipper XC and IATA. This rack may be ordered using PN #10557646.



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