

MVE Chart Tech Tips

PRODUCT INFORMATION

Chart MVE HEco Freezer Series

MVE Chart is pleased to offer the new HEco Series of cryogenic freezers, the line has expanded and is now available in 800, 1500, and 1800 sizes. Providing up to 20% reduction in LN2 usage, the HEco Series freezers are the most efficient freezers available. Overall safety and usability is enhanced with the hinged work surfaces and fully enclosed electronics and plumbing. As with all of MVE's cryogenic freezers, the MVE HEco Series freezers provide maximum storage density as well as the industry's longest hold time and highest sample security.



Features:

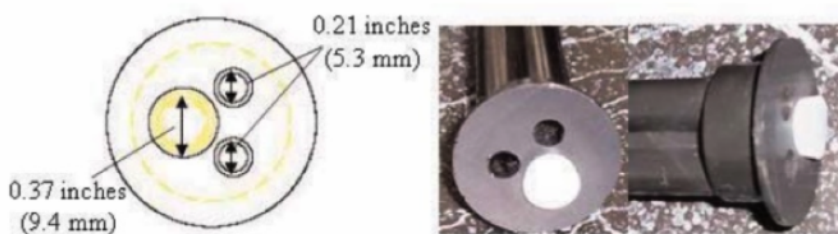
- * Up to 20% reduction in LN2 usage
- * Fully enclosed wiring and plumbing
- * Vacuum jacketed transfer hose
- * Dry sample storage
- * -190°C top box temperature
- * Lowest lift-over height
- * Two tier folding step (1500 and 1800 sizes)

Sensor Tube Assembly

Chart MVE has available a 3-tube temperature sensor assembly. This sensor assembly is standard on all MVE High Efficiency / Vapor Series Freezers. If there is a high efficiency series freezer with the dual tube assembly, this can be replaced with the 3-tube sensor assembly. The 3-tube assembly is designed to house a third party temperature sensor. The assembly will come with a removable plug installed in the third hole. To order the correct sensor tube assembly please provide the freezer serial number.

PN	Description	Freezer Models
14248744	3 Tube Sensor Assembly - 26 in. (66 cm)	MVE 1842P-150F
14248816	3 Tube Sensor Assembly - 39 in. (99 cm)	MVE 800 and 1500 Series
14248752	3 Tube Sensor Assembly - 44 in. (112 cm)	MVE 1800 Series

The new injection molded XENOY material will provide thermal performance as well as lasting durability. Below are pictures of the new assembly and the inner diameters of the sensor tubes.



Updates to the TEC3000 Technical Freezer Manual

The TEC3000 Technical Freezer Manual revision E is available online at <http://www.chartbiomed.com/getattachment/20d79734-5072-4ecf-8b50-f535ad2df4e8/.aspx>

This revision will include the HEco and Cryosystem 6000 Full Automatic Fill System. It will also include the 12-pin wiring harness diagram and color codes. The part number is PN 13289499.

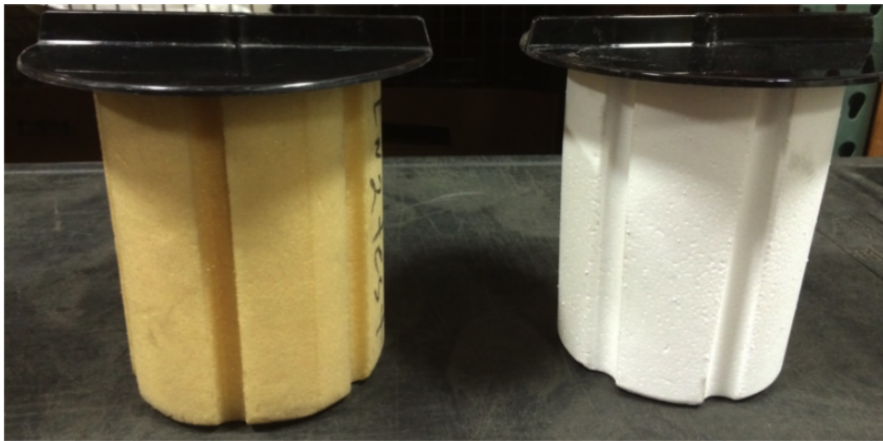
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Aluminum Tank Cork and Cover Update

The yellow cork assembly has been changed to a white cork. The previous yellow cork is no longer available and is obsolete.



HELPFUL HINTS / FAQs

Q: The supply tank is empty; how does one disable the automatic fill function on the TEC3000?

A: There are two alarms that will disable automated filling on the TEC 3000; Fill Time and Hot Gas Bypass. These alarms are signs that filling is not behaving as normal. The Hot Gas Bypass Time Alarm (HG) alerts the customer that the maximum allowable bypass time has been surpassed. This alarm could be a sign of an empty supply, low supply pressure, or a bypass time increase is in order. The fill time alarm alerts the customer that the maximum fill time has been exceeded. This alarm could mean there is an inadequate supply, the inline filter is clogged, the solenoids are not opening completely, or a leak in the plumbing. When these alarms occur, automatic filling will not resume until the alarm has been acknowledged and cleared.

Chart MVE Supports the Maryland Shorthorn Association

MVE Chart is pleased to support the Maryland Shorthorn Association in their effort to raise funds to attend the Junior Nationals in Louisville, KY in June. By raffling off an MVE Millennium 2000 XC 20 aluminum dewar, the Maryland Shorthorn Association raised over \$1,000! Congratulations to Kayla for winning the tank!



Thank you for donating the Semen tank! Our juniors really appreciate your help to get us to junior nationals in Louisville, KY in June 2014!

THANK YOU!



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Q: What are the normal evaporation rates for Chart MVE Freezers?

A: The evaporation rates are only general estimates of the static loss rates. Static means that the tanks are left undisturbed without any lid openings. Because the freezers are used in non-static conditions, these figures can only be taken as estimates. They can vary depending on a variety of uncontrolled parameters. Reference below for the estimated NER values.

Open Top Models		High Efficiency	
Model	NER (L/day)	Model	NER (L/day)
MVE 103	4.1	800 Series	5.0
MVE 205	3.0	1500 Series	7.5
MVE 510	6.2	1800 Series	12.5
MVE 616 & C	8.5	1842 (old 1830)	12.0
MVE 808	8.0		
MVE 1223	13.0		
MVE 1318	8.5		
MVE 1426 & C	14.0		
MVE 1839	13.0		

ACCESSORIES

Chart/MVE pouring spouts are available for the LAB Series:

- PN 9720729 2.2" Neck ID Lab 5, 10, 20
- PN 9711909 2.0" Neck ID old Lab 20
- PN 9711929 2.5" Neck ID Lab 30, 50



Chart/MVE roller bases are available for the aluminum tanks:

- PN 10937391 14"ID 20 L units, Tech 35, Tech 50, SC 22/5
- PN 10937403 18.2"ID Lab 30, Lab 50, SC33/26, XC 34/18, MVE230
- PN 10937411 20"ID XC47/11, MVE 450
- PN 10937420 22"ID XLC 360 HE, MVE 510, Cryo2000, Cryo4000
- PN 10937438 26.2"ID Cryo6000

