

Tech Tips (April 2016)

Product Information

Chart MVE CryoCart™

Chart MVE CryoCarts are designed for the safe loading of biological samples into canes, boxes, racks or frames. When used as a portable workbench, the unit will provide a safe and controlled environment for your samples for up to eight hours with the lid open. The MVE CryoCart is ideal for transporting large quantities of samples from one tank to another within the same facility. These high-efficiency carts are the safest and most convenient way to protect the viability of your samples! Contact Chart MVE for product details and information.



Chart MVE HEco™ and Chart MVE Variō™ Vacuum-Jacketed Transfer Hose

Chart MVE provides a braided vacuum-jacketed transfer hose with all MVE HEco and MVE Variō series freezers. Chart offers two different types of vacuum-jacketed transfer hoses: one is a spiral type design and the other is a braided type design. The flexibility of the hoses allows for frequent connections to liquid cylinders and cryogenic processing devices such as biological freezers, and thermal test chambers. Our flexible transfer hoses are constructed with the same quality of workmanship and superior insulation technologies as our standard line of vacuum-insulated pipe.



Chart MVE's superior vacuum insulation technology greatly reduces cryogen product loss and improves the efficiency of your system. In addition, the high thermal performance eliminates ice balls and dripping water along the length of the hose, which can be a safety hazard. Commonly used hoses are stocked for quick delivery. Below are a few popular part numbers:

0606B-8SE-8SE HOSE-CFLEX 3/8"ID 6FT FB BRAIDED

0610B-8SE-8SE HOSE; CFLEX, 3/8"ID, 10FT BRAIDED

0606S-8SE-8SE HOSE; CFLEX, 3/8"ID, 6FT SPIRAL



Braided vs. Spiral VJ CFLEX Hose

For a complete listing, please visit:

<http://www.Chartparts.com>

Variō Pro Controller Firmware Update

Chart MVE has released a new firmware version for the Variō Pro controller. Version 0.23 will now replace 0.20 as the current release firmware. In order to upgrade to version 0.23

firmware, it is required to have a laptop, a TEC COM kit (PN: 13376947), and the associated Firmware Installer program.

The new features include:

- One-Cool-All-Cool functionality for simultaneous and sequential cooling (based on One-Fill-All-Fill)
- Required setup screens (OCAC mode in Com1 Type, OCAC menu, OCAC ID, OCAC units and simultaneous/sequential selection)
- The communication loss to slave unit alarm
- Language translations for the new screens



Stainless Steel Dewars

Chart MVE offers a wide range of vacuum insulated, stainless steel Dewars. These Dewars are ideally suited for laboratory and industrial applications, and are used in a variety of experiments and procedures, such as freeze-fitting parts. The stainless steel Dewars are built-to-order and come with a 2-year vacuum warranty.



For specifications and part numbers, please reference the below list:

STAINLESS STEEL OPEN DEWARs				
MODEL NUMBER	PART NUMBER	INNER DIAMETER (INCHES)	INNER DEPTH (INCHES)	LITERS
A-1	9915019	1 7/8"	3 5/8"	0.16
A	9915009	1 7/8"	9"	0.25
B	9915029	2 3/4"	9"	0.875
C-1	9915039	3 1/2"	9"	1.38
C-2	9915049	3 1/2"	14"	2.25
D-1	9915059	4 1/2"	9"	2.25
D-2	9915089	4 1/2"	14"	3.5
D-3	9915079	4 1/2"	24"	6
D-4	9915089	4 1/2"	36"	9.12
D PLUG	9721669			
E-1	9915099	6"	12"	5.5
E-2	9915109	6"	18"	8.12
E-3	9915119	6"	24"	10.8
E-4	9915129	6"	36"	16.2
E-5	9915139	6"	56"	25.2
E PLUG	9721679			
F-1	9915149	7 3/8"	14"	9.5
F-2	9915159	7 3/8"	24"	16.3
F-3	9915189	7 3/8"	36"	24.5
F-4	9915179	7 3/8"	56"	38.1
F-5	9915189	7 3/8"	82"	55.8
F PLUG	9721689			
G-1	9915199	8 1/4"	16"	13.6
G-2	9915209	8 1/4"	24"	20.5
G-3	9915219	8 1/4"	36"	30.5
G PLUG	9721699			
H-1	9915229	10 5/8"	18"	26
H-2	9915239	10 5/8"	30"	42.6
H-3	9915249	10 5/8"	50"	71
H PLUG	9721719			
J-1	9915259	13"	24"	50.6
J-2	9915269	13"	36"	76
J-3	9915279	13"	30"	63.5
J-1 w/12" Inner Depth	12902167	13"	12"	26
J PLUG	9721729			
K-1	9915289	17"	36"	132
K-2	9915299	17"	42"	151
K-3	9915309	17"	48"	178
K PLUG	9721749			
L-1	10491683	30"	40"	463.1
L-2	10584812	30"	48"	555.72
L PLUG	9721769			
M-1	9915319	9 3/8"	18"	26
M-2	9915329	9 3/8"	24"	28.4
M-3	9915339	9 3/8"	36"	43
M PLUG	9721709			
O	9915349	15"	36"	92.5
O PLUG	9721739			
ROLLERBASE	10937403			
R	9915359	22"	40"	250
R PLUG	9721759			

Utilizing the Advanced QWick™ Charge Technology

To utilize the Advanced QWick™ Charge Technology for faster charging times, do not allow the inside of the Dewar to warm up above -150°C between shipments. If the inside of the Dewar does not warm up above -150°C , it will not need to be cooled down again before re-charging. Simply refill the Dewar to the bottom of the neck with liquid nitrogen. Allow the Dewar to stand until the liquid nitrogen stops boiling rapidly. After the liquid nitrogen has stopped boiling rapidly, the Dewar is fully charged. Pour off any excess liquid nitrogen before shipment. The charged weight may be verified against the table provided in the User's Manual to ensure the Dewar is fully charged. Please note that the charged weight is not an indication of unit performance.



Open-Top Rotomold Lids Soon to be Discontinued

Chart MVE continues to exceed our current standards and provide consistent quality products. In our continuous improvement efforts, we will soon be transitioning from rotomold lids back to the original style for the MVE510, MVE616, MVE1426, and MVE1839. These new lids will have a new black finish Raven Texture Powder Coating. The benefits of this coating are an added resistance to light chipping and scratches, a coating that will not peel if exposed to LN₂, and it will provide for a cleaner and higher quality finish. The estimated timeline for the complete transition is currently set for April 4, 2016, but please note that this transition may be sooner. Once the transition is complete, the rotomold lids will become obsolete. More information on this transition will be released in the coming months.

Obsolete: RD3 and RD6 Stainless Steel Lid

Effective immediately, the stainless steel lid (PN 14004387) for the RD3 and RD6 research Dewars has been obsoleted, and will no longer be offered by Chart MVE. It has been replaced with the PN 21007715

Helpful Hints/FAQ's

How to Connect two LN2 Transfer Hoses Together

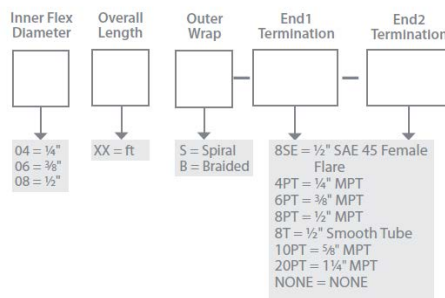
Q: I would like to connect two LN2 transfer hoses together. What is the Part Number for the connector/adaptor?

A: The union required to connect two standard LN2 transfer hoses together is going to be PN 1110862 (Brass, 1/2ODT x 1/2ODT, 45Degree Flare).

C-FLEX Vacuum-Jacketed Transfer Hose Part Numbers

Chart MVE utilizes a smart numbering system for all C-FLEX transfer hoses. In order to determine the correct part number for your application, reference the diagram below:

Smart Numbering System



Example: Part Number 0606B-8SE-8SE is for a 3/8"ID, 6FT long, braided, transfer hose.

Vapor Shipper Weight Terminology

Q: Regarding MVE vapor shippers, what are the differences between empty weight, weight charged, and weight full?

A: Empty Weight - This is the weight of the Dewar with no liquid.

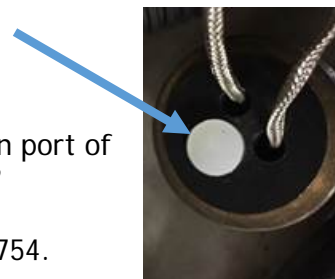
Weight Charged - This is the weight of the Dewar plus the adsorbed liquid after it has been charged and the excess liquid has been removed.

Weight Full - This is the weight of the Dewar plus the weight of the added liquid when full before the excess liquid is removed.

Freezer Temperature Probe Port Plug

Q: I need a replacement plug that is to be installed into the open port of the sensor tube assembly on a freezer. What is the part number?

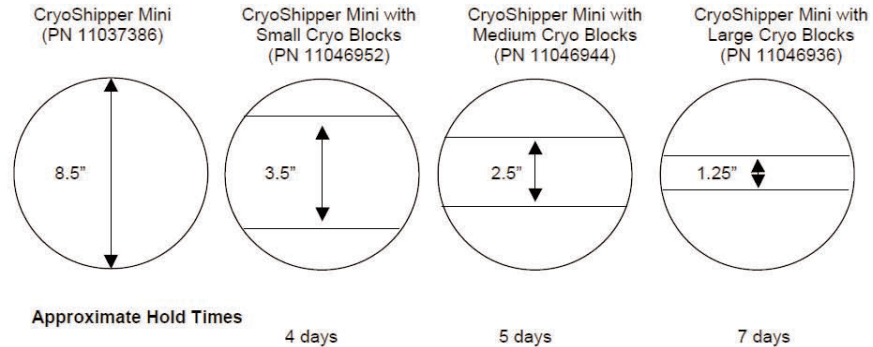
A: The part number for the silicone plug (shown below) is 11781754.



Accessories

MVE CryoShipper Mini Cryoblocks

The CryoShipper Mini may be purchased with or without welded inserts. Those that do not have welded inserts require the purchase of Cryoblocks. These inserts contain additional absorbent material to extend hold time.



Note: The approximate hold times were determined using two inserts.

There are four sizes of Cryoblocks for use with the CryoShipper Mini.

SIZE	PART NUMBER
4" Large Cryoblock Insert	11046936
3" Medium Cryoblock Insert	11046944
2" Small Cryoblock Insert	11046952
1" Square Cryoblock Insert	11046928



Low Level Alarms for Aluminum Dewars

Chart MVE offers two low level alarm options for aluminum Dewars: the Bat-1B and the Therm-O-Lert. These low level alarms include a probe that is to be inserted through the neck of the Dewar and placed at a user-designated level. The alarm sounds when the liquid level drops below the probe. The Bat-1B alarm uses a replaceable 9V battery as a power source, whereas the Therm-O-Lert uses a 110V or 230V AC power supply as well as an internal, rechargeable battery.



Bat-1B: PN 11905817



Detachable Probe: PN 11866441



Therm-O-Lert (230 V): PN 10769489

Therm-O-Lert (110 V): PN 9710879

Detachable Probe: PN 11866416

Don't Miss Out on our Upcoming Trade Shows!

Date	Show	Location
June 21-24, 2016	GGBN Biodiversity Biobanking Conference	Berlin, Germany
July 3-6, 2016	ESHRE	Helsinki, Finland
Sept 27-29, 2016	ESBB	Vienna, Austria
Oct 4-8, 2016	World Dairy Expo	Madison, WI
Oct 15-19, 2016	ASRM	Salt Lake City, UT
Oct 22-25 2016	AABB	Orlando, FL
Nov 15-18, 2016	Eurotier	Hanover, Germany
Dec 6-9, 2016	World Stem Cell Summit	West Palm Beach, FL