September 2014

MVE Chart Tech Tips

PRODUCT INFORMATION

Static Evaporation Rates (SER)

These Evaporation Rates represent tanks observed in a "static setting", which means that the tanks were left undisturbed, without any lid openings for a set period of time. We understand that our freezers are most often used in non-static conditions, so with this in mind, these figures are only intended to be used as general estimates. These values can vary depending on a variety of uncontrolled parameters.

Open Top Models		High Efficiency		HEco Models	
Model	**SER (L/Day)**	**Model**	**SER (L/Day)**	**Model**	**SER (L/Day)**
MVE 103	4.1	800 Series	5.0	815	5.0
MVE 205	3.0	1500 Series	7.5	819	5.0
MVE 510	6.2	1800 Series	12.5	1536P	6.5
MVE 616 & C	8.5	1842 (old 1830)	12.0	1539P	6.5
MVE 808	8.0			1542R	6.5
MVE 1223	13.0			1879P	10.0
MVE 1318	8.5			1892P	10.0
MVE 1426 & C	14.0			1894R	10.0
MVE 1839	13.0				

HEco Series Freezers

HELPFUL HINTS / FAQS

Q: How do I charge my Vapor Shipper?

A: Please use the following instructions to charge your vapor shipper.

FILLING INSTRUCTIONS

Note: Fill the container with a funnel or transfer line when possible. Avoid spilling liquid nitrogen over the vacuum cap near the neck as this can shrink the seal and allow air to leak into the vacuum space, which will make the tank defective. To ensure maximum performance from your MVE vapor dewar, simply follow the listed steps just prior to shipping to final destination:

1. Open container that Dewar is in, remove dewar from container and lift cork/cover straight up to remove (do not twist).

2. Fill unit to bottom of neck tube (at least halfway for QWick Series).
   a) Follow established safety practices and procedures for transferring LN2.
   b) Transfer using LN2 hose with phase separator or pouring container using a funnel.
   c) Canisters are to remain inside dewar.

3. **For SC, XC, and Doble ONLY:** Replace cork/cover and allow unit to stand for 24 hours (cooling down unit).
   a) To achieve 100% absorbed capacity you will need to refill (top off at least once).

4. **For QWick ONLY:** Replace cork/cover and allow unit to stand for 2 hours (cooling down unit).

5. Pour off excess liquid just prior to shipment.

   The LN2 Tx was designed specifically to make removing excess liquid nitrogen from open vessels safe and easy. Instead of lifting and pouring from heavy Dewars, personnel can simply utilize the LN2 Tx to transfer liquid nitrogen from one open vessel to another. By using a pressurized nitrogen gas source, the LN2 Tx efficiently transfers liquid nitrogen without straining your back or causing structural damage from spills.

LN2 Tx (PN 15098872)

Checking Freezer Electrical Components

If it is suspected that one of the electrical components is not operating properly, an evaluation may be in order. Below is a list of specifications for select items normal resistance values:

1. Fill Valves (Dual 24 VDC): 30-35 ohms

2. Fill Valve (Singular 24 VDC): 60-70 ohms

3. Bypass Valve: 60-70 ohms

4. Bypass Sensor:
   a) Room Temp: 1,000-1,100 ohms
   b) Cryogenic Temp: 200-300 ohms

5. Humphrey 3 way: 140-145 ohms

6. Temperature Probes
   a) Room Temp: 1,000-1,100 ohms
   b) Cryogenic Temp: 200-300 ohms

ACCESSORIES

Below are the Roller Base diameters and part numbers for our Dewars. Please use the table below to select the appropriate Roller Base Part Number.

Please contact Technical Service at **1-800-482-2473** if you have any questions or need any clarification.

Which Dewar do you have?	Diameter	Part Number
20 Liter Units	14.5" Diameter	10937391
30-36 Liter Units, Lab 30/50	17-18.2" Diameter	10937403
43-47 Liter Units, CryoSystem 750	20" Diameter	10937411
CryoSystem 2000/4000	22" Diameter	10937420
CryoSystem 6000	26" Diameter	10937438

Chart has available a cryogenic apron to provide a safer working environment while handling racks, cassettes, and other products around Liquid Nitrogen. (**PN 10464394**)

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