MVE TECH TIPS

PrincetonCryo.com
Cryogenic Delivery and Storage Systems

SPEC CHANGES

You may have noticed some changes to the internal clearance heights in some of our MVE units. The internal clearance height of MVE 1400 and 1411 has been increased 1". The corrected internal clearance heights for the 1411 are as follow:
MVE 1411 built through October 2005, internal clearance height is ~719mm (29.3").
MVE 1411 built after October 2005, internal clearance height is ~745mm (29.3").
The corrected internal clearance heights for the 1400 are as follows:
MVE1400 built through October 2005, internal clearance height is ~734mm(28.9"). MVE 1400 built after October 2005, internal clearance height is ~759mm(29.9").
The MVE Gen2 511,600, and 611 have also changed. The spec changes are as follows:
MVE 511 Gen2 built through June 2005, internal clearance height is ~719mm(28.3").
MVE 511 Gen2 built after June 2005, internal clearance height is ~762mm(30").
The internals clearance height for the 611 is as follows:
MVE 611 built trough October 2005, internal clearance height is ~723mm(28.5").
MVE 611 built after October 2005, internal clearance height is ~749mm(29.5").
MVE 600 built through October 2005, internal clearance height is ~737mm(29").
MVE 600 built after October 2005, internal clearance height is ~762mm(30").

FOLDING STEP FOR 1520HE

Beginning in February, all 1520HE series freezers will now be equipped with a 2-tier folding step, similar to the one used on the 1830HE series. The new step lowers the lift-over height of the 1520 HE series significantly, creating a safer work environment. The step can also be folded away when not in use, thereby reducing the overall footprint of the freezer. Models affected include the 1520HE, 1520 Eterne, 1520 HE+, 1520 Gen II, etc. Pictures will follow in future marketing material and editions of Tech Tips.

VAPOR STORING IN LIQUID STORAGE DESIGNED FREEZERS

In the event that the end user still wants to vapor store into one of the listed models, the temperature sleeve is still available as an accessory. This can be retrofitted into any of the following units:
MVE-511
MVE-1211
MVE-1841 Gen2
MVE-600/611
MVE-1400/1411
This will need to be added to the sales order much the same way the vapor platform is currently ordered, as a line item addition to the order.

MODEL	SLEEVE	VAPR PLATFORM	VAPOR PACK
MVE-511	11062055	10544853	
MVE-1211	10742518	10544888	
MVE-1841 Gen 2	11541241	10544909	
MVE-600/611	11937317	11509726	11913243
MVE-1400/1411	11934044	10544888	11913235

*Vapor packs include the hanging sleeve and the vapor platform

Installing the vapor sleeve will lower the temperature in the top of the freezer to approximately –125°C. Remember the tradeoff is that the freezers will use more LN2 with the sleeves installed.

QUESTION AND ANSWER

Q: We have had a new freezer fail to fill. It is equipped new dual solenoid valves from Alcon. LN2 would not flow when called for. We disassembled all valves and found what appears to be defective coils-very low magnetic field=no actuation.

A: *Currently used Alcon valves have a lower operating pressure than the ones that we have used in the past. Where earlier Alcon's would operate with 50 psi inlet pressure, the current Alcon has a limit around 35 psi, which should not be a problem if customer are following our supply pressure recommendations.*
Alcon had to change the coil so that the combined resistance of the dual valves was appropriate to avoid the power supply cycling on and off. (See Tech Tips of March 2004). We initially changed to the SMC valve to address the issue. However, the SMC valve was not UL Recognized, so we had to change back to the Alcon to allow the freezers to be UL marked. When we went back to the Alcon, Alcon began supplying them with a different coil resistance so that they would not cause the power supply to cycle on and off. The change in coil resistance changed the operating pressure. Again, if they are using 22 psi supply, there should not be a problem. However, if they are approaching 35 psi on the supply, they may have issues. The issue of marginal ability to open at 35 psi has been brought to the attention of Alcon, and they are working on it.
Meanwhile, SMC has been working with UL to get their valve UL recognized so that we can use it on UL marked freezers. SMC's project at UL was finally completed last month. We are in the process of having the SMC valve added to our file so that we can change back to the SMC valve. In the mean time, Alcon's in the field that must operate at 35 psi or beyond, can be replaced with the SMC valve. We cannot ship them that way, but distributors can swap in SMC's after the fact if desired.

Updated Table of contents to include 2005

TECH TIPS SEPT. 1997-APRIL 2003
TABLE OF CONTEXT
ALPHABETICAL LISTING ACCORDING TO SUBJECT

TECH TIPS May 2003-Dec.2004
Table of contents
Alphabetical listing according to subject

Rental program for IATA shippers	12/2004
Repair pricing	8/2003
Replacing lid liner	8/2003
Research dewars	10/2003
Roller base	10/2004
Solenoid fill valve change Alcon to SMC	3/2004, 9/2004
Shipslog-recalibrate and battery replacement	2/2004
Subdividers for 1830HE	12/2003
TEC-2000 stand alone latest revision 48" height	8/2003
Technical service training overview	5/2004
Testing TEC-2000 alarms	12/2004
Turntable concerns	9/2003
Upgrade kits	12/2003

TECH TIPS Jan. 2005 through Dec 2005
Table of Contents
Alphabetical listing according to subject

CUSTOMER/TECHNICAL SERVICE

Toll Free 800-482-2473
770-257-1299

Fax Toll Free 888-932-2473
770-257-1300

For copies of past Tech Tips or for more information on maintaining your nitrogen storage systems please contact Technical Service:

Jim Bachman 758 952-8411 direct 612 382-6678 cell
Customer Service 800 482-2473 toll free 770 257-1299