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## MVE Chart Tech Tips

### PRODUCT INFORMATION

#### Chart MVE Aluminum Canister Dimensions Located on the BioMedical Website

The canister dimensions for Chart MVE Aluminum tanks are available online. Literature for each specific type of aluminum tank is also available to download directly from the site. To access these files, visit the link below and click on "Cutsheets". From this page you can select the specific aluminum tank that you desire and display its specifications.

[http://chartbiomed.com/Literature\\_Resources/Literature.aspx](http://chartbiomed.com/Literature_Resources/Literature.aspx)

You can also access this tab from the homepage. Simply visit <http://www.chartbiomed.com> and click on the "Literature and Resources" tab.



## Chart MVE Freezer Rack Layouts

The Chart MVE Freezer Rack Systems are available online. Using the same link noted above, you may view the rack systems available by freezer model. Simply click on the "Cutsheets" tab under the "Literature and Resources" section of the site to view these options.

[http://www.chartbiomed.com/Literature\\_Resources/Literature.aspx](http://www.chartbiomed.com/Literature_Resources/Literature.aspx)

## Chart MVE TEC3000 Specifications

The electrical power specifications for the TEC3000 (Total Environmental Control) are listed below. The power requirements for the TEC3000 power supply are 110-230VAC/50-60Hz, .73A@110VAC/.35A@230VAC, 30 Watts max, 8 Watts continuous.



Power Requirements - TEC 3000 + Power Supply	
<b>Input Voltage/ Frequency Range</b>	110-230VAC/50-60Hz
<b>Input Current (max)</b>	.73A@110VAC/.35@230VAC
<b>Input Power (max)</b>	30 W
<b>Input Power (continuous)</b>	8 W

Electrical – TEC 3000 Only	
Input Voltage	30 VDC
Input Current (max)	5 A
Input Current (continuous)	1 A
Power Consumption (max)	28 W
Power Consumption (continuous)	6 W
Fil Valve Output Voltage	24 VDC
Short Protection	Current limiting, automatic reset

For a complete list of TEC3000 specifications, please reference page17 in the User Manual by clicking on the link below:

<http://chartbiomed.com/getattachment/20d79734-5072-4ecf-8b50-f535ad2df4e8/.aspx>

## HELPFUL HINTS / FAQS

### Chart MVE High Efficiency Turn Tray Height

Q: What is the height of the internal turn tray?

A: The internal turn tray height varies with high efficiency (HE Series) models. The chart below lists relative turn tray heights for each HE Series model freezer.

Freezer Model	Turn-tray Platform Height in.(mm)
<b>MVE 815P-150</b>	6 (152)
<b>MVE 815P-190</b>	6 (152)
<b>MVE 818P-190</b>	6 (152)
<b>MVE 819P-190</b>	6 (152)
<b>MVE 1536P-150</b>	9 (228)
<b>MVE 1536P-190</b>	9 (228)
<b>MVE 1539P-190</b>	9 (228)
<b>MVE 1879P-150</b>	9.5 (242)
<b>MVE 1879P-190</b>	9.5 (242)
<b>MVE 1892P-190</b>	9.5 (242)
<b>MVE 1539R-150</b>	9 (228)
<b>MVE 1542R-150</b>	8 (203)
<b>MVE 1542R-190</b>	9 (228)
<b>MVE 1881R-150</b>	9.5 (242)
<b>MVE 1881R-190</b>	9.5 (242)
<b>MVE 1894R-150</b>	9.5 (242)
<b>MVE 1894R-190</b>	9.5 (242)

### Chart MVE Freezer Maintenance

Q: What is the recommended maintenance schedule for a Chart freezer?

A: Maintenance should be performed to ensure optimum operation and performance. Regular maintenance will also increase the maximum service life of MVE freezers and is essential to equipment success.

NOTE: The chart below illustrates a recommended preventative maintenance schedule. MVE distributors may have a more comprehensive maintenance/service plan. At the minimum, MVE suggests that the maintenance schedule below should be followed.

**Table 8: Periodic Preventative Maintenance Schedule**

	Weekly	Monthly	6 Months	12 Months	24 Months	60 Months
Level Verification	X					
Verify Adequate Supply	X					
Plumbing Leak Check		X				
High Temp Alarm Test			X			
Level Alarm Test			X			
Thaw Freezer Lid			X			
Folding Step Inspection			X			
Lid Hinge Inspection			X			
Inline Filter Replacement				X		
Complete Function Test				X		
Solenoid Valve Replacement					X	
Relief Valve Replacement					X	
Lid gasket replacement					X	
Complete Freezer Thaw and Moisture Removal						X

Complete maintenance details can be found on page 99 of the TEC3000 Manual.

### Chart MVE Freezer Parts

Below is a list of freezer parts that are commonly needed when performing routine freezer maintenance.

Part Number	Description
11648945	Inline Filter - 40 micron mesh
1810032	Relief Valve - 50 PSI (3.4 bar)
14224611S	SMC Solenoid Valve - Fill and Gas Bypass
13284954S	Purge/3-way Solenoid Valve
10713400	Gas Bypass Temperature Sensor
11499812	Gas Bypass Muffler
11885449	Gas Bypass Muffler Deflector
20570663	Temperature Probe
11795030	Jerome Power Supply - Input: 110-230 VAC; Output: 30 VDC

## ACCESSORIES

### Center Canisters

Center canisters are available for most Chart aluminum tanks. Below is a list of the most common canisters and their associated part number.

P/N 10623201 SC 20/20  
P/N 10623181 XC 47/11-6  
P/N 10682181 XC 22/5  
P/N 10623199 XC 34/18  
P/N 10682181 XC 20/3V  
P/N 10682199 XC 32/8  
P/N 11699347 XC 47/11-10



### Square Canisters

Chart MVE also provides square canisters for the XC47-11-6-SQ models. (Pictured Below)

SQUARE CANNISTER FOR XC 47/11-6 FOR 3" VIAL BOX 9719679 Square canister for 2" vial box - 5 tier (will hold Nalgene vial boxes) 11554720



Please refer to the Accessories Catalog for a complete list of cryobiological accessories.

<http://chartbiomed.com/getattachment/4469d0ef-1d2a-446c-8d07-9992d78d773/8d773a/.aspx>