

Chart Biomedical vessels connected to Cryo Anlagenbau cryogenic installation

St. Radboud University Medical Centre in Nijmegen recently purchased three Chart Biomedical MVE vessels (1 x 1411 type and 2 x 1841 type) with dry gas phase storage systems. The advantage of these vessels is that they include a pressure differential level and alarm system; the existing cryogenic installation is also based on this concept.



The medical centre has saved thousands of Euros in automatic filling and alarm systems by coupling these systems. They can now continue to work with their relatively new Cryo Anlagenbau cryobank without major changes being required, and at reduced costs.

Another great advantage is the ease with which MVE vessel lids can be operated.



Largest MVE Eterne vessels for Amsterdam Medical Centre

The AMC in Amsterdam has opted for Cryo Solutions as its supplier for the entire cryogenic installation in their new HIV / AIDS research lab. The project consists of three Chart Biomedical storage vessels from the Eterne series, liquid nitrogen pressure tanks from Cryo Anlagenbau, vacuum insulated piping, a switchboard panel with change-over device and degas simultaneous filling system and a electrical hoist.

The AMC has opted for the Eterne vessels for several reasons:

- the large storage capacity (2x MVE1830 Eterne cap. 90,000 each and 1x MVE1520 Eterne cap. 35,000 2ml vials)
- the gas bypass and 72 hour battery back-up system
- the very low nitrogen consumption
- the low and stable temperature throughout the vessel (190C)

Cryo Solutions builds one of the largest cryobanks yet

Chart Biomedical has opted for their distributor, Cryo Solutions, to build a new cryogenic installation for the Johannes Gutenberg University of Mainz. Chart Biomedical is to be the contractor with Cryo Solutions taking responsibility for the engineering and installation of the entire project. Cryo Solutions will be cooperating with Chart Ferox for the vacuum insulated piping, and Lindegas AG for the bulk tank and liquid nitrogen supply; the switchboard panels have been built by Cryo Solutions.

The project consists of an outer filling cabinet (see Photo 1), vacuum insulated piping (VIP) from the cabinet to the bulk tank in the cellar (see photo 2), and VIP from here, through the cellar, into the three different cryobanks. Each cryobank is fitted with its own degas and simultaneous filling system (see photo 3) and is secured with an oxygen detection and an emergency stop system. The degas system is also manufactured using VIP.

All the three cryobanks operate independently but are connected electronically in order to maximise the system's operation and therefore saving liquid nitrogen.



Cryo Solutions at Laborama Brussels



On March 13th & 14th 2008, Cryo solutions will be taking part in the Laborama exhibition to be held in Brussels. As previously, this exhibition will run for two days at the same location. Cryo solutions

will be displaying the new Eterne vessels. For more information on this exhibition, see the website at www.laborama.be

Cryo Solutions at 'Het Instrument' 2008



From the 20th to 23rd May 2008, Cryo Solutions will be taking part in 'Het Instrument 2008', the largest exhibition of laboratory equipment in Holland, organised by our branch corporation FHI.

HET Instrument is the only show of its size in the Benelux which concentrates on knowledge, technology and innovation for industry and science. They will all be there: large industrial multinationals, major research institutes and university hospitals, but also specialists from many small, specialised companies and R&D centres. Companies are comprised of people, people who create technology and generate knowledge together and in their products, hardware and software. Cryo Solutions will be present with a large 50m² booth at which we will be showing our latest developments and products. One of the main features will be the new Eterne vessels, but our standard equipment will also be shown. For further information and free pre-registration, please go to the exhibition website at www.hetinstrument.nl



Liquid nitrogen low pressure vessel as back-up for freezer

In addition to two MVE230 gen II storage vessels, the department of genetics of the University Medical Centre of Groningen (UMCG) has purchased several Cryo Anlagenbau CS160SK low pressure tanks.



One of these tanks acts as a back-up for their ultra low freezers. If the compressor in the mechanical freezer fails, nitrogen will be injected in order to keep the samples cold until a solution has been found or repairs can be carried out.

LUMC Leiden purchases combination of vessels



Leiden University Medical Centre has purchased a combination of Chart Biomedical MVE1841 and Taylor Wharton 24K vessels from Cryo Solutions for their existing Cryo banks. All these vessels are equipped with dry gas phase storage systems.

Cryo Solutions official Planer distributor

In mid-2007, Cryo Solutions became the official distributor of planer controlled rate freezers for the Benelux.

Cryo Solutions can help you with maintenance and service issues as well as the delivery of spare parts. We even have a back up freezer in stock to allow for the quickest possible delivery should your existing unit fail.



Product info

MVE 816P-2T-190

Designed to meet the needs of the fertility/IVF repository



Innovative inventory system

Two tier storage (with cutout in top tier) allows convenient access to bottom tier.



Features/Benefits:

Vapor phase storage temperature of -190°C^*

Two tier storage system maximizes capacity while minimizing floor space

High efficiency design with offset neck for lowest possible LN2 consumption

Low maintenance polished stainless steel finish

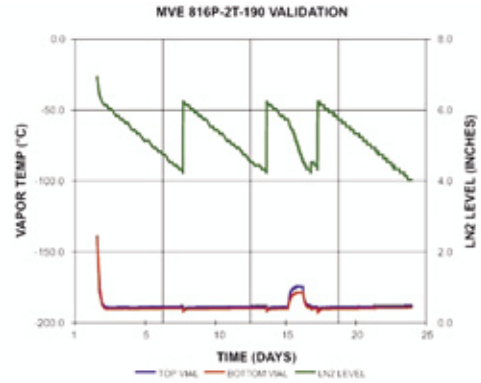
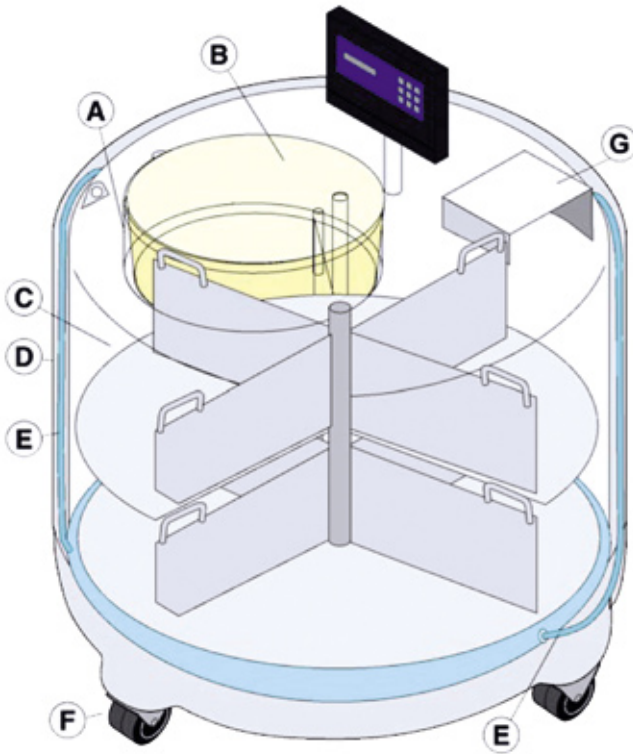
Available with Battery Backup and Hot Gas Bypass options

TEC 3000 control system with liquid level control and temperature alarms

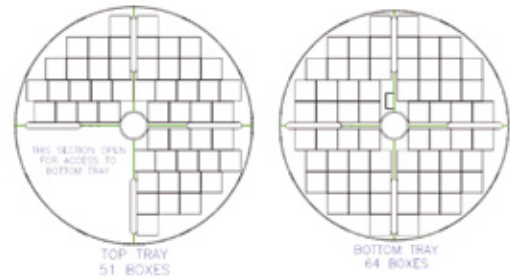
Optional Step

The all new MVE 816P-2T-190 freezer has been created with the fertility market in mind. This freezer is specifically designed to hold vials and SUC-1 canisters which are used by leading fertility clinics worldwide. A constant temperature allows for vapor storage throughout the freezer at near liquid nitrogen temperatures. The innovative inventory system incorporates a two level storage arrangement that utilizes an access portal to allow removal of product stored on the lower level.

*Temperature tolerance of $\pm 5^{\circ}\text{C}$



Layout for SUC Boxes



115 SUC Boxes Total

- A Offset neck design minimizes liquid nitrogen consumption
- B Lightweight composite lid is scratch and dent resistant
- C Two level rotating tray provides easy access to samples
- D Stainless steel construction reduces maintenance
- E Annular (internal) filling lines minimizes frost build up and reduces maintenance requirements
- F Durable casters equipped with brakes
- G Lid Stand

TWO Year Standard Warranty • FIVE Year Vacuum Warranty
Conforms to MDD 93/42/EEC, the Medical Device Directive for the EU.

United Dimensions	
Neck Opening <i>in (mm)</i>	12.5 (317)
Usable Internal Height (per level <i>in (mm)</i>)	13 (330)
Inside Diameter (top) <i>in (mm)</i>	28.7 (728)
Inside Diameter (bottom) <i>in (mm)</i>	27.7 (702)
Outside Diameter <i>in (mm)</i>	32 (813)
External Height <i>in (mm)</i>	50 (1271)
Liftover Height <i>in (mm)</i>	40.3 (1024)*
Weight Empty <i>lb. (kg)</i>	475 (215)
Weight Liquid Full <i>lb. (kg)</i>	1155 (524)
Unit Capacities	
SUC-1 Boxes	115
1.0 mL Vials	15870
1.2 mL Vials	16560
2.0 mL Vials	9200
0.5 cc Straws	35650
0.25 cc Straws	49910
LN2 Capacity (vapor operation)	56 liters

*With optional step. Without optional step, liftover height is 48.3" (1227mm).