

### KEY PRODUCT FEATURES AND BENEFITS

- Storage capacity from 3,200 to 39,000 vials
  - Also suitable for a wide variety of blood bag systems
- Suitable for liquid or vapour storage
- Cabinet or bin style
- Annular filling lines to reduce frost and ice formation
- Two supply solenoids to reduce risk of overfilling
- Optional Features – Battery Back-Up and Warm Gas Bypass
- Available with TEC 3000 electronic controller
  - Keyless security system
  - Level and temperature controls with both visible and audible alarms
  - Interface to external system via serial communications with RS-485
  - Stores time and date stamped information on 30,000 most recent events



### PRODUCT DESCRIPTION:

**Lower Lifetime Costs** - The MVE range has the lowest liquid usage compared to other equivalent liquid nitrogen freezers on the market today and the lowest running cost/sample. LN2 cost savings of up to 33% can be achieved when compared to standard storage units of equivalent capacity.

The quality and reliability of MVE products lead to a longer lifetime with virtually no requirements for major repairs. The expected lifetime is in excess of 15 years.

**Efficient Use of Space** - The compact design of the MVE range gives you the highest number of vials stored per square foot of laboratory space compared to other equivalent freezers on the market.

**Cabinet or Bin Style** - The MVE range is available in either a cabinet or bin style to suit your laboratory layout.

**State-Of-The Art Electronic Controller Unit** - The MVE TEC 3000 system is supplied with all versions in the MVE range with the exception of the basic model. It offers password protection, twin platinum RTD temperature probes with 2-point altitude adjusted calibration, seamless level measurement and LN2 usage statistics. In addition, the system offers self-diagnosis on start up and a serial interface, which allows access to all stored parameters (the system memory retains the time and date stamped information on controller events).

**Warranty** - There is a standard 2 year warranty on all equipment (parts and labour) and a **5 year vacuum warranty**. Chart MVE products have a rugged design, high quality welds and advanced vacuum technology.

**CryoService Deliver a Total Solution** - to meet a wide variety of Cryopreservation requirements. This includes liquid gases and associated storage vessels, super insulated vacuum transfer pipelines, the best liquid nitrogen vapour storage freezers on the market, oxygen depletion systems and business management outputs – a total package from one provider. The Chart MVE range extends from a broad line of liquid and vapour phase freezers for straw, ampoule & blood bag storage to lightweight aluminium shippers and Dewars.

# CRYOPRESERVATION EQUIPMENT

## MVE SERIES - LIQUID OR VAPOUR STORAGE

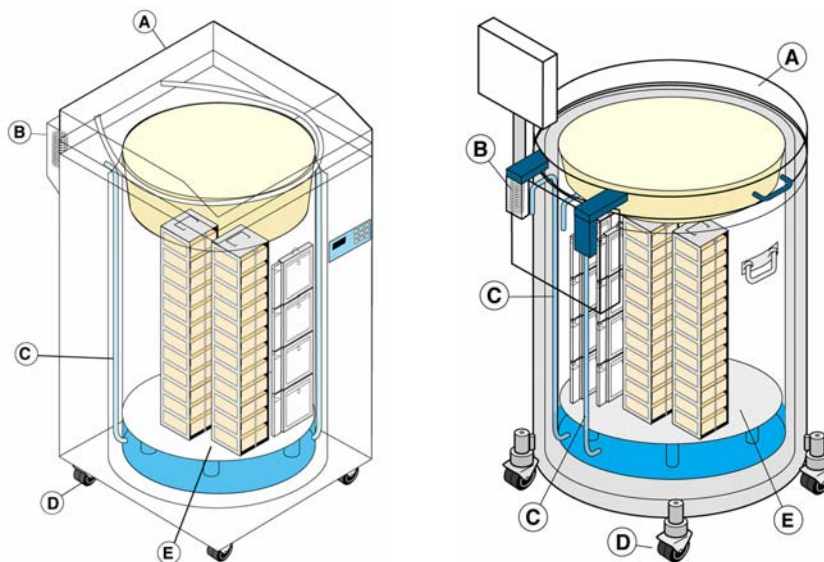
### AT A GLANCE COMPARISON OF RANGE

MVE Model Name	230	230II	511	600	611	1400	1411	1841
<b>Total 1.2 &amp; 2ml Vial Capacity</b>								
In Liquid Phase	3,200	5,200	10,400	16,900	16,900	26,650	26,650	39,000
In Vapour Phase	2,400	4,400	8,800	14,300	14,300	22,550	22,550	33,000
Outer Dimensions (mm)	457	457	579	711 x 892	695	822 x 1044	857	1067
Overall Height (mm)	768	1150	1118	1026	1033	1026	1034	1219

### DETAILED SPECIFICATION

MVE Model Name	230	230II	511	600	611	1400	1411	1841
<b>UNIT DIMENSIONS</b>								
LN2 Capacity (litres)	63	89	158	236	236	375	375	669
Neck Opening (mm)	408	408	528	638	638	806	806	1003
Useable Internal Height (mm)	492	735	756	738	757	735	726	846
Inner Diameter (mm)	408	408	528	638	638	806	806	1003
Overall Height (mm)	768	1150	1118	1026	1033	1026	1034	1219
Outer Dimensions (mm)	457	457	579	711 x 892	695	882 x 1044	857	1067
Weight Empty (kg)	36	57	103.6	150	128	240	240	306
<b>UNIT CAPACITIES - (In Liquid) 1.2 &amp; 2ml Vials (Internally Threaded)</b>								
Number of Racks (100 cell boxes)	4	4	7	12	12	18	18	28
Number of Racks (25 cell boxes)	-	-	4	4	4	10	10	8
Total Number of Racks	4	4	11	16	16	28	28	36
<b>Total Vial Capacity</b>	<b>3,200</b>	<b>5,200</b>	<b>10,400</b>	<b>16,900</b>	<b>16,900</b>	<b>26,650</b>	<b>26,650</b>	<b>39,000</b>
<b>Blood Bag Capacities</b>								
Fenwall 4R9953	-	132	224	352	352	512	512	980

- A Aluminium lid construction - designed for longer life
- B Tough durable hinges
- C Annular filling lines to reduce frost and ice formation near lid
- D Super-tough, durable casters
- E Optional vapour platform



### OPTIONAL FEATURES

**Battery Back-Up** - provides fill operation for 72 hours in the event of power supply failure

**Gas By-Pass** - vents the incoming filling gas until liquid reaches the valve, minimising the normal filling losses associated with filling from liquid cylinders

Systems available which conform to MMD 93/42/EEC, the Medical Device Directive for the EU