

CBS

ISOTHERMAL CAROUSEL

LIQUID NITROGEN VAPOR STORAGE SYSTEMS



Custom BioGenic Systems ISOTHERMAL CAROUSEL Liquid Nitrogen Vapor Storage System combines the innovative -190°C Isothermal design with a small opening and an interior rotating carousel. The small opening provides low liquid nitrogen consumption, a lightweight, user-friendly lid and a consistently low temperature in the freezer. The interior carousel is rotated by a unique ratcheting handle on top of the freezer that will position samples to the front of the freezer, even with the lid on. Each ISOTHERMAL CAROUSEL system includes the advanced 2301 auto-fill/monitoring controller to provide security and ease of operation. Custom Biogenic Systems has four ISOTHERMAL CAROUSEL models available and an extensive selection of inventory racks to store any size tube, vial, box, microplate, etc. to complete the system. Custom Configurations can also be designed to meet any requirement.

Isothermal Carousel Features

- No need to remove one rack to retrieve another rack
- No unnecessary exposure to room temperatures
- Carousel is rotated from the outside of the freezer eliminating the risk of injury or temperature fluctuations.
- Exceptional temperature uniformity
- Easy access to samples from the front of the freezer
- Removable console allows for complete access to the sample storage space if necessary.
- CBS Isothermal Carousel freezers are cooled by a PATENTED liquid nitrogen jacket, with no liquid in the sample storage space
- The only true DRY STORAGE FREEZER available
- No risk of cross-contamination through liquid nitrogen contact or the need for special packaging
- The isothermal design also provides added user-safety eliminating contact or splashing of liquid nitrogen
- Manufactured to ISO 13485 Standards
- All units conform to MDD 93/43/EEC Class IIA

Series 2301 Auto-Fill / Monitor System



2301 Features

- RS-485 communication port
- Printer port
- Alarm remote relay
- Memory stores all functions and alarms, time and date stamped, with download to printer or computer
- Key lock power and programming
- Self diagnostic power up
- Warm gas by-pass
- System validation with print out
- Programmable time fill, sequential fill, or one fill all fill option

- Programmable freezer identification max. 31 units
- Programmable temperature readout
- Programmable print out
- Cryomonitor software for freezer function and alarm download
- Dedicated 24VDC signal output to activate TS-1B LN2 supply tank switcher or third 24VDC valve to control the main LN2 supply
- 0-5 volt output standard
- 4-20 mA output standard

2301 Alarms

- Visual, audible and remote
- Low level
- High level
- Temperature
- Temperature sensor
- LN2 source / supply
- Fill valve / by-pass valve failure
- By-Pass sensor
- Remote power loss
- Optional overflow sensor/alarm

2301 Front Panel Display

- Four line LCD readout
- Liquid level inches / centimeters
- Temperature display fahrenheit / centigrade
- System status start / stop fill A and B.
- All programming functions

Carousel Unit Specifications

| | V3000-AB/C | V3000EH-AB/C | V5000-AB/C | V5000EH-AB/C |
|-------------------------------------|--------------|--------------|-------------|--------------|
| Liquid Nitrogen Capacity (Liters) | 70 | 89 | 93 | 140 |
| External Dimensions: | | | | |
| Width Inches(mm) | 37 (940) | 37 (940) | 47 (1,194) | 47 (1,194) |
| Depth Inches(mm) | 48 (1,219) | 48 (1,219) | 54 (1,372) | 54 (1,372) |
| Height Inches(mm) | 44.5 (1,130) | 54.5 (1,384) | 49.5(1,257) | 54.5 (1,384) |
| Usable Interior Height Inches(mm) | 27 (686) | 35 (889) | 29 (737) | 32 (813) |
| Usable Interior Diameter Inches(mm) | 29 (737) | 29 (737) | 38.5 (978) | 38.5 (978) |
| Weight Empty lbs(kg) | 600 (272) | 636 (288) | 939 (425) | 997 (452) |
| Weight Full lbs(kg) | 720 (327) | 795 (361) | 1,100 (499) | 1,247 (566) |
| Max. Vial Capacity (2ml) | 18,000 | 22,500 | 37,700 | 43,500 |
| Max Blood Bag Capacity (50ml) | 852 | 1,136 | 1,722 | 1,968 |