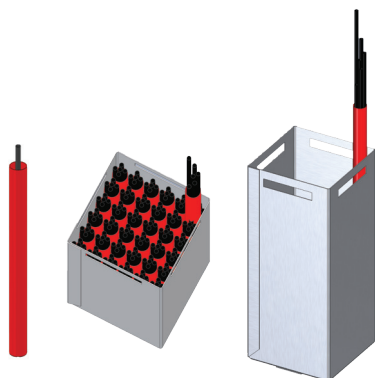


## Straw Inventory System

### Dry Storage

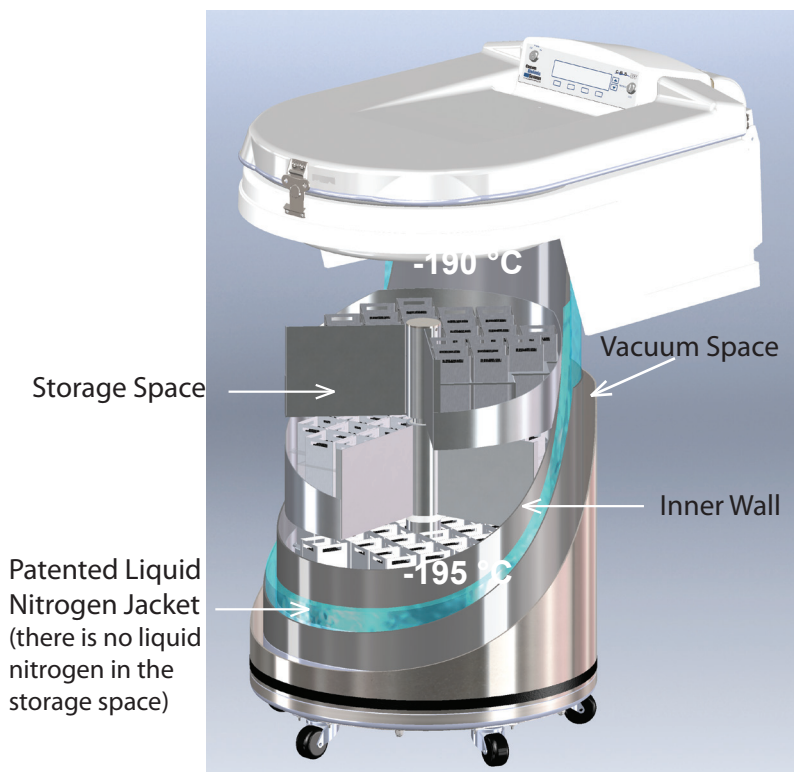
Designed for the CBS V1500 or V3000 Isothermal Freezer, this patented Inventory System provides an efficient solution for storing and working with straws, free from liquid nitrogen contact at  $-190^{\circ}\text{C}$ .

- Ideal for straw storage applications.
- Isothermal dry storage with uniform temperatures throughout the freezer from  $-195^{\circ}\text{C}$  to  $-190^{\circ}\text{C}$ .
- 3 level rotating carousel provides convenient inventory control and maximizes storage space.
- The middle and lower levels are ideal for medium and long term storage respectively, whilst the upper level can be used for storage and as a workspace for viewing and manipulating samples at  $-190^{\circ}\text{C}$ .
- Easy and safe retrieval of samples using the patented retrieval tool.



360 Straws in 36 Goblets are stored in each canister (10 straws per Goblet)\*

\*Maximum capacity is subject to straw diameter. Straws and goblets are not supplied.



[www.custombiogenics.com](http://www.custombiogenics.com)

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# Features / Specifications

## How the system works.



The upper level provides a convenient workspace where canisters can be parked (shown in green) and samples inspected at -190 °C.



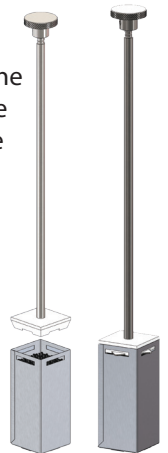
## Why is dry storage important?

**Safety.** Storage in liquid nitrogen can make vials shrink. This may cause liquid nitrogen to seep into the vials, which on rewarming, expand and subsequently explode as nitrogen vaporizes inside the vials. Dry storage eliminates this possibility. Also, the Isothermal design provides added user-safety eliminating contact with or splashing of liquid nitrogen.

**Cross Contamination.** Studies have shown that viral, bacterial and fungal pathogens can survive after suspension in liquid nitrogen. Infected samples can cross contaminate other samples in the same liquid nitrogen tank. Dry storage greatly reduces the possibility of cross contamination.

| Capacity (.25ml straws in 9.5 mm goblets) |                          | V1500SS     | V3000SS      |
|---|--------------------------|-------------|--------------|
| Top Level                                 | canisters / .25ml straws | 20 / 7,200  | 51 / 18,360  |
| Mid Level                                 | canisters / .25ml straws | 20 / 7,200  | 51 / 18,360  |
| Lower Level                               | canisters / .25ml straws | 28 / 10,080 | 68 / 24,480  |
| Total                                     | canisters / .25ml straws | 68 / 24,480 | 170 / 61,200 |

By turning the Retractor Knob, the blade rotates and engages in the slots of the canister for easy, safe removal from the freezer.



\*Maximum capacity is subject to straw diameter. Straws and goblets are not supplied.

Our 2301 controller is time tested, reliable and designed to keep your sample storage safe and secure.

### New 16 Port Connector

- 0-5 volt outputs provide temperature & level data for connection to existing alarm/monitor system.
- 4-20 mA outputs provide temperature & level data for connection to existing alarm/monitor system.
- Sequential and One-Fill-All-Fill input and output connection for filling systems.

### New two level temperature display option

- Temp. A displays temperature at the lid, approximately 11" (27.94 cm).
- Temp. B displays temperature inside the storage space, approximately 20" (50.80 cm).



### Additional Features

- Records 12 alarms & events such as fill start, fill stop, etc. with dated time stamp printed or displayed.
- Download cryomonitor data files to PC and be able to convert them to .csv files for use in Microsoft Excel.
- Ethernet and auxiliary RS485 for future expansion.
- Dedicated 24 Vdc signal output to activate a third 24 Vdc valve to control the LN2 supply.
- Global Remote Alarm - Dry contact that switches during any alarm condition.
- Data Log - Report Temp. A, Temp. B and level with date and time stamp printed or displayed.

Your Local CBS Representative is:

