

# Advance Biotech Solutions India Pvt. Ltd.

(Advance Technologies, Effective Solutions)



CRUO ADVANCE

#### LIQUID NITROGEN CONTAINER

ABSIPL IS A MARKET LEADER IN REFRIGERATION & COOLING TECHNOLOGY. ABSIPL REPRESENTING MARKET WITH WIDEST RANGE OF LN<sub>2</sub> CONTAINER BY THEIR OEM MANUFACTURED SYSTEM. THIS PRODUCT IS DESIGNED TO STORE BLOOD PLASMA, BIOLOGICAL MATERIALS. APPLICATIONS COULD BE FOUND IN THE CHEMICAL LABORATORIES EPIDEMIC PREVENTION, HOSPITALS, ANIMAL HUSBANDRY AREAS, BLOOD BANKS AND RESEARCH INSTITUTES.

WE ABSIPL MAKES LIQUID NITROGEN CONTAINER BRAND CRYO \* ADVANCE MODEL CRYO KING SERIES FOR STORAGE OF CRYO GENIC SAMPLE FOR LONG PRESERVATION.

CRYO KING SERIES LIQUID NITROGEN CONTAINER COMBINED WITH THE ADVANTAGES OF LITTLE NITROGEN CONSUMPTION AND MEDIUM RANGE STORAGE CAPACITY, MEETING DIFFERENT NEEDS OF PROFESSIONALS ALL OVER THE WORLD.

THIS KIND OF CONTAINER PROVIDES HIGH EFFICIENCY OF LARGE CAPACITY SAMPLE CRYOPRESERVATION WITH LIGHT WEIGHT AND SMALL SPACE OCCUPYING. ALL MODELS INCLUDE RACKS, PC CRYO BOXES AND LOCKABLE LIDS.



### <u>Key Features</u>

- Equip with racks and box
- Dual-lock construction
- Durable aluminium construction
- Larger storage capacity, less liquid nitrogen consumption
- Compatible with all major storage box brands
- Liquid level monitoring system optional
- Mobile roller bases optional
- 5 year vacuum warranty

### Real-time Liquid Level Monitoring System

Liquid level monitoring system continuously monitors the temperature inside the container. The liquid level monitoring system matches all Cryo King models, optimal choice for long time monitoring of samples storage. It realizes reminding users to add liquid nitrogen timely too. There are Cryo monitor 1000/2000 models.

### Cryo monitor 1000 liquid level monitor

This system with real-time temperature display:

- 1. High/low temperature alarm
- 2. Sensor fault audible and visual alarm



### Ultra Low-power Consumption Liquid Level Monitoring System

Data collected by Smart Sensor, and then transferred to cloud storage by Black Box. Users only have to log on Cold Cloud to query and download data. This system is the latest monitoring product easy installation and accurate data.



### **Cryomonitor 2000 Automatically Filling System**

It is very useful to fill liquid nitrogen automatically for long time sample storage. Cryomonitor 2000 constantly monitors temperature inside the container, controlling liquid filling solenoid value open and close, supplying liquid nitrogen timely.

# **Specification**

| Model                     | UNIT  | CSA-CK600 | CSA-CK750 | CSA-CK900 | CSA-CK2000 | CSA-CK2400 |
|---------------------------|-------|-----------|-----------|-----------|------------|------------|
| Capacity                  | L     | 30.0      | 33.3      | 55.0      | 65.0       | 65.0       |
| Empty Weight              | KG    | 13.1      | 14.6      | 18.2      | 30.0       | 39.0       |
| Neck Diameter             | MM    | 125       | 125       | 127       | 216        | 216        |
| Outer Diameter            | MM    | 464       | 464       | 508       | 678        | 678        |
| Height                    | MM    | 608       | 627       | 718       | 737        | 737        |
| Static Evaporation Loss   | L/D   | 0.33      | 0.36      | 0.36      | 0.58       | 0.58       |
| Mass                      |       |           |           |           |            |            |
| Static Holding Time       | DAYS  | 90        | 97        | 130       | 120        | 120        |
| Number of Racks/ Canister |       | 6         | 6         | 6         | 6          | 6          |
| Number of boxes per Rack  |       | 4         | 5         | 6         | 4          | 4          |
| Measurement of Racks      | MM    | 82x 84    | 82x 84    | 82x 84    | 142x144    | 142x144    |
| Measurement of Boxes      | N     | 76x 76    | 76x 76    | 76x 76    | 134x134    | 134x134    |
| Number of vials           | 2.0ML | 600       | 750       | 900       | 2000       | 2400       |

| Model                        | UNIT  | CSA-CK3000 | CSA-CK3600 | CSA-CK4000 | CSA-CK4800 | CSA-CK6000 |
|------------------------------|-------|------------|------------|------------|------------|------------|
| Capacity                     | L     | 95.0       | 115.0      | 120.0      | 140.0      | 175.0      |
| Empty Weight                 | KG    | 42.0       | 43.5       | 45.0       | 45.0       | 54.0       |
| Neck Diameter                | MM    | 216        | 216        | 216        | 216        | 216        |
| Outer Diameter               | MM    | 678        | 678        | 678        | 678        | 678        |
| Height                       | MM    | 795        | 860        | 1050       | 1050       | 1130       |
| Static Evaporation Loss Mass | L/D   | 0.95       | 0.95       | 0.95       | 0.95       | 0.95       |
| Static Holding Time          | DAYS  | 100        | 121        | 126        | 147        | 184        |
| Number of Racks              |       | 6          | 6          | 6          | 6          | 6          |
| Number of Boxes per Rack     |       | 5          | 6          | 7          | 8          | 10         |
| Measurement of Racks         | MM    | 142x144    | 142x144    | 142x144    | 142x144    | 142x144    |
| Measurement of Boxes         | N     | 134x134    | 134x134    | 134x134    | 134x134    | 134x134    |
| Number of Vials              | 2.0ML | 3000       | 3600       | 4000       | 4800       | 6000       |

**CRYO QUEEN** SERIES (DRY SHIPPER) ARE ECONOMICAL SMALL AND MEDIUM SIZE LIQUID NITROGEN CONTAINERS FOR LONG TERM STATIC STATE STORAGE. CRYO QUEEN SERIES ARE MADE OF HIGH STRENGTH AND LIGHTWEIGHT ALUMINIUM ALLOY. THERE IS MULTILAYER SUPERIOR PERFORMANCE THERMAL INSULATION INSIDE.

VARIOUS ACCESSORIES ARE OPTIONAL. MAINLY APPLY TO ANIMAL HUSBANDRY AND LABORATORIES.

### <u>Key Features</u>

High strength and light weight aluminium construction Ultra low evaporation losses Capping Numbered index location points for canisters • • Mobile roller base optional Cover plug Lockable lid Vacuum seal • Handle joints Straw storage LN<sub>2</sub> pump optional 5 years vacuum warranty Multi-layer insulati Gooseneck Adsorbent Liner Side support Shell Pails \* ADVANCE Bottom support Transport Type Storage Type

## **Specification**

| Model                   | CSA-CQ3 | CSA-CQ5      | CSA-CQ10 | CSA-CQ15 | CSA-CQ25 | CSA-CQ30 | CSA-CQ50 |
|-------------------------|---------|--------------|----------|----------|----------|----------|----------|
| Capacity                | 3.0     | 5.0          | 10.0     | 15.0     | 20.0     | 30       | 50       |
| Empty Weight            | 3.1     | 4.8          | 5.0      | 5.5      | 5.5      | 6.0      | 10.0     |
| Neck Diameter           | 50      | 50           | 50       | 50       | 50       | 50       | 50       |
| Outer Diameter          | 223     | 300          | 300      | 396      | 396      | 396      | 508      |
| Height                  | 425     | 482          | 552      | 591      | 700      | 672      | 746      |
| Static Evaporation Loss | 0.11    | <b>0</b> .11 | 0.11     | 0.11     | 0.11     | 0.11     | 0.23     |
| Mass                    |         |              |          | 100      |          |          |          |
| Static Holding Time     | 26      | 52           | 86       | 135      | 168      | 286      | 213      |
| Canister Outer          | 38      | 38           | 38       | 38       | 38       | 38       | 38       |
| Diameter                |         |              |          |          |          |          |          |
| Canister Height         | 120     | 120          | 120      | 120      | 120      | 120      | 120/276  |
| Number of Canister      | 6       | 6            | 6        | 6        | 6        | 6        | 6        |



### <u>Pressurize Equipment</u>

#### SELF-PRESSURIZED LIQUID NITROGEN SUPPLYING TANKS

#### **INTRODUCTION**

Self-pressurized series liquid nitrogen replenishment tank is used for transportation and storage of lowtemperature liquid nitrogen. It is a high-performance low-temperature liquid nitrogen medium storage container. Internally stored liquid nitrogen is drained. Self-pressurization series liquid nitrogen tanks are composed of control structure and tank body. All models in this series are equipped with four mobile swivel casters, which facilitate the use and movement of containers in different locations. At present, it is widely used in mold industry, animal husbandry, medicine, semiconductor, food, aerospace, military and low temperature chemical industries and fields.

#### **FEATUERES**

- 1. Unique neck design reduces liquid nitrogen evaporation rate
- 2. Perfect safety structure
- 3. Comes with universal casters, easy to move PD
- 4. Can be equipped with automatic rehydration system
- 5. 5 Years Vacuum Warranty
- 6. Unique stainless steel tank polishing technology
- 7. With low temperature regulator valve (optional protective operating ring
- 8. Configurable intelligent monitoring system for remote monitoring

|  | _     |           |           |            |            |            |
|--|-------|-----------|-----------|------------|------------|------------|
| Model  | Unit  | CSA-CQ30P | CSA-CQ50P | CSA-CQ100P | CSA-CQ150P | CSA-CQ200P |
| Geometric volume                                 | L     | 33        | 55        | 110        | 165        | 220        |
| Effective volume                                 | L     | 30        | 50        | 100        | 150        | 200        |
| Tank outer diameter                              | mm    | 404       | 455       | 556        | 656        | 656        |
| Height   | mm    | 850       | 960       | 1120       | 1110       | 1280       |
| Empty weight                                     | kg    | 30        | 38        | 63         | 86         | 96         |
| Static liquid nitrogen daily<br>evaporation rate | %     | 3.2       | 2.2       | 1.2        | 1          | 0.8        |
| Standard working pressure                        | Мра   | 0.05      | 0.05      | 0.05       | 0.05       | 0.05       |
| Maximum working pressure                         | Мра   | 0.09      | 0.09      | 0.09       | 0.09       | 0.09       |
| Infusion volume                                  | L/min | ≥5 L/Min  | ≥5L/Min   | ≥5 L/Min   | ≥5 L/Min   | ≥10L/Min   |
| Primary safety valve<br>opening pressure         | Мра   | 0.099     | 0.099     | 0.099      | 0.099      | 0.099      |
| Secondary safety valve<br>opening pressure       | Мра   | 0.15      | 0.15      | 0.15       | 0.15       | 0.15       |
| Pressure gauge<br>indication range               | Мра   | 0~0.25    | 0~0.25    | 0~0.25     | 0~0.25     | 0~0.25     |

| Model  | Unit  | CSA-CQ230P | CSA-CQ300P | CSA-CQ500P | CSA-CQ1000P         | CSA-CQ2000P |
|--|-------|------------|------------|------------|---------------------|-------------|
| Geometric volume                                 | L     | 250        | 330        | 550        | 1100                | 2150        |
| Effective volume                                 | L     | 230        | 300        | 500        | 1000                | 2000        |
| Tank outer diameter                              | mm    | 656        | 806        | 958        | 1260                | 1362        |
| Height   | mm    | 1580       | 1410       | 1500       | 1480                | 1630        |
| Empty weight                                     | kg    | 130        | 205        | 265        | 540                 | 950         |
| Static liquid nitrogen daily<br>evaporation rate | %     | 0.6        | 0.8        | 0.8        | 0.6                 | 0.5         |
| Standard working<br>pressure                     | Мра   | 0.05       | 0.05       | 0.05       | 0.05                | 0.05        |
| Maximum working<br>pressure                      | Мра   | 0.09       | 0.09       | 0.09       | 0.09                | 0.09        |
| Infusion volume                                  | L/min | ≥10L/Min   | ≥10L/Min   | ≥10L/Min   | ≥10L/Min            | ≥10L/Min    |
| Primary safety valve<br>opening pressure         | Мра   | 0.099      | 0.099      | 0.099      | 0.099               | 0.099       |
| Secondary safety valve<br>opening pressure       | Мра   | 0.15       | 0.15       | 0.15       | 0.15                | 0.15        |
| Pressure gauge indication range                  | Мра   | 0~0.25     | 0~0.25     | 0~0.25     | <mark>0~0.25</mark> | 0~0.25      |







### SMALL CAPACITY VAPOR PHASE LIQUID NITROGEN CONTAINERS

The small gas phase liquid nitrogen tank realizes real-time temperature monitoring, liquid level monitoring, automatic replenishment, remote monitoring and alarming, and automatic backup storage of monitoring data. Based on the capacitive liquid level sensor, the liquid level can be easily and automatically controlled to achieve gas-phase storage at-190°C at the top of the tank, which completely solves the technical problems of electronic information technology in the low temperature environment of -196°C. The advanced liquid nitrogen tank manufacturing technology and intelligent monitoring technology are perfectly combined. The product is light in weight, small in footprint, large in capacity, and efficient in sample access. It can monitor the running status of the liquid nitrogen tank in real time, and alarm in time if there is a problem to ensure that the sample Store safely. Mainly suitable for users such as biomedical and sample libraries



| Model                           | CSA-CB2400 | CSA-CB3600 | CSA-CB4800 | CSA-CB6000 |
|---------------------------------|------------|------------|------------|------------|
| Number of racks                 | 6          | 6          | 6          | 6          |
| 2ml cryo vials number           | 2400       | 3600       | 4800       | 6000       |
| Number of layers                | 4          | 6          | 8          | 10         |
| Capacity ( L )                  | 65         | 115        | 145        | 175        |
| Static Evaporation Rate ( L/ D) | 0.9        | 0.95       | 1.0        | 1.5        |
| Neck Diameter (mm )             | 216        | 216        | 216        | 216        |
| Height (mm)                     | 780        | 800        | 1050       | 1100       |
| Outer Diameter (mm)             | 678        | 678        | 678        | 678        |

### DRY SHIPPER LIQUID NITROGEN CONAINER

#### **INTRODUCTION**

Air transport series is suitable for transporting samples in deep and low temperature environment(Storage in vapor phase at temperatures below -190°C)It can avoid the danger of liquid nitrogen release during transportation, can be used to transport liquid nitrogen Hazardous samples for short-term aerospace such as aircraft Liquid samples are suitable for internal transport, suitable for air freight. It can absorb and preserve liquid nitrogen, even if the container is dumped, there is no possibility of liquid nitrogen overflow. there is still a special stainless steel mesh interception area and liquid nitrogen knowledge, which can prevent liquid nitrogen from being mixed into the cryopreservation tube. Mainly suitable for laboratory users and users who need to transport for a short period of time.

#### **FEATURES**

- 1. 150°C gas phase low temperature transportation and storage
- 2. High-strength, lightweight aluminum construction for durability
- 3. 5 Years Vacuum Quality Guarantee
- 4. Fast liquid nitrogen adsorption design to revent liquid nitrogen overflow
- 5. Stainless steel mesh split design to avoid liquid nitrogen mixing into the sample Can be equipped with a safety lock to provide security for samples
- 6. Configurable intelligent monitoring system to view the sample storage environment in real time

| Model                         | CSA-DS 1.5 | CSA-DS 3 | CSA-DS 4         | CSA-DS 6 | CSA-DS 6/190 |  |
|-------------------------------|------------|----------|------------------|----------|--------------|--|
| CapacityL                     | 1.5        | 3        | 4                | 6        | 6            |  |
| Liquid nitrogen adsorption    | 0.6        | 1.3      | 1.8              | 2.4      | 1.8          |  |
| Canister dimension (mm)       | 025*120    | 038*120  | 063*276          | 070*276  | 139*139*56   |  |
| NUMBERS Cryo vilas            | 6          | 9        | 9 <mark>6</mark> | 126      | 100          |  |
| 25cells cryo box              | N/A        | N/A      | N/A              | N/A      | N/A          |  |
| 100cells cryo box             | N/A        | N/A      | N/A              | N/A      | 1            |  |
| 50mlblood bags                | N/A        | N/A      | N/A              | N/A      | N/A          |  |
| 250ml blood bags              | N/A        | N/A      | N/A              | N/A      | N/A          |  |
| Static Evaporation Loss L/day | 0.09       | 0.15     | 0.19             | 0.21     | 0.8          |  |
| Static Holding Time           | 7          | 9        | 9                | 11       | 2            |  |
| Neck Diameter (mm)            | 35         | 50       | 70               | 80       | 190          |  |
| Height (mm)                   | 395        | 435      | 580              | 435      | 470          |  |
| Outer Diameter (mm)           | 180        | 224      | 224              | 300      | 252          |  |
| Empty weight (kg)             | 1.8        | 3.3      | 5.5              | 5.5      | 6.5          |  |
| Full weight (㎏)               | 3.0        | 5.7      | 8.8              | 10.4     | 11.4         |  |
| Sample types                  |            | cryo box |                  |          |              |  |

| Model              | CSA-DS 10/125      | CSA-DS 15/216 | CSA-DS 25/216 | CSA-DS 4/125 | CSA-DS 6/190  | CSA-DS 25/216 |  |
|--------------------|--------------------|---------------|---------------|--------------|---------------|---------------|--|
| Capacity L         | 10                 | 15            | 25            | 4            | 6             | 25            |  |
| Liquid nitrogen    | 6                  | 6             | 10            | 2            | 1.8           | 10            |  |
| Canister           | 76*76*225          | 139*139*112   | 139*139*280   | N/A          | N/A           | N/A           |  |
| NUMBERS Cryo       | 100                | 200           | 500           | N/A          | N/A           | N/A           |  |
| 25cells cryo box   | 4                  | N/A           | N/A           | N/A          | N/A           | N/A           |  |
| 100cells cryo box  | N/A                | 2             | 5             | N/A          | N/A           | N/A           |  |
| 50mlblood bags     | N/A                | N/A           | N/A           | 4            | N/A           | N/A           |  |
| 250ml blood bags   | N/A                | N/A           | N/A           | N/A          | 2             | 10            |  |
| Static Evaporation | 0.4                | 0.89          | 0.89          | 0.45         | 0.8           | 0.89          |  |
| Static Holding     | 15                 | 7             | 11            | 4            | 2             | 11            |  |
| Neck Diameter      | 125                | 216           | 216           | 125          | 190           | 216           |  |
| Height (mm)        | 554                | 480           | 650           | 615          | 470           | 650           |  |
| Outer Diameter     | 300                | 396           | 396           | 224          | 252           | 396           |  |
| Empty weight (kg   | 8                  | 11            | 12.5          | 8            | 6.5           | 12            |  |
| Full weight (kg)   | 16. <mark>1</mark> | 23.2          | 32.9          | 11.3         | 11.4          | 32.4          |  |
| Sample types       | C                  | ryo box       |               |              | Blood Bag box |               |  |



#### LAB SERIES

#### **INTRODUCTION**

The liquid nitrogen storage and distribution series is specially designed for a small amount of liquid nitrogen storage and short-distance transportation. It has small diameter and low evaporation loss rate. It is an efficient, convenient and economical way to store and distribute liquid nitrogen. pressure discharge liquid nitrogen. Widely used in animal husbandry bureaus, farms, universities and other industries.

#### **FEATURES**

- 1. High-strength, lightweight aluminum construction for durability
- 2. Standard KF50 caliber, convenient for liquid nitrogen pump connection
- 3. High quality neck tube reduces loss of liquid nitrogen
- 4. A variety of volumes to choose from table
- 5. Can be equipped with a protective cover to prevent bumps
- 6. Can be equipped with a mobile trolley for easy transportation
- 7. 5 Years Vacuum Guarantee
- 8. 9.Product CE certification



| Model                | CSA-LS 3       | -LS 3 CSA-LS 6 C |      | CSA-LS 20 | CSA-LS 30 | CSA-LS 50 |  |  |  |
|----------------------|----------------|------------------|------|-----------|-----------|-----------|--|--|--|
| PERFORMANCE          |                |                  |      |           |           |           |  |  |  |
| LN2 CAPACITY         | 3              | 6                | 10   | 20        | 30        | 50        |  |  |  |
| Static Evaporation   | 0.12           | 0.12             | 0.12 | 0.12      | 0.12      | 0.23      |  |  |  |
|                      | UNIT dimension |                  |      |           |           |           |  |  |  |
| Neck diamter (mm)    | 50             | 50               | 50   | 50        | 50        | 50        |  |  |  |
| Height(mm)           | 427            | 471              | 534  | 661       | 648       | 738       |  |  |  |
| Out diameter(mm)     | 223            | 300              | 300  | 384       | 464       | 508       |  |  |  |
| Inisde diameter (mm) | 160            | 231              | 231  | 296       | 386       | 420       |  |  |  |
| Empty weight (kg)    | 3.1            | 4.8              | 6.5  | 12        | 16        | 21        |  |  |  |

#### **CONTROLLED RATE FREEZER**

This series of program-controlled cooling devices is a highperformance, safe and reliable refrigeration system with adjustable temperature change rate. It has been widely used in various fields such as light industry, agriculture, medicine, and basic biological research. , Cryopreservation of bone marrow cells, tumor cells, animal and plant cells, cardiomyocytes, etc. The newly designed integrated Cryo-box system adopts the latest temperature control technology and liquid nitrogen dispersion technology, which makes the program-controlled cooling process uniform and stable, and can perform IQ/OQ operation, effectively meeting the needs of GLP laboratories



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#### **FEATUERES**

- Microprocessor control, high control precision,
- In-situ foam insulation design, good thermal insulation performance
- Dual probes for precise temperature control,
- Touch screen simultaneously displays the transmission curve to display parameters such as cavity and sample temperature,
- o Automatic data storage and backup to ensure that there is evidence available check
- Powder-coated cavity structure, robust and durable
- o 7 Stainless steel inner wall, silent operation, quiet operation
- Front door for easy access to samples

| MODLE                | CSA-CRF-18  | CSA-CRF36       | CSA-CRF54    |  |  |
|----------------------|-------------|-----------------|--------------|--|--|
|                      | CAPA        | ACITY           |              |  |  |
| 2m1VIALS             | 380         | 805             | 1185         |  |  |
| 5mlVIALS             | 152         | 322             | 474          |  |  |
| 25/50ml BLOOD<br>BAG | 30          | 60              | 90           |  |  |
| 250mlBLOOD BAG       | 4           | 8               | 12           |  |  |
| TEMPERRATER          |             | 50°C T O -190°C |              |  |  |
| UNIT DIMENISON       | 810*540*790 | 960*540*790     | 1110*540*790 |  |  |
| INSIDE DIMENSION     | 180*305*330 | 330*305*330     | 485*305*330  |  |  |

| CAPACITY (L)       | 18  | 36           | 54 |  |  |  |  |  |
|--------------------|---|--------------|----|--|--|--|--|--|
| NET WEIGHT (KG)    | 64  | 83           |    |  |  |  |  |  |
| COOLING RATE       |   | 0.1-60°C/min |    |  |  |  |  |  |
| HEATING RATE       | 0.1-10°C/min  |              |    |  |  |  |  |  |
| TEMPERATURE CHANGE | <2°C (The temperature difference between two points in the cavity during the cooling process) |              |    |  |  |  |  |  |
| CONTROL            | Microcomputer control   |              |    |  |  |  |  |  |
| PROGRAM CONTROL    | Sample temperature/Cavity ten   | nperature    |    |  |  |  |  |  |
| DISPLAY            | 7inch touch screen  |              |    |  |  |  |  |  |
| AVAILABLE PROGRAMS | 6 preset programs, 20 user-defined programs   |              |    |  |  |  |  |  |

#### **STAINLESS STEEL CRYOBIO BANK BIG STORAGE CAPACITY**

Provides a safer ultra-low temperature liquid storage system for large dry liquid smart tanks, which can store 15600-18002ml cryopreservation tubes, and the large diameter can facilitate the storage of samples. Provide users with 5 safer and more delicious liquid level designs. The temperature real-time system monitors the equipment status, monitoring. The integrated folding table, auxiliary work table and fan-shaped ladder table are designed to ensure the safe operation of the sample equipment. Monitor ability and operability monitor monitor mode. Opening for a long time can ensure that the temperature of the entire interior is also uniform and stable. When the lid is stored, the temperature



difference in the entire area does not exceed 10°C, and the part that freezes over the top of the storage can be as low as -190°Co, in order to achieve a safer and more user-friendly The design can ensure that the cells take up space and more storage capacity.

#### **FEATURES**

- 1. Compatible with both gas phase and liquid phase storage modes to meet all user needs
- 2. Various volumes are available to meet customer needs
- 3. Compatible with both manual and automatic rehydration control modes, making the operation experience more flexible
- 4. Key defogging function, easy to find and take samples
- 5. Multiple humanized designs, more convenient to operate
- 6. Advanced temperature, liquid level monitoring and alarm system, which can realize network monitoring
- 7. Hot gas bypass design reduces the influence of temperature fluctuations inside the tank and ensures the safety of samples
- 8. Support data backup and save, print and export

|   | 操作员 |       | 液氮储               | 着存智能智     | 锂系统         |                   | 2022/01/01 14:00 | <b>7智能管</b>   | 理系统  |     |              |  |
|---|-----|-------|-------------------|-----------|-------------|-------------------|------------------|---|------|-----|--------------|--|
|   |     |       | 0.0 <sup>°C</sup> |           |             | 643 <sup>mn</sup> |                  | mm/d ]<br>3   |      |     |              |  |
| Bar start of  |     | Aista | 18                | B点温度      |             | 液位高度              | <del>A</del>     | 氣消耗量  |      |     |              |  |
| and the second se |     |       | OFF NO<br>充液      |           | OFF NO      | )                 | OFF ()<br>消音     | 0   |      |     |              |  |
|   |     |       |                   | <b>P2</b> | 18 <b>1</b> |                   |                  |   | ₽    | 0   | ( <b>2</b> ) |  |
|   | -   | 1     | 1                 | 10        | E/<br>RA    | <b>0</b>          | <b>9</b>         |   | a    | .44 | -            |  |
|   | *   |       |                   | 1         |             | -                 |                  | and the second se | - BY | - 9 | 9            |  |

A variety of mainstream communication protocols; using a 10-inch or 7-inch LCD smart touch screen to The chart form visually displays the operation status and various parameters of the liquid nitrogen tank.

The terminal can automatically/manually open the liquid inlet solenoid valve to replenish liquid nitrogen, monitor the liquid level height, the temperature of the high and low points of the tank, the switch status of the solenoid valve and the running time, etc., with authority and security password protection, and various alarm functions (liquid level). Alarm,

### **SMART CONTROL**

temperature alarm, over-limit alarm, sensor failure alarm, cover-opening overtime alarm, refill overtime alarm, SMS remote alarm, power supply alarm and more than ten alarm functions), comprehensively monitor the working status of the liquid nitrogen storage system in real time, and can monitor the signal is transmitted to the central computer for unified centralized monitoring and control

#### **ADVANTAGES**

- 1. Real-time display function of temperature and liquid level data
- 2. High Precision Clamp Resistance Temperature Sensor

#### Compatible with differential pressure and capacitive liquid level sensors

- 3. Fully automatic liquid nitrogen filling function
- 4. With wired/wireless/WiFi/4G and other communication methods
- 5. Choice of three operating modes: gas phase, liquid phase and manual
- 6. Various alarm self-diagnosis functions
- 7. Telephone/SMS/WeChat/Email and other remote alarm functions
- 8. Local sound and light alarm function
- 9. System authority hierarchical management function 10. Telephone/SMS/WeChat/Email and other

remote alarm functions

- 11. Local sound and light alarm function
- 12. Automatically record operating data
- **13**. The local data is permanently saved, and the data can be exported through the U disk cloud data backup function
- 14. Backup power and UPS power
- 15. System authority hierarchical management function



| MODEL                                     | CSA-CPSS-<br>370  | CSA-CPSS-<br>460            | CSA-CPSS-<br>550           | CSA-CPSS-<br>800         | CSA-CPSS-<br>900 | CSA-CPSS-<br>1000 | CSA-CPSS-<br>1800 |
|---|-------------------|-----------------------------|----------------------------|--------------------------|------------------|-------------------|-------------------|
| 1.2 & 2 ml Vials (Internally<br>Threaded) | 15600             | 19500                       | 28000                      | 39200                    | 42000            | 55500             | 94500             |
| Number of Racks 100 cell<br>boxes         | 12                | 12                          | 24                         | 24                       | 26               | 32                | 60                |
| Number of Racks 25 cell<br>boxes          | 4                 | 4                           | 16                         | 16                       | 16               | 20                | 12                |
| Number of Stages per Rack                 | 12                | 15                          | 10                         | 14                       | 14               | 15                | 15                |
| LN2 capacity L                            | 370               | 460                         | 550                        | 800                      | 900              | 1000              | 1800              |
| LN2 capacity below L                      | 55                | 55                          | 133                        | 133                      | 133              | 200               | 295               |
| LN2 Usage at<br>-80BC L/day(Gas)          | 11                | 11                          | 20                         | 20                       | 20               | 25                | 30                |
| LN2 Usage L/day (Liquid)                  | 74                | 92                          | 80                         | 118                      | 118              | 125               | 177               |
| Neck Opening(mm)                          | 320               | 320                         | 445                        | 445                      | 445              | 500               | 635               |
| Usable Internal Height in mm              | 680               | 875                         | 680                        | 780                      | 780              | 870               | 870               |
| Inner Diameter (mm)                       | <mark>73</mark> 0 | 730                         | 980                        | 980                      | 980              | 1130              | 1390              |
| Overall Height (mm)                       | 1400              | 1450                        | 1505                       | 1605                     | 1605             | 1680              | 1685              |
| Stand lifting height (mm)                 | 920               | 1118                        | 1052                       | 1052                     | 1052             | 1118              | 1118              |
| Door Width Requirement mm                 | 815               | 815                         | 1090                       | 1090                     | 1090             | 1300              | 1565              |
| Weight Empty (kg)                         | 258               | 283                         | 310                        | 355                      | 358              | 580               | 805               |
| Weight Full (kg)                          | 559               | 657                         | 418                        | 1006                     | 1009             | 743               | 2270              |
| Blood                                     | Bag Capaciti      | es (Total Bag               | gs / Bags Fran             | me / No. Fram            | ies)             |                   |                   |
| 791 OS/U (25ml)                           | 1224/6/2<br>04    | 1836/9/20<br>4              | 2496/6/4<br>15             | 3320/8/415               | 3184/8/39<br>8   | 4160/8/52<br>0    | 6432/8/8<br>04    |
| 4R9951 (50ml)                             | 768/6/<br>128     | 1024/8/<br>128              | 1488/6/2<br>48             | 1736/7/248               | 1687/7/24<br>1   | 2528/8/31<br>6    | 3920/8/4<br>90    |
| 4R9953 (250ml)                            | 416/4/<br>104     | 52 <mark>0/5/</mark><br>104 | <mark>812/4/20</mark><br>3 | 812 <mark>/</mark> 4/203 | 768/4/ 192       | 1320/5/26<br>4    | 2010/5/4<br>02    |
| 4R9955 (500ml)                            | 304/4/76          | 380/5/76                    | 608/4/<br>152              | 608/4/152                | 576/4/ 144       | 1000/5/20<br>0    | 1550/5/3<br>10    |
| DF200 (200ml)                             | 236/4/59          | 295/5/59                    | 496/4/<br>124              | 496/4/ 124               | 488/4/ 122       | 780/5/<br>156     | 1230/5/2<br>46    |
| DF200 (700ml)                             | /                 | /                           | /                          | 256/4/64                 | 264/4/66         | 440/5/88          | 680/5/<br>136     |

### ACCESSORIES





# ADVANCE BIOTECH SOLUTIONS INDIA PRIVATE LIMITED

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