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CryoKING Low Temperature Storage System

www.BiologixGroup.com www.CryoKING.com

Biologix Group Limited
Phone: +86-531-67802668

Biologix USA, Inc.
Phone: +1-888-3233585. 816

Biologix Europe GmbH
www.BiologixGroup.com
www.CryoKING.com

Biologix Corporation
No.2766 Ying Xiu Road
High-Tech Industrial Development Zone
Jinan, Shandong 250101
P.R. China

Inquiry@BiologixGroup.com
Support@CryoKING.com



BIOLOGIX

Introduction



Biologix Group Limited is specialized in the research, production, and sales of high-quality laboratory supplies and instruments, and concentrated to the complete biobanking solutions. The class 100,000 cleanroom is in compliance with GMP standards. Biologix most products manufactured in our FDA and ISO certified facilities are certified sterile, DNase and RNase free and non-pyrogenic using the highest quality medical-grade plastic materials. Biologix strives to offer high quality and competitive products for customers, and the products and services can be customized according to various demands. Biologix has developed a focus on meticulous control and constant improvement and innovation, as well as standards of excellence in our industry. We are proud to serve thousands of laboratories, as well as hundreds of distributors, all around the world.

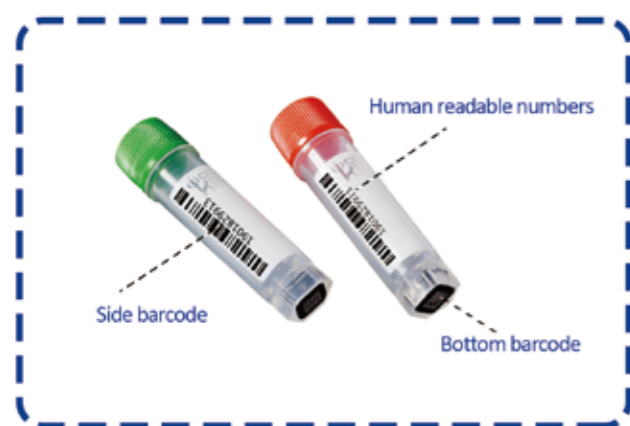
CryoKING is a cold chain and biobanking brand by Biologix. CryoKING products focus and concentrate on standardization, formalization and digitalization of biobank. Its advantage is based on upstream industry, research and market integration, covering the downstream industry to offer complete and one-stop solution for modern biobank. Its overall technology is on the top level in this industry. With the professional design, advanced techniques, safe and efficient management, CryoKING covers every phase of biobanking and offers complete and one-stop service for biobanking products.



CRYOKING COMPLETE BIOBANKING PRODUCTS

Multi-coded Cryogenic Vials

Each multi-coded cryogenic vial has the bottom 2D barcode, side 1D barcode and human-readable numbers to enable unity and uniqueness of codes on one vial. Multi codes can be read by various scanners and can effectively lower the risks of information loss. Multi-coded cryogenic vials enable the storage security and enhance biobanking management.



Multi-coded Cryogenic Vials



Scanner 3.0

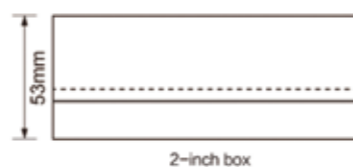
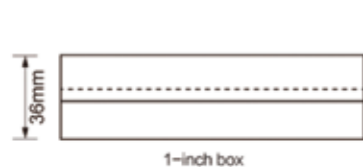


Scanner for Individual Vials

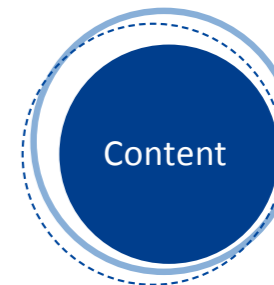
ONE-INCH REVOLUTION



CryoKING One-Inch Revolution doubles your sample storage with half of the space and cost. 34032 extra samples can be stored per freezer.



In the same storage space, 100-welled cryogenic boxes (10×10) can store 23% more samples compared with 81-welled cryogenic boxes (9×9).



CryoKING Low Temperature Storage System-Liquid Nitrogen Tanks

- Biobank Series 01-07
- **Laboratory Series 08-10**
- Portable Storage Series 11
- **Static Storage Series 12-14**
- Special Transport Series 15-16
- **Air Transport Series 17-18**
- Liquid Nitrogen Filling Series 19-20
- **Cryogenic Vial Canes 21**
- Accessories 22



Introduction:

Biobank Series provide users with automatic, secure and reliable cryogenic liquid nitrogen freezing systems. Tanks are made of high quality stainless steel, equipped with casters and brakes, and wide neck opening for easy to pick and place specimen.

Specimen could be stored in liquid or vapor, and control system provides high convenience and security. To achieve the most economical operation, our design ensures the lowest consumption of liquid nitrogen and the maximum storage capacity of the specimen. Biobank Series uses advanced evacuation technology, adiabatic technology and high vacuum retention technology to ensure the safe storage of specimen, good uniform temperature and the lowest liquid nitrogen consumption. When specimen in vapor storage, the entire storage area temperature differences do not exceed 10 °C, and the top of the frozen rack lowest temperature can reach -190 °C. Biobank Series provides you with the best storage experience: fast specimen access, reliable protection, convenient liquid nitrogen auto filling and flexible storage capacity.

✓ Features:

- ◆ Compatible with vapor and liquid storage modes
- ◆ Various capacity optional to meet your storage requirements
- ◆ More specimen capacity in a limited space to reduce the storage costs
- ◆ Excellent temperature uniformity and stability
- ◆ Excellent temperature stability after opening lid
- ◆ Can be equipped with advanced temperature monitoring system, liquid level monitoring system, alarming system and remote monitor
- ◆ Can be equipped with automatic liquid nitrogen filling system
- ◆ Controlling system can permanently store operating data
- ◆ One button to demist, easy to search, pick and place specimen
- ◆ User-friendly design, comfortable operation
- ◆ Lockable lid, fully guarantee the safety of the specimen
- ◆ Equipped with folding steps and work bench
- ◆ CE certified

👑 Characteristics:

- 
Big storage capacity
 Compared with similar products, our products need less space and could store more samples; save space and also reduce the cost;
- 
Excellent temperature uniformity
 Vacuum insulated stainless steel structure, high vacuum coverage to ensure excellent insulation properties;
- 
Stable open cover temperature
 Innovative lid and excellent small neck openings design can greatly reduce the liquid nitrogen evaporation rate. Even keep the lid open for a long time, the temperature inside the tank can still be very stable; temperature could be not higher than -150 °C with in 48 hours;
- 
Advanced temperature monitoring system(CKN-SU2700)
 Microprocessor-based control system and the vertical double platinum resistance temperature probe can display realtime temperature, accuracy of ±1 °C. The user can set their own alarm temperature value, with alarm mute option;
- 
Automatic filling liquid nitrogen and liquid level monitoring system(CKN-SU2700)
 Based on the differential pressure sensor, level monitoring system could display real-time liquid level, to ensure that the liquid nitrogen automatic filling process safe and reliable. 10-inch LCD touch screen display: temperature of the top, bottom temperature, liquid level, and operating status etc.
- 
Hot gas bypass
 The hot gas bypass can remove nitrogen which is at indoor temperature before the liquid nitrogen is filled, to ensure that only liquid nitrogen is filled into the tank and avoid temperature fluctuations in the liquid nitrogen tank during the filling process. It would make sure the safety of the sample and also reduce the additional Liquid nitrogen consumption.
- 
A number of human design
 Stainless steel auxiliary table, can be used for temporary placement for the racks to speed up the sample picking and placing; folding steps reduce the height of the operation platform; spare opening on the internal tray for easy to find inadvertently dropped samples.



✓ Features:

- ◆ Automatic liquid nitrogen filling
- ◆ Platinum resistance temperature sensor
- ◆ Differential pressure level sensor
- ◆ Hot air bypass function
- ◆ Automatically record the liquid level, temperature and other data
- ◆ Local monitoring center
- ◆ Cloud monitoring and management center
- ◆ A variety of alarm self-diagnosis
- ◆ Operation permission settings
- ◆ Run / alarm parameter settings
- ◆ Sound and light abnormal alarm to remind
- ◆ Backup power supply and UPS power supply




📄 Racks Layout

| | CKD- V035S013 CKD- V045S013 | CKD- V055S013 CKD- V075S013 | CKD- V085S013 CKD- V100S013 | CKD- V130S013 CKD- V160S013 CKD- V180S013 | CKD-V180S014 |
|---------------------------|--------------------------------|--------------------------------|--------------------------------|---|--------------|
| Vertical type racks | | | | | |
| Canisters (0.25ml, 0.5ml) | | | | | |
| 50ml blood bags | | | | | |

 Order Information-Parameter List

| Cat# | CKD-V035S013 | | | CKD-V045S013 | | | CKD-V055S013 | | |
|---|--------------|------------|-----------|--------------|------------|-----------|--------------|------------|-----------|
| Unit parameter | | | | | | | | | |
| LN2 capacity under platform vapor storage (L) | 55 | | | 55 | | | 80 | | |
| LN2 capacity(L) | 350 | | | 460 | | | 587 | | |
| Neck opening (mm) | 326 | | | 326 | | | 445 | | |
| Usable internal height(mm) | 600 | | | 828 | | | 600 | | |
| Outer diameter (mm) | 875 | | | 875 | | | 1104 | | |
| Overall height(mm) | 1326 | | | 1558 | | | 1321 | | |
| Empty weight (kg) | 219 | | | 277 | | | 328 | | |
| Weight liquid full (mm) | 1263 | | | 1212 | | | 1266 | | |
| Door width requirement (kg) | 502 | | | 649 | | | 802 | | |
| Door width ≥ (mm) | 895 | | | 895 | | | 1124 | | |
| Max. storage capacity | | | | | | | | | |
| 1.2ml,1.8ml,2ml internal thread cryogenic vials | 13000 | | | 18200 | | | 26000 | | |
| Racks with 5×5 boxes | 4 | | | 4 | | | 8 | | |
| Racks with 10×10 boxes | 12 | | | 12 | | | 24 | | |
| 5×5 boxes | 40 | | | 56 | | | 80 | | |
| 10×10 boxes | 120 | | | 168 | | | 240 | | |
| Boxes per rack | 10 | | | 14 | | | 10 | | |
| Max. straw holding capacity | | | | | | | | | |
| 0.5ml straw | 111312 | | | 131220 | | | 203040 | | |
| 0.25ml straw | 254592 | | | 301120 | | | 468544 | | |
| Ø76 racks | 52 | | | 52 | | | 112 | | |
| Ø63 racks | 8 | | | 8 | | | 0 | | |
| Ø38 racks | 28 | | | 12 | | | 24 | | |
| Rack layers | 4 | | | 5 | | | 4 | | |
| Rack height | 135 | | | 135 | | | 135 | | |
| Maximum blood bag capacity | | | | | | | | | |
| Blood Bag Type | Total Bags | Bags/Frame | No.Frames | Total Bags | Bags/Frame | No.Frames | Total Bags | Bags/Frame | No.Frames |
| 25ml(791 OS/U) | 1296 | 6 | 216 | 1728 | 8 | 216 | 2376 | 6 | 396 |
| 50ml(4R9951) | 792 | 6 | 132 | 1056 | 8 | 132 | 1416 | 6 | 236 |
| 200ml(DF-200) | 168 | 3 | 56 | 280 | 5 | 56 | 336 | 3 | 112 |
| 250ml(4R9953) | 300 | 3 | 100 | 500 | 5 | 100 | 552 | 3 | 184 |
| 500ml(4R9955) | 192 | 3 | 64 | 320 | 5 | 64 | 408 | 3 | 136 |
| 700ml(DF-700) | 96 | 3 | 32 | 128 | 4 | 32 | 204 | 3 | 68 |

 Order Information-Parameter List


| Cat# | CKD-V075S013 | | | CKD-V085S013 | | | CKD-V100S013 | | |
|---|--------------|------------|-----------|--------------|------------|-----------|--------------|------------|-----------|
| Unit parameter | | | | | | | | | |
| LN2 capacity under platform vapor storage (L) | 80 | | | 135 | | | 135 | | |
| LN2 capacity (L) | 783 | | | 890 | | | 1014 | | |
| Neck opening (mm) | 445 | | | 773 | | | 465 | | |
| Usable internal height (mm) | 828 | | | 1190 | | | 900 | | |
| Outer diameter (mm) | 1104 | | | 1559 | | | 1190 | | |
| Overall height (mm) | 1591 | | | 1558 | | | 1827 | | |
| Empty weight (kg) | 372 | | | 441 | | | 495 | | |
| Weight liquid full (mm) | 1216 | | | 980 | | | 950 | | |
| Door width requirement (kg) | 1005 | | | 1160 | | | 1314 | | |
| Door width ≥ (mm) | 1124 | | | 1210 | | | 1210 | | |
| Max. storage capacity | | | | | | | | | |
| 1.2ml,1.8ml,2ml internal thread cryogenic vials | 36400 | | | 42900 | | | 49500 | | |
| Racks with 5×5 boxes | 8 | | | 4 | | | 4 | | |
| Racks with 10×10 boxes | 24 | | | 32 | | | 32 | | |
| 5×5 boxes | 112 | | | 52 | | | 60 | | |
| 10×10 boxes | 336 | | | 416 | | | 480 | | |
| Boxes per rack | 14 | | | 13 | | | 15 | | |
| Max. straw holding capacity | | | | | | | | | |
| 0.5ml straw | 253800 | | | 304920 | | | 365904 | | |
| 0.25ml straw | 585680 | | | 699360 | | | 839232 | | |
| Ø76 racks | 112 | | | 120 | | | 120 | | |
| Ø63 racks | 0 | | | 16 | | | 16 | | |
| Ø38 racks | 24 | | | 40 | | | 40 | | |
| Rack layers | 5 | | | 5 | | | 6 | | |
| Rack height | 135 | | | 135 | | | 135 | | |
| Maximum blood bag capacity | | | | | | | | | |
| Blood Bag Type | Total Bags | Bags/Frame | No.Frames | Total Bags | Bags/Frame | No.Frames | Total Bags | Bags/Frame | No.Frames |
| 25ml(791 OS/U) | 3168 | 8 | 396 | 3360 | 7 | 480 | 4320 | 9 | 480 |
| 50ml(4R9951) | 1888 | 8 | 236 | 2072 | 7 | 296 | 2664 | 9 | 296 |
| 200ml(DF-200) | 560 | 5 | 112 | 544 | 4 | 136 | 680 | 5 | 136 |
| 250ml(4R9953) | 920 | 5 | 184 | 944 | 4 | 236 | 1180 | 5 | 236 |
| 500ml(4R9955) | 680 | 5 | 136 | 640 | 4 | 160 | 800 | 5 | 160 |
| 700ml(DF-700) | 272 | 4 | 68 | 320 | 4 | 80 | 400 | 5 | 80 |

 Order Information-Parameter List

| Cat# | CKD-V130S013 | CKD-V160S013 | CKD-V180S014 | CKD-V180S013 | | | | | | | | |
|---|--------------|--------------|--------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Unit parameter | | | | | | | | | | | | |
| LN2 capacity under platform vapor storage(L) | 265 | 300 | 320 | 320 | | | | | | | | |
| LN2 capacity(L) | 1340 | 1660 | 1880 | 1880 | | | | | | | | |
| Neck opening (mm) | 635 | 635 | 635 | 635 | | | | | | | | |
| Usable internal height (mm) | 620 | 791 | 900 | 900 | | | | | | | | |
| Outer diameter (mm) | 1565 | 1565 | 1565 | 1565 | | | | | | | | |
| Overall height (mm) | 1398 | 1589 | 1883 | 1883 | | | | | | | | |
| Empty weight (kg) | 851 | 914 | 985 | 985 | | | | | | | | |
| Weight liquid full (mm) | 997 | 967 | 1097 | 1097 | | | | | | | | |
| Door width requirement(kg) | 1934 | 2255 | 2504 | 2504 | | | | | | | | |
| Door width ≥ (mm) | 1585 | 1585 | 1585 | 1585 | | | | | | | | |
| Max. storage capacity | | | | | | | | | | | | |
| 1.2ml,1.8ml,2ml internal thread cryogenic vials | 63250 | 82225 | 87750 | 94875 | | | | | | | | |
| Racks with 5×5 boxes | 13 | 13 | 18 | 13 | | | | | | | | |
| Racks with 10×10 boxes | 60 | 60 | 54 | 60 | | | | | | | | |
| 5×5 boxes | 130 | 169 | 270 | 195 | | | | | | | | |
| 10×10 boxes | 600 | 780 | 810 | 900 | | | | | | | | |
| Boxes per rack | 10 | 13 | 15 | 15 | | | | | | | | |
| Max. straw holding capacity | | | | | | | | | | | | |
| 0.5ml straw | 447444 | 559305 | 720252 | 671166 | | | | | | | | |
| 0.25ml straw | 1029256 | 1286570 | 1651500 | 1543884 | | | | | | | | |
| Ø76 racks | 232 | 232 | 234 | 232 | | | | | | | | |
| Ø63 racks | 24 | 24 | 42 | 24 | | | | | | | | |
| Ø38 racks | 39 | 39 | 54 | 39 | | | | | | | | |
| Rack layers | 4 | 4 | 6 | 6 | | | | | | | | |
| Rack height | 135 | 135 | 135 | 135 | | | | | | | | |
| Max. straw holding capacity | | | | | | | | | | | | |
| Blood Bag Type | Total Bags | Bags/Frame | No. Frames | Total Bags | Bags/Frame | No. Frames | Total Bags | Bags/Frame | No. Frames | Total Bags | Bags/Frame | No. Frames |
| 25ml(791 OS/U) | 5172 | 6 | 862 | 6034 | 7 | 862 | 7074 | 9 | 786 | 7758 | 9 | 862 |
| 50ml(4R9951) | 3270 | 6 | 545 | 3815 | 7 | 545 | 4374 | 9 | 486 | 4905 | 9 | 545 |
| 200ml(DF-200) | 774 | 3 | 258 | 1032 | 4 | 258 | 1110 | 5 | 222 | 1290 | 5 | 258 |
| 250ml(4R9953) | 1257 | 3 | 419 | 1676 | 4 | 419 | 1950 | 5 | 390 | 2095 | 5 | 419 |
| 500ml(4R9955) | 912 | 3 | 304 | 1216 | 4 | 304 | 1380 | 5 | 276 | 1520 | 5 | 304 |
| 700ml(DF-700) | 465 | 3 | 155 | 620 | 4 | 155 | 660 | 5 | 132 | 775 | 5 | 155 |



The laboratory series have advantages of low liquid nitrogen consumption and medium storage capacity. It has the advantages of small space requirement and efficient storage of large capacity samples, which can meet the different needs .

 Features :

- ◆ Durable aluminum structure;
- ◆ Equipped with racks and vial boxes;
- ◆ Large capacity, low liquid nitrogen consumption;
- ◆ Lockable lid is optional, to keep the safety of samples;
- ◆ Temperature monitoring system (CKN-ZT1001) is optional;
- ◆ Carrying cart is optional;
- ◆ CE certified;
- ◆ Five years vacuum warranty;



*Temperature monitoring system is optional for real time temperature monitoring and along with sound and light alarm. When the temperature is high, there would be sound and alarm to remind.

 Order Information-Parameter List

| Cat# | | CKS-L010Q125 | CKS-L030Q125 | CKS-L035Q125 | CKS-L047W127 | CKS-L065Q216 |
|--------------------------------|--------------------------------|--------------|--------------|--------------|--------------|--------------|
| Unit parameter | | | | | | |
| LN2 capacity(L) | | 10 | 31.5 | 35.5 | 47 | 65 |
| Neck opening(mm) | | 125 | 125 | 125 | 127 | 216 |
| Static evaporation Rate(L/Day) | | 0.42 | 0.35 | 0.36 | 0.36 | 0.78 |
| Static holding time (Day) | | 24 | 90 | 97 | 130 | 83 |
| Storage capacity | | | | | | |
| Racks and vial boxes | Number of racks (ea) | 1 | 6 | 6 | 6 | 6 |
| | Dimension of racks (mm) | 82x84 | 82x84 | 82x84 | 105x100 | 142x144 |
| | Dimension of boxes (mm) | 76x76 | 76x76 | 76x76 | 76x76 | 134x134 |
| | Number of layers per rack (ea) | 4 | 4 | 5 | 5 | 4 |
| | Number of vials (ea) | 100 | 600 | 750 | 750 | 2400 |
| Containers | | | | | | |
| Height (mm) | | 554 | 704 | 748 | 718 | 765 |
| Outer diameter (mm) | | 300 | 462 | 462 | 508 | 681 |
| Empty weight (kg) | | 5.9 | 13 | 14.6 | 18.2 | 38.3 |
| Accessories Included | | | | | | |
| Lockable lid | | √ | √ | √ | √ | √ |
| Protective PU bag | | √ | √ | √ | — | — |
| Optional accessories | | | | | | |
| Intelligent monitor | | √ | √ | √ | √ | √ |
| Carrying cart | | — | √ | √ | √ | √ |

*CKS-L047W127: Empty tank only. Racks and boxes need to be ordered separately

 Order Information-Parameter List

| Cat# | | CKS-L095Q216 | CKS-L115Q216 | CKS-L175Q216 |
|---------------------------------|--------------------------------|--------------|--------------|--------------|
| Unit parameter | | | | |
| LN2 capacity(L) | | 95 | 115 | 175 |
| Neck opening(mm) | | 216 | 216 | 216 |
| Static evaporation Rate (L/Day) | | 0.97 | 0.94 | 0.95 |
| Static holding time (Day) | | 98 | 122 | 184 |
| Storage capacity | | | | |
| Racks and vial boxes | Number of racks (ea) | 6 | 6 | 6 |
| | Dimension of racks (mm) | 142x144 | 142x144 | 142x144 |
| | Dimension of boxes (mm) | 134x134 | 134x134 | 134x134 |
| | Number of layers per rack (ea) | 5 | 6 | 10 |
| | Number of vials (ea) | 3000 | 3600 | 6000 |
| Containers | | | | |
| Height (mm) | | 774 | 846 | 1060 |
| Outer diameter (mm) | | 681 | 681 | 681 |
| Empty weight (kg) | | 41.3 | 42.3 | 53.8 |
| Accessories Included | | | | |
| Lockable lid | | √ | √ | √ |
| Protective PU bag | | — | — | — |
| Optional accessories | | | | |
| Intelligent monitor | | √ | √ | √ |
| Carrying cart | | √ | √ | √ |



The portable series is an economical and practical small liquid nitrogen tank designed specifically for biological samples that require frequent moving. Small size, light weight, high-strength light weight aluminum alloy and multi-layer insulation to make sure the safety, light weight and efficient, and it has a variety of accessories optional.

✓ Features:

- ◆ High strength, light weight, small size aluminum structure
- ◆ Ultra-low evaporation loss
- ◆ Number coding for canister place
- ◆ Lockable lid is optional to prevent unauthorized open
- ◆ CE certified
- ◆ Five years vacuum warranty



Static storage series are economic small liquid nitrogen tanks, specifically designed for long-term static storage of biological samples. It has large capacity and long storage time two types. This series is made of high strength and light weight aluminum alloy, containing multi-layer insulation to make the product safe, lightweight and efficient, and it has a variety of accessories optional.

✓ Features:

- ◆ High strength, light weight and small size aluminum structure
- ◆ Ultra low evaporation loss
- ◆ Large straw capacity
- ◆ Vials tube is optional
- ◆ Lockable lid is optional to prevent unauthorized open
- ◆ Temperature monitoring system (CKN-ZT1001) is optional
- ◆ Carrying cart is optional
- ◆ Liquid nitrogen pump is optional
- ◆ CE certified
- ◆ Five years vacuum warranty



Order Information-Parameter List

| Cat# | CKS-P302Z030 | CKS-P302Z035 | CKS-P603Z050 | CKS-P606Z050 | CKS-P610Z050 |
|--|--------------|--------------|--------------|--------------|--------------|
| Unit Parameter | | | | | |
| LN2 capacity (L) | 2 | 2 | 3 | 6 | 10 |
| Neck opening (mm) | 30 | 35 | 50 | 50 | 50 |
| Static evaporation rate(L/Day) | 0.07 | 0.08 | 0.12 | 0.12 | 0.12 |
| Static holding time (Day) | 28 | 24 | 26 | 52 | 86 |
| Storage capacity | | | | | |
| Canister outer diameter (mm) | 19 | 25 | 38 | 38 | 38 |
| Canister height(mm) | 120 | 120 | 120 | 120 | 120 |
| Number of canisters (ea) | 3 | 3 | 6 | 6 | 6 |
| Straw holding capacity (singlelayer) | 0.5ml (ea) | 90 | 165 | 792 | 792 |
| | 0.25ml (ea) | 204 | 330 | 1788 | 1788 |
| Straw holding capacity (double layers) | 0.5ml (ea) | — | — | — | — |
| | 0.25m (ea) | — | — | — | — |
| Containers | | | | | |
| Height(mm) | 399 | 428 | 435 | 482 | 552 |
| Outer diameter(mm) | 223 | 204 | 223 | 300 | 300 |
| Empty weight(kg) | 2.8 | 2.6 | 3.1 | 4.8 | 6.1 |
| Accessories Included | | | | | |
| Lockable lid | √ | √ | √ | √ | √ |
| Protective PU bag | √ | √ | √ | √ | √ |

 Order Information-Parameter List

| Cat# | CKS-S610Z080 | CKS-S613T050 | CKS-S615Z050 | CKS-S620Z050 | CKS-S625T050 | CKS-S630T050 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| Unit Parameter | | | | | | |
| LN2 capacity (L) | 10 | 13 | 15 | 20 | 25 | 31.5 |
| Neck opening (mm) | 80 | 50 | 50 | 50 | 50 | 50 |
| Static evaporation rate(L/Day) | 0.21 | 0.12 | 0.11 | 0.12 | 0.14 | 0.12 |
| Static holding time (Day) | 48 | 109 | 134 | 168 | 180 | 254 |
| Storage capacity | | | | | | |
| Canister outer diameter (mm) | 63 | 38 | 38 | 38 | 38 | 38 |
| Canister height(mm) | 120 | 276 | 120 | 120 | 276 | 276 |
| Number of canisters (ea) | 6 | 6 | 6 | 6 | 6 | 6 |
| Straw holding capacity (single layer) | 0.5ml (ea) | 2244 | — | 792 | 792 | — |
| | 0.25ml (ea) | 5022 | — | 1788 | 1788 | — |
| Straw holding capacity (double layers) | 0.5ml (ea) | — | 1284 | — | — | 1284 |
| | 0.25m (ea) | — | 2832 | — | — | 2832 |
| Containers | | | | | | |
| Height(mm) | 557 | 623 | 591 | 672 | 700 | 705 |
| Outer diameter(mm) | 300 | 310 | 394 | 394 | 394 | 462 |
| Empty weight(kg) | 6.2 | 6.3 | 8.5 | 9.5 | 10.7 | 12.9 |
| Accessories Included | | | | | | |
| Lockable lid | √ | √ | √ | √ | √ | √ |
| Protective PU bag | √ | √ | √ | √ | √ | √ |
| Optional accessories | | | | | | |
| Intelligent monitor | √ | √ | √ | √ | √ | √ |
| Carrying cart | — | — | — | — | — | √ |

 Order Information-Parameter List

| Cat# | CKS-S630T080 | CKS-S630Z125 | CKS-S635T050 | CKS-S635T080 | CKS-S635T125 | CKS-S947T127 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| Unit Parameter | | | | | | |
| LN2 capacity (L) | 31.5 | 31.5 | 35.5 | 35.5 | 35.5 | 47 |
| Neck opening (mm) | 80 | 125 | 50 | 80 | 125 | 127 |
| Static evaporation rate(L/Day) | 0.21 | 0.35 | 0.12 | 0.22 | 0.37 | 0.36 |
| Static holding time (Day) | 147 | 90 | 286 | 159 | 97 | 130 |
| Storage capacity | | | | | | |
| Canister outer diameter (mm) | 63 | 97 | 38 | 63 | 97 | 72 |
| Canister height(mm) | 276 | 120 | 276 | 276 | 276 | 276 |
| Number of canisters (ea) | 6 | 6 | 6 | 6 | 6 | 10 |
| Straw holding capacity (single layer) | 0.5ml (ea) | — | 5124 | — | — | — |
| | 0.25ml (ea) | — | 11952 | — | — | — |
| Straw holding capacity (double layers) | 0.5ml (ea) | 3624 | — | 1284 | 3624 | 9048 |
| | 0.25m (ea) | 8460 | — | 2832 | 8460 | 20760 |
| Containers | | | | | | |
| Height(mm) | 705 | 705 | 750 | 754 | 748 | 718 |
| Outer diameter(mm) | 462 | 462 | 462 | 462 | 462 | 508 |
| Empty weight(kg) | 13 | 12.9 | 14.2 | 14.5 | 14.6 | 18.2 |
| Accessories Included | | | | | | |
| Lockable lid | √ | √ | √ | √ | √ | √ |
| Protective PU bag | √ | √ | √ | √ | √ | — |
| Optional accessories | | | | | | |
| Intelligent monitor | √ | √ | √ | √ | √ | √ |
| Carrying cart | √ | √ | √ | √ | √ | √ |



The transport storage series are economical small liquid nitrogen tanks designed specifically for biological samples static storage and for transporting biological samples. This series is made of high strength and lightweight aluminum alloy, containing multi-layer insulation to make the product safe, lightweight and efficient, and it has a variety of accessories optional.

✓ Features :

- ◆ High strength, light weight and small size aluminum structure
- ◆ Ultra low evaporation loss
- ◆ Large straw capacity
- ◆ Canes are optional
- ◆ Lockable lid is optional to prevent unauthorized open
- ◆ Temperature monitoring system (CKN-ZT1001) is optional
- ◆ Carrying cart is optional
- ◆ Liquid nitrogen pump is optional
- ◆ CE certified
- ◆ Five years vacuum warranty

📄 Order Information-Parameter List

| Cat# | CKS-T620Z050 | CKS-T630Z050 | CKS-T635Z050 | CKS-T335R080 | CKS-T650Z050 |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Unit Parameter | | | | | |
| LN2 capacity (L) | 20 | 31.5 | 35.5 | 35.5 | 50 |
| Neck opening(mm) | 50 | 50 | 50 | 80 | 50 |
| Static evaporation rate (L/Day) | 0.20 | 0.20 | 0.20 | 0.30 | 0.24 |
| Static holding time (Day) | 101 | 159 | 179 | 119 | 213 |
| Storage capacity | | | | | |
| Canister outer diameter (mm) | 38 | 38 | 38 | 63 | 38 |
| Canister height (mm) | 120 | 120 | 120 | 120 | 120 |
| Canisters(ea) | 6 | 6 | 6 | 6 | 6 |
| Straw holding capacity (single layer) | 0.5ml (ea) | 792 | 792 | 2244 | 792 |
| | 0.25ml (ea) | 1788 | 1788 | 5022 | 1788 |
| Containers | | | | | |
| Height(mm) | 672 | 705 | 749 | 753 | 810 |
| Outer diameter(mm) | 394 | 462 | 462 | 462 | 462 |
| Empty weight(kg) | 9.5 | 12.9 | 14.2 | 14.5 | 17.4 |
| Accessories Included | | | | | |
| Lockable lid | √ | √ | √ | √ | √ |
| Protective PU Bag | √ | √ | √ | √ | √ |
| Optional accessories | | | | | |
| Intelligent monitor | √ | √ | √ | √ | √ |
| Carrying cart | — | √ | √ | √ | √ |

*Double-layer canister need to be ordered separately. CKS-T335R080 doesn't include canisters.



Air transport series is suitable for cryogenic environment (vapor storage at temperatures below -190 °C) transportation for samples. It could avoid the risk of the liquid nitrogen releasing during transportation, especially designed for short-term air transport. The internal liquid nitrogen adsorbent can absorb and save liquid nitrogen, even if the container falls down, liquid nitrogen would not pour out. It uses special stainless steel mesh to separate storage space and adsorbent material, to avoid liquid nitrogen absorption material mixed into the sample. Mainly used for laboratory users and short-term delivery of small number samples.

✓ Features:

- ◆ Vapor cryogenic storage;
- ◆ Fast liquid nitrogen filling;
- ◆ High strength aluminum construction;
- ◆ Lockable lid;
- ◆ No liquid nitrogen overflow;
- ◆ Straws or vials storage is optional;
- ◆ CE certified;
- ◆ Three years vacuum warranty.



CKS-A108Z080

Order Information-Parameter List

| Cat# | CKS-A103Z050 | CKS-A106Z080 | CKS-A108Z080 | CKS-A110T125 | CKS-A110Q125 | CKS-A125Q216 | |
|--------------------------------|---------------------------------------|--------------|--------------|--------------|--------------|--------------|---------|
| Unit Parameter | | | | | | | |
| LN2 capacity (L) | 1.3 | 2.9 | 3 | 3.4 | 3.4 | 9 | |
| Neck opening (mm) | 50 | 80 | 80 | 125 | 125 | 216 | |
| Static evaporation rate(L/Day) | 0.16 | 0.20 | 0.22 | 0.43 | 0.43 | 0.84 | |
| Static holding time (Day) | 8 | 14 | 14 | 8 | 8 | 11 | |
| Storage capacity | | | | | | | |
| Canisters | Canister outer diameter (mm) | 38 | 63 | 63 | 97 | — | — |
| | Canister height(mm) | 120 | 120 | 120 | 276 | — | — |
| | Canisters (ea) | 1 | 1 | 1 | 1 | — | — |
| | Straw holding capacity (single layer) | 0.5ml(ea) | 132 | 374 | 820 | 854 | — |
| 0.25ml(ea) | | 298 | 837 | 1780 | 1940 | — | — |
| Racks and vial boxes | Racks (ea) | — | — | — | — | 1 | 1 |
| | Box size (ea) | — | — | — | — | 76×76 | 134×134 |
| | Layers per racks (ea) | — | — | — | — | 4 | 5 |
| | Vials(ea) | — | — | — | — | 100 | 500 |
| 25ml | Racks(ea) | — | — | — | — | 1 | 1 |
| | Layers of racks(ea) | — | — | — | — | 2 | 3 |
| | Boxes per rack(ea) | — | — | — | — | 3 | 15 |
| | Blood bags(ea) | — | — | — | — | 6 | 45 |
| 50ml | Racks (ea) | — | — | — | — | 1 | 1 |
| | Layers of racks (ea) | — | — | — | — | 1 | 2 |
| | Boxes per rack(ea) | — | — | — | — | 3 | 15 |
| | Blood bags (ea) | — | — | — | — | 3 | 30 |
| Containers | | | | | | | |
| Height (mm) | 428 | 487 | 509 | 554 | 554 | 716 | |
| Outer diameter (mm) | 223 | 300 | 300 | 300 | 300 | 394 | |
| Empty weight (kg) | 3.2 | 4.9 | 6.2 | 6.7 | 6.7 | 15 | |
| Accessories Included | | | | | | | |
| Lockable lid | √ | √ | √ | √ | √ | √ | |
| Protective PU bag | √ | √ | √ | √ | √ | √ | |



Advantages:

- ◆ Level display is optional;
- ◆ Regulator is optional for stable pressure;
- ◆ Solenoid valve is optional;
- ◆ Automatic filling system is optional.

Liquid nitrogen filling series is mainly used for liquid nitrogen storage. It uses small amount of liquid nitrogen vaporizing to increase the pressure inside the tank, so that the tank can automatically discharge liquid nitrogen to other containers. The stainless steel structure design is suitable for most environment and reduces the rate of evaporation losses. All the models are equipped with pressure building valve, liquid valve, release valve and pressure gauge; and models over 200 liters are also equipped with bursting disc and muffler. All the models are equipped with 4 rollers at the bottom for easy to move. Mainly applicable to laboratory users and chemical users for liquid nitrogen storage and liquid nitrogen automatic supply.

Features:

- ◆ Unique neck design, low evaporation loss rate;
- ◆ A protective operating ring;
- ◆ Safe structure;
- ◆ Stainless steel tank;
- ◆ With carrying cart for easy to move;
- ◆ CE certified;
- ◆ Five years vacuum warranty.



Order Information-Parameter List

| Cat# | CKD-Z030K040 | CKD-Z050K040 | CKD-Z100K040 | CKD-Z200K040 | CKD-Z300K040 | CKD-Z500K040 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| Unit Parameter | | | | | | |
| Effective capacity (L) | 30 | 50 | 100 | 200 | 300 | 500 |
| Neck diameter (mm) | 40 | 40 | 40 | 40 | 40 | 40 |
| Daily evaporation loss rate (%) | ★ 2.5 | 2 | 1.3 | 1.2 | 1.1 | 1.1 |
| Liquid velocity (L/min) | — | — | — | — | — | — |
| Liquid nitrogen filling tank | | | | | | |
| Height (mm) | 879 | 991 | 1185 | 1265 | 1459 | 1576 |
| Outer diameter (mm) | 454 | 506 | 606 | 758 | 857 | 1008 |
| Weight empty (kg) | 32 | 54 | 75 | 130 | 202 | 255 |
| Standard working pressure (Mpa) | 0.05 | | 0.05 | | | |
| Maximum working pressure (Mpa) | 0.09 | | 0.09 | | | |
| Setting pressure of the first safety valve (Mpa) | 0.099 | | 0.099 | | | |
| Setting pressure of the second safety valve (Mpa) | 0.15 | | 0.15 | | | |
| Pressure gauge indication range (Mpa) | 0~0.25 | | 0~0.25 | | | |

★ The above static evaporation loss and static holding time are all based on theoretical values. Actual results are influenced by the operation, atmospheric conditions and manufacture tolerance

Accessories

| General Series | A Series | E Series | K Series |
|--|--|--|--|
| Standard | | | |
| Single layer infusion hose {ZG-DN10/1.5} | Single layer infusion hose {ZG-DN10/1.5} | Single layer infusion hose {ZG-DN10/1.5} Digital liquid level meter {DLZ-100} No data remote transmission function | Single layer infusion hose {ZG-DN10/1.5} Digital display liquid level meter and voltage regulator {DLZ-300} Can be used in auto-filling system |
| Option | | | |
| Float level gauge | Float level gauge | | |

Cryogenic vial canes



Rack with vial boxes



Plug



Lockable lid

 Order Information-Parameter List

| Canisters | Length: 120mm Diameter: 38mm (50 Neck diameter) | | | | | Length: 276mm Diameter: 38mm (50 Neck diameter) | | | | |
|-----------------|---|----------------------|--------------------------|---------------------|---------------------------|---|----------------------|--------------------------|---------------------|---------------------------|
| Cryogenic vials | Canes/Canister | Cryogenic vials/Cane | Cryogenic vials/Canister | Canisters/Container | Cryogenic vials/Container | Canes/Canister | Cryogenic vials/Cane | Cryogenic vials/Canister | Canisters/Container | Cryogenic vials/Container |
| 0.5ml | 3 | 3 | 9 | 6 | 54 | 3 | 6 | 18 | 6 | 108 |
| 1.5ml | 3 | 3 | 9 | 6 | 54 | 3 | 6 | 18 | 6 | 108 |
| 2ml | 3 | 3 | 9 | 6 | 54 | 3 | 6 | 18 | 6 | 108 |
| 3ml | 3 | 3 | 9 | 6 | 54 | 3 | 6 | 18 | 6 | 108 |
| 5ml | 3 | 1 | 3 | 6 | 18 | 3 | 2 | 6 | 6 | 36 |

| Canisters | Length: 120mm Diameter: 63mm (80 Neck diameter) | | | | | Length: 276mm Diameter: 63mm (80 Neck diameter) | | | | |
|-----------------|---|----------------------|--------------------------|---------------------|---------------------------|---|----------------------|--------------------------|---------------------|---------------------------|
| Cryogenic vials | Canes/Canister | Cryogenic vials/Cane | Cryogenic vials/Canister | Canisters/Container | Cryogenic vials/Container | Canes/Canister | Cryogenic vials/Cane | Cryogenic vials/Canister | Canisters/Container | Cryogenic vials/Container |
| 0.5ml | 11 | 3 | 33 | 6 | 198 | 11 | 6 | 66 | 6 | 396 |
| 1.5ml | 11 | 3 | 33 | 6 | 198 | 11 | 6 | 66 | 6 | 396 |
| 2ml | 11 | 3 | 33 | 6 | 198 | 11 | 6 | 66 | 6 | 396 |
| 3ml | 11 | 3 | 33 | 6 | 198 | 11 | 6 | 66 | 6 | 396 |
| 5ml | 11 | 1 | 11 | 6 | 66 | 11 | 3 | 33 | 6 | 198 |

| Canisters | Length: 120mm Diameter: 97mm (125 Neck diameter) | | | | | Length: 276mm Diameter: 97mm (125 Neck diameter) | | | | |
|-----------------|--|----------------------|--------------------------|---------------------|---------------------------|--|----------------------|--------------------------|---------------------|---------------------------|
| Cryogenic vials | Canes/Canister | Cryogenic vials/Cane | Cryogenic vials/Canister | Canisters/Container | Cryogenic vials/Container | Canes/Canister | Cryogenic vials/Cane | Cryogenic vials/Canister | Canisters/Container | Cryogenic vials/Container |
| 1.5ml | 27 | 3 | 81 | 6 | 486 | 27 | 6 | 162 | 6 | 972 |
| 2ml | 27 | 3 | 81 | 6 | 486 | 27 | 6 | 162 | 6 | 972 |
| 3ml | 27 | 3 | 81 | 6 | 486 | 27 | 6 | 162 | 6 | 972 |
| 5ml | 27 | 1 | 27 | 6 | 162 | 27 | 3 | 81 | 6 | 486 |



Blood bag box



Frame with blood bag boxes



Liquid nitrogen pump



Cryogenic liquid measuring scale



Canister



Carrying cart