

Haier

Haier Liquid Nitrogen Storage Solution

Extra large LCD and cryogenic intelligent management establishing new standards of global



2017-06

**Haier Medical and Laboratory
Products Co., Ltd**

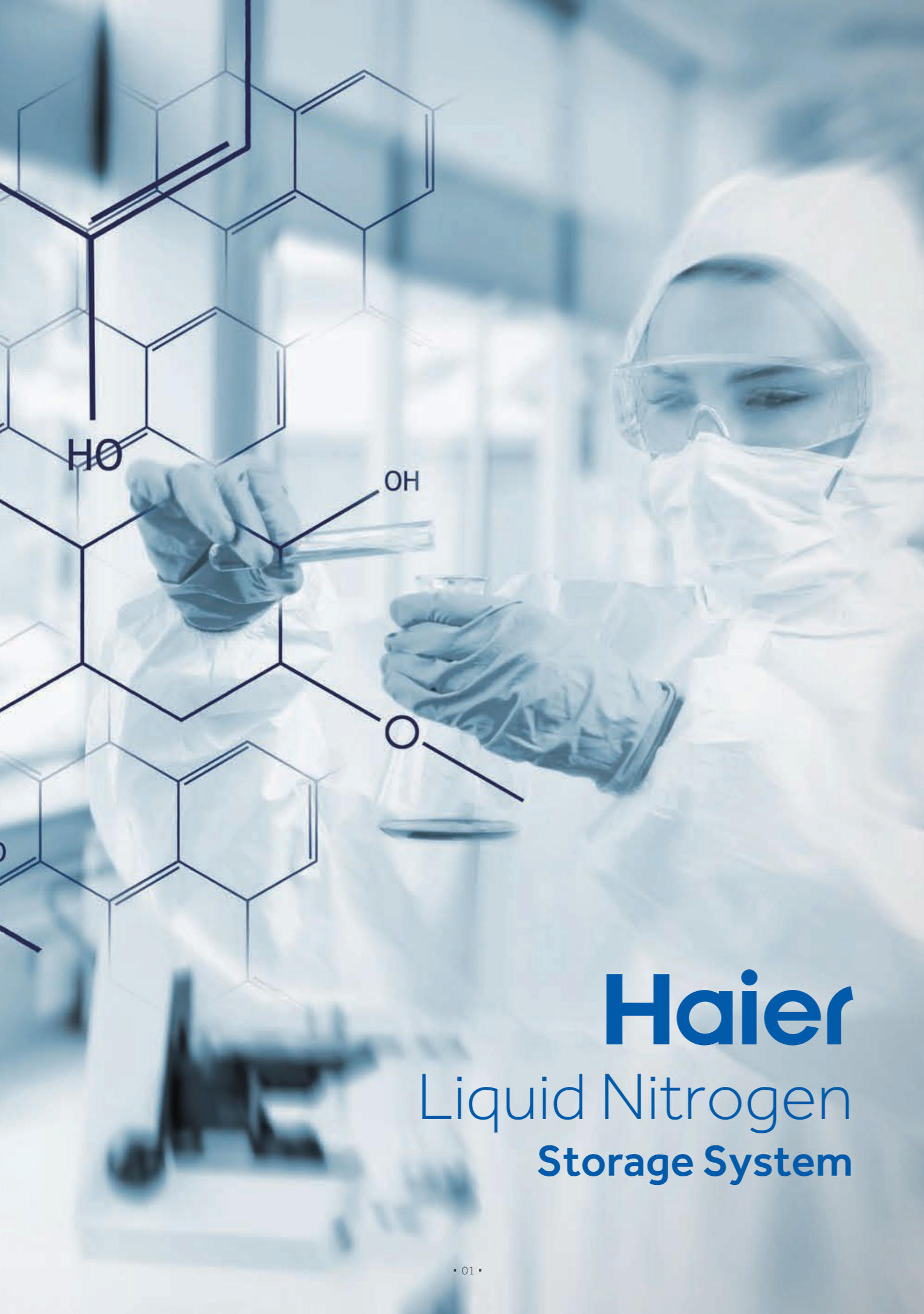
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Note: If slight difference occurs between pictures and actual products, please refer to actual products. Our company reserves the right of final interpretation to this brochure and please contact with us for future information you might need.



Haier Biomedical
Intelligent Protection of Life Science



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Liquid Nitrogen Storage System

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Liquid Nitrogen Container 03-32

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Haier Liquid Nitrogen Storage System Biobank Series

- LN₂ Splash Proof
- Data Logging
- Quick Chill
- Rapid Specimen Storage
- 5 Year Vacuum Warranty
- From 13000 To 94875 Cryovials
- Self Diagnostic
- "Dry" Sample Storage
- Lockable Lid
- Liquid Or Vapour
- One-touch Defogging



Biobank Series



Introduction

Biobank Series has six models with capacity of 300, 500, 800, 1000, 1500, and 1800. Biobank Series is designed to ensure the maximum storage capacity with the minimum consumption of liquid nitrogen to lower the overall cost of operations.

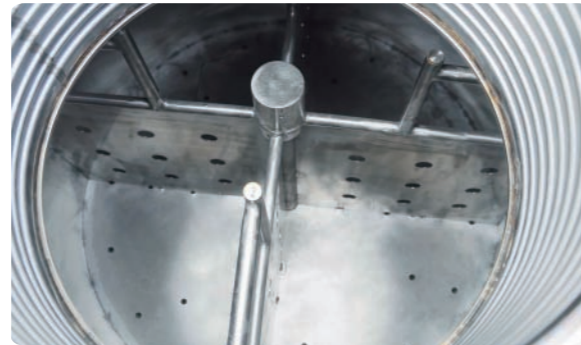
Key Features

- Massive capacity between 13000 to 94875 ×2ml Vials.
- Vapor phase storage is the only guaranteed method to prevent cross-contamination
- Vapour phase storage at -190°C.
- 5 year vacuum warranty
- One-touch defogging for easier access.
- LN₂ splash proof make the operation more secure.
- Biobank storage compatible.

Product Advantages

Optimal Use of Storage Space

Racks are stored on the rotating tray with an appropriate distance from the wall of the chamber. Liquid nitrogen or supercooled nitrogen vapor is filled in the space between the tray and the wall to maintain temperature uniformity. Storage space is equally divided into four or six fan-shaped storage rooms which are clearly labeled. Each storage room is easily rotated to the opening of the tank for convenient sample access.



Designed for Both Liquid and Vapor Phase Storage

Each model of Biobank Series is designed for both liquid and vapor phase storage. For vapor phase storage, samples are kept away from the liquid nitrogen while stored in a uniform temperature that is close to the temperature range of liquid nitrogen.

Advanced Vacuum Technology and Superinsulation Technology

Haier Liquid Nitrogen Storage System Biobank Series applies advanced vacuum technology and superinsulation technology to ensure storage safety and temperature uniformity while reducing the consumption of liquid nitrogen. The temperature difference of the entire storage area does not exceed 10°C even in vapor phase storage, and temperature near the top of the shelf can be as low as -190°C.

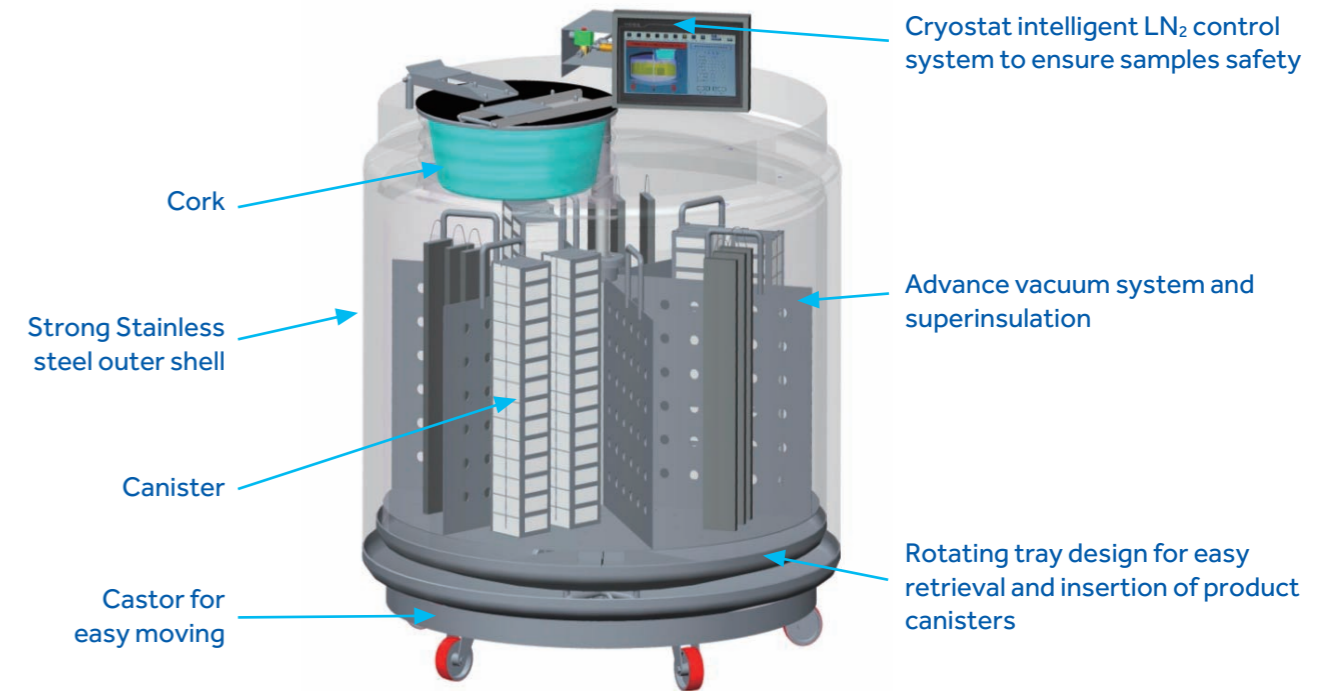
Cryosmart Intelligent Liquid Nitrogen Control System

Haier Liquid Nitrogen Storage System Biobank Series features Cryosmart system for complete monitoring and controlling. High-precision temperature and liquid level sensors are used to ensure accuracy. All data and samples are protected by secure access control system.



Product Details

Product structure



Top of the Container



Lid Open



A Low-temperature hose connects the inlet and liquid nitrogen tank for supplement. A silencer reduces the noise of nitrogen emission to grant a quiet environment.



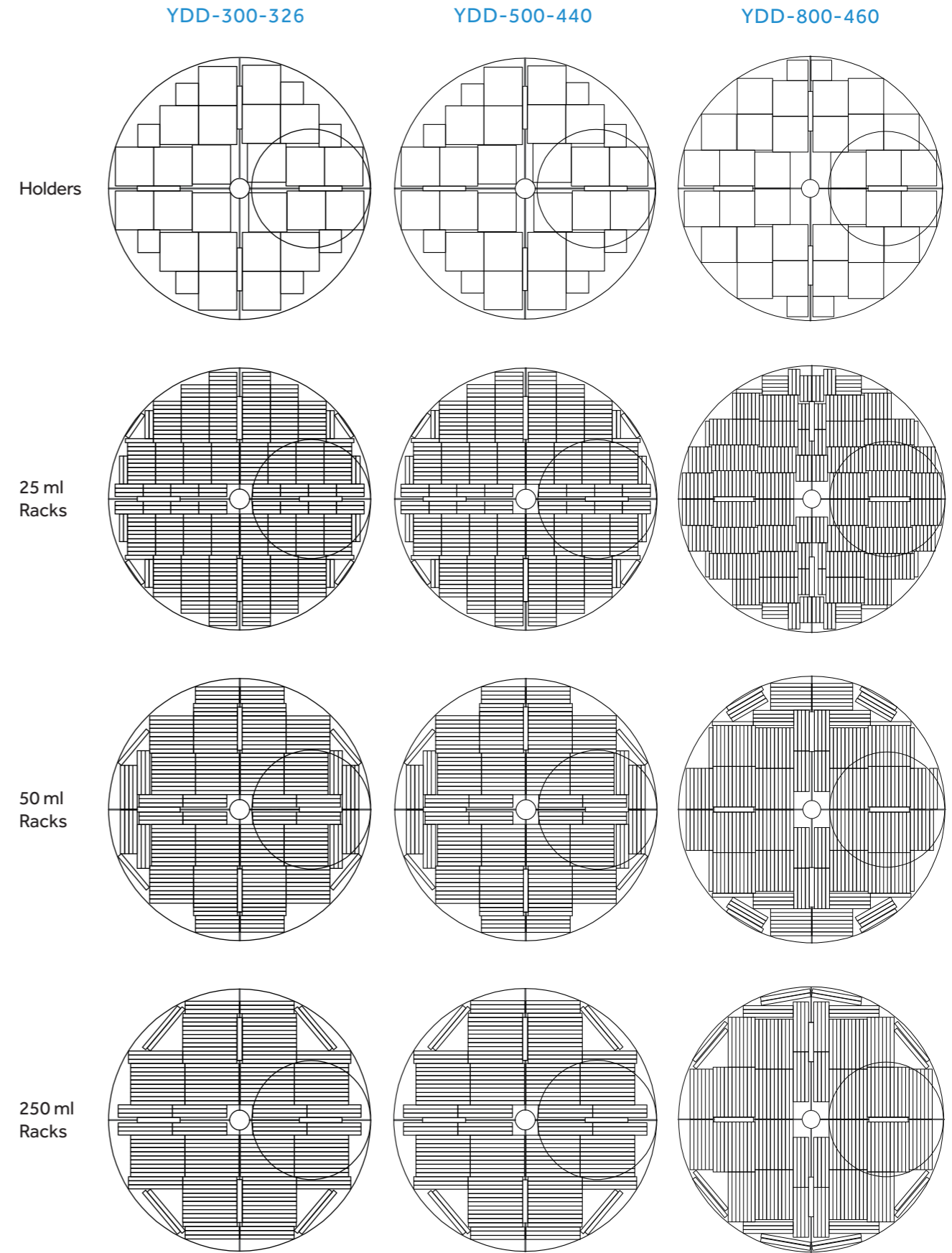
Vapor condensation near the container opening is controlled. The strength of the container is reinforced at liquid nitrogen temperature to extend service life.



Small self-pressurized liquid nitrogen supply system suitable for research institutes dealing with fewer samples.

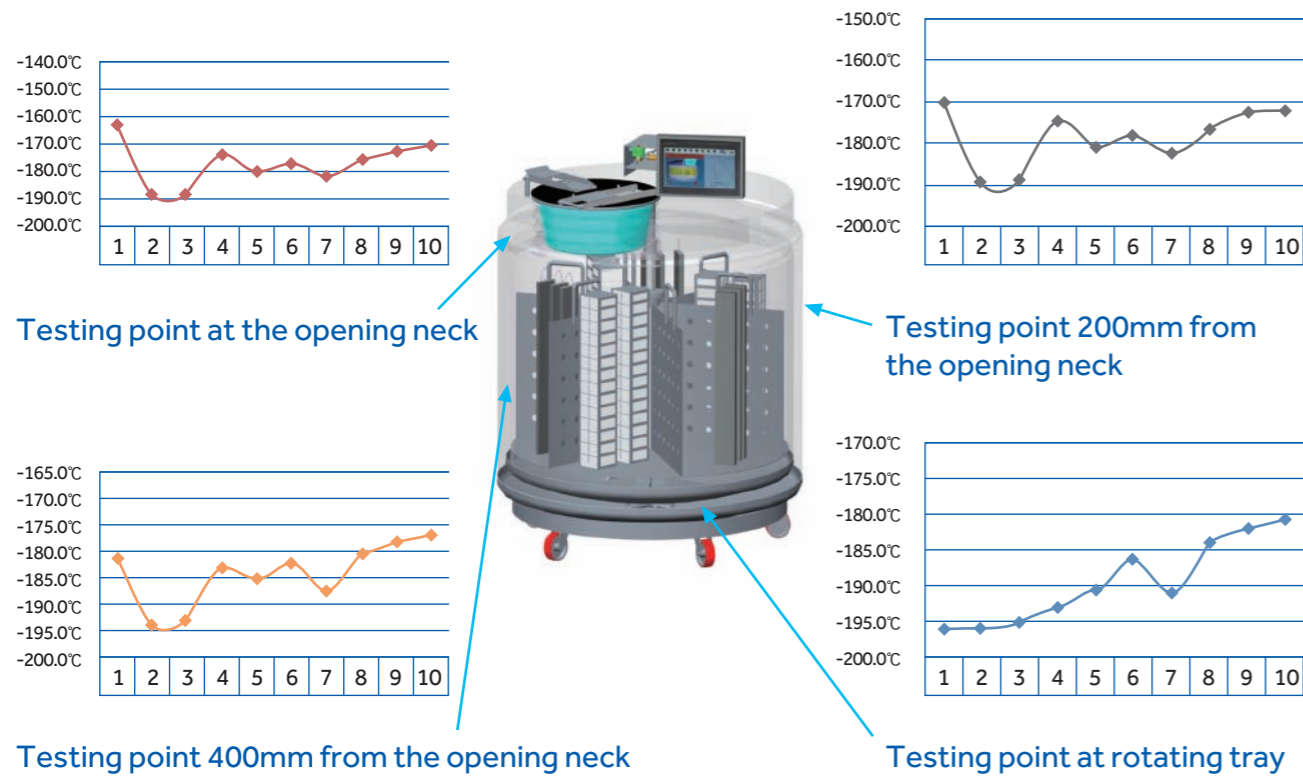


Square Canister&Racks Layout



Temperature Test Graph

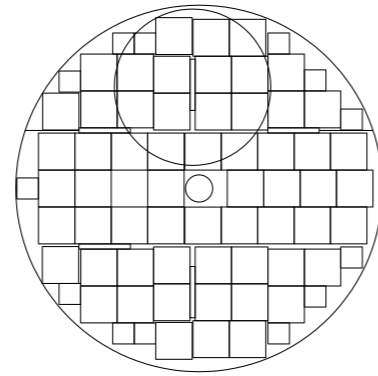
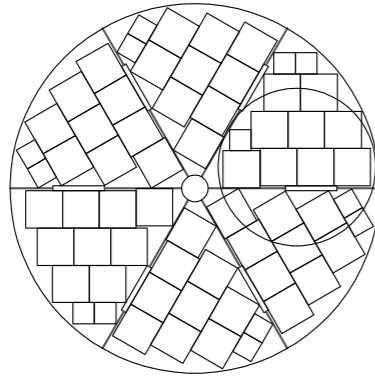
10 times testing data within 5 days



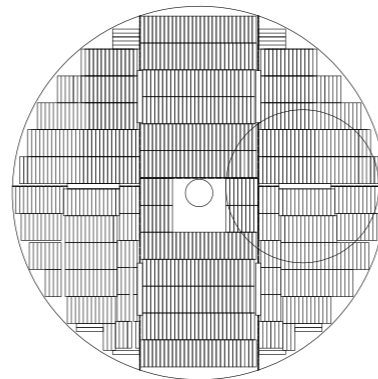
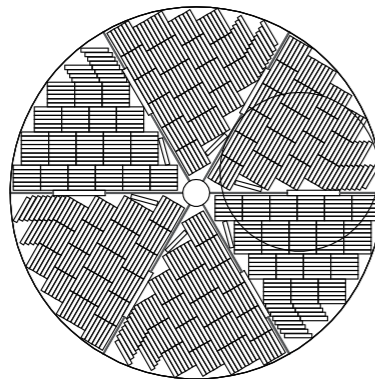
YDD-1000/1500-610

YDD-1800-610

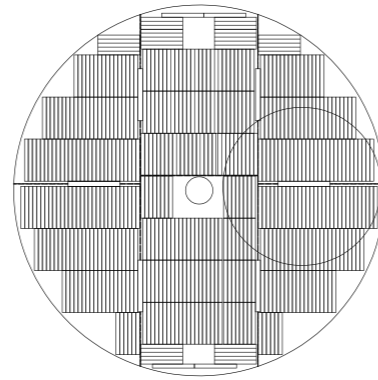
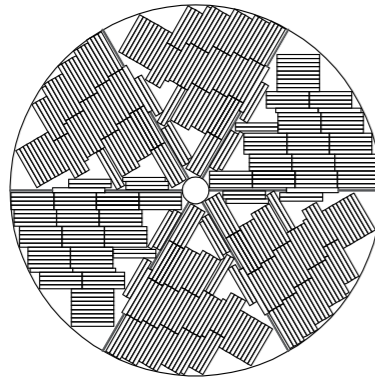
Holders



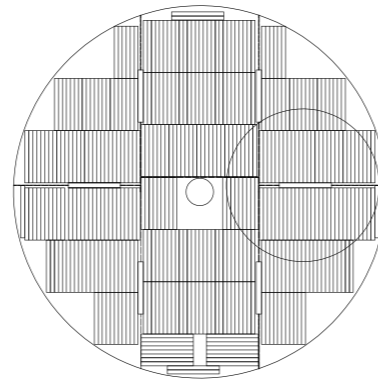
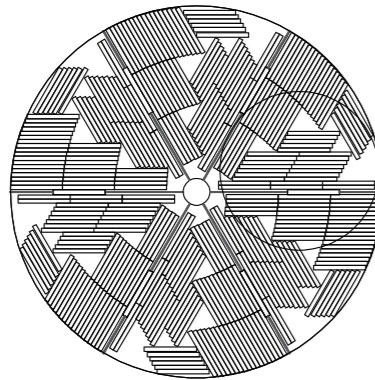
25 ml Racks



50 ml Racks



250 ml Racks



Technical Parameters

Model	YDD-300-326	YDD-500-440	YDD-800-460	YDD-1000-610	YDD-1500-610	YDD-1800-610
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Maximum Storage Capacity

2 ml Vials (Internal Thread)	13000	26000	42900	58500	76050	94875
Freeze Rack (100 wells)	12	24	32	54	54	60
Freeze Rack (25 wells)	4	8	4	18	18	13
Layers of each rack	10	10	13	10	13	15
0.5 ml Vials (Internal Thread)	18200	33800	56100	81900	99450	126500
Freeze Rack (100 wells)	12	24	32	54	54	60
Freeze Rack (25 wells)	4	8	4	18	18	13
Layers of each rack	14	13	17	14	17	20

Performance

Volume of LN ₂ (L)	280	470	675	895	1316	1520
Volume of LN ₂ under the tray (L)	55	80	135	265	300	320

Dimensions

Inside Neck Diameter (MM)	326	440	460	610	610	610
Height (MM)	1180	1160	1435	1360	1570	1680
Operating Height (MM)	1180	1160	1110	1060	1070	1080
Outside Diameter (MM)	870	1080	1180	1565	1565	1565
Door Width Requirements (MM)	1000	1200	1300	1700	1700	1700
Empty Weight (KG)	219	328	441	733	840	925
Gross Weight (KG)	490	771	1089	1627	2127	2389

Blood bag capacity

	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks	Total No. of Bags	Rack Layers	No. of Racks
25 ml	1272	6	212	2376	6	396	3360	7	480	4716	6	786	5502	7	786
50 ml	792	6	132	1416	6	236	2016	7	288	2916	6	486	3402	7	486
250 ml	288	3	96	552	3	184	944	4	236	1560	4	390	1950	5	390

Haier Liquid Nitrogen Storage System

Medical Series

5 Year Vacuum Warranty

Cryobox Storage

High Thermal Efficiency

Liquid and Vapour

Durability

Auto Fill

Security



Medical Series



Introduction

Haier Liquid Nitrogen Storage System Medical Series features low LN₂ consumption and relatively small footprint for medium capacity sample storage.

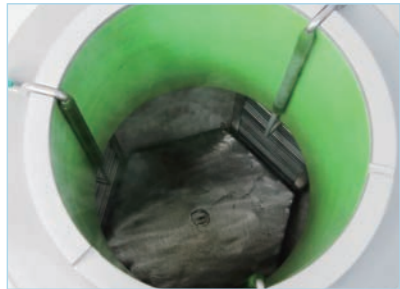
Key Features

- 5 models from 2400 to 6000 cryovial capacity
- Heavy duty lockable enclosure offers excellent security
- Compatible with all major cryobox brands
- Durable aluminium construction
- Temperature data-logging monitoring available
- Liquid or vapour phase option available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporative Losses

Product Advantages

ULT Storage with Extremely Low LN₂ Evaporation

Freezer racks are in the ultra-low temperature environment with extremely low LN₂ evaporation. Even stored in vapor phase, the temperature will be below -190°C for a long time.



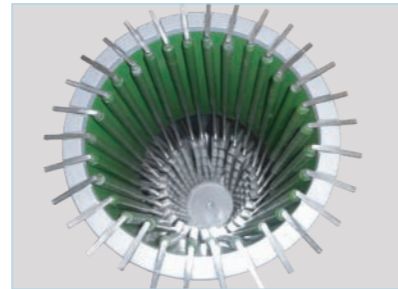
Advanced Vacuum Technology and Superinsulation Technology

Advanced vacuum and insulation technologies ensure cryopreservation for as long as four months.



Compatible for Blood Bag Storage

According to users' needs, Medical Series can be adapted to LN₂ tanks for temporary storage of blood bags before transferred to larger scale LN₂ storage.



Auto-Refill System

Auto-refill system is particularly suitable for vapor phase storage. For liquid phase storage, it can also facilitate users' operations by avoiding frequent refills.

The auto-refill system continuously monitors the inside temperature through ZTC-100B/100C Level Monitor, and automatically controls inlet valve to replenish LN₂. Although less economical, it provides accurate control and ensures safety storage for over 8 weeks.

Level Monitor

Liquid level monitor continuously and reliably monitors the temperature inside the tank and informs users to refill LN₂. It is suitable for institutes that require long time cryopreservation.

Three models (ZTC-100A/100B/100C) are available. The monitor offers real-time temperature display and audible/visual alarms for high temperature, sensor failure, and low liquid level.



Technical Parameters

Model	YDS-65-216	YDS-65-216-F	YDS-95-216	YDS-95-216-F	YDS-115-216	YDS-115-216-F	YDS-140-216	YDS-140-216-F	YDS-175-216	YDS-175-216-F
Maximum Storage Capacity										
No. of holders	-	6	-	6	-	6	-	6	-	6
No. 2.0 ml Cryovials (100 / box)	-	2400	-	3000	-	3600	-	4800	-	6000
No. of boxes in (2ml each holder)	-	4	-	5	-	6	-	8	-	10
No. 5.0 ml Cryovials (36 / box)	-	648	-	864	-	1080	-	1296	-	1728
No. of boxes in (5ml each holder)	-	3	-	4	-	5	-	6	-	8
Performance										
Volume of LN ₂ (L)	65	65	95	95	115	115	140	140	175	175
Static Evaporation Rate* (L/Day)	0.79	0.79	0.81	0.81	0.83	0.83	0.87	0.87	0.87	0.87
Working Volume (L)	55	55	85	85	105	105	130	130	165	165
Duration of Normal Operation** (Day)	44	44	66	66	80	80	94	94	126	126
Dimensions										
Neck Opening Diameter (MM)	216	216	216	216	216	216	216	216	216	216
Height(MM)	710	710	726	726	796	796	910	910	1026	1026
Outer Diameter(MM)	681	681	681	681	681	681	681	681	681	681
Empty Weight(KG)	27.5	27.5	34.5	34.5	38.5	38.5	42.5	42.5	55	55
Gross Weight(KG)	80.8	80.8	112.4	112.4	132.8	132.8	157.3	157.3	198.5	198.5

* Static evaporation and static holding time is theoretical value. Actual evaporation and holding time is affected by usage, atmospheric conditions, and manufacturing tolerances.

** Duration of normal operation is for reference only to estimate container performance under normal operating conditions. Actual duration may differ due to different atmospheric conditions, usage history, manufacturing tolerances, and particular circumstances.

Accessories

Trolley	Square Rack	Cryogenic Boxes
216 Diameter Lock Cap	5 ml Customized Holder	5 ml Customized Cryogenic Box

Haier Liquid Nitrogen Storage System LAB Series

- 5-Year Vacuum Warranty
- High Thermal Efficiency
- Strong and Lightweight
- 30 Litre To 50 Litre Capacity
- Durability
- Security
- Super-Insulation
- Ideal For Lab Applications



LAB Series



Introduction

Widely used in laboratories around the world.

Key Features

- 5 models, from 30 litres to 50 litres capacity
- Heavy duty lockable enclosure offers excellent security
- Strong, lightweight aluminium construction
- Dual handles
- Temperature data-logging monitoring available
- Roller bases available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporative losses

Product Advantages

Low LN₂ consumption and small storage capacity

Haier LAB Series Liquid Nitrogen Storage System features low LN₂ consumption and small storage capacity for laboratory applications. The light-weighted tanks require smaller space while provide efficient small capacity cryogenic storage.

Advanced Vacuum Technology and Super-insulation Technology

Advanced vacuum and insulation technologies provide ultra-low liquid nitrogen evaporation loss and ensure three months cryogenic storage.



Five Models Available

LAB Series offers five models with different capacity from 600, 750 to 900 standard 2 ml cryovials. All models are supplied with stainless steel holders and cryogenic boxes.

Technical Parameters

Model	YDS-30-125-F	YDS-30B-125-F	YDS-35-125-F	YDS-35B-125-F	YDS-47-127-F	YDS-50B-125-F
Maximum Storage Capacity						
No. of holders	6	6	6	6	6	6
1.2&2 ml Cryovials (25 per box)	600	600	750	750	900	900
No. of boxes in (holder)	4	4	5	5	6	6
Performance						
Volume of LN ₂ (L)	31.5	31.5	35	35	47	50
Static Evaporation* (L/Day)	0.28	0.28	0.29	0.35	0.33	0.37
Working Volume	31.5	31.5	35	35	47	50
Duration of Normal Operation** (Day)	71	71	76	63	90	85
Dimensions						
Opening Diameter(MM)	125	125	125	125	127	125
Height(MM)	659	659	700	700	753	753
Outside Diameter(MM)	461	461	461	461	461	461
Empty Weight(KG)	14.3	14.3	14.5	14.8	15.4	21
Gross Weight(KG)	38.9	38.9	43.2	43.5	53.9	62

* Static evaporation and static holding time is theoretical value. Actual evaporation and holding time is affected by usage, atmospheric conditions, and manufacturing tolerances.

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Accessories



Haier Liquid Nitrogen Storage System

BIO Series

Numbered Index Canister Locations

High Capacity

High Thermal Efficiency

5 Year Vacuum Warranty

Extended Hold Time

LN₂ Dispenser

Straws

Lockable

Roller Bases



BIO Series



Introduction

BIO Series provides two cryopreservation solutions for long-term static storing and transporting of biological samples.

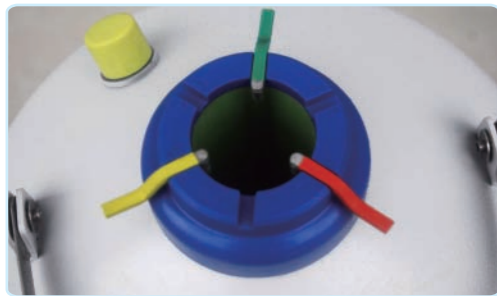
Key Features

- Strong and lightweight aluminium construction
- Heavy duty lockable enclosure offers excellent security
- Numbered index location points for canisters
- Straw storage
- LN₂ dispense available
- Roller bases available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporative losses

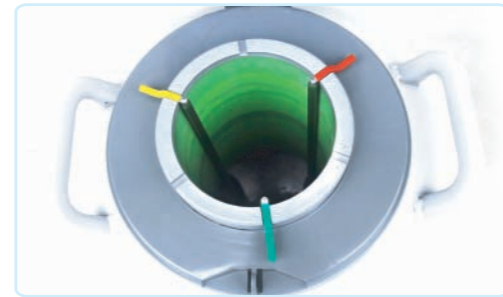
Product Advantages

Narrow neck design and excellent thermal conductivity reduces evaporation loss of liquid nitrogen for extended storage time.

Large-capacity models have wider necks for easier access to biological samples.



Long-term cryopreservation models have narrower necks for better thermal conductivity.



28 models, capacities range from 1 to 50 liters.

Technical Parameters

	Model	YDS-2-30	YDS-2-35	YDS-3	YDS-6	YDS-10	YDS-10-80
Maximum Capacity	No. of Canister	3 (3)	3 (3)	6 (3)	6 (3)	6 (3)	6 (3)
	No. of Straws (Single Layer) (0.5ml each holder)	90	90	792	792	792	2040
	No. of Straws (Single Layer) (0.25ml each holder)	204	204	1788	1788	1788	4554
	No. of Straws (Double Layer) (0.5ml each holder)	—	—	—	—	—	—
	No. of Straws (Double Layer) (0.25ml each holder)	—	—	—	—	—	—
Performance	Volume of LN ₂ (L)	2	2	3.15	6	10	10
	Static Evaporation* (L/Day)	0.06	0.06	0.10	0.10	0.10	0.18
	Duration of Normal Operation** (Day)	21	21	20	38	63	35
Dimensions	Opening Diameter(MM)	30	35	50	50	50	80
	Height(MM)	378	378	429	476	536	540
	Outside Diameter(MM)	224	224	224	300	300	300
	Canister Outside Diameter (MM)	19	19	38	38	38	63
	Outside Height(MM)	120	120	120	120	120	120
	Empty Weight(KG)	2.9	2.9	3.5	5	6.3	6.5
	Gross Weight(KG)	4.5	4.5	6	9.9	14.5	14.7

	Model	YDS-10-125	YDS-13	YDS-15	YDS-15-125	YDS-20	YDS-30
Maximum Capacity	No. of Canister	1 (0)	6 (3)	6 (3)	1 (0)	6 (3)	6 (3)
	No. of Straws (Single Layer) (0.5ml each holder)	—	—	792	—	792	792
	No. of Straws (Single Layer) (0.25ml each holder)	—	—	1788	—	1788	1788
	No. of Straws (Double Layer) (0.5ml each holder)	1508	1284	—	1508	1284	1284
	No. of Straws (Double Layer) (0.25ml each holder)	3324	2832	—	3324	2832	2832
Performance	Volume of LN ₂ (L)	10	13	15	15	20	30
	Static Evaporation* (L/Day)	0.30	0.10	0.10	0.30	0.10	0.11
	Duration of Normal Operation** (Day)	21	82	94	31	126	172
Dimensions	Opening Diameter(MM)	125	50	50	125	50	50
	Height(MM)	546	610	575	585	656	655
	Outside Diameter(MM)	300	310	394	394	394	461
	Canister Outside Diameter (MM)	97	38	38	97	38	38
	Outside Height(MM)	276	276	120	276	120/276	120/276
	Empty Weight(KG)	6.9	6.6	8.2	10.2	11.7	12
	Gross Weight(KG)	15.1	17.3	20.5	22.5	28.1	36.6

	Model	YDS-30-80	YDS-30-125	YDS-35	YDS-35-80	YDS-35-125	YDS-47-127
Maximum Capacity	No. of Canister	6 (3)	6 (3)	6 (3)	6 (3)	6 (3)	6 (3)
	No. of Straws (Single Layer) (0.5ml each holder)	2244	5124	792	2244	5124	5124
	No. of Straws (Single Layer) (0.25ml each holder)	5022	11952	1788	5022	11952	11952
	No. of Straws (Double Layer) (0.5ml each holder)	3624	9048	1284	3624	9048	9048
	No. of Straws (Double Layer) (0.25ml each holder)	8460	19944	2832	8460	19944	19944
Performance	Volume of LN ₂ (L)	30	30	35	35	35	47
	Static Evaporation* (L/Day)	0.18	0.28	0.11	0.19	0.29	0.33
	Duration of Normal Operation** (Day)	105	67	200	116	76	90
Dimensions	Opening Diameter(MM)	80	125	50	80	125	127
	Height(MM)	655	659	695	698	700	754
	Outside Diameter(MM)	461	461	461	461	461	461
	Canister Outside Diameter (MM)	63	97	38	63	97	97
	Outside Height(MM)	120/276	120/276	120/276	120/276	120/276	120/276
	Empty Weight(KG)	12.4	14.3	14	14.2	14.5	15.4
	Gross Weight(KG)	37	38.9	42.7	42.9	43.2	54

Model	YDS-20B	YDS-30B	YDS-30B-80	YDS-30B-125	YDS-35B
Max-imum Capacity	No. of Canister	6 (3)	6 (3)	6 (3)	6 (3)
	No. of Straws (Single Layer) (0.5ml each holder)	792	792	2244	5124
	No. of Straws (Single Layer) (0.25ml each holder)	1788	1788	5022	11952
	No. of Straws (Double Layer) (0.5ml each holder)	1284	1284	3624	9048
	No. of Straws (Double Layer) (0.25ml each holder)	2832	2832	8460	19944
Perfor-mance	Volume of LN ₂ (L)	20	30	30	35
	Static Evaporation* (L/Day)	0.18	0.17	0.23	0.34
	Duration of Normal Operation** (Day)	70	111	82	56
Dimen-sions	Opening Diameter(MM)	50	50	80	125
	Height(MM)	656	656	656	659
	Outside Diameter(MM)	394	461	461	461
	Canister Outside Diameter(MM)	38	38	63	97
	Outside Height(MM)	120/276	120/276	120/276	120/276
	Empty Weight(KG)	11.5	12.5	13	14.6
	Gross Weight(KG)	27.9	37.1	37.6	39.2

Model	YDS-35B-80	YDS-35B-125	YDS-50B	YDS-50B-80	YDS-50B-125
Max-imum Capacity	No. of Canister †	6 (3)	6 (3)	6 (3)	6 (3)
	No. of Straws (Single Layer) (0.5ml each holder)	2244	5124	792	2244
	No. of Straws (Single Layer) (0.25ml each holder)	5022	11952	1788	5022
	No. of Straws (Double Layer) (0.5ml each holder)	3624	9048	1284	3624
	No. of Straws (Double Layer) (0.25ml each holder)	8460	19944	2832	8460
Perfor-mance	Volume of LN ₂ (L)	35	35	50	50
	Static Evaporation* (L/Day)	0.23	0.35	0.20	0.26
	Duration of Normal Operation** (Day)	96	63	157	121
Dimen-sions	Opening Diameter(MM)	80	125	50	80
	Height(MM)	698	700	770	766
	Outside Diameter(MM)	461	461	461	461
	Canister Outside Diameter (MM)	63	97	38	63
	Outside Height(MM)	120/276	120/276	120/276	120/276
	Empty Weight(KG)	14.3	14.8	19.3	20.1
	Gross Weight(KG)	43	43.5	60.3	61.1

† A(B): A for maximum number of canisters, B for number of canisters in standard configuration

* Static evaporation and static holding time is theoretical value. Actual evaporation and holding time is affected by usage, atmospheric conditions, and manufacturing tolerances.

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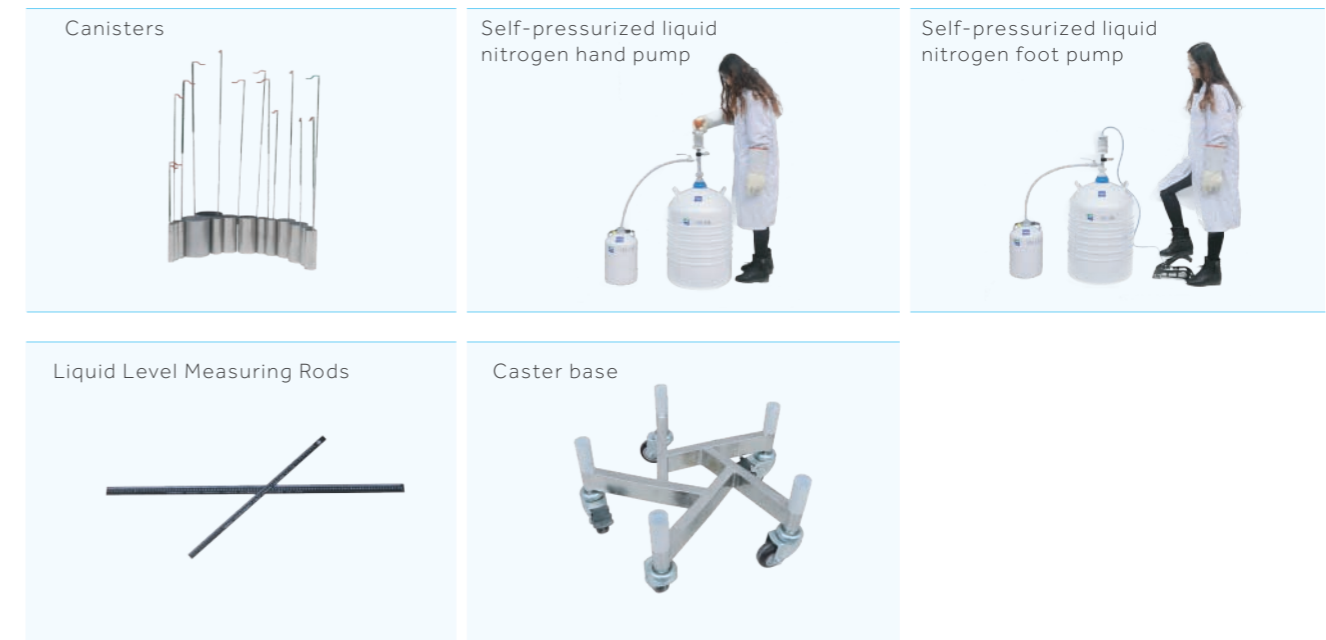
Cryo Tube Clamp Parameter

Canister Parameters	120 mm Long, 38 mm diameter (50-diameter storage tank)				276 mm Long, 38 mm diameter (50-diameter storage tank)			
	Cryovial Parameters	No. of holders in a canister	No. of vials in a holder	No. of vials in a canister	No. of vials in a storage tank	No. of holders in a canister	No. of vials in a holder	No. of vials in a canister
0.5 ml	3	3	9	54	3	6	18	108
1.5 ml	3	3	9	54	3	6	18	108
2.0 ml	3	3	9	54	3	6	18	108
3.0 ml	3	3	9	54	3	6	18	108
5.0 ml	3	1	3	18	3	3	9	54

Canister Parameters	120 mm Long, 63 mm diameter (80-diameter storage tank)				276 mm Long, 63 mm diameter (80-diameter storage tank)			
	Cryovial Parameters	No. of holders in a canister	No. of vials in a holder	No. of vials in a canister	No. of vials in a storage tank	No. of holders in a canister	No. of vials in a holder	No. of vials in a canister
0.5 ml	11	3	33	198	11	6	66	396
1.5 ml	11	3	33	198	11	6	66	396
2.0 ml	11	3	33	198	11	6	66	396
3.0 ml	11	3	33	198	11	6	66	396
5.0 ml	11	1	11	66	11	3	33	198

Canister Parameters	120 mm Long, 97mm diameter (125-diameter storage tank)				276 mm Long, 97 mm diameter (125-diameter storage tank)			
	Cryovial Parameters	No. of holders in a canister	No. of vials in a holder	No. of vials in a canister	No. of vials in a storage tank	No. of holders in a canister	No. of vials in a holder	No. of vials in a canister
0.5 ml	27	3	81	486	27	6	162	972
1.5 ml	27	3	81	486	27	6	162	972
2.0 ml	27	3	81	486	27	6	162	972
3.0 ml	27	3	81	486	27	6	162	972
5.0 ml	27	1	27	162	27	3	81	486

Accessories



Haier Liquid Nitrogen Storage System

Biotrek Series

3 Year Vacuum Warranty

Vapour Phase Storage

Rugged And Durable

Security

Dry Shippers

No LN₂ Spillage

Cryo absorbant

Durability



Biotrek Series



Introduction

Biotrek Series is designed for safe sample transportation under cryogenic conditions (vapor phase storage, temperature under -190°C). As the risk of LN₂ release is avoided, it is suitable for short-haul air transportation.

Key Features

- Straw and cryovial storage options
- Rugged and durable aluminium construction
- No LN₂ spillage
- Vapour phase cryogenic storage
- Faster LN₂ fill times
- Lockable lids
- 3 year vacuum warranty

Product Advantages

Liquid Nitrogen Adsorption

Adsorbent materials are used to absorb and retain LN₂ for safe transport. There will not be spillover of liquid nitrogen even when the tank is capsized.

Five Models Available

Biotrek Series offers five models of shippers with different capacities for the storage of straws and 2 ml vials.

Stainless Steel Mesh

Special stainless steel mesh divides storage space and LN₂ absorbents to prevent absorbent materials from contaminate the samples.

Complete Accessories Set

All models are offered a variety of stainless steel canisters and polycarbonate cryogenic boxes. Locking cover is optional.



Technical Parameters

Model	YDH-3	YDH-6-80	YDH-8-80	YDH-10-125	YDH-10-125-F	YDS-25-216-F
Maximum Storage Capacity						
No. of Canister	1	1	1	1	1	1
No. of Straws (0.5ml / EA)	132	820	820	1508	—	—
No. of Straws (0.25ml / EA)	298	1780	1780	3324	—	—
No. 2.0 ml Cryovials (25 / box)	—	—	—	—	75	500
No. of boxes in (2ml per holder)	—	—	—	—	3	5
Performance						
Volume of LN ₂ (L)	3	6	8	10	10	25
Static Evaporation* (L/Day)	0.21	0.40	0.40	1.25	1.25	0.89
Duration of Normal Operation** (Day)	14	15	18	8	8	10
Dimensions						
Opening Diameter(MM)	50	80	80	125	125	216
Height(MM)	428	481	581	546	546	705
Outside Diameter(MM)	224	300	300	300	300	394
Canister Outside Diameter(MM)	38	63	63	97	—	—
Outside Height(MM)	120	120	120	276	—	—
Empty Weight(KG)	3.5	5	5.8	6.9	6.9	15
Gross Weight(KG)	6	10	12	15	15	35

* Static evaporation and static holding time is theoretical value. Actual evaporation and holding time is affected by usage, atmospheric conditions, and manufacturing tolerances.

** Duration of normal operation is for reference only to estimate container performance under normal operating conditions. Actual duration may differ due to different atmospheric conditions, usage history, manufacturing tolerances, and particular circumstances.

Haier Liquid Nitrogen Storage System

Cryostor series

5 Year Vacuum Warranty

Decant Valves

Liquid Storage

Stainless Steel Construction

Muffler

Pressure Raising

Security

Relief Valve



Cryostor Series



Introduction

Cryostor Series is the latest innovation for high-performance liquid phase cryopreservation. The container uses the pressure generated from vaporization of small amount liquid nitrogen to discharge LN₂ for other containers. Storage capacities range from 5 to 500 liters.

Key Features

- Ten models with capacities range from 5 to 500 liters.
- All models are equipped with safety valves, 200 L and above models have additional rupture disc.
- All welded stainless steel construction
- Rotary ring construction
- Labelled valves for easy identification.
- 5 year vacuum warranty

Product Advantages

Stainless Steel Structure

Stainless steel structure can withstand the most demanding environment and ensure long-lasting security. It also provides reduced evaporation loss rate, compared with conventional welding insulation tanks.

A variety of accessories

Each Cryostor Series model is equipped with a pressure valve, a drain valve, a relief valve, and a pressure gauge. For 200 L and above models also apply safety structures such as rupture discs and silencers.

Casters

All models have four casters for better mobility and convenient use in different occasions.



Self-pressurized LN₂ Backup System

Self-pressurized LN₂ back up system is used for Cyro freezers. In extreme cases, such as power outage, system failure and so on, the backup system automatically opens cryogenic solenoid valves and injects liquid nitrogen to ensure the set temperature and protect samples.

Compared to traditional high pressure cylinder backup system, the self-pressurized LN₂ backup system has the following advantages:

- Safer: under required operating condition, self-pressurized LN₂ backup system has lower working pressure and hence safer than traditional high-pressure backup system.
- More Economical: self-pressurized liquid nitrogen tank has better insulation performance, lower evaporation losses and longer working duration with the same amount of LN₂.
- More convenient: self-pressurized LN₂ backup system combines the controllers with self-pressurized components and greatly reduces pipelines and cables used in traditional backup systems.
- More stable: due to the reduction of intermediate pipe connections, impact of environmental factors on the system is reduced.
- Cheaper: self-pressurized LN₂ backup system costs less than traditional backup systems.



Technical Parameters

Model	YDZ-5	YDZ-15	YDZ-30	YDZ-50	YDZ-100
Performance					
Volume of LN ₂ (L)	5	15	30	50	100
Static Evaporation* (L/Day)	0.15	0.38	0.75	1	1.3
LN ₂ output (L/Min)	2	2	3	3	4
Dimensions					
Height(MM)	510	750	879	991	1185
Outside Diameter(MM)	329	404	454	506	606
Empty Weight(KG)	15	23	32	54	75
Gross Weight(KG)	19.1	35.3	56.6	95.0	157.0
Pressure Parameters (MPA)	1. Standard working pressure 0.05, 2. Maximum working pressure 0.09, 3. First stage safety valve relief pressure 0.099, 4. Second stage safety valve release pressure 0.15, 5. Pressure gauge range 0-0.25				

Model	YDZ-150	YDZ-175	YDZ-200	YDZ-240	YDZ-300	YDZ-500
Performance						
LN ₂ capacity (L)	150	175	200	240	300	500
Static Evaporation* (L/Day)	1.95	2.1	2.4	2.9	3.3	5.5
LN ₂ output (L/Min)	6	6	8	8	8	10
Dimensions						
Height(MM)	1188	1298	1265	1350	1459	1576
Outside Diameter(MM)	706	706	758	758	857	1008
Empty Weight(KG)	102	120	130	148	202	255
Gross Weight(KG)	225	264	294	366	448	665
Pressure Parameters (MPA)	1. Standard working pressure 0.05, 2. Maximum working pressure 0.09, 3. First stage safety valve relief pressure 0.099, 4. Second stage safety valve release pressure 0.15, 5. Pressure gauge range 0-0.25, 6. Rupture disc burst pressure 0.47.					

* Static evaporation and static holding time is theoretical value. Actual evaporation and holding time is affected by usage, atmospheric conditions, and manufacturing tolerances.

Haier Liquid Nitrogen Storage System

Product List



Product List

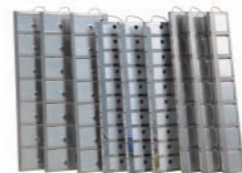
Model	Description	Accessories	
		Standard	Optional
YDS-2-30	2L,neck opening diameter 30mm	3*120mm canister,jacket	Locking cover SG-30
YDS-2-35	2L,neck opening diameter 35mm	4*120mm canister,jacket	Locking cover SG-35
YDS-3	3L,neck opening diameter 50mm	5*120mm canister,jacket	Additional 3 canister,locking cover SG-50
YDS-6	6L,neck opening diameter 50mm	6*120mm canister,jacket	Additional 3 canister,locking cover SG-50
YDS-10	10L,neck opening diameter 50mm	7*120mm canister,jacket	Additional 3 canister,locking cover SG-50
YDS-10-80	10L,neck opening diameter 80mm	3*120mm canister,jacket	Additional 3 canister,locking cover SG-80
YDS-10-125	10L,neck opening diameter 125mm	Jacket	1*276mm canister,locking cover SG-125
YDS-13	13L,neck opening diameter 50mm	3*276mm canister,jacket	Additional 3*276mm canister,locking cover SG-50
YDS-15	15L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3*120mm canister,locking cover SG-50
YDS-15-125	15L,neck opening diameter 125mm	Jacket	1 *120mm canister,locking cover SG-125
YDS-20	20L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-50,trolley/caster base
YDS-30	30L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-50,trolley/caster base
YDS-30-80	30L,neck opening diameter 80mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-80,trolley/caster base
YDS-30-125	30L,neck opening diameter 125mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-125,trolley/caster base
YDS-30-125-F	30L,neck opening diameter 125mm	6 square rack with 4 layers,5*5 cryogenic box,jacket	Locking cover SG-125,trolley/caster base
YDS-35	35L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-50,trolley/caster base
YDS-35-80	35L,neck opening diameter 80mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-80,trolley/caster base
YDS-35-125	35L,neck opening diameter 125mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-125,trolley/caster base
YDS-35-125-F	35L,neck opening diameter 125mm	6 square rack with 5 layers,5*5 cryogenic box,jacket	Locking cover SG-125,trolley/caster base
YDS-47-127	47L,neck opening diameter 127mm	3 *120mm canister,jacket	Additional 3 canister,276mm canister can choose,locking cover SG-125,trolley/caster base
YDS-47-127-F	47L,neck opening diameter 127mm	6 square rack with 6 layers,5*5 cryogenic box,jacket	Locking cover SG-125,trolley/caster base
YDS-65-216	65L,neck opening diameter 216mm	/	Locking cover SG-216,trolley/caster base
YDS-65-216-F	65L,neck opening diameter 216mm	6 square rack with 4 layers,9*9 cryogenic box	Locking cover SG-216,trolley/caster base
YDS-95-216	95L,neck opening diameter 216mm	/	Locking cover SG-216,trolley/caster base
YDS-95-216-F	95L,neck opening diameter 216mm	6 square rack with 5 layers,9*9 cryogenic box	Locking cover SG-216,trolley/caster base
YDS-115-216	115L,neck opening diameter 216mm	/	Locking cover SG-216,trolley/caster base
YDS-115-216-F	115L,neck opening diameter 216mm	6 square rack with 6 layers,9*9 cryogenic box	Locking cover SG-216,trolley/caster base
YDS-140-216	140L,neck opening diameter 216mm	/	Locking cover SG-216,trolley/caster base
YDS-140-216-F	140L,neck opening diameter 216mm	6 square rack with 8 layers,9*9 cryogenic box	Locking cover SG-216,trolley/caster base
YDS-175-216	175L,neck opening diameter 216mm	/	Locking cover SG-216,trolley/caster base
YDS-175-216-F	175L,neck opening diameter 216mm	6 square rack with 10 layers,9*9 cryogenic box	Locking cover SG-216,trolley/caster base

Aluminum Alloy Series For Storage

Model	Description	Accessories	
		Standard	Optional
YDS-20B	20L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-50,trolley/caster base
YDS-30B	30L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-50,trolley/caster base
YDS-30B-80	20L,neck opening diameter 80mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-80,trolley/caster base
YDS-30B-125	30L,neck opening diameter 125mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-125,trolley/caster base
YDS-30B-125-F	30L,neck opening diameter 125mm	6 square rack with 4 layers, 5*5 cryogenic box,jacket	Locking cover SG-125,trolley/caster base
YDS-35B	35L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-50,trolley/caster base
YDS-35B-80	35L,neck opening diameter 80mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-80,trolley/caster base
YDS-35B-125	35L,neck opening diameter 125mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-125,trolley/caster base
YDS-35B-125-F	35L,neck opening diameter 125mm	6 square rack with 5 layers, 5*5 cryogenic box,jacket	Locking cover SG-125,trolley/caster base
YDS-50B	50L,neck opening diameter 50mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-50,trolley/caster base
YDS-50B-80	50L,neck opening diameter 80mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-80,trolley/caster base
YDS-50B-125	50L,neck opening diameter 125mm	3*120mm canister,jacket	Additional 3 canister,276mm canister can choose, locking cover SG-125,trolley/caster base
YDS-50B-125-F	50L,neck opening diameter 125mm	6 square rack with 6 layers, 5*5 cryogenic box,jacket	Locking cover SG-125,trolley/caster base
YDH-3	3L,neck opening diameter 50mm	1*120mm canister,jacket	Locking cover SG-50
YDH-6-80	6L,neck opening diameter 80mm	1*120mm canister,jacket	Locking cover SG-80
YDH-8-80	8L,neck opening diameter 80mm	1*120mm canister,jacket	Locking cover SG-80
YDH-10-125	10L,neck opening diameter 125mm	1*276mm canister,jacket	Locking cover SG-125
YDH-10-125-F	10L,neck opening diameter 125mm	1 square rack with 3 layers, 5*5 cryogenic box,jacket	/
YDH-25-216-F	25L,neck opening diameter 216mm	1 square rack with 5 layers, 9*9 cryogenic box,jacket	/
YDD-300-326	300L,neck opening diameter 326mm	/	Square rack,cryosmart monitoring system
YDD-500-440	500L,neck opening diameter 440mm	/	Square rack,cryosmart monitoring system
YDD-800-460	800L,neck opening diameter 460mm	/	Square rack,cryosmart monitoring system
YDD-1000-610	1000L,neck opening diameter 610mm	/	Square rack,cryosmart monitoring system
YDD-1500-610	1500L,neck opening diameter 610mm	/	Square rack,cryosmart monitoring system
YDD-1800-610	1800L,neck opening diameter 610mm	/	Square rack,cryosmart monitoring system
YDZ-5	5L	Transport castor,double safety valve system to ensure usage safety	/
YDZ-15	15L	Transport castor,double safety valve system to ensure usage safety	/
YDZ-30	30L	Transport castor,double safety valve system to ensure usage safety	/
YDZ-50	50L	Transport castor,double safety valve system to ensure usage safety	/
YDZ-100	100L	Transport castor,double safety valve system to ensure usage safety	/
YDZ-150	150L	Transport castor,double safety valve system to ensure usage safety	/
YDZ-175	175L	Transport castor,double safety valve system to ensure usage safety	/
YDZ-200	200L	Transport castor,three safety valve system to ensure usage safety	/
YDZ-240	240L,gas cylinder type (slim and tall)	Transport castor,three safety valve system to ensure usage safety	/
YDZ-300	300L	Transport castor,three safety valve system to ensure usage safety	/
YDZ-500	500L	Transport castor,three safety valve system to ensure usage safety	/

Accessories	Image	Model	Description
Cork		PS-30	Suitable for LNC with neck opening diameter 30mm
		PS-35	Suitable for LNC with neck opening diameter 35mm
		PS-50	Suitable for LNC with neck opening diameter 50mm
		PS-80	Suitable for LNC with neck opening diameter 80mm
		PS-125	Suitable for LNC with neck opening diameter 125mm
		PS-216	Suitable for LNC with neck opening diameter 216mm
Locking Cover		SG-30	Suitable for LNC with neck opening diameter 30mm
		SG-35	Suitable for LNC with neck opening diameter 35mm
		SG-50	Suitable for LNC with neck opening diameter 50mm
		SG-80	Suitable for LNC with neck opening diameter 80mm
		SG-125	Suitable for LNC with neck opening diameter 125mm
		SG-216	Suitable for LNC with neck opening diameter 216mm
Canister		TT-30D	Suitable for LNC with neck opening diameter 30mm, height is 120mm
		TT-35D	Suitable for LNC with neck opening diameter 35mm, height is 120mm
		TT-50D	Suitable for LNC with neck opening diameter 50mm, height is 120mm
		TT-50S	Suitable for LNC with neck opening diameter 50mm, height is 276mm
		TT-80D	Suitable for LNC with neck opening diameter 80mm, height is 120mm
		TT-80S	Suitable for LNC with neck opening diameter 80mm, height is 276mm
		TT-125D	Suitable for LNC with neck opening diameter 125mm, height is 120mm
		TT-125S	Suitable for LNC with neck opening diameter 125mm, height is 276mm
		FTT-4-55	4 layers,including 5*5 cryogenic box,suitable for YDS-30-125-F / YDS-30B-125-F
		FTT-5-55	5 layers,including 5*5 cryogenic box,suitable for YDS-35-125-F / YDS-35B-125-F
Square Rack		FTT-6-55	6 layers,including 5*5 cryogenic box,suitable for YDS-50B-125-F / YDS-47-127-F
		FTT-10-55	10 layers,including 5*5 cryogenic box,suitable for YDD-300-326 / YDD-500-440 / YDD-1000-610
		FTT-13-55	13 layers,including 5*5 cryogenic box,suitable for YDD-800-460 / YDD-1500-610
		FTT-15-55	15 layers,including 5*5 cryogenic box,suitable for YDD-1800-610
		FTT-4-99	4 layers,including 9*9 cryogenic box,suitable for YDS-65-216-F
		FTT-5-99	5 layers,including 9*9 cryogenic box,suitable for YDS-95-216-F
		FTT-6-99	6 layers,including 9*9 cryogenic box,suitable for YDS-115-216-F
		FTT-8-99	8 layers,including 9*9 cryogenic box,suitable for YDS-140-216-F
		FTT-10-99	10 layers,including 9*9 cryogenic box,suitable for YDS-175-216-F / YDD-300-326 / YDD-500-440 / YDD-1000-610
		FTT-13-99	13 layers,including 9*9 cryogenic box,suitable for YDD-800-460 / YDD-1500-610
FTT-15-99	15 layers,including 9*9 cryogenic box,suitable for YDD-1800-610		

Accessories	Image	Model	Description
Cryo Tube Clip		DCGJ-3	Suitable for 120mm height round canister, including cryo racks and plastic sleeve
		DCGJ-6	Suitable for 276mm height round canister, including cryo racks and plastic sleeve
Level Measuring Scale		YWC-600	Suitable for aluminum alloy series LNC with capacity less than 20L
		YWC-1000	Suitable for aluminum alloy series LNC with capacity no less than 20L
Level Monitor		ZTC-100A	Suitable for aluminum alloy series LNC
		ZTC-100B	Suitable for aluminum alloy series LNC, including low temperature magnetic valve
		ZTC-100C	Suitable for aluminum alloy series LNC, including low temperature magnetic valve
		Cryosmart	Suitable for stainless steel series LNC
Stainless Steel Trolley/-Caster Base		YSC-S	Suitable for aluminum alloy series LNC with capacity less than 50L
		YSC-M	Suitable for aluminum alloy series LNC with capacity no less than 50L and neck opening diameter no less than 216mm

Accessories	Image	Model	Description		
Cryogenic Rack		YDCJ-3	3 layers, can store 250ml blood bag, suitable for YDD-300-326 / YDD-500-440		
		YDCJ-4	4 layers, can store 250ml blood bag, suitable for YDD-500-440 / YDD-800-460 / YDD-1000-610 / YDD-1500-610		
		YDCJ-5-I	5 layers, can store 50ml/25ml blood bag, suitable for YDS-175-216-F		
		YDCJ-5-II	5 layers, can store 250ml blood bag, suitable for YDD-1800-610		
		YDCJ-6	6 layers, can store 50ml/25ml blood bag, suitable for YDD-300-326 / YDD-500-440 / YDD-1000-610		
		YDCJ-7	7 layers, can store 50ml / 25ml blood bag, suitable for YDD-800-460 / YDD-1500-610		
		YDCJ-8-II	8 layers, can store 2ml cryo tube, 8 pcs for each layer, suitable for YDS-175-216-F		
		YDCJ-9	9 layers, can store 50ml / 25ml blood bag, suitable for YDD-1800-610		
		YDCJ-10	10 layers, can store 2ml cryo tube, 8 pcs for each layer, suitable for YDD-500-440 / YDD-800-460		
		YDCJ-12	12 layers, can store 2ml cryo tube, 8 pcs for each layer, suitable for YDD-1000-460 / YDD-1500-610 / YDD-1800-610		
					Used to store 25ml, 50ml, 250ml blood bag