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Liquid Nitrogen Tank Solution

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Quality Instruments, Lifetime Care

Content

CryoMatrix Series

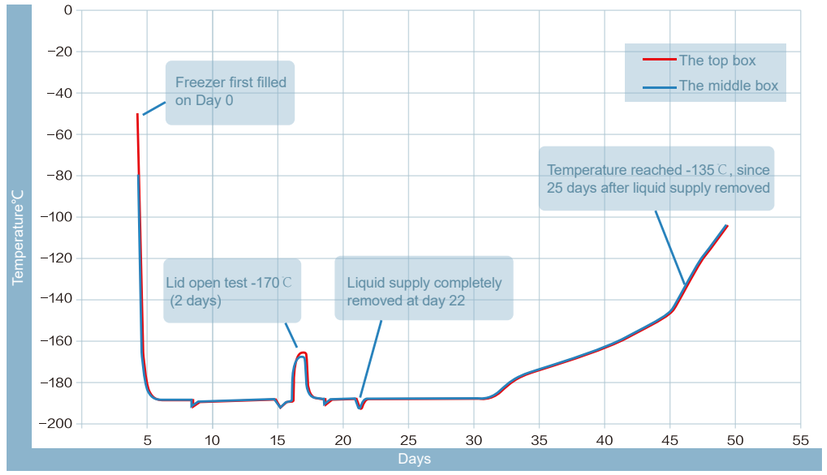
Introduction

CryoMatrix Series tanks provide users with a fully automatic, safe and reliable cryogenic liquid nitrogen storage system. The sample can be stored either in liquid phase(-196℃) or vapor phase (-180℃). Microcomputer touch control system CryMonitor 3000 provides convenience and security. Cryomatrix series introduced advanced technology and perfect vacuum thermal insulation technology to assure the safety of the barrier-free sample storage and good properties uniform temperature and characteristics of the minimum consumption of liquid nitrogen. Even if it is vapor phase, the whole storage area temperature difference is less than 10℃.

Key Features

1. Dry sample storage available
2. At least -180℃ at top of tank
3. Maximum capacity of liquid nitrogen storage capacity below rotating tray
4. One-piece folding stage
5. Automatically liquid nitrogen supply
6. Variety of blood bags storage available
7. De-Fog and liquid nitrogen splash proof
8. 5 years vacuum warranty
9. CE certificate

Temperature Test Graph

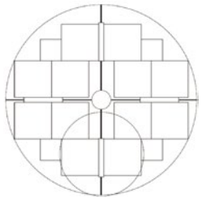


Advantages

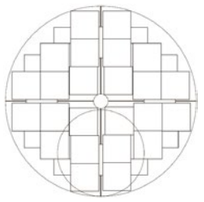
1. The largest single storage capacity (CryoMatrix 128k), Small footprint.
2. meet customers' variable requirements.
3. Unique vacuum technology and cervical mouth technology ensures extremely low liquid nitrogen evaporation loss rate.
4. Temperature close to the neck could reach -180℃ stably.
5. Two steps and partition rotating tray design for easy and quick access to samples.
6. special strengthen structure to make the tank stable , earthquake resistant up to 8 magnitude， be able to be moved with samples inside.
7. 5 years vacuum warranty as standard.

1. One-piece folding stage
2. Cryomonitor 3000 intelligent control system

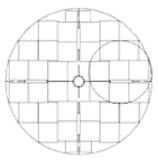
RackLayouts



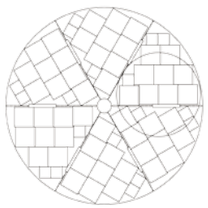
Cryomatrix 13k/19K



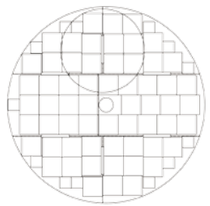
Cryomatrix 26k/36K



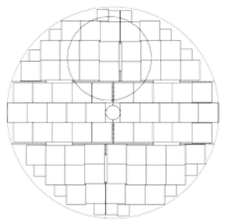
CryoMatrix 43k/50K



CryoMatrix 59k/76K/88K

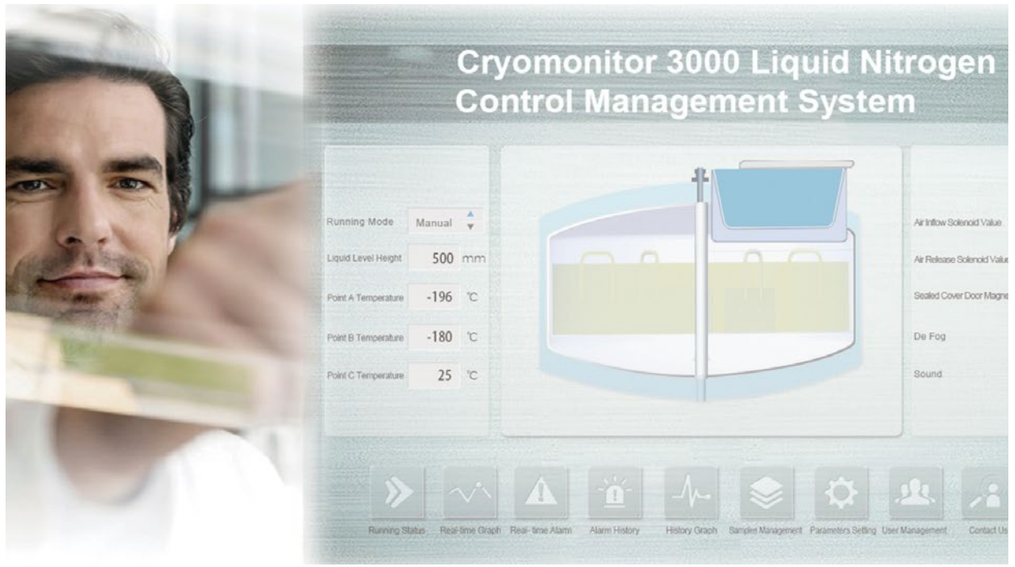


CryoMatrix 95K



CryoMatrix 128K

CryoMonitor 3000
Intelligent Control System



1. Automatically filling liquid nitrogen
2. Liquid nitrogen splash proof structure
3. Triple solenoid valve structure
4. Platinum resistance temperature sensor
5. Differential pressure type liquid level sensor
6. Automatically recording temperature and alarm data
7. Remote monitoring
8. Self-diagnosis
9. User authority setting
10. Run/alarm parameters setting
11. Abnormal alarm reminder
12. Standby power and UPS power(optional)
13. Cloud storage database center(optional)

Technical Specification

Model	CryoMatrix 13K	CryoMatrix 19K	CryoMatrix 26K	CryoMatrix 36K	CryoMatrix 43K
Maximum storage capacity					
2 ml Vials (Internal Thread)	13000	18200	27000	37800	42900
Number of Racks (100 cell boxes)	12	12	24	24	32
Number of Racks (25 cell boxes)	4	4	12	12	4
Number of Stages per Rack	10	14	10	14	13
0.5 ml Vials (Internal Thread)	18200	23400	33800	46800	56100
Number of Racks (100 cell boxes)	12	12	24	24	32
Number of Racks (25 cell boxes)	4	4	12	12	4
Number of Stages per Rack	13	19	13	19	17
Performance					
Liquid nitrogen capacity (L) (Liquid phase storage)	350	460	587	783	890
Liquid nitrogen capacity (L) (Vapor phase storage)	55	55	80	80	135
Static evaporation (L/day)*	⩽3	⩽4	⩽5	⩽6	⩽6.5
Unit Dimensions					
Neck Diameter (mm)	326	326	445	445	465
Overall Height (mm)	1326	1558	1321	1591	1559
Operated Height (mm)	1263	1212	1266	1216	980
Outside Diameter (mm)	875	875	1104	1104	1190
Door Width Requirement** (mm)	895	895	1124	1124	1210
Weight Empty (kg)	219	277	328	372	441
Weight Liquid Full* (kg)	502	649	802	1005	1160

Blood Bag Capacities

	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks
25ml（791 OS/U）	1296	6	216	1728	8	216	2376	6	396	3168	8	396	3360	7	480
50ml（4R9951）	792	6	132	1056	8	132	1416	6	236	1888	8	236	2016	7	288
250ml（4R9953）	300	3	100	500	5	100	552	3	184	920	5	184	944	4	236

★Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage,atmospheric conditions, and manufacturing tolerances.

Technical Specification

Model	CryoMatrix 50K	CryoMatrix 59K	CryoMatrix 76K	CryoMatrix 95K	CryoMatrix128K
Maximum storage capacity					
2 ml Vials (Internal Thread)	51000	58500	76050	94875	128350
Number of Racks (100 cell boxes)	30	54	54	60	72
Number of Racks (25 cell boxes)	16	18	18	13	14
Number of Stages per Rack	15	10	13	15	17
0.5 ml Vials (Internal Thread)	66000	81900	99450	126500	166100
Number of Racks (100 cell boxes)	30	54	54	60	72
Number of Racks (25 cell boxes)	16	18	18	13	14
Number of Stages per Rack	20	14	18	20	23
Performance					
Liquid nitrogen capacity (L) (Liquid phase storage)	1014	1340	1660	1880	2270
Liquid nitrogen capacity (L) (Vapor phase storage)	130	265	300	320	262
Static evaporation (L/day)*	⩽7	⩽8	⩽10.5	⩽12.5	⩽12.5
Unit Dimensions					
Neck Diameter (mm)	465	635	635	635	635
Overall Height (mm)	1704	1398	1589	1883	1680
Operated Height (mm)	950	997	967	1097	1120
Outside Diameter (mm)	1190	1565	1565	1565	1565
Door Width Requirement** (mm)	1210	1585	1585	1585	1700
Weight Empty (kg)	495	851	914	985	920
Weight Liquid Full* (kg)	1314	1934	2255	2504	2754

Blood Bag Capacities

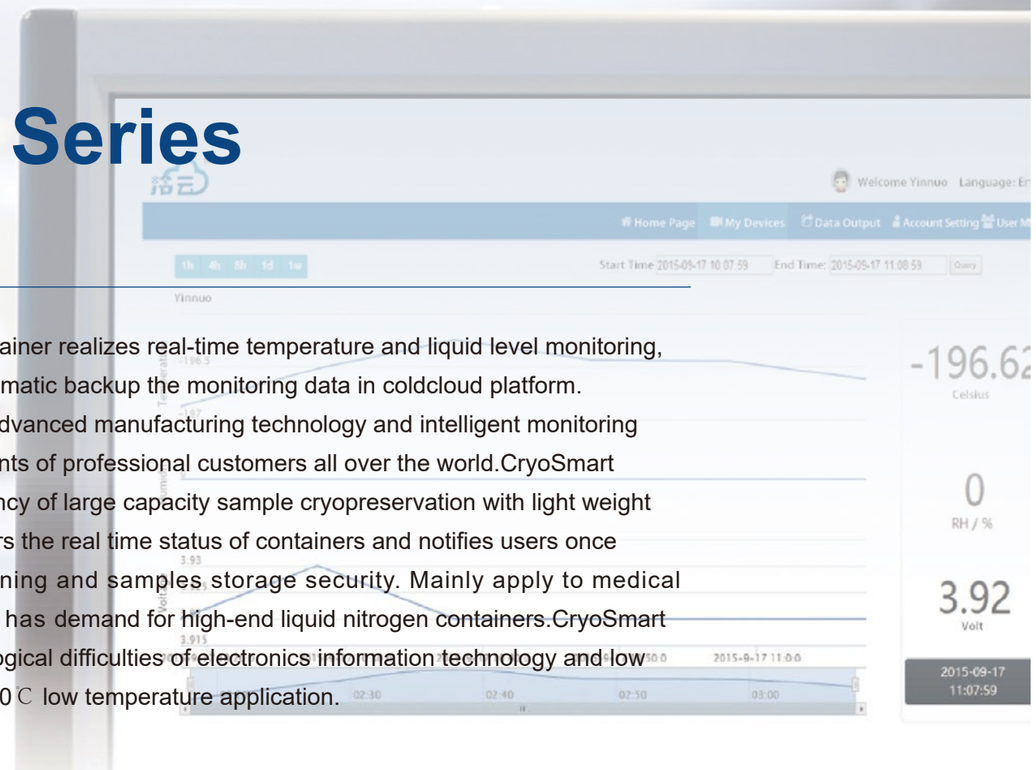
	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks	Total bags	Stages	No. Racks
25ml（791 OS/U）	4320	9	480	4716	6	786	5502	7	786	7758	9	862	10540	10	1054
50ml（4R9951）	2592	9	288	2916	6	486	3402	7	486	4905	9	545	6540	10	654
250ml（4R9953）	1180	5	236	1170	3	390	1560	4	390	2095	5	419	3060	6	510

★Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage,atmospheric conditions, and manufacturing tolerances.

CryoSmart Series

Introduction

CryoSmart Series liquid nitrogen container realizes real-time temperature and liquid level monitoring, remote monitoring, alarming and automatic backup the monitoring data in coldcloud platform. CryoSmart Series combine with the advanced manufacturing technology and intelligent monitoring technology to meet unique requirements of professional customers all over the world.CryoSmart Series containers provide high efficiency of large capacity sample cryopreservation with light weight and small space occupying. It monitors the real time status of containers and notifies users once any issue occur ensuring stable running and samples storage security. Mainly apply to medical field and samples bank users who has demand for high-end liquid nitrogen containers.CryoSmart Series completely solved the technological difficulties of electronics information technology and low power consumption technology in -190℃ low temperature application.



Key Features

1. Intelligent temperature real time monitoring
2. Intelligent liquid level real time monitoring
3. Intelligent remote alarm
4. Running data intelligent backup
5. Low power consumption
6. Replaceable battery
7. Ultra less liquid nitrogen consumption
8. Innovative overall appearance
9. Dual-lock construction
10. 5 year vacuum warranty

Products Details

Steady and Plump Appearance

Professional industrial design, strong elements feature, plump line reflect the stable of device while ensuring the tank structure strength. Reasonable stiffener layouts make the tank more robust and straight.

1. Strong art element features
2. Reasonable stiffener layouts

Professional Functional Design

Unique temperature/liquid level monitor and real-time alarm functions, real-time running data backup ensure more stable. Combining professional intelligent function tank createsperfect user experience.

3. Integrated OLED Intelligent connected functional module
4. Equipped with Intelligent connected locking lid

Ergonomic Experience

Meet the operational needs of professional users and completely eliminate the inconvenience in use. Integrate ergonomics into the design to create overall first-class ergonomic experience.

5. Comfortable operational experience

Perfect Details Design

Extreme demanding design requirement, adopting art processes and standards to carve products, every detail is crafted. Touching user hearts is our ultimate goal.

6. Art texture outer lid processing
7. Dual-lock stainless steel lock

Products Details

Roller base

YSC-30-4W

YSC-175-4W

Technical Specification

Model	CryoSmart 2400	CryoSmart 3000	CryoSmart 3600	CryoSmart 4800	CryoSmart 6000
Maximum storage capacity					
Square Canisters (EA)	6	6	6	6	6
1.2&2ml Vials (100/box)	2400	3000	3600	4800	6000
Number of Boxes per Rack (EA)	4	5	6	8	10
5ml Vials (36/box)	648	864	1080	1296	1728
Number of Boxes per Canister (5ML*EA)	3	4	5	6	8
25ml blood bag	60	90	120	120	150
Number of Racks	30	30	30	30	30
No. of Blood bags Per Rack	2	2	3	4	5
50ml blood bag	60	60	90	120	150
Number of Racks	30	30	30	30	30
No. of Blood bags Per Rack	2	2	3	4	5
Performance					
Liquid Nitrogen Capacity (L)	65	95	115	140	175
Static Evaporation (L/day)*	0.79	0.81	0.83	0.87	0.87
Capacity (L)	55	85	105	130	165
Working Duration (whole day)**	44	66	80	94	126
Unit Dimensions					
Neck Diameter (mm)	216	216	216	216	216
Overall Height (mm)	710	726	796	910	1026
External Diameter (mm)	681	681	681	681	681
Weight Empty (kg)	27.5	34.5	38.5	42.5	55
Weight Liquid Full* (kg)	80.8	112.4	132.8	157.3	198.5

★Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the nature of container use, atmospheric conditions, and manufacturing tolerances.

★★ Normal Working Duration is an arbitrary reference, to estimate container performance under normal operating conditions. Actual working time may vary due to current atmospheric conditions, container history, manufacturing tolerances and individual patterns of use. Divide static holding days by 1.6, and you get empirical value.

Smart Cap

CryoMaster Series

Introduction

CryoMaster Series liquid nitrogen containers combine with the advantages of low liquid nitrogen consumption and medium range storage capacity to meet unique requirements of professional customers all over the world. CryoMaster Series containers provide high efficiency of large capacity sample cryopreservation with light weight and small space occupying. The racks and lockable lids are standard to assure the safety of samples. Mainly apply to medical field/bio-bank/laboratory field.

Key Features

1. Racks and boxes included
2. Dual-lock construction
3. Durable aluminum construction
4. Larger storage capacity, less liquid nitrogen consumption
5. Compatible with main brands standard storage boxes
6. Liquid level monitoring system (optional)
7. Mobile roller bases (optional)
8. 5 year vacuum warranty

Real-time Temperature Monitor

Real-time temperature monitor continuously monitors the temperature inside the container. The real-time temperature monitor matchs all CryoMaster models,optimal choice for long time monitoring of samples storage. It realizes reminding users to add liquid nitrogen timely too. There are two models, CryoMonitor 1000 and Smart Cap.

Cryomonitor 1000 real-time monitor
This system with real-time temperature display:
1.High/low temperature alarm
2.Sensor fault audible and visual alarm

Smart Cap

The Smart Cap is a liquid nitrogen level sensor with a highly integrated IoT module that monitors the liquid nitrogen tank level (0~650mm) and the tank mouth temperature (-200°C~150°C).
Intelligent transmission: IoT 2.4G technology, intelligent matching data optimal transmission path.
Ultra-low power consumption: The built-in power supply works independently for more than two years.
Remote transmission: Effective transmission distance is more than 200 meters, effectively ensuring signal penetration and data stability.

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.

Biological samples liquid nitrogen storage → Intelligent data collection module Smart Sensor (wireless sensor) → Intelligent data transfer module Black Box -- (1+n Mode) → Data storage platform Cold Cloud -- (More safety)

※ Monitoring Temperature: +150℃- -200℃
※ Usage: Sensor put into cabinet, device attached outside cabinet by magnetism. No external power supply.

Technical Specification

Model		CryoMaster 100	CryoMaster 600	CryoMaster 750	CryoMaster 900
Maximum Storage Capacity					
1.2 &2ml Vials (25/box)		100	600	750	900
Number of Racks		1	6	6	6
Boxes Per Rack		4	4	5	6
25ml blood bag	25ml blood bag	——	36	36	36
	Number of Racks	——	18	18	18
	No. of Blood bags Per Rack	——	2	2	2
Performance					
LN2 Capacity (L)		10	30	35	50
Static Evaporation Rate (L/day)		0.37	0.33	0.36	0.36
Static holdover time (day)		54	90	97	115
Unit Dimensions					
Neck Opening (mm)		125	125	125	127
Overall Height (mm)		670	705	748	754
Outer Diameter (mm)		394	461	461	416
Weight Empty (kg)		9.7	12.9	14.2	15.2
Weight Full (KG)		26.1	37.5	42.9	53.74

Model		CryoMaster 2400	CryoMaster 3000	CryoMaster 3600	CryoMaster 4800	CryoMaster 6000
Maximum Storage Capacity						
1.2 &2ml Vials	1.2 &2ml Vials (100/box)	2400	3000	3600	4800	6000
	Number of Racks	6	6	6	6	6
	Boxes Per Rack	4	5	6	8	10
25ml blood bag	25ml blood bag	60	90	120	120	150
	Number of Racks	30	30	30	30	30
	No. of Blood bags Per Rack	2	2	3	4	5
50ml blood bag	50ml blood bag	60	60	90	120	150
	Number of Racks	30	30	30	30	30
	No. of Blood bags Per Rack	2	2	3	4	5
Performance						
LN2 Capacity (L)		65	95	115	140	175
Static Evaporation Rate (L/day)		0.78	0.97	0.94	0.96	0.95
Static holdover time (day)		83	98	122	146	184
Unit Dimensions						
Neck Opening (mm)		216	216	216	216	216
Overall Height (mm)		765	790	870	960	1060
Outer Diameter (mm)		681	681	681	681	681
Weight Empty (KG)		38.3	41.3	42.3	48.9	53.8
Weight Full (KG)		91.6	119.2	136.6	163.7	197.3

★Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage, atmospheric conditions, and manufacturing tolerances.

★★ Normal Working Duration is an arbitrary reference,applying to estimate container performance under normal operating conditions. Actual working time may vary due to atmospheric conditions, container usage history, manufacturing tolerances and individual patterns of usage. Divide static holding days by 1.6, and you get empirical value.

CryoMajor Series

Introduction

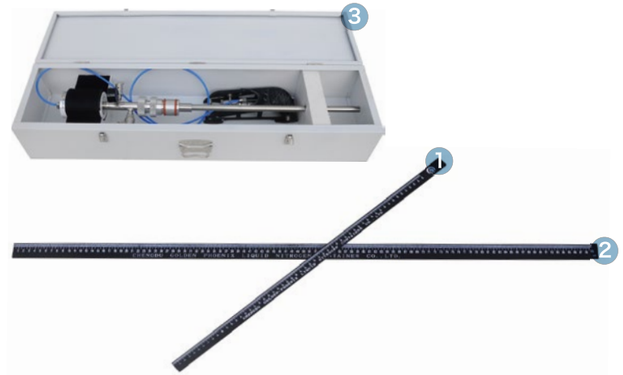
CryoMajor Series liquid nitrogen containers are economical small and medium size liquid nitrogen containers for long term static state storage. CryoMajor Series include two types, large capacity and long shelf life. CryoMajor Series are made of high strength and light-weight aluminum alloy. There is multilayer superior performance thermal insulation inside.
Various accessories are optional. Mainly apply to animal husbandry and laboratories.

Key Features

1. High strength and light-weight aluminum construction
2. Ultra-low evaporation loss
3. Numbered index location points for canisters(optional)
4. Mobile roller bases (optional)
5. Lockable lid
6. Straw storage
7. LN_2 pump (optional)
8. 5 year vacuum warranty

Important Accessories

1. 600mm Liquid Level Ruler
2. 1000mm Liquid Level Ruler
3. LN_2 Dispenser



Technical Specification

Model	CryoMajor 2/35	CryoMajor 3/50	CryoMajor 6/50	CryoMajor 10/50	CryoMajor 13/50
Maximum Storage Capacity					
Number of Canisters	3	6	6	6	6
Number of Straws (0.5ml)	165	792	792	792	792
Number of Straws (0.25ml)	330	1788	1788	1788	1788
Performance					
Liquid N2 Capacity(L)	2	3	6	10	13
Static Evaporation(L/D)	0.08	0.12	0.12	0.12	0.12
Static Holdover time(Day)	24	26	52	86	109
Unit Dimensions					
Neck Diameter (mm)	35	50	50	50	50
Overal Height(mm)	428	435	482	552	623
External Diameter (mm)	204	223	300	300	310
Canister Diameter(mm)	25	38	38	38	38
Canister Height (mm)	120	120	120	120	120
Weight Empty (KG)	2.6	3.1	4.8	5.9	6.3
Weight Full (KG)	4.2	5.6	9.7	14.1	15.9

Model		CryoMajor13/50L	CryoMajor15/50	CryoMajor 20/50 CryoMajor 20/50L	CryoMajor 20/80 CryoMajor 20/80L
Maximum Storage Capacity					
No. of Canister		6	6	6	6
No. of Straws	0.5ml	——	792	792	2244
(1-level Canister)	0.25ml	——	1788	1788	5022
No.of Straws	0.5ml	1284	——	1284	——
(2-level Canister)	0.25ml	2832	——	2832	——
Performance					
Liquid Nitrogen Capacity (L)		13	15	20	20
Static Evaporation (L/day)		0.12	0.11	0.12	0.21
Static Holdover time(Day)		108	134	166	95
Unit Dimensions					
Neck Opening (mm)		50	50	50	80
Overall Height (mm)		623	591	672	672
External Diameter (mm)		310	394	394	394
Canister External Diameter (mm)		38	38	38	63
Canister Height (mm)		276	120	120/276	276
Weight Empty (kg)		6.3	8.5	9.5	9.5
Weight Liquid Full (kg)		16.6	18.2	22.3	22.3

Technical Specification

Model		CryoMajor 25/50 CryoMajor 25/50L	CryoMajor 30/50 CryoMajor 30/50L	CryoMajor 30/80 CryoMajor 30/80L	CryoMajor 30/125 CryoMajor 30/125L	CryoMajor 35/50 CryoMajor 35/50L
Maximum Storage Capacity						
No. of Canister		6	6	6	6	6
No. of Straws	0.5ml	792	792	2244	5124	792
(1-level Canister)	0.25ml	1788	1788	5022	11952	1788
No.of Straws	0.5ml	1284	1284	3624	9048	1284
(2-level Canister)	0.25ml	2832	2832	8460	19944	2832
Performance						
Liquid Nitrogen Capacity (L)		25	31.5	31.5	31.5	35.5
Static Evaporation (L/day)		0.12	0.12	0.21	0.35	0.12
Static Holdover time(Day)		208	254	147	90	286
Unit Dimensions						
Neck Opening (mm)		50	50	80	125	50
Overall Height (mm)		700	706	710	705	750
External Diameter (mm)		394	462	462	462	462
Canister External Diameter (mm)		38	38	63	97	38
Canister Height (mm)		120/276	120/276	120/276	120/276	120/276
Weight Empty (kg)		10.7	12.9	13.1	12.9	14.2
Weight Liquid Full (kg)		26.4	31.7	31.7	38.7	35.0

Model		CryoMajor 35/80 CryoMajor 35/80L	CryoMajor35/125T CryoMajor35/125TL	CryoMajor47/127 CryoMajor47/127L	CryoMajor47/127T CryoMajor47/127TL	CryoMajor50B/50 CryoMajor50B/50L	CryoMajor50B/125 CryoMajor50B/125L
Maximum Storage Capacity							
No. of Canister		6	10	6	10	6	6
No. of Straws	0.5ml	2244	8540	5124	8540	792	5124
(1-level Canister)	0.25ml	5022	19920	11952	19920	1788	11952
No.of Straws	0.5ml	9048	15080	9048	15080	1284	9048
(2-level Canister)	0.25ml	3624	33240	19944	33240	2832	19944
Performance							
Liquid Nitrogen Capacity (L)		35.5	35.5	47	47	50	50
Static Evaporation (L/day)		0.12	0.36	0.36	0.36	0.23	0.45
Static Holdover time(Day)		286	97	130	130	213	110
Unit Dimensions							
Neck Opening (mm)		50	125	125	127	50	125
Overall Height (mm)		750	748	718	718	811	818
External Diameter (mm)		462	462	508	508	462	462
Canister External Diameter (mm)		38	70	97	72	63	97
Canister Height (mm)		120/276	120/276	120/276	120/276	120/276	120/276
Weight Empty (kg)		14.2	14.2	15	15	15.2	15.4
Weight Liquid Full(kg)		35.0	46.2	53.54	55.6	55.4	56.2

Remark:

1.Model number end without "L" are supplied with 110mm or 120mm length canister. One layer of straws can be loaded.

2.Model number end with "L" are supplied with 260mm or 276mm length canister. Two layers of straws can be loaded.

3.For example, CryoMajor30/50 is supplied with canister height 120mm, while CryoMajor 30/50L is supplied with canister height 276mm.

New Products and Canes

(CryoMajor 35/125T)

CryoMajor Series will be also used to store 0.5ML-5ML vials with cane.The storage quantity shown in the table below:

Technical Specification

Canister Model — Length 120mm, Diameter 38mm(50 neck opening) — Length 276mm, Diameter 38(50 neck opening)

Vials Model	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank
0.5ml	4	3	12	72	4	5	20	120
1.5ml	4	3	12	72	4	5	20	120
2ml	4	3	12	72	4	5	20	120
3ml	4	3	12	72	4	5	20	120
5ml	4	1	4	24	4	3	2	72

Canister Model — Length120mm, Diameter 63mm(80 neck opening) — Length 276mm, Diameter 63(80 neck opening)

Vials Model	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank
0.5ml	16	3	48	288	16	5	80	480
1.5ml	16	3	48	288	16	5	80	480
2ml	16	3	48	288	16	5	80	480
3ml	16	3	48	288	16	5	80	480
5ml	16	1	16	96	16	3	48	288

Canister Model — Length 120mm, Diameter 97mm(125 neck opening) — Length 276mm, Diameter 97(125 neck opening)

Vials Model	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank	Number of Cane/ Canister	Number of Vials/ Cane	Number of Vials/ Canister	Number of Vials/ Tank
0.5ml	40	3	120	720	40	5	200	1200
1.5ml	40	3	120	720	40	5	200	1200
2ml	40	3	120	720	40	5	200	1200
3ml	40	3	120	720	40	5	200	1200
5ml	40	1	40	240	40	3	120	720

CryoTrans Series

Introduction

CryoTrans Series is designed for storage and short-distance transportation of small amount liquid nitrogen.It is equipped with rubber protection rings and prefixed bottom pad for safety.
Stainless steel roller base is optional for convenient transportation.CryoTrans series is widely used in animal husbandry and laboratories.

Key Features

1. Strong,lightweight aluminum construction
2. Low liquid nitrogen evaporation
3. Unique liquid nitrogen transportation design
4. CE Certificate
5. 5-year vacuum warranty

Important Accessories

1. Liquid nitrogen level ruler
2. Liquid Nitrogen Dispenser
3. Roller base

Technical Specification

Model	CryoTrans 3	CryoTrans 6	CryoTrans 10	CryoTrans 20	CryoTrans 25	CryoTrans 30	CryoTrans 35	CryoTrans 50
Performancce								
Capacity (L)	3	6	10	20	25	30	35	50
Neck Diameter (mm)	50	50	50	50	50	50	50	50
Static Evaporation Rate (L/day)	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.23
Unit Dimensions								
Overall Height (mm)	435	482	552	672	700	706	750	811
Extemal Diameter (mm)	223	300	300	394	394	462	462	462
Weight Empty (KG)	3.1	4.8	6.1	9.5	10.7	12.9	14.2	15.4
Weight Full (KG)	5.56	9.72	14.1	25.9	30.4	37.5	42.9	56.4

CryoCarrier Series

Introduction

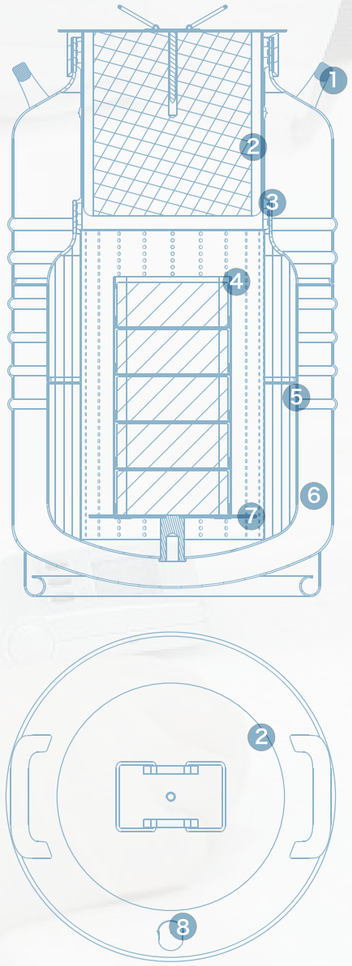
CryoCarrier Series is the dry shipper containers. It is designed for biology, livestock breeding, research and medical fields. CryoCarrier Series enables the biological samples, straws, Cryo-vials and blood bags to transport under -150℃ environment. There is liquid nitrogen absorbent materials placed in the inner tank, avoids the risk of outflow of liquid nitrogen. The CryoCarrier dry shipper liquid containers meet the IATA standard and protect your valuable samples in safe condition for both customers and shipper during transportation.

Key Features

1. Vapor phase cryogenic storage
2. Robust and durable aluminum construction
3. Lockable lids
4. No spillage of liquid nitrogen
5. Available for biological samples straws, cryovials and blood bags
6. 3 years vacuum warranty

Advantages

1. Reliable absorption material, rapid absorption of liquid nitrogen
2. Meet the standards of IATA (The international Transport Association)
3. Excellent construction and superior vacuum performance to ensures the maximum storage time
4. Unique stainless steel screen construction ensure samples storage space clean
5. Liquid level monitor(optional)



1. Handles
2. Cap Plug
3. Neck Tube
4. Canister
5. Liquid Nitrogen Absorption Layer
6. Vacuum Jacket
7. Stage
8. Vacuum Sealing Joint

Technical Specification

Model		CryoCarrier 3	CryoCarrier 6	CryoCarrier 8	CryoCarrier 10L CryoCarrier 10R	CryoCarrier 25R
Maximum Storage Capacity						
Straws	Number of Canister	1	1	1	1	1
	Number of Straws (0.5ml)	132	820	820	1508	——
	Number of Straws (0.25ml)	298	1780	1780	3324	——
Vials	No. of Rack	——	——	——	1	1
	Layer of Rack	——	——	——	4	5
	1.2ml/2ml Vials	——	——	——	100	500
Blood Bags (25ml)	No. of Rack	——	——	——	1	1
	Layer of Rack	——	——	——	2	3
	Number of 25ml bags	——	——	——	6	45
Blood Bags (50ml)	No. of Rack	——	——	——	1	1
	Layer of Rack	——	——	——	1	2
	Number of 50ml bags	——	——	——	3	30
Performance						
Capacity (L)		3	7.5	8.0	10	25
Static Evaporation Rate (L/Day)		0.16	0.20	0.22	0.43	0.84
Static holdover time (Day)		20	37	35	23	29
Unit Dimensions						
Neck Diameter (mm)		50	80	80	125	216
Overall Height (mm)		428	487	509	555	678
External Diameter (mm)		223	300	300	300	394
Canister Diameter (mm)		38	63	63	97	——
Canister Height (mm)		120	120	120	276	——
Weight Empty (KG)		3.2	4.9	6.2	5.9	11.2
Weight Full (KG)		4.3	7.3	9.0	8.7	19.0

★Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage, atmospheric conditions, and manufacturing tolerances.

★★ Normal Working Duration is just an arbitrary reference,applying to estimate container performance under normal operating conditions. Actual working time may vary due to atmospheric conditions, container usage history, manufacturing tolerances and individual patterns of usage. Divide static holding days by 1.6, and you get empirical value.

CryoCenter Series

Introduction

CryoCenter Series tanks are the latest high performance cryogenic liquid phase storage container which mainly used for liquid nitrogen storage in central laboratories. It introduces low amount of liquid vaporization to generate pressure, providing pressure for the tank to discharge liquid, thereby supply liquid nitrogen for other containers. Stainless wheel construction ensures them to be used in most rigorous environment for long time. Compared with traditional welded insulated cylinder, it largely reduces liquid nitrogen evaporation loss.

The CryoCenter Series tanks include pressure raising valve, drip valve, drain valve and manometer.

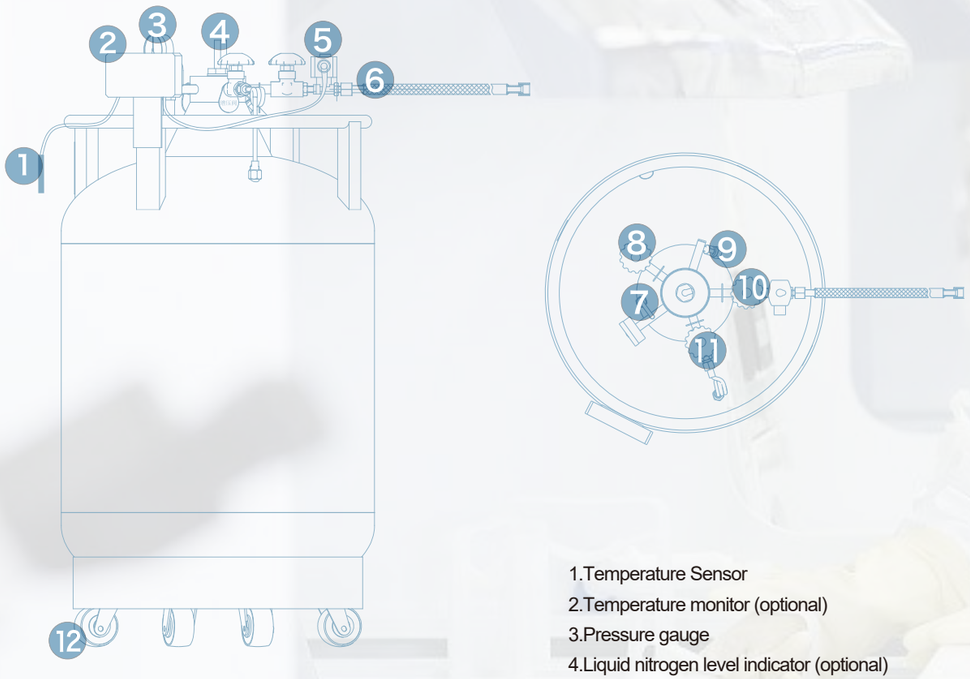
The CryoCenter 200 and above tanks equip with rupture disk and muffler to provide customers with goods user's experience. In addition, CryoCenter Series tanks equip with four robust castor for easy use and move to different area. Mainly apply to laboratory and chemical enterprises in need of storing and supplying liquid nitrogen automatically.

Key Features

1. 5 years vacuum warranty
2. Stainless steel tanks
3. Lockable casters
4. Low liquid nitrogen evaporation
5. Safety design and mutual or automatic protection
6. Electrical level meter and float level meter(optional)

Back-up System

The CryoCenter series is a reliable device for liquid nitrogen storage and transportation. Its professional design reduces the liquid nitrogen evaporation consumption and guarantee users' safety. It can be optional for the solenoid valve, inner temperature monitor and liquid nitrogen level indicator to realize the auto supply of liquid nitrogen.



1.Temperature Sensor
2.Temperature monitor (optional)
3.Pressure gauge
4.Liquid nitrogen level indicator (optional)
5.Solenoid valve (optional)
6.Transfer hoses (optional)
7.First Safety valve,
8.Pressure relief valve
9.Second Safety valve
10.Fill and withdraw valve
11.Pressure building valve
12.Mobile castors.

Remarks:
One CryoCenter tank supplying to more than one tank is available.

Technical Specification

Model	CryoCenrter 30	CryoCenrter 50	CryoCenrter 100 CryoCenrter 100E CryoCenrter 100S	CryoCenrter 150
Performance				
Liquid Nitrogen Capacity (L)	30	50	100	150
Static Evaporation (%)*	2.5	2	1.3	1.3
Infusion Volumes (L/min)	3	3	4	6
Unit Dimensions				
Overall Height (mm)	879	991	1185	1188
External Diameter (mm)	454	506	606	706
Weight Empty (kg)	32	54	75	102
Weight Liquid Full* (kg)	56.6	95	157	225
Standard Working Pressure (mpa)	0.05			
Highest Working Pressure (mpa)	0.09			
Primary Relief Value Opening Pressure (mpa)	0.099			
Secondary Relief Value Opening Pressure(mpa)	0.15			
Pressure Gauge Indicating Range (mpa)	0~0.25			

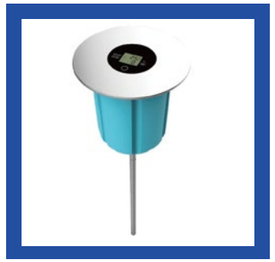
Model	CryoCenrter 200 CryoCenrter 200E CryoCenrter 200S	CryoCenrter 240E CryoCenrter 240S	CryoCenrter 300 CryoCenrter 300E CryoCenrter 300S	CryoCenrter 500 CryoCenrter 500E CryoCenrter 500S
Performance				
Liquid Nitrogen Capacity (L)	200	240	300	500
Static Evaporation (%)*	1.2	1.2	1.1	1.1
Infusion Volumes (L/min)	8	8	8	10
Unit Dimensions				
Overall Height (mm)	1265	1347	1459	1576
External Diameter (mm)	758	758	857	1008
Weight Empty (kg)	130	155	202	255
Weight Liquid Full* (kg)	294	375	448	665
Standard Working Pressure (mpa)	0.05			
Highest Working Pressure (mpa)	0.09			
Primary Relief Value Opening Pressure (mpa)	0.099			
Secondary Relief Value Opening Pressure(mpa)	0.15			
Pressure Gauge Indicating Range (mpa)	0~0.25			

★ Static evaporation rate and static holding time are nominal. Actual rate and holding time will be affected by the condition of container usage, atmospheric conditions, and manufacturing tolerances.

Accessories and Cryogenic Protection

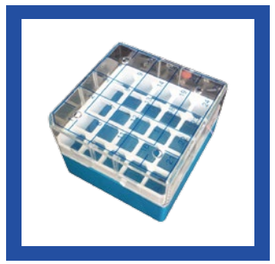
CryoMonitor 3000

CryoMonitor 1000



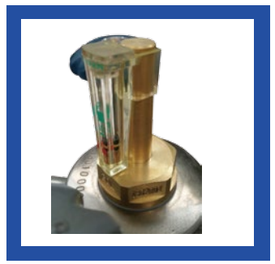
Smart Cap

Rack

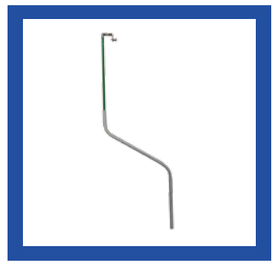


Box

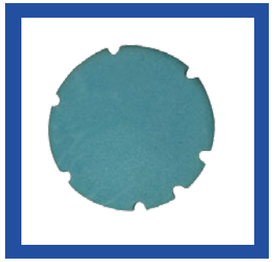
Electrical Level Meter



Float Level Meter



Probe Holder



Extra Slot

Level Ruler

Liquid Nitrogen Dispenser, Foot Press

Liquid Nitrogen Dispenser, Hand Press

Roller Base

Roller Base

Shipping Case

Vial Clamps

Aluminum Cane

Cryogenic Protection

Goggles with Face Shield

Cryogenic Apron

Cryogenic Apron

Cryogenic Clothes

Oxygen Detector

CO2 Detector