



# BREEDER DEWARS SOLUTION

By Innova Bio-Meditech



Product appearance and software interfaces are subject to change without notice. Please refer to actual product.



**Qingdao Innova Bio-Meditech Co., Ltd.**  
ADD:No. 1057 Jinshui Road, 266121,  
Qingdao,China

Email: [info@innobiomed.com](mailto:info@innobiomed.com)  
Website: [www.innovabiomed.com](http://www.innovabiomed.com)

# ► Company Profile

Innova Bio-Meditech is one of the leading global providers of laboratory and medical devices. Firmly committed to our mission of “sharing innovative bio-meditech solutions with the world”, we are dedicated to innovation in the fields of Biology Project, Life Science, Pharmacy Industry and Medical Treatment.

Headquartered in Boston, USA, Innova Bio-Meditech possesses a sound distribution and service network with business partners in North and Latin America, Europe, Africa and Asia-Pacific etc.

Innova has built up a well-established R&D, manufacture network with 4 centers in Boston, Beijing, Qingdao, and Shanghai. Inspired by the needs of our customers, we adopt advanced technologies and transform them into accessible innovation. This means constant effort and research, in order to more fully understand and anticipate the developments of the market, produce constantly upgraded product ranges by adding new products year after year.

Secure Quality, Continuous Innovation



1

2

3

4

## Directory

<b>CryoStock Series</b>	Introduction	05
	Key Features	05
	Important Accessories	05
	Technical Parameters	07
	Cane	08
	Technical Parameters	09

<b>CryoTrans Series</b>	Introduction	11
	Key Features	11
	Important Accessories	11
	Technical Parameters	11

<b>CryoArk Series</b>	Introduction	13
	Key Features	13
	Advantages	14
	Technical Parameters	15

<b>CryoMatrix Series</b>	Introduction	17
	Key Features	17
	Temperature Test Graph	17
	RackLayouts	19
	Technical Parameters	21

# Introduction

CryoStock series are economical small and medium size liquid nitrogen containers for long term static state storage. CryoStock series are made of high strength and lightweight aluminum alloy. There is multilayer superior performance thermal insulation inside.

Various accessories are optional. Mainly apply to animal husbandry and laboratories.

# Key Features

- |  |   |
|--|---|
| <b>1</b> High strength and lightweight aluminum construction | <b>5</b> Lockable lids                        |
| <b>2</b> Ultra-low evaporation losses                        | <b>6</b> Straw storage                        |
| <b>3</b> Numbered index canisters                            | <b>7</b> LN <sub>2</sub> dispenser (optional) |
| <b>4</b> Mobile roller bases optional                        | <b>8</b> 5 year vacuum warranty               |

# Important Accessories

1. 600mm Liquid Level Ruler
2. 1000mm Liquid Level Ruler
3. LN<sub>2</sub> Dispenser



## CryoStock Series

# Technical Parameters

Model	CryoStock 2/35	CryoStock 3/50	CryoStock 6/50	CryoStock 8/80	CryoStock 10/50	CryoStock 13/50
<b>Maximum Storage Capacity</b>						
Number of Canisters	3	6	6	6	6	6
Number of Straws (0.5ml)	165	792	792	2244	792	792
Number of Straws (0.25ml)	330	1788	1788	5022	1788	1788
<b>Performance</b>						
Liquid N2 Capacity(L)	2	3.1	6	8	10	13
Static Evaporation(L/D)	0.08	0.12	0.12	0.21	0.12	0.12
Static Holdover time(Day)	24	26	52	38	86	109
<b>Unit Dimensions</b>						
Neck Diameter (mm)	35	50	50	80	50	50
Overall Height(mm)	428	435	482	502	552	623
External Diameter (mm)	204	223	300	300	300	310
Canister Diameter(mm)	25	38	38	63	38	38
Canister Height (mm)	110	110	110	110	110	110
Weight Empty (KG)	2.6	3.1	4.8	5.9	5.9	6.3
Weight Full (KG)	4.2	5.6	9.7	12.5	14.1	15.9

Model	CryoStock13/50L	CryoStock15/50	CryoStock15/80	CryoStock 16/50(L)	CryoStock 20/50(L)
<b>Maximum Storage Capacity</b>					
No. of Canister	6	6	6	6	6
No. of Straws	—	792	2244	—	792
(1-level Canister)	—	1788	5022	—	1788
No. of Straws	1284	—	—	1284	1284
(2-level Canister)	2832	—	—	2832	2832
<b>Performance</b>					
Liquid Nitrogen Capacity (L)	13	15	15	16	20
Static Evaporation (L/day)	0.12	0.11	0.21	0.12	0.12
Static Holdover time(Day)	109	134	71	140	168
<b>Unit Dimensions</b>					
Neck Opening (mm)	50	50	80	50	50
Overall Height (mm)	623	591	595	672	672
External Diameter (mm)	310	394	394	394	394
Canister External Diameter (mm)	38	38	63	38	38
Canister Height (mm)	276	120	120	120/276	120/276
Weight Empty (kg)	6.3	8.5	8.6	9.5	9.5
Weight Liquid Full (kg)	16.6	18.2	18.2	22.3	22.3

# Technical Parameters

Model	CryoStock 25/50(L)	CryoStock 30/50(L)	CryoStock 30/80(L)	CryoStock 30/125(L)	CryoStock 35/50(L)
<b>Maximum Storage Capacity</b>					
No. of Canister	6	6	6	6	6
No. of Straws	0.5ml	792	792	2244	5124
(1-level Canister)	0.25ml	1788	1788	5022	11952
No. of Straws	0.5ml	1284	1284	3624	9048
(2-level Canister)	0.25ml	2832	2832	8460	19944
<b>Performance</b>					
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
<b>Unit Dimensions</b>					
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	CryoStock 35/80(L)	CryoStock35/125T(L)	CryoStock47/127(L)	CryoStock47/127T(L)	CryoStock50B/50(L)	CryoStock50B/125(L)
<b>Maximum Storage Capacity</b>						
No. of Canister	6	10	6	10	6	6
No. of Straws	0.5ml	2244	8540	5124	8540	792
(1-level Canister)	0.25ml	5022	19920	11952	19920	1788
No. of Straws	0.5ml	9048	15080	9048	15080	1284
(2-level Canister)	0.25ml	3624	33240	19944	33240	2832
<b>Performance</b>						
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
<b>Unit Dimensions</b>						
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	97	97	71	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

# Technical Parameters



(CryoStock 35/125T)

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

Canister Model	Length 110mm and 120mm, Diameter 38mm(50 neck opening)				Length 260mm and 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
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	Length 110mm and 120mm, Diameter 63mm(80 neck opening)				Length 260mm and 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
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 110mm and 120mm, Diameter 97mm(125 neck opening)				Length 260mm and 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
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

# Introduction

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

## Key Features

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

## Important Accessories

1. Liquid nitrogen level ruler
2. Roller base.



## Technical Parameters

Model	CryoTrans 3	CryoTrans 6	CryoTrans 10	CryoTrans 20	CryoTrans 25	CryoTrans 30	CryoTrans 35	CryoTrans 50
<b>Performance</b>								
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
<b>Unit Dimensions</b>								
Overall Height (mm)	435	482	552	672	700	706	750	811
External Diameter (mm)	223	300	300	394	394	462	462	462
Weight Empty (KG)	3.1	4.8	5.9	9.5	11.7	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

# CryoTrans Series



## CryoArk Series

## Introduction

CryoArk series is dry shipper containers. It is designed for biology, livestock breeding, research and medical fields and enables the biological samples, straws, cryovials or blood bags to transport below -150 °C environment. There is liquid nitrogen absorbent materials placed in the inner tank, which avoids the risk of outflow of liquid nitrogen. The CryoArk dry shipper meets the IATA and protect your valuable samples in safe conditions for both users and transporters during transportation.

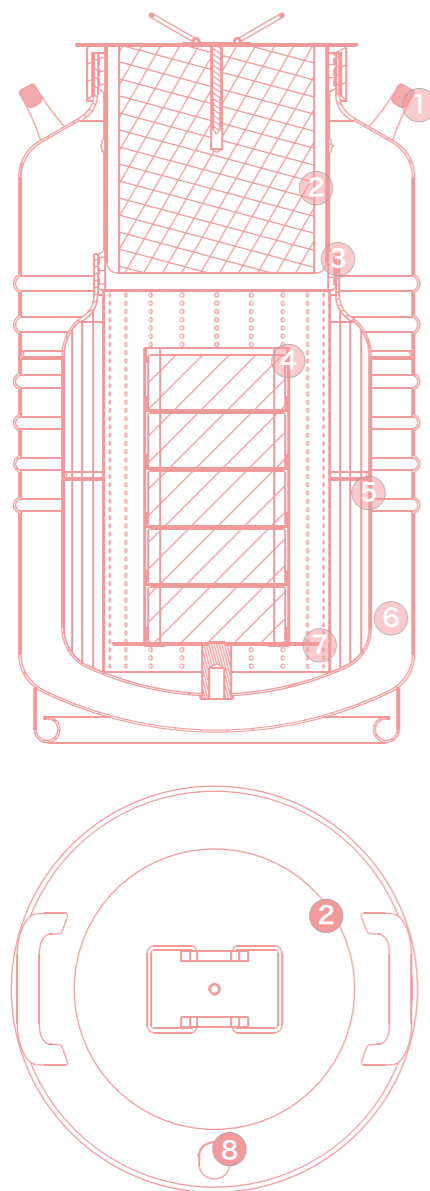
## Key Features

- 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 or blood bags
- 6 3 years vacuum warranty



# Advantages

- 1 Reliable absorption materials, rapid absorption of liquid N2
- 2 Meet the standard of IATA (The international Transport Association)
- 3 Excellent products construction and superior vacuum performance to ensures the maximum storage time
- 4 Unique stainless steel screen construction ensures samples storage space clean
- 5 All models optional equipped with liquid level monitor



- 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 Parameters

Model		CryoArk 3	CryoArk 6	CryoArk 8	CryoArk 10L(R)	CryoArk 25R
<b>Maximum Storage Capacity</b>						
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

<b>Performance</b>					
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

<b>Unit Dimensions</b>					
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.



## Introduction

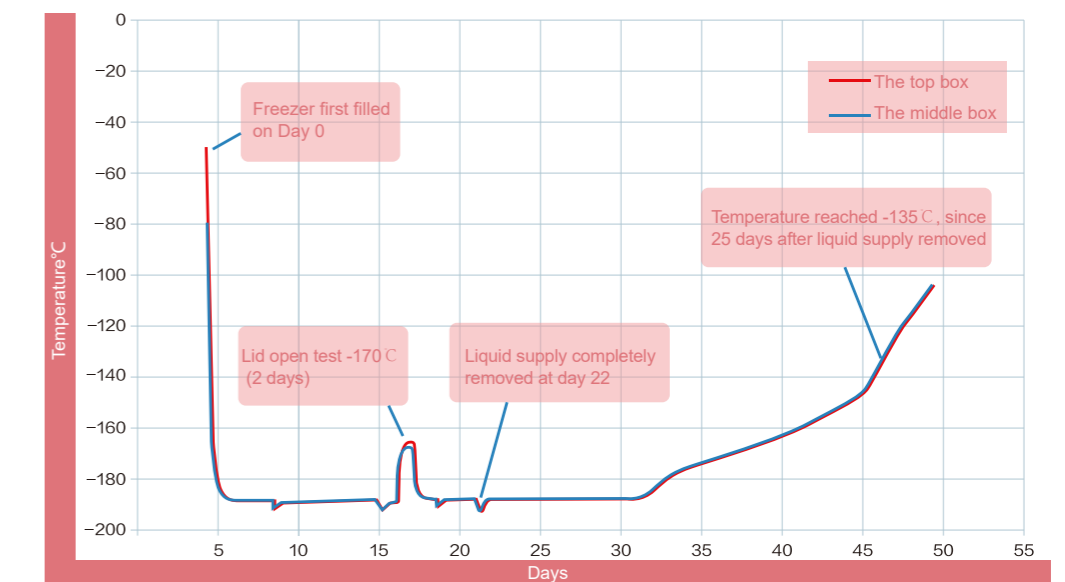
CryoMatrix series breeder tanks provide the user with a fully automatic, safe and reliable cryogenic liquid nitrogen storage system. The sample can be stored either in liquid phase (-196°C) or vapor phase (-180°C). Microcomputer touch control system CryMonitor 3000 provides convenience and security.

Cryomatrix series adopt advanced technology and super 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 gas storage, the whole storage area temperature difference is less than 10°C.

## Key Features

- 1 Dry sample storage
- 2 -190°C at top
- 3 Maximum capacity of liquid nitrogen storage capacity below rotating tray
- 4 One-piece folding stage
- 5 Automatically liquid nitrogen supply
- 6 Storage a variety of blood bags
- 7 De-Fog and liquid nitrogen splash proof
- 8 5 years vacuum warranty
- 9 CE certification

## Temperature Test Graph



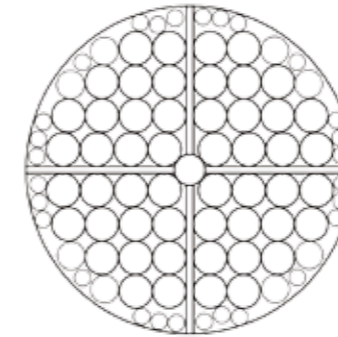
# CryoMatrix Series

## CryoMonitor 3000 Intelligent Control System

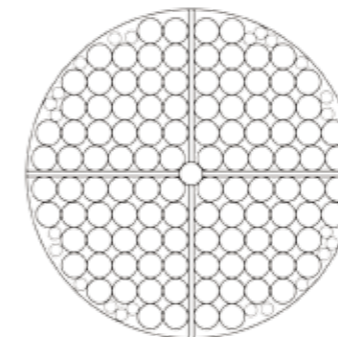


- |  |   |
|--|---|
| <b>1</b> Automatically filling liquid nitrogen               | <b>8</b> Self-diagnosis                           |
| <b>2</b> Liquid nitrogen splash proof structure              | <b>9</b> User authority setting                   |
| <b>3</b> Triple solenoid valve structure    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

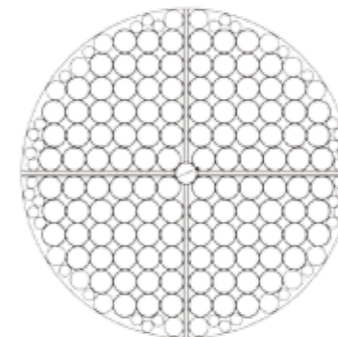
## RackLayouts



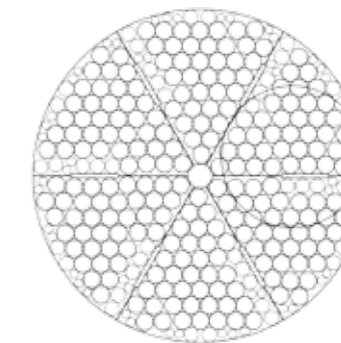
CryoMatrix 13k/19K



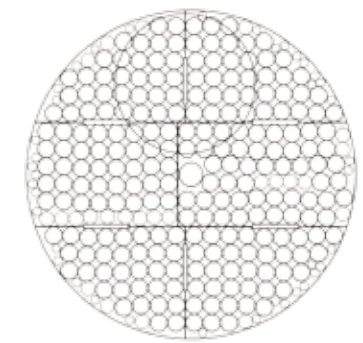
CryoMatrix 26k/36K



CryoMatrix 43k/50K



CryoMatrix 59k/76K/88K



CryoMatrix 95K



# Technical Parameters

Model                      CryoMatrix 13K    CryoMatrix 19K    CryoMatrix 26K    CryoMatrix 36K    CryoMatrix 43K

Maximum storage capacity					
Number of Straws (0.5ml)	111312	131220	203040	253800	304920
Number of Straws (0.25ml)	254592	301120	468544	585680	699360
Number of Canister (Φ76)	52	52	112	112	120
Number of Canister (Φ63)	8	8	0	0	16
Number of Canister (Φ38)	28	12	24	24	40
Number of Canister storey	4	5	4	5	5
Canister storey Height(mm)	135	135	135	135	135

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 (%)	1.55	1.45	1.35	1.25	0.85

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

★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 Parameters

Model                      CryoMatrix 50K    CryoMatrix 59K    CryoMatrix 76K    CryoMatrix 95K    CryoMatrix128K

Maximum storage capacity					
Number of Straws (0.5ml)	365904	480168	600210	671166	919548
Number of Straws (0.25ml)	839232	1101000	1376250	1543884	2119096
Number of Canister (Φ76)	120	234	234	232	282
Number of Canister (Φ63)	16	42	42	24	16
Number of Canister (Φ38)	40	54	54	39	44
Number of Canister storey	6	4	5	6	7
Canister storey Height(mm)	135	135	135	135	135

Performance					
Liquid nitrogen capacity (L) (Liquid phase storage)	1014	1340	1660	1880	2270
Liquid nitrogen capacity (L) (Vapor phase storage)	135	265	300	320	262
Static evaporation (%)	0.82	0.95	0.75	0.75	0.65

Unit Dimensions					
Neck Diameter (mm)	465	635	635	635	635
Overall Height (mm)	1704	1398	1589	1883	1679
Operated Height (mm)	950	997	967	1097	1120
Outside Diameter (mm)	1190	1565	1565	1565	1565
Door Width Requirement** (mm)	1210	1585	1585	1585	1705
Weight Empty (kg)	495	851	914	985	920
Weight Liquid Full* (kg)	1314	1934	2255	2504	2754

★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.

