

# Medium Sized Storage Series (Square Racks)



## Scope of Application:

Medium Sized Storage Series (Square Racks) features low LN<sub>2</sub> consumption and relatively small footprint for medium capacity sample storage.

## Innovative Design

- ◉ 5 Year Vacuum Warranty
- ◉ High Thermal Efficiency
- ◉ Durable
- ◉ Liquid and Vapour Storage
- ◉ Cryobox Storage
- ◉ Secure

### Haier Biomedical USA

Website: [www.haiermedical-usa.com](http://www.haiermedical-usa.com)  
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**Haier Biomedical**  
Intelligent Protection of Life Science



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## Key Features

- Heavy duty lockable enclosure offers excellent security
- Compatible with all major cryobox brands
- Durable aluminium construction
- Temperature monitoring available
- Liquid or vapor phase option available
- High thermal efficiency
- 5 year vacuum warranty
- Ultra-low evaporation loss

## Product Advantages

### ULT Storage with Extremely Low LN<sub>2</sub> Evaporation Loss

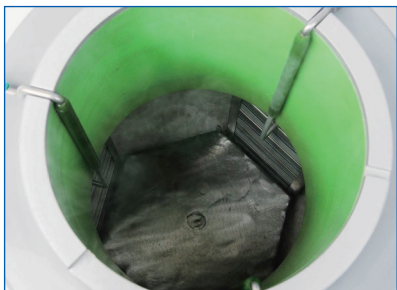
Freezer racks are in the ultra-low temperature environment with extremely low LN<sub>2</sub> evaporation. Even stored in vapor phase, the temperature will be below -190°C for a long time.

### Advanced Vacuum Technology and Superinsulation Technology

Advanced vacuum and insulation technologies ensure cryopreservation for up to four months.

### Compatible for Blood Bag Storage

Suitable for blood bag applications, the racks can be adapted to provide temporary blood bag storage before transferring bags to larger LN<sub>2</sub> storage tanks.



### Liquid Nitrogen Temperature Detector

The temperature monitor provides continuous and reliable monitoring of the temperature in the container. It is the ideal choice for long-term monitoring of sample storage temperature and reminding users to add liquid nitrogen.






The temperature monitor ZTC-100A has real-time temperature display function, and can also provide the following alarms:

- \* Over temperature alarm
- \* Sensor error acousto-optic alarm



ZTC-100A

## Technical Parameters

Model	YDS-65-216	YDS-95-216	YDS-115-216	YDS-145-216	YDS-175-216
Picture					
Maximum Storage Capacity					
No. of Rack	6	6	6	6	6
No. 2.0 ml Cryovials (100 / Box)	2400	3000	3600	4800	6000
No. of Boxes in (2ml each Rack)	4	5	6	8	10
No. 5.0 ml Cryovials (81/Box)	972	972	1458	1944	2430
No. of Boxes in (5ml each Rack)	2	2	3	4	5
Performance					
Volume of LN <sub>2</sub> (L)	65	95	115	145	175
Static Evaporation Rate* (L/Day)	0.78	0.94	0.94	0.94	0.95
Static Holding Time** (Day)	83	101	122	154	184
Dimensions					
Neck Opening Diameter (mm)	216	216	216	216	216
Height (mm)	735	800	870	970	1085
Outer Diameter (mm)	681	681	681	681	681
Empty Weight (kg)	40	43	47	52	57
Full Weight (kg)	107	120	140	170	198.5
Shipping Weight (kg)	63.5	67.6	77.6	83.2	92.4

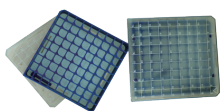
\* Static evaporation and static holding time are theoretical values. Actual evaporation and holding time are affected by usage, atmospheric conditions and manufacturing tolerances.

\*\* Static Holding Time: the amount of days it takes for all of the LN to evaporate out after container is filled with liquid nitrogen to pre-cool and reach thermal equilibrium and the liquid nitrogen filling rate reaches 100% under standard atmospheric condition.

## Accessories



Roller Base



Plastic Cryo Box



Lockable Cap (SG-216)



Rack (5ml)



5 ml Customized Cryogenic Box



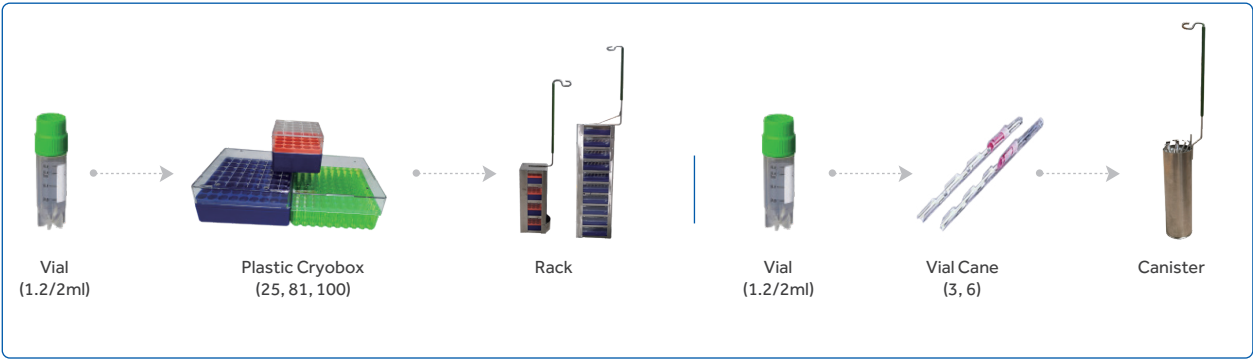
Smart Cap



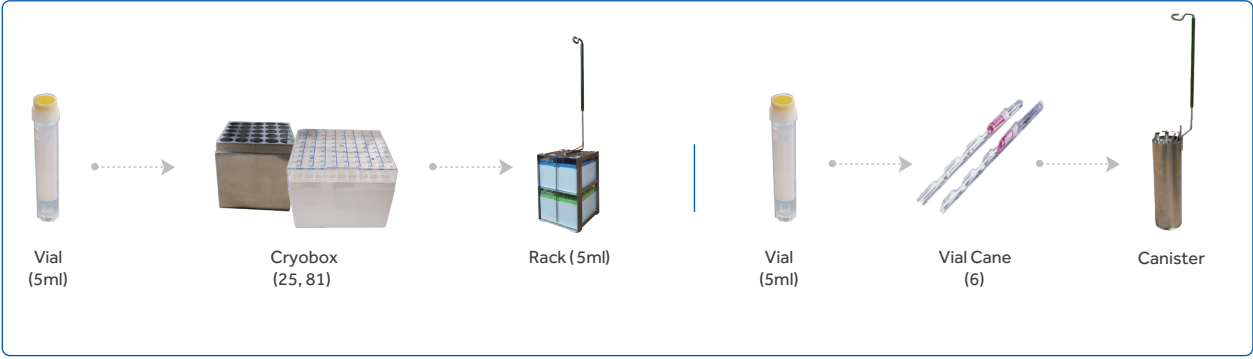
Rack

**Biological Sample Library-YDS Series**

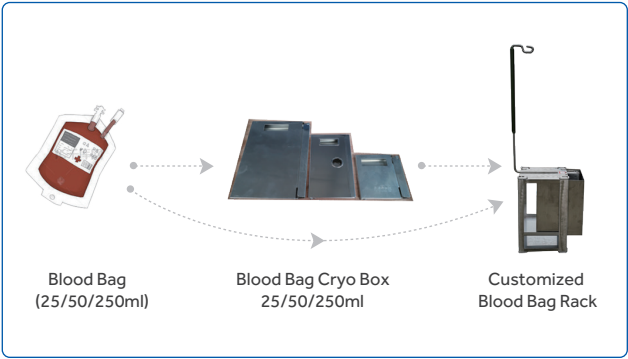
**Storage Example of 2ml Internally Threaded Vial**



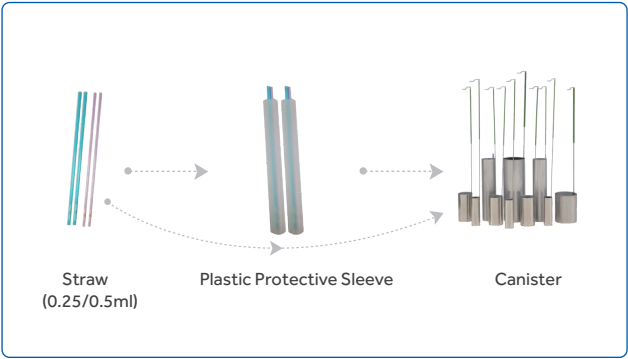
**Storage Example of Tall 5ml Cryovials**



**Blood Bag Storage Example**



**Straw Storage Example**



**Product List**

Model	Product	Product Model	Description and Accessories
YDS-65-216	Liquid Nitrogen container	YDS-65-216	Includes 6 racks(4 layers), 9*9 cryoboxes, lockable cap, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-65-216	Includes lockable cap, no rack, no PU bag
	Rack	FTT-81-4H	Used for storing 9*9 cryo boxes (2ml). 4 layers in total, with 9*9 cryo boxes included, suitable for YDS-65-216
	Roller Base	YSC-685-5W	Suitable for all 65L-175L aluminium tank, equipped with 5 universal wheels
	SmartCap	LT-216	Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 530mm height. suitable for YDS-65-216
	Cork (216)	GS-216-220-7	Suitable for YDS-65-216/YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216/YDH-15-216/YDH-25-216
	Lockable cap	SG-216	Suitable for container with 216mm neck opening
YDS-95-216	Liquid Nitrogen container (5.0ml Vial)	YDS-95-216	Includes 6 racks for 5ml, 2 layers in total. 12pcs of 5ml 9*9 cryo boxes and lockable cap included, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-95-216	Includes 6 racks(5 layers). 9*9 cryoboxes, lockable cap, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-95-216S	Includes lockable cap, no rack, no PU bag
	Rack	FTT-81-5H	Used for storing 9*9 cryo boxes(2ml). 5 layers in total, with 9*9 cryo boxes included, suitable for YDS-95-216/YDH-25-216
	Rack	FTT-81-2/5.0H	Used to store 5ml cryo boxes(9*9), 2 layers in total, 9*9 cryo boxes included, suitable for YDS-65-216/95-216 (Plastic cryo boxes included)
	Roller Base	YSC-685-5W	Suitable for all 65L-175L aluminium tank, equipped with 5 universal wheels
	SmartCap	LT-216	Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 580mm height. suitable for YDS-95-216
	Cork (216)	GS-216-220-7	Suitable for YDS-65-216/YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216/YDH-15-216/YDH-25-216
YDS-115-216	Liquid Nitrogen container (5.0ml Vial)	YDS-115-216	Includes 6 racks for 5ml, 3 layers in total, 18pcs of 5ml 9*9 cryo boxes and lockable cap included, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-115-216	Includes 6 racks(6 layers), 9*9 cryoboxes, lockable cap, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-115-216	Includes lockable cap, no rack, no PU bag
	Rack	FTT-81-6H	Used for storing 9*9 cryo boxes (2ml), 6 layers in total. with 9*9 cryo boxes included, suitable for YDS-115-216
	Rack	FTT-81-3/5.0H	Used for storing 9*9 cryo boxes (5ml), 3 layers in total. with 9*9 cryo boxes included, suitable for YDS-115-216
	Roller Base	YSC-685-5W	Suitable for all 65L-175L aluminium tank, equipped with 5 universal wheels
	SmartCap	LT-216	Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 660mm height. suitable for YDS-115-216
	Cork(216)	GS-216-220-7	Suitable for YDS-65-216/YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216/YDH-15-216/YDH-25-216
YDS-145-216	Liquid Nitrogen container (5.0ml Vial)	YDS-145-216	Includes 6 racks for 5ml, 4 layers in total. 24pcs of 5ml 9*9 cryo boxes and lockable cap included, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-145-216	Includes 6 racks(8 layers), 9*9 cryoboxes, lockable cap, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-145-216	Includes lockable cap, no rack, no PU bag
	Rack	FTT-81-8H	Used for storing 9*9 cryo boxes(2ml). 8 layers in total, with 9*9 cryo boxes included.suitable for YDS-145-216
	Rack	FTT-81-4/5.0H	Used for storing 9*9 cryo boxes (5ml). 4 layers in total. with 9*9 cryo boxes included, suitable for YDS-145-216
	Roller Base	YSC-685-5W	Suitable for all 65L-175L aluminium tank, equipped with 5 universal wheels
	SmartCap	LT-216	Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 770mm height. suitable for YDS-145-216
	Cork(216)	GS-216-220-7	Suitable for YDS-65-216/YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216/YDH-15-216/YDH-25-216
	Lockable cap	SG-216	Suitable for container with 216mm neck opening

## Product List

Model	Product	Product Model	Description and Accessories
YDS-175-216	Liquid Nitrogen container (5.0ml Vial)	YDS-175-216	Includes 6 racks for 5ml. 5 layers in total. 30pcs of 5ml 9*9 cryo boxes and lockable cap included, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-175-216	Includes 6 racks(10 layers), 9*9 cryoboxes, lockable cap, no PU bag, roller base is optional
	Liquid Nitrogen container	YDS-175-216	Includes lockable cap, no rack, no PU bag
	Rack	FTT-81-10H	Used for storing 9*9 cryo boxes(2ml), 10 layers in total, with 9*9 cryo boxes included, suitable for YDS-175-216/CryoBio 6S
	Rack	FTT-81-5/5.0H	Used for storing 9*9 cryo boxes(5ml). 5 layers in total. with 9*9 cryo boxes included, suitable for YDS-175-216/CryoBio 6S
	Roller Base	YSC-685-5W	Suitable for all 65L-175L aluminium tank, equipped with 5 universal wheels
	SmartCap	LT-216	Used for monitoring real time level and temperature for containers with 216mm neck opening, 6 grooves and 870mm height. suitable for YDS-175-216
	Cork (216)	GS-216-220-7	Suitable for YDS-65-216/YDS-95-216/YDS-115-216/YDS-145-216/YDS-175-216/YDH-15-216/YDH-25-216
	Lockable cap	SG-216	Suitable for container with 216mm neck opening
Other Racks	Blood bag rack	XTT-25-2F14/65H	Used for storing 25ml blood bag, 2 levels in total with each layer storing 14pcs of 25ml blood bag, with 28 cassettes included, suitable for YDS-65-216, 6 racks can be fitted.
	Blood bag rack	XTT-25-2F14/95H	Used for storing 25ml blood bag, 2 levels in total with each layer storing 14pcs of 25ml blood bag, with 28 cassettes included, suitable for YDS-95-216, 6 racks can be fitted.
	Blood bag rack	XTT-25-3F14/115H	Used for storing 25ml blood bag, 3 levels in total with each layer storing 14pcs of 25ml blood bag, with 42 cassettes included, suitable for YDS-115-216, 6 racks can be fitted.
	Blood bag rack	XTT-25-4F14/145H	Used for storing 25ml blood bag, 4 levels in total with each layer storing 14pcs of 25ml blood bag, with 56 cassettes included, suitable for YDS-145-216, 6 racks can be fitted.
	Blood bag rack	XTT-25-5F14/175H	Used for storing 25ml blood bag, 5 levels in total with each layer storing 14pcs of 25ml blood bag, with 70 cassettes included, suitable for YDS-175-216, 6 racks can be fitted.
	Blood bag rack	XTT-50-1F14/65H	Used for storing 50ml blood bag, 1 level in total with each layer storing 14pcs of 50ml blood bag, with 14 cassettes included, suitable for YDS-65-216, 6 racks can be fitted.
	Blood bag rack	XTT-50-1F14/95H	Used for storing 50ml blood bag, 1 level in total with each layer storing 14pcs of 50ml blood bag, with 14 cassettes included, suitable for YDS-95-216, 6 racks can be fitted.
	Blood bag rack	XTT-50-2F14/115H	Used for storing 50ml blood bag, 2 levels in total with each layer storing 14pcs of 50ml blood bag, with 28 cassettes included, suitable for YDS-115-216, 6 racks can be fitted.
	Blood bag rack	XTT-50-2F14/145H	Used for storing 50ml blood bag, 2 levels in total with each layer storing 14pcs of 50ml blood bag, with 28 cassettes included, suitable for YDS-145-216, 6 racks can be fitted.
	Blood bag rack	XTT-50-3F14/175H	Used for storing 50ml blood bag, 3 levels in total with each layer storing 14pcs of 50ml blood bag, with 42 cassettes included, suitable for YDS-175-216, 6 racks can be fitted.
	Blood bag rack	XTT-250-1F8/65H	Used for storing 250ml blood bag, 1 level in total with each layer storing 8pcs of 250ml blood bag, with 8 cassettes included, suitable for YDS-65-216, 6 racks can be fitted.
	Blood bag rack	XTT-250-1F8/95H	Used for storing 250ml blood bag, 1 level in total with each layer storing 8pcs of 250ml blood bag, with 8 cassettes included, suitable for YDS-95-216, 6 racks can be fitted.
	Blood bag rack	XTT-250-1F8/115H	Used for storing 250ml blood bag, 1 level in total with each layer storing 8pcs of 250ml blood bag, with 8 cassettes included, suitable for YDS-115-216, 6 racks can be fitted.
	Blood bag rack	XTT-250-1F8/145H	Used for storing 250ml blood bag, 1 levels in total with each layer storing 8pcs of 250ml blood bag, with 8 cassettes included, suitable for YDS-145-216, 6 racks can be fitted.
	Blood bag rack	XTT-250-2F8/175H	Used for storing 250ml blood bag, 2 levels in total with each layer storing 8pcs of 250ml blood bag, with 16 cassettes included, suitable for YDS-145-216, 6 racks can be fitted.

\*Haier Biomedical reserves the right to change products and specifications without prior notice.