

# CRYOBANK SERIES



## PRODUCT OVERVIEW

Cryobiobank series provide users with automatic, secure and reliable cryogenic liquid nitrogen freezing systems. Tanks are made of high quality stainless steel, equipped with casters and brakes, and wide neck opening for easy to pick and place specimen. Specimen could be stored in liquid or vapor, and control system provides high convenience and security. To achieve the most economical operation, our design ensures the lowest consumption of liquid nitrogen and the maximum storage capacity of the specimen. The whole tank uses advanced evacuation technology, adiabatic technology and high vacuum retention technology to ensure the safe storage of specimen, good uniform temperature and the lowest liquid nitrogen consumption. When specimen in vapor storage, the entire storage area temperature differences do not exceed 10 °C, and the top of the frozen rack lowest temperature can reach -190°C. Biobank Series provides you with the best storage experience: fast specimen access, reliable protection, convenient liquid nitrogen autofill and flexible storage capacity.

## PRODUCT FEATURES

- 1 Compatible with vapor and liquid storage modes;
- 2 Various capacity optional to meet your storage requirements;
- 3 More specimen capacity in a limited space to reduce the storage costs;
- 4 Excellent temperature uniformity and stability;
- 5 Excellent temperature stability after opening lid;
- 6 Advanced temperature, level monitoring and alarm system, remote network monitoring;
- 7 Automatic filling liquid nitrogen system, safe and efficient;
- 8 Controlling system can permanently store operating data;
- 9 One button to demist, easy to search, pick and place specimen;
- 10 User-friendly design, comfortable operation;
- 11 Lockable lid, fully guarantee the safety of the specimen;
- 12 Equipped with folding steps and workbench;
- 13 CE certified;
- 14 Products conform to GB/T 14174-2012.



## PRODUCT ADVANTAGES



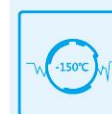
### Big storage capacity

Compared with similar products, our products need less space and could store more samples; save space and also reduce the cost;



### Excellent temperature uniformity

Vacuum insulated stainless steel structure, high vacuum coverage to ensure excellent insulation properties;



### Stable temperature while lid is open

Innovative lid and excellent small neck openings design can greatly reduce the liquid nitrogen evaporation rate. Even keep the lid open for a long time, the temperature inside the tank can still be very stable; temperature could be not higher than -150°C within 48 hours;



### Advanced temperature monitoring system

Microprocessor-based control system and the vertical double platinum resistance temperature probe can display real time temperature, accuracy of  $\pm 1^{\circ}\text{C}$ . The user can set their own alarm temperature value, with alarm mute option;



### Automatic filling liquid nitrogen and liquid level monitoring system

Based on the differential pressure sensor, level monitoring system could display real-time liquid level, to ensure that the liquid nitrogen automatic filling process safe and reliable. 10-inch LCD touch screen display: temperature of the top, bottom temperature, liquid level, and operating status etc.



### Hot gas bypass

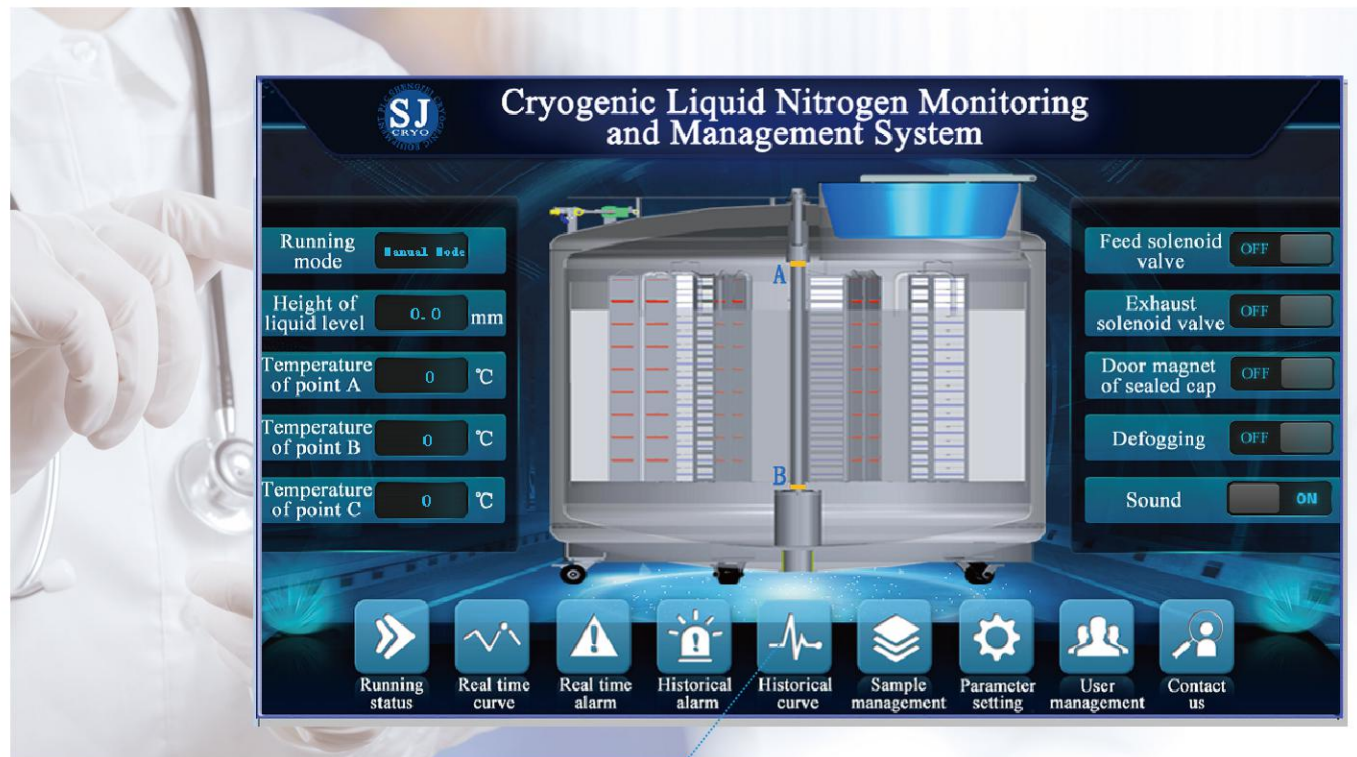
The hot gas bypass can remove nitrogen which is at indoor temperature before the liquid nitrogen is filled, to ensure that only liquid nitrogen is filled into the tank and avoid temperature fluctuations in the liquid nitrogen tank during the filling process. It would make sure the safety of the sample and also reduce the additional Liquid nitrogen consumption.



### Humanization design

Stainless steel auxiliary table, can be used for temporary placement for the racks to speed up the sample picking and placing; folding steps reduce the height of the operation platform; spare opening on the internal tray for easy to find inadvertently dropped samples.





## ZJY-700N INTELLIGENT CONTROL SYSTEM

- 1 Automatic liquid nitrogen filling;
- 2 Special structure to prevent liquid nitrogen splashing;
- 3 Hot air bypass function;
- 4 Platinum resistance temperature sensor;
- 5 Differential pressure level sensor;
- 6 Automatic recording level, temperature and other data;
- 7 Local monitoring center;
- 8 Cloud monitoring and management center;
- 9 A variety of alarm self-diagnosis;
- 10 SMS remote alarm;
- 11 Action permission settings;
- 12 Run / alarm parameters settings;
- 13 Sound and light abnormal alarm to remind;
- 14 Backup power and UPS power supply.



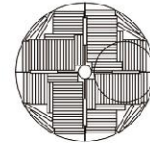
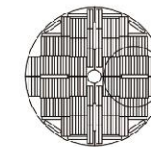
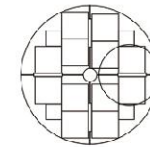
## RACKS LAYOUT

Vertical racks

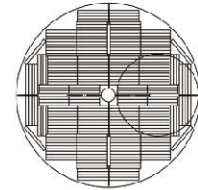
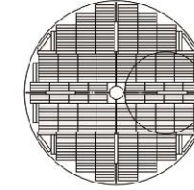
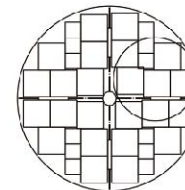
25ml  
Blood bag racks

50ml  
Blood bag racks

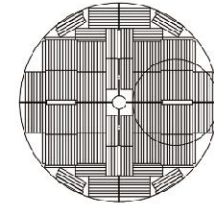
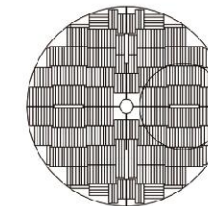
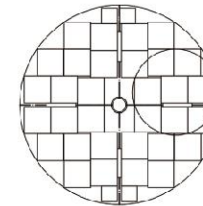
YDD-350  
YDD-450



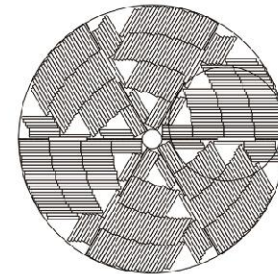
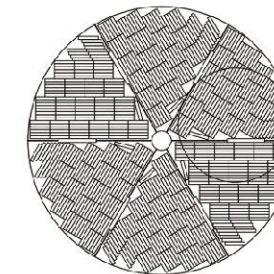
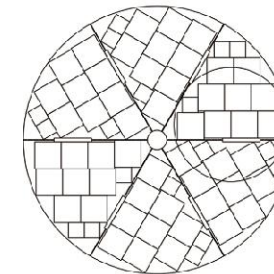
YDD-550  
YDD-750



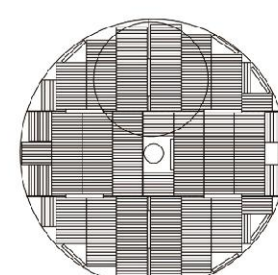
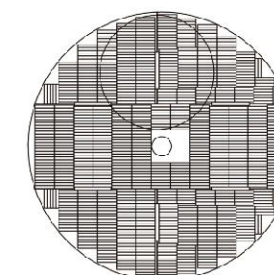
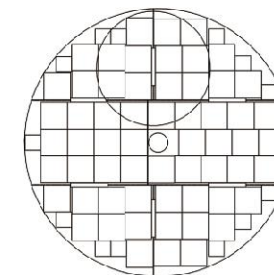
YDD-850  
YDD-1000



YDD-1300  
YDD-1600  
YDD-1800



YDD-1300  
YDD-1600  
YDD-1800





SPECIFICATIONS

MODEL	YDD-350-VS/PM		YDD-450-VS/PM		YDD-550-VS/PM		YDD-750-VS/PM		YDD-850-VS/PM						
LN2 Capacity Under Platform Vapor Storage (L)	55		55		80		80		135						
LN2 Capacity (L)	350		460		587		783		890						
Neck Opening (mm)	326		326		445		445		465						
Usable Internal Height (mm)	600		828		600		828		773						
Outer Diameter (mm)	875		875		1104		1104		1190						
Overall Height (mm) Containing Instrument Height	1326		1558		1321		1591		1559						
Weight Empty (kg)	219		277		328		372		441						
Operation Height (mm)	1263		1212		1266		1216		980						
Weight Liquid Full (kg)	502		649		802		1005		1160						
Door Width Requirement (≥mm)	895		895		1124		1124		1210						
Maximum Storage Capacity of 2ml Internal Rotary Freeze Storage Tube															
1.2,1.8 & 2 ml Vials (Internally Threaded) (ea)	13000		18200		27000		37800		42900						
Number of Racks with 25 (5×5) Cell Boxes (ea)	4		4		12		12		4						
Number of Racks with 100 (10×10) Cell Boxes (ea)	12		12		24		24		32						
Number of 25 (5×5) Cell Boxes (ea)	40		56		120		168		52						
Number of 100 (10×10) Cell Boxes (ea)	120		168		240		336		416						
Number of Stages per Rack (ea)	10		14		10		14		13						
Maximum Straw Capacity															
High Security Straw Capacity (0.5 ml) (ea)	111312		131220		203040		253800		304920						
High Security Straw Capacity (0.25 ml) (ea)	254592		301120		468544		585680		699360						
Number of Canisters (76 mm) (ea)	52		52		112		112		120						
Number of Canisters (63 mm) (ea)	8		8		0		0		16						
Number of Canisters (38 mm) (ea)	28		12		24		24		40						
Number of Levels per Canister (ea)	4		5		4		5		5						
Level Height (mm)	135		135		135		135		135						
Maximum Blood Bag Capacity															
Blood Bag Type	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames
25ml (791 OS/U)	1296	6	216	1728	8	216	2376	6	396	3168	8	396	3360	7	480
50ml (4R9951)	792	6	132	1056	8	132	1416	6	236	1888	8	236	2072	7	296
500ml(DF-200)	168	3	56	280	5	56	336	3	112	560	5	112	544	4	136
250ml(4R9953)	300	3	100	500	5	100	552	3	184	920	5	184	944	4	236
500ml(4R9955)	192	3	64	320	5	64	408	3	136	680	5	136	640	4	160
700ml(DF-700)	96	3	32	128	4	32	204	3	68	272	4	68	320	4	80

MODEL	YDD-1000-VS/PT	YDD-1300-VS/PM	YDD-1600-VS/PM	YDD-1800-VS/PM	YDD-1800-VS/PT										
LN2 Capacity Under Platform Vapor Storage (L)	135	265	300	320	320										
LN2 Capacity (L)	1014	1340	1660	1880	1880										
Neck Opening (mm)	465	635	635	635	635										
Usable Internal Height (mm)	900	620	791	900	900										
Outer Diameter (mm)	1190	1565	1565	1565	1565										
Overall Height (mm) Containing Instrument Height	1827	1398	1589	1883	1883										
Weight Empty (kg)	495	851	914	985	985										
Operation Height (mm)	950	997	967	1097	1097										
Weight Liquid Full (kg)	1314	1934	2255	2504	2504										
Door Width Requirement (≥mm)	1210	1585	1585	1585	1585										
Maximum Storage Capacity of 2ml Internal Rotary Freeze Storage Tube															
1.2,1.8 & 2 ml Vials (Internally Threaded) (ea)	51000	58500	76050	87750	94875										
Number of Racks with 25 (5×5) Cell Boxes (ea)	16	18	18	18	13										
Number of Racks with 100 (10×10) Cell Boxes (ea)	30	54	54	54	60										
Number of 25 (5×5) Cell Boxes (ea)	240	180	234	270	195										
Number of 100 (10×10) Cell Boxes (ea)	450	540	702	810	900										
Number of Stages per Rack (ea)	15	10	13	15	15										
Maximum Straw Capacity															
High Security Straw Capacity (0.5 ml) (ea)	365904	480168	600210	720252	671166										
High Security Straw Capacity (0.25 ml) (ea)	839232	1101000	1376250	1651500	1543884										
Number of Canisters (76 mm) (ea)	120	234	234	234	232										
Number of Canisters (63 mm) (ea)	16	42	42	42	24										
Number of Canisters (38 mm) (ea)	40	54	54	54	39										
Number of Levels per Canister (ea)	6	4	5	6	6										
Level Height (mm)	135	135	135	135	135										
Maximum Blood Bag Capacity															
Blood Bag Type	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames
25ml (791 OS/U)	4356	9	484	4716	6	786	5502	7	786	7074	9	786	7758	9	862
50ml (4R9951)	2682	9	298	2916	6	486	3402	7	486	4374	9	486	4905	9	545
500ml(DF-200)	670	5	134	666	3	222	888	4	222	1110	5	222	1290	5	258
250ml(4R9953)	1180	5	236	1170	3	390	1560	4	390	1950	5	390	2095	5	419
500ml(4R9955)	810	5	162	828	3	276	1104	4	276	1380	5	276	1520	5	304
700ml(DF-700)	400	5	80	396	3	132	528	4	132	660	5	132	775	5	155