Haier Biomedical
Intelligent Protection of Life Science

-196°C Intelligent Liquid Nitrogen Biological Sample Storage System

Product Introduction

Drawing on the core design philosophy of Personnel Safety, Sample Integrity, and Equipment Reliability, we have independently developed the -196°C Intelligent Liquid Nitrogen Biological Sample Storage System, to guarantee uninterrupted full-process cryogenic preservation for your valuable biological sample.



HSN96-46K2/HSN96-24K2

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Product Advantages

Personnel Safety

- Fully automated single-tube and rack retrieval to save time and labor.
- High-precision servo in combination with flexible robot applications to ensure safety
- Walk-away automation with one-touch operation and zero exposure to cryogenic temperatures
- Batch processing that streamlines workflows and raises throughput

Device Safety

- The key moving parts are stable and reliable at room temperature
- Professional thermal-insulation drive structure and pyrogen-free storage area
- Collaborative robot in the tube-picking zone delivers stable operation and a low failure rate

Customized Services

- Site-specific design matched to your laboratory layout
- Configurations tailored to diverse workflows and sample types
- Ready integration with third-party systems

Sample Safety

- Storage safety

Cryogenic conditions maintained throughout the entire storage process

Pyrogen-free main chamber with uniform temperature distribution

IoT-based intelligent positioning that prevents sample loss

- Sample access safety

Robotic grippers ensure accurate, efficient tube picking with no drop-outs

Torque feedback on every gripper prevents tube breakage

Independent layout of the tube pick-up area prevent permanent sample loss

The main container area is designed with a swivel structure to avoid collision throughout the access process and improve efficiency

- Information safety

An independently developed software is available to ensure sample safety

Real-time traceability of the sample information can ensure the whole-process safety of the samples.

Product Parameters

Model	HSN96-46K2	HSN96-24K2
Supported access mode	Single or boxed	Single or boxed
Storage temperature (°C)	≤-180	≤-180
Capacity (standard SBS 2 mL tubes)	46,000	24,000
External dimensions, W×D×H	1750*2120*2760	1540*1920*2550
Recovery time to -130°C (h)	≥260	≥260
Maximum liquid nitrogen capacity(L)	≥320	≥180
Daily static liquid nitrogen consumption (L)	≤20	≤12
Compatibility (ml)	0.5/1/2	0.5/1/2

Liquid Nitrogen Transfer Container

Product Introduction

The intelligent liquid nitrogen sample transfer container plays a vital role in ensuring the safe transfer of samples, providing an effective low-temperature environment. Leveraging IoT technology, it enables comprehensive data monitoring throughout the entire transfer process. This high-vacuum container offers long-lasting protection at ultra-low temperatures. Continuing with Haier Biomedical's design concept of prioritizing sample safety, personnel safety, and equipment safety, this container is dedicated to facilitating each sample transfer with utmost care and reliability.



HZT150-1H1

Product Parameters

Model	HZT150-1H1
Size (mm)	256*244*245
Capacity	A single SBS sample box
Empty weight (kg)	4.1±0.05
Thermal insulation performance	Maintains below −150 °C for at least 6 h (−10 °C to +38 °C, RH < 90% at 38 °C)
Liquid nitrogen capacity (L)	2
IoT function	Temperature collection and upload
Alarms	Over-temperature, Inclination
Interface	USB

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