

Smart Sample Storage Management

-80°C Intelligent Biosample Storage System

Product Introduction

Haier Biomedical's -80°C Intelligent Biosample Storage System is consistently guided by the design philosophy of "personnel safety, sample safety, and equipment safety", delivering a full-scenario, customized, automated, and intelligent sample storage solution for users, enabling fully automated smart storage and retrieval management for both single vials and whole boxes of samples.



Personnel Safety



Sample Safety



Equipment Safety

Haier Biomedical

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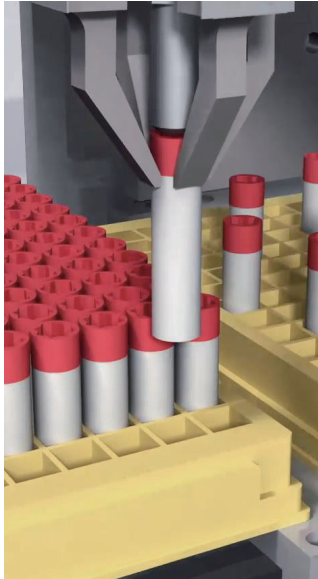
Professional Advantages

Personnel Safety

Safer and More Efficient Work



Supports batch operations and scheduled retrieval, improving work efficiency



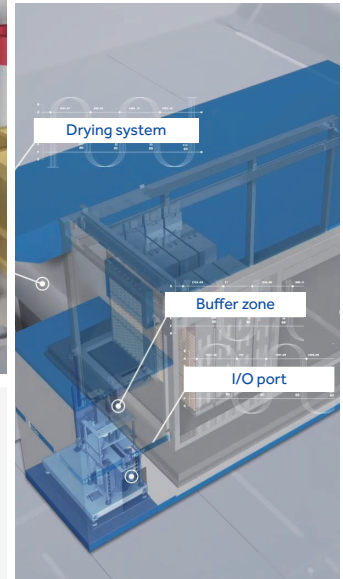
-30°C maintenance access space, ensuring the safety of service personnel



Full-scenario unmanned operation, one-key control, zero contact with low temperatures – ensuring greater personnel safety



Enables fully automated storage and retrieval for both single vials and whole boxes, saving time and labor



Sample Safety

Smarter Storage for Superior Protection



Storage Safety

Unique drive structure with “zero” transmission and “zero” heat sources in the storage area, ensuring more uniform and stable temperature in the storage zone



In/out safety

1. Low-temperature visual positioning technology for automatic position calibration.
2. Servo positioning system for precise access.
3. Upper-lower partitioned design inside the storage area to ensure sample safety.
4. Movable storage rack structure enabling high-density storage.



Information security

1. Independently developed software, compliant with the Cybersecurity Law of China, safeguarding sample information security.
2. Real-time traceability of sample information, ensuring full-process traceability of samples.



Equipment Safety

Full Control, Prepared for Contingencies



Refrigeration system with "two in use, one standby" – triple refrigeration protection.



Temperature and humidity control system with dual-system operation and automatic switching.

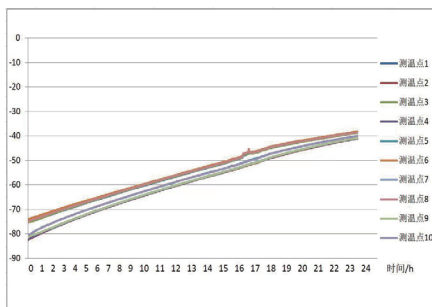


Critical moving parts operate at -30°C , ensuring stable and reliable performance.

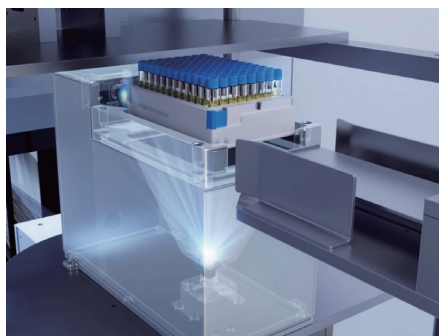


Application of four-level dehumidification and frost-control technology – zero frosting, preventing mechanical failures.

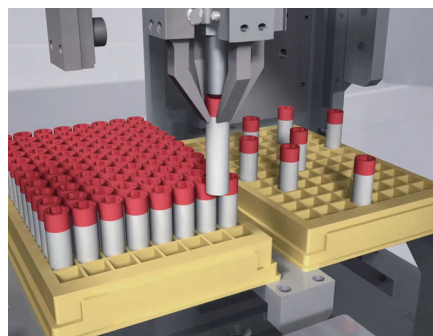
Compatible with mainstream brands, managing 2D barcodes of various specifications.



Defragmentation to ensure optimal storage space within the repository.



Higher thermal insulation performance, ensuring samples do not lose temperature in case of power or LN_2 supply interruption.



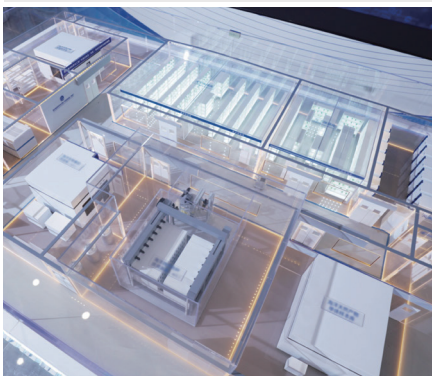
Customized Service

Making Design More Targeted



Customized design based on user site

Meeting full-scenario design requirements



Supporting integration with third-party systems

Product Parameters

Technical Specifications

Cooling Principle	Compressor cooling method, with liquid nitrogen as backup	Refrigeration System	Two in use, one standby
Storage Temperature	-80°C	Network Connection	Ethernet
Power Supply	AC380V/50Hz	Load Requirement	≥500 kg/m²

Dimensions and Sample Capacity

(customised solutions based on user site, compatible with various cryovial specifications)

Model	Library Length	Library Width	Library Height	Cryovial Type	Capacity
HSK80-1M4-1	3.9m	5.84m	3.0m	Haier 2D barcode 0.5ml	1,000,000 samples
HSK80-1M4-2	3.9m	6.15m	3.0m	Haier 2D barcode 0.75ml	1,000,000 samples
HSK80-1500K4-1	3.9m	7.08m	3.0m	Haier 2D barcode 0.5ml	1,500,000 samples
HSK80-1500K4-2	3.9m	7.39m	3.0m	Haier 2D barcode 0.75ml	1,500,000 samples
HSK80-2M4-1	3.9m	7.39m	3.3m	Haier 2D barcode 0.5ml	2,000,000 samples
HSK80-2M4-2	3.9m	8.01m	3.3m	Haier 2D barcode 0.75ml	2,000,000 samples
HSK80-500K4-4	3.9m	6.46m	3.0m	Haier 2D barcode 2ml	500,000 samples
HSK80-1M4-4	7.2m	6.46m	3.0m	Haier 2D barcode 2ml	1,000,000 samples