

Smart Sprite: Independent Precision Storage, Smart and Convenient

Small-Batch Private Sample Bank -80°C Automated Storage Solution



Flexible layout
localized storage
occupying only 1.57m²



AI Smart Control
Efficient Access
Reaches target in 20 seconds



Airtight frost control
safe and reliable
frost-free access area



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Multi-dimensional Application Scenarios

Automated solutions designed specifically for independent storage: offering exclusive, automated storage for precious samples, categorized by project, source, and priority level, so that every rare biological asset receives customized, efficient protection.



Research institutes:
independent repositories for core samples from research groups



Key hospital departments:
exclusive sample banks for clinical patients



Pathogen and toxin banks:
independent quarantine repositories for high-risk samples

Flexible Layout, Storage at Point of Need

On-demand layout, plug-and-play:

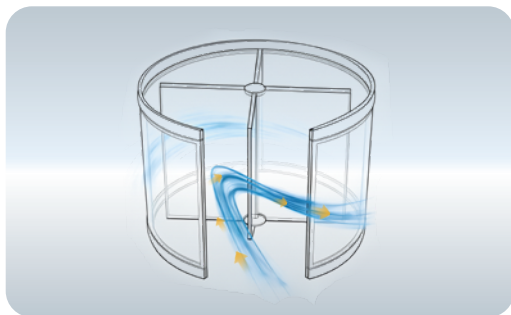
The unit measures only 0.95 m in width and occupies a footprint of just 1.57 m². Its integrated design allows elevator transport as a single piece, with no disassembly required, and readily adapts to confined spaces.

Independent precision storage, customized:

Dedicated precision storage designed specifically for valuable samples, tailored to your requirements – you pay only for what you need, without extra costs for redundancy.



AI Smart Control, Efficient Storage & Retrieval



Upgraded storage rack design

AI-powered instant access, full-box retrieval in just 20 seconds:

The upgraded storage rack design enables AI-driven direct targeting, eliminates redundant movements, and improves sample retrieval efficiency by 80%.

Intelligent management, adaptable to multiple sample formats:

Compatible with various cryo-rack configurations and a wide range of consumables

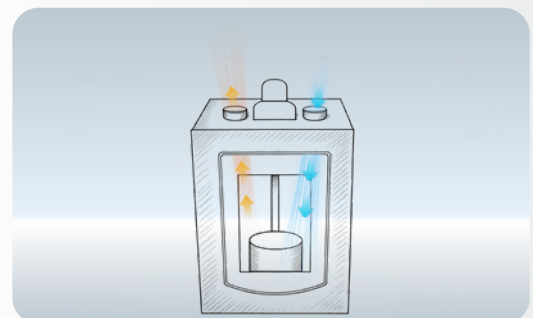
Airtight Frost Control, Safe & Reliable

Air-Seal airtight frost control for stable operation:

The Air-Seal technology actively isolates and replaces moist ambient air during sample access, effectively ensuring a frost-free environment within the retrieval zone.

Dual safety backup for uninterrupted refrigeration:

Equipped with two independent refrigeration systems, each capable of independently reaching –80 °C. AI-driven auto-switchover ensures seamless, continuous operation at all times.



Air-Seal Airtight Frost Control Technology

User-Centered Design

Intelligent Management for Simplified Operation

● Independent sample management system with dual-mode operation:

Intuitive user interface with clearly segmented functional areas.

Operation mode management: switchable between Normal Mode and Demonstration Mode, facilitating both routine use and display.

Dual-mode storage and retrieval: automatic tube-picking for storage/retrieval, and convenient tube-picking (optional).

● Full-process traceability and real-time query:

Real-time monitoring of equipment operational status, temperature, user information, inventory data, pending tasks, fault alerts, live video recording, and more.

The system can interface with BIMS, LIMS, and other management platforms.

● Timely Alert for Forgotten Samples:

If a sample is not retrieved within the designated timeout period, the system will automatically return it to storage, mark it as an abnormal storage item, and issue a timely alert, ensuring that the execution of subsequent tasks remains unaffected.



High Efficiency & Energy Saving, with Energy Consumption as Low as 0.7 kWh/hour

Adopting natural hydrocarbon (HC) refrigerant and the industry--first PassiveEco passive conductive cooling technology, the innovative flow channel design boosts energy efficiency by 56%.



PassiveEco passive conductive cooling technology

Rapid Transfer Access for Sample Safety

An independent emergency retrieval window is provided to prevent unforeseen incidents, enabling all samples to be retrieved in full boxes within 5 minutes*, thereby ensuring the security of every precious sample.



Core Parameters

Model	Capacity(0.5ml)	Operating Efficiency	Product Dimensions (W*D*H)(mm)	Compatibility
HAB80-07K	19200	20s per box	950*1650*1980	SBS box



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