



Cryogenic Preservation, Storage & Transportation Solutions

Ice Controlling Technology
For a Better Life

One-Stop Cryogenic Storage & Transport Solutions
for Cell Therapy, Gene Therapy, and Biobanks.



Arkylla Stainless Steel Vapor-Phase LN₂ Storage System

Designed for biobanks and cell therapy facilities, the Arkylla stainless steel vapor-phase LN₂ storage system provides secure long-term preservation of valuable cell therapy products and biological samples. Its vacuum-jacketed stainless steel vessel with high-vacuum insulation delivers outstanding thermal performance. A microprocessor-controlled temperature and level monitoring system provides real-time tracking of high and low temperature points and liquid level, while a dual-solenoid automatic fill system ensures safe and reliable LN₂ supply. Vapor-phase storage eliminates direct contact with liquid nitrogen, minimizing cross-contamination risks, with the storage zone top temperature maintained stably below -190 °C—meeting long-term requirements for products including CAR-T, stem cells, and iPSCs. Wi-Fi-enabled remote monitoring and cloud-based data management support centralized oversight.



Key Features

- Vapor-phase storage eliminates direct contact with liquid nitrogen, minimizing cross-contamination risks
- Vapor-phase top temperature maintained as low as -190 °C, meeting long-term storage temperature requirements
- Dual-solenoid automatic fill system with primary and backup solenoids, supports manual emergency fill during power outages
- Hot gas bypass design purges warm nitrogen from fill lines prior to dispensing, preventing temperature fluctuations that could compromise sample integrity
- High-precision platinum temperature probe monitoring with ± 1 °C display accuracy
- 10-inch touchscreen displays temperature curves, liquid level, and daily LN₂ consumption
- One-Touch Defogging for quick sample location and retrieval
- Wi-Fi-enabled remote monitoring and cloud-based data management
- Critical operational data stored locally for 10 years and exportable via USB
- Integrated folding step and auxiliary work platform for safe, convenient operation
- Vacuum-jacketed stainless steel construction delivers excellent insulation, reducing LN₂ consumption

Specifications

Model	Arkylla-370	Arkylla-460	Arkylla-550	Arkylla-800	Arkylla-850	Arkylla-1000	Arkylla-1800
Useful Volume (L)	370	460	588	800	890	1031	1854
LN ₂ Volume Under Platform (L)	55	55	125	133	165	165	295
Neck Opening Diameter(mm)	320	320	445	445	465	465	635
Internal Usable Height (mm)	708	914	590	840	765	889	906
Internal Diameter (mm)	758	758	1012	1012	1113	1130	1467
External Diameter (mm)	820	820	1090	1090	1190	1190	1565
Vessel Height (mm)	1400	1600	1400	1400	1600	1700	1750
Empty Weight (kg)	212	264	310	310	400	495	805
Full Weight (kg)	513	638	750	750	1112	1319	2270
2 mL Cryovial Capacity	16800	21000	28000	28000	42900	51000	95250
No. of Racks	12	12	24	24	32	32	60
Auto Fill	Standard	Standard	Standard	Standard	Standard	Standard	Standard
One-Touch Defogging	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Data Logging / USB / RS485	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Wi-Fi	Standard	Standard	Optional	Optional	Optional	Optional	Optional