

Biosystem Archive Series

From 21,000 to 97,600 Cryovials

MDD93/42/EEC Compliant

IQP/OQP Protocol Testing

Rapid Specimen Storage

“Dry” Sample Storage

Low consumption of LN2

Large LN2 Reservoir

Biobank Installations

Ultra cold storage

Foldaway steps

P.C. Control

Pipeline Ready

Lockable Lid

Data Logging

Overfill Protection System

Dual Solenoids

Unique De Fog System

Quick Chill

Vapour Guard



Biosystem Archive Series

The Biosystem 21, 40, 80 and 100 models are designed to maximise economic operation with highest capacity sample storage for the lowest possible consumption of liquid nitrogen.

A liquid proof rotating internal container allows liquid levels to be controlled safely within the annular space between the drum and container wall generating near isothermal temperature mapping throughout the storage space.

The container is easily turned so that every part of the storage system is accessible at the neck opening.

The Statebourne class leading microprocessor control system provides full control and security backup with the highest available level of reliability and sensor accuracy.

Statebourne's advanced fabrication techniques allied with our super-insulation expertise, ensure that the Archive Series offers the best combination of trouble-free sample security and economic operation together with excellent isothermal properties. In vapour phase storage, temperature throughout the Archive refrigerator typically vary less than 10°C.

Every Biosystem Archive-Series refrigerator incorporates the "Vapour Guard" an innovative design feature which guarantees that liquid can never come into contact with any samples.

All Biosystem Archive-Series units are backed by our comprehensive 5 Year Warranty.

All Archive Series Units Include...

- Vapour guard feature fitted as standard.
- Hot Gas by pass fitted as standard.
- De-Fog and Quick Chill functions for good visibility on lid opening and accelerated re-cooling after lid is shut (configurable).
- Control system that can cope with LN2 pressures from 20 to 40psi.
- Key operated lockable lid for complete security.



Three Biosystem 40 units provide fully automated storage for over 44,000 specimens each in vapour phase with dependable temperature stability at -185°C (Plus/minus 4°C)



- Optional coloured (anodised) storage racks available for easier identification
- Dual solenoid valves fitted for operational security
- Platinum resistance temperature sensing (most accurate and reliable)
- Full operational and installation instructions
- Biosystem includes foldaway non-slip step for easy access

Product Features

- Massive capacity of between 21,000 to 97,600 x2ml vials.
- Vapour phase storage at -190°.
- Dry storage area free from LN2.
- Vapour guard the only guaranteed method of prevention of cross-contamination.
- De-Fog button to make access easier.
- Pipeline ready with built in hot gas by-pass.
- Large reservoir for long term holding..
- Suitable for cord bank sample storage.
- P.C. control with Biobank software.
- Protocol testing. All units can be offered with IQP/OQP.
- 5 YEAR VACUUM WARRANTY.

Biosystem Archive Series

Meet the Biosystem Archive family

Biosystem 21

Storage capacity 21,000 vials
Ultra low consumption of LN2
Very low temperature storage in vapour phase
Refills every 4 days
Only needs a 120 litre supply tank



Biosystem 40

Storage of 44,200 vials so extra capacity
Storage at -185 C in vapour phase
External Turning wheel to make access easier
Diameter of 1227 mm so can fit through most doors
Only needs a Cryostor 180 supply tank



Biosystem 60

Stores 67,000 vials
Racks are only 11 boxes high so easy to lift
Suites Cryocyte box storage
Reservoir 236 Litres



Biosystem 80

Stores 79,300 Cryovials
Inner sections to help locate racks
Pipeline ready
Reservoir 260 Litres



Biosystem 100

Stores 91,500 vials
De-fog button to aid rack location
Easy to connect up for link filling
Reservoir 281 Litres



Biosystem 100+

Stores 97,600 Cryovials vials
Drum can be custom built to suite racks configuration
Racks can be custom built to suite boxes
Reservoir 300 Litres



Microprocessor-controlled Maximum Efficiency Bulk Cryostorage LN2 Refrigerators

The tested logic of the Statebourne Microprocessor has been adapted for incorporation into the Archive Series to combine the highest available level of sample security with safe dependable operation. All electronic and mechanical components of the refrigerator are exhaustively tested during assembly and finally in service conditions by our Engineers before shipment from our factory.

Archive Series Microprocessor Controller Features

- Fully automated top up LN2
- Fully alarmed for any abnormal event
- Data-logging of all events and time/temperature record
- PC connection port for desktop control and downloading data
- Self-diagnostic electronic circuitry
- Connection port for remote alarms
- Connection port for autodialler
- User configurable settings for alarm time and temperature limits
- Data retention assured with back-up battery (automatically maintained charged)
- P.C. control software



All electronic circuitry and components comply with the current requirements of Low Voltage Directive.

Technical Data

MODEL	Biosystem Archive 21	Biosystem Archive 40	Biosystem Archive 60	Biosystem Archive 80	Biosystem Archive 100	Biosystem Archive 100 +
REFRIGERATOR PART NUMBER	9916092	9916082	9916083	9916049	9916084	9916088
2ML Cryovials	21,000	44,200	67,100	79,300	91,500	97,600
LN2 Capacity (litres) vapour phase (Gross internal volume litres)	81/(440)	193/(860)	236/(1244)	260/(1446)	281/(1640)	300/(1740)
Internal storage drum height mm	785	727	615	730	840	930
Internal storage drum diameter mm	750	1067	1406	1406	1406	1406
Weight Empty (Kg)	356	592	761	808	872	909
Weight Full (nitrogen) excluding ICS	711	1287	1766	1976	2197	2315
Overall Height (lid closed) mm	1433	1440	1272	1387	1497	1587
Overall Height (lid open) mm		2022	1955	2089	2199	2289
Overall Diameter (mm)	897	1227	1608	1608	1608	1608

See pages 6 and 7 for all sample storage capacities and system part number details.

Biosystem Archive Series

Meet the Biosystem Archive family



Biobank Installations

Statebourne Cryogenics can provide a complete design and installation of cryogenic facility that includes:

- Turn key installations of Cryogenic facility including design and installation, Supply tanks, vacuum lines, refrigerators, ventilation and Oxygen alarms.
- Automatic LN2 refrigerators (Biosystems) that can work with the pipeline system to keep samples safe, but not waste large amounts of liquid nitrogen.
- Custom built racking to suite storage boxes/tubes and logging system.
- Manufacture of purpose built supply tanks that are designed to work with liquid nitrogen installations to keep a constant supply of LN2 at the correct pressure.
- Safety and alarm systems that are designed to only go off in an emergency.
- Installation solutions for incorporating existing refrigerators.
- Data logging and alarm systems.
- Full computer control of Biosystems with information on fill activity, LN2 usage and alarm recording.

Biosystem Series



Biosystem Sample Storage Capacities

MODEL		Biosystem Archive 21	Biosystem Archive 40	Biosystem Archive 60	Biosystem Archive 80	Biosystem Archive 100	Biosystem Archive 100+
1.2 & 2ml Cryovials		21,000 Part No. 5801621	44,200 Part No. 5801466	67,100 Part No. 5801468	79,300 Part No. 5801296	91,500 Part No. 5801470	97,600 Part No. 5801508
		21,000 Part No. 5801621	44,200 Part No. 5801466	67,100 Part No. 5801468	79,300 Part No. 5801296	91,500 Part No. 5801470	97,600 Part No. 5801508
5ml Cryovials		9,072 Part No. 5801631	19,728 Part No. 5801472	28,674 Part No. 5801474	33,453 Part No. 5801390	38,232 Part No. 5801476	43,011 Part No. 5801511
		9,072 Part No. 5801631	19,728 Part No. 5801472	28,674 Part No. 5801474	33,453 Part No. 5801390	38,232 Part No. 5801476	43,011 Part No. 5801511
1.4ml 96 Well Plates		25,344 Part No. 5801632	54,912 Part No. 5801477	76,032 Part No. 5801478	92,928 Part No. 5801379	101,376 Part No. 5801479	109,824 Part No. 5801572
		25,344 Part No. 5801632	54,912 Part No. 5801477	76,032 Part No. 5801478	92,928 Part No. 5801379	101,376 Part No. 5801479	109,824 Part No. 5801572
Baxter Bags (Type R995)		On Request	672 Part No. 5801311	1,104 Part No. 5801310	1,104 Part No. 5801310	1,104 Part No. 5801310	1,104 Part No. 5801310
		On Request	672 Part No. 5801311	1,104 Part No. 5801310	1,104 Part No. 5801310	1,104 Part No. 5801310	1,104 Part No. 5801310
Gambro Bags (Type DF700)		On Request	364 Part No. 5801312	784 Part No. 5801308	784 Part No. 5801308	784 Part No. 5801308	784 Part No. 5801308
		On Request	364 Part No. 5801312	784 Part No. 5801359	784 Part No. 5801308	784 Part No. 5801308	784 Part No. 5801308
Pall 25mm Cord Blood Bags		1,960 Part No. 5801633	4,340 Part No. 5801480	5,300 Part No. 5801364	6,360 Part No. 5801365	7,420 Part No. 5801481	8,480 Part No. 5801510
		1,960 Part No. 5801633	4,340 Part No. 5801480	5,300 Part No. 5801364	6,360 Part No. 5801365	7,420 Part No. 5801481	8,480 Part No. 5801510
Straws 0.25cc in Gobllets		393,600 Part No. 5801623	729,800 Part No. 5801482	911,840 Part No. 5801306	1,139,800 Part No. 5801371	1,367,760 Part No. 5801483	1,367,760 Part No. 5801483
		393,600 Part No. 5801623	729,800 Part No. 5801482	911,840 Part No. 5801306	1,139,800 Part No. 5801371	1,367,760 Part No. 5801483	1,367,760 Part No. 5801483
Straws 0.5cc in Gobllets		175,200 Part No. 5801623	324,850 Part No. 5801482	405,880 Part No. 5801306	507,350 Part No. 5801371	608,820 Part No. 5801483	608,820 Part No. 5801483
		175,200 Part No. 5801623	324,850 Part No. 5801482	405,880 Part No. 5801306	507,350 Part No. 5801371	608,820 Part No. 5801483	608,820 Part No. 5801483

= Liquid phase

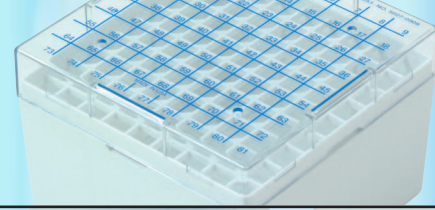
= Vapour phase

Storage System Description

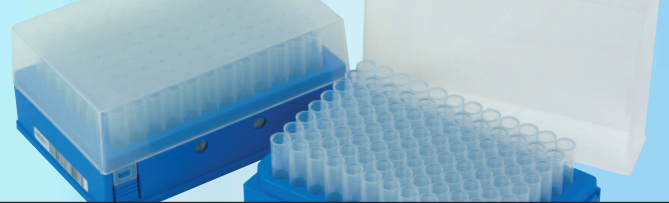
1.5-2ml Cryovials.
100 Cell (10x10) and some 25 Cell (5x5)
Polycarbonate cryoboxes in aluminium racks with lifting handles and locking rods.
(Boxes Included)



5ml Cryovials.
81 Cell (9x9)
Polycarbonate cryoboxes in aluminium racks with lifting handle and locking rods.
(Boxes Included)



Storage plates.
To suit 96 Cell (12x8) Well plates of various volumes, stored in aluminium racks with double handles and locking rods.
(Boxes Not included) ask for more details.



Cryocyte/Blood bag storage.
Stacking aluminium special baskets with lifting handles designed to suit 250ml Baxter Blood Bag storage.
(basket will also store 50ml and 5ml Baxter bags, capacity will vary)
Stacking aluminium special baskets with lifting handle designed to suit Gambro Blood Bags.



Cord Blood storage.
Aluminium trays in towers with single lifting handles and locking rods.
(Each tray will hold a maximum of 10 cassettes, cassettes not supplied).



Straw storage.
69mm diameter canisters made from Polycarbonate, storing 67mm diameter goblets. Goblet lifters provided.
(Goblets not supplied)



In the interest of our continued product improvement, Statebourne reserve the right to amend the specification of our products.

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