

# *Safety, Monitoring and Accessories*

Temperature Monitoring

Cryogenic Accessories

Protective Equipment

Personal Accessories

Hoses and Adapters

Liquid Level Control

Laboratory Safety

Datalogging

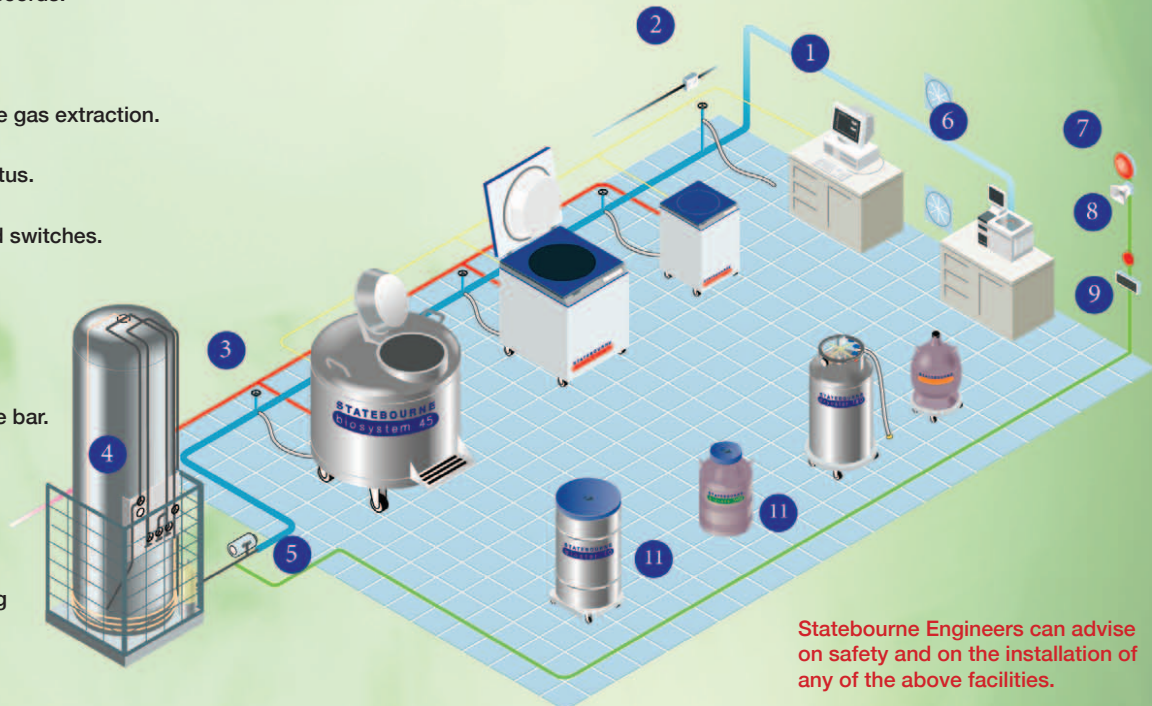
Alarms



# Laboratory safety

## Practical LN2 Management Equipment

1. Computerised laboratory system records.
2. Autodialler.
3. Vacuum-insulated piping and waste gas extraction.
4. Auto-telemetry for supply tank status.
5. Fail-safe room isolation valves and switches.
6. Forced ventilation and controls.
7. Remote alarms (audio & visual).
8. Manual isolation switch plus space bar.
9. O2 deficiency monitor.
10. Programmable freezers
11. Independent LN2 level monitoring



Statebourne Engineers can advise on safety and on the installation of any of the above facilities.

Both safety and practical aspects of any laboratory using cryogenic liquids require attention in the planning stages. However, even in an established laboratory, reviews of both safety and improvements may need to be considered on a regular basis. Statebourne Cryogenics has a considerable experience in the design, manufacture and installation of all types of equipment in this field and our engineers are always available to give advice. A typical medium sized well appointed cryogenic laboratory is shown above. Statebourne Cryogenics can supply and install complete systems.

*The following pages include a full range of Personal Safety Protective Equipment, hoses and adapters, alarms and monitoring plus handling equipment.*

Statebourne's Customer Service Department will be pleased to help with any queries you might have about safety equipment. Our advice is FREE.



You may contact us via e mail at: [sales@statebourne.com](mailto:sales@statebourne.com)



Via the website using the contact us page: [www.statebourne.com](http://www.statebourne.com)



Via the website using LIVE CHAT: [www.statebourne.com](http://www.statebourne.com)



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# Liquid Level Control and Temperature Monitoring

## Equipment for LN2 Management & Security

### Cryoguard with Datalogger

(Part Number 9701321)

Can be used with Biostor, Biorack, Biotrek and Bio models.

Battery operated, this unit can be independently mounted on any of the containers above to provide a continuous watch on the refrigerator's condition.

An alarm will sound if pre-specified temperature limits are transgressed.

Additionally, a logged record of temperature at a pre-specified interval is maintained which can be downloaded to a PC.

This unit is battery operated but can also be mains operated with a suitable power source.



### Low level Alarm

(Part Number 8602622) Battery and Mains.

These units can be used with Bio, Biorack and Biostor, battery or mains operated models.

Battery or mains operated these units are supplied with control box and adjustable probe fitted in a protective tube specially mounted in the neck plug of the vessel.

When the level of liquid nitrogen falls below the set position of the probe, both visual and audible alarms are activated.



### LC 200 Level Controller Kit

(Part Number 9701042)

Can be used with Biostor, Open Dewars and other applications such as cold traps.

The kit is supplied complete with control box, sensors, dual solenoid valves, all electrical connections and pipes with flexible delivery hose.

Designed to be used with Biostor 12 and 24 models to convert to automatic operation when used with a Cryostor vessel as a reservoir, the LC 200 is supplied with a power source for mains operation.



### Autodialler Unit (SD2+) Mains operated auto charger battery back up.

(Part Number 9702193)

Can be used with Low Level Alarm, (Mains model), Cryoguard Datalogger (when mains powered) and all Biosystem models.

The Autodialler unit connects to an output port on any of the above models and receives a signal in the event of an 'Alarm' condition. The Autodialler will then make a telephone connection to three numbers until an answer is received and a pre-recorded message is played.



# Personal Safety Protective Equipment

## Gloves, Aprons, O2 Monitors

### O2 Deficiency Monitor

(Part Number 9702256)

Cryosafe Series 1 Monitor.

LCD Display of oxygen levels.  
Mains powered.  
External Beacon/sounder included.



### Personal oxygen alarm

(Part Number 9702141)

Personal Oxygen depletion monitor and alarm.  
Lasts for two years.  
Battery powered.  
No need to send away for calibration.



### Cryogenic aprons

Thermal aprons can also be worn to protect against liquid splashes.

part number 9701110 small  
part number 9701111 medium  
part number 9701112 large



### Cryogenic gloves

part number 9701113 small  
part number 9701115 medium  
part number 9701117 large  
part number 9701119 xtra large

The wearing of a suitable pair of gloves is essential for day to day operations with liquefied gases. Gloves generally fall into two categories. Those for handling objects in cold gas vapours are usually gauntlets of mid-arm or shoulder length. For handling liquid dispensing hoses and dewars heavy duty leather wrist length gloves can be used. see part number 8701031.



# Personal Safety Protective Equipment

## Equipment for LN2 Safety

### Hide Gloves

Part Number 8701031

The wearing of a suitable pair of gloves is essential for day to day operations with liquefied gases. Gloves generally fall into two categories. Those for handling objects in cold gas vapours are usually gauntlets of mid-arm or shoulder length. (see previous page)

These gloves are ideal for handling liquid dispensing hoses and dewars.



### Face Safety Shield

Part Number 8701032

Clear visors are available to protect eyes and face from liquid splashes. Also protects users from potential exploding vials when samples are stored in liquid phase.



### Safety Posters

Part Number 3800150

Self Adhesive Safety Signs (pack of 4) for Cryo Rooms

A4 self adhesive warning posters two of each in a pack



### Ear protectors

Part Number 8701007

To protect hearing when filling supply tanks from external tanks.





## Hoses

### Insulated Hose

1/2" BSP Male-Female 1.5M Long Insulated flex hose

(Part Number 3701113)

Flexible stainless steel liquid nitrogen delivery hose with insulation.

Suitable for connection of Biosystems to Cryostors.  
(NOT SUITABLE FOR MANUAL DISPENSING.)



### Insulated Hose

1/2" BSP Male-Female 2M Long Insulated flex hose

(Part Number 3701115)

Flexible stainless steel liquid nitrogen delivery hose with insulation.

Suitable for connection of Biosystems to Cryostors.  
(NOT SUITABLE FOR MANUAL DISPENSING.)



### Flexible Transfer Hose

1/2" BSP Male-Female 1.20m Long flexible hose with strengthening sleeve.

(Part Number 3701006)

For dispensing LN2 from small Cryostors.

Flexible stainless steel liquid nitrogen delivery hoses with 150mm reinforcement protection at each end.  
One end male fitting and other end with 'bull nose' connection fitting with running connector nut.



### Flexible Transfer Hose

1/2" BSP Male-Female 1.50m Long flexible hose with strengthening sleeve.

(Part Number 3701004)

For dispensing from medium Cryostors 30 - 120 Litres.

Flexible stainless steel liquid nitrogen delivery hoses with 150mm reinforcement protection at each end.  
One end male fitting and other end with 'bull nose' connection fitting with running connector nut.



## Hoses and Adaptors

### Flexible Transfer Hose

1/2" BSP Male-Female 2.0 m Long flexible hose with strengthening sleeve.

(Part Number 3701002)

Suitable for Cryostors 180, 240, 300, 400, and 500 Litres.

Flexible stainless steel liquid nitrogen delivery hoses with 150mm reinforcement protection at each end.

One end male fitting and other end with 'bull nose' connection fitting with running connector nut



### Flexible Transfer Hose

1/2" BSP to CGA295F 2.0m Long flexible hose.

(Part Number 3701106)

For Connection of Cryostors to American products.

Statebourne hose which is a

1/2" BSPM to CGA295F 2 metre flexible hose

for connecting the Cryostor directly to the American product.



### Adaptor

1. 1/2" BSPTM to CGA295

(Part Number 1201382)

For Connection of American products to Cryostors



### Adaptor

3/8" NPTM to 1/2" BSPPM Cone face to suit standard hose.

(Part Number 1201372)

For Connection of Statebourne hoses to older supply tanks.



## Adaptors and Dispensing.

### Adaptor

1/2" BSPTM to 1/2" BSPPM Cone face to suit standard hose.

(Part Number 1401092)

For Connection of flexible hoses (female end) to Cryostors.



### Adaptor

1/2" BSPP socket.

(Part Number 1201245)

For Connection of two male hoses.



### Adaptor

1/2" BSPT MALE TO 1/2" BSPP MALE .

(Part Number 1401335)

For Connection of two female hoses.



### Adaptor

3/4 MALE FITTING (1/2" TO 3/4") .

(Part Number 1401342)

For Connection of larger hoses to Cryostors.





### In-Line safety relief valve assembly.

(Part Number 9911009)

Connects to the 'female' end of a standard hose and is used for filling dewars and small refrigerators from a low pressure Cryostor unit. Protects hoses between valves and is a safety device.



### Cryogenic Ball Valve 1/2".

(Part Number 1701003)

Brass with chromium plated finish and modified for cryogenic applications.



### Pipe insulation.

In 2 metre lengths in 2 sizes:

"small" to suit standard hose (part number 7401028)

"large" for second layer (Part number 7401071)

22mm x 13mm (Part number 7401063)



### Stainless steel baskets.

Various sizes available for immersion applications.

Part number 9915036 size 230mm (h) x 86mm (w) fits OD2  
Part number 9915051 size 190mm (h) x 175mm (w) fits OD6  
Part number 9915086 size 325mm (h) x 240mm (w) fits OD15  
Part number 9915096 size 340mm (h) x 285mm (w) fits OD25  
Part number 9915117 size 450mm (h) x 350mm (w) fits OD80



### **Dermatology "dipper".**

(Part Number 9701017).

Small (10ml) stainless steel ladle with long handle (500mm) for liquid nitrogen



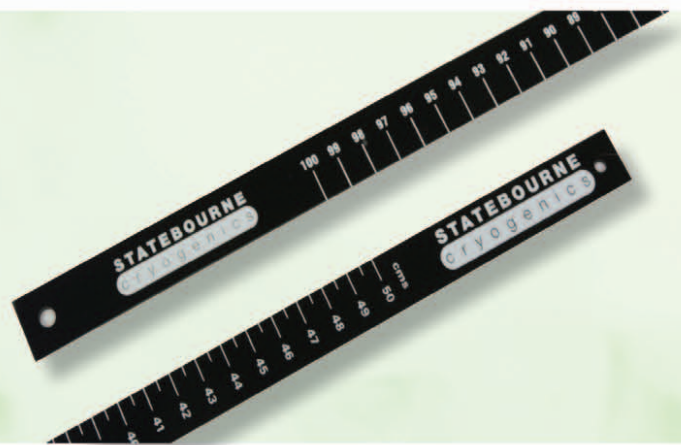
### **Level Measuring sticks**

2 lengths available

50cms (Part number 9701009)

100cms (Part Number 9701012)

**NEW IMPROVED DESIGN for 2016-17.**



### **Cryograbber.**

Flexible pick up tool 900mm long. for picking vials.

(Part number 9701180)



### **Cryoclave.**

Heavy duty retrieving device for larger items.

(Part number 9701104).



## Cryobox Storage

### 100 Cell 2ml Polycarbonate Cryobox

(Part Number 5801103).



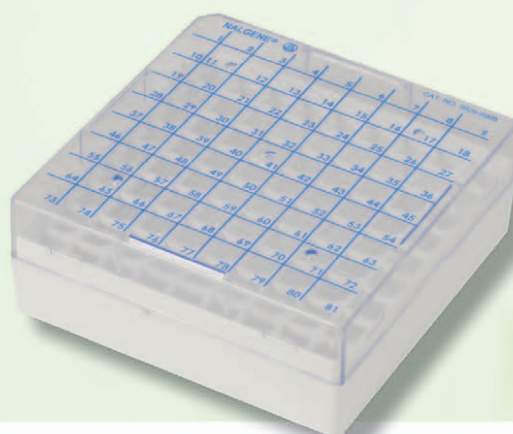
### 25 Cell 2ml Polycarbonate Cryobox

(Part Number 5801271).



### 81 Cell 2ml Polycarbonate Cryobox

(Part Number 5801167).



### 81 Cell 5ml Polycarbonate Cryobox

(Part Number 5801168).





## Dispensing

### Dispensing lance with phase separator and anti-splash shield.

(Part Number 9701262)

Connects to the 'female' end of a standard hose and is used for filling dewars and small refrigerators from a low pressure Cryostor unit.

Please see our dispensing solution pdf.



### Dispensing long lance with valve and relief valve

(Part Number 9701593)

Connects to the 'female' end of a standard hose and is used for filling dewars and small refrigerators from a low pressure Cryostor unit.

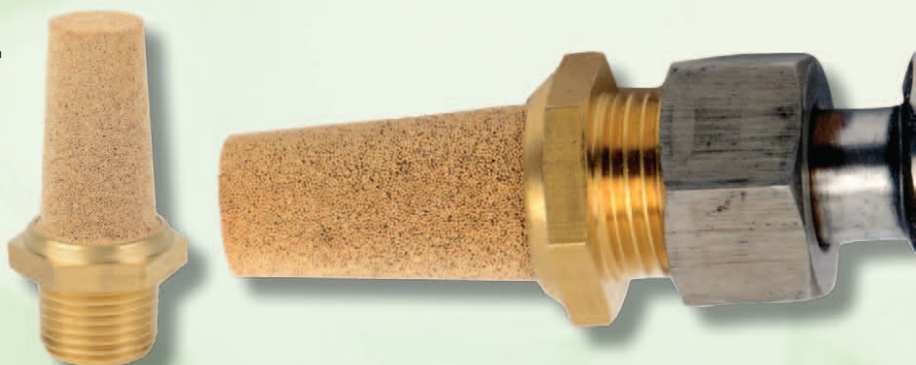
Please see our dispensing solution pdf.



### Cryogenic phase separators.

1/2" BSP Phase separator  
(Part Number 9701090)

Please see our dispensing solution pdf.



### Dispensing Systems.

We have put together a range of dispensing systems for both the Cryolab and the Cryostor Range to help you work out the best possible package to suit your application.

Please request a full set of dispensing system pdfs



### Biorack 750 Wall Bracket.

(Part Number 6401238)

Ideal for alarm plug to avoid any damage to the alarm probe while accessing the Biorack.



### Biorack Alarm plug Wall Bracket.

for BR3000,4800,6000

(Part Number 6401169)

Ideal for alarm plug to avoid any damage to the alarm probe while accessing the Biorack.



### Cryolab dispenser shelf & mini pouring spout.

(Part Number 9701050 CL25)

(Part Number 9701051 CL35/50)

for dispensing into small dewars.

To be used in conjunction with a withdrawal device.



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