

NITROGEN SUPPLY SOLUTIONS FOR A RANGE OF INCUBATOR REQUIREMENTS

CryoService have a range of tanks, generators and installations to suit the needs of a wide range of incubator users.

Tanks:

A tank supply provides an economical and practical solution. Cylinder changeovers are eliminated, saving time and increasing safety. Space is also saved, as a tank occupies up to 70% less floor area than the equivalent cylinder supply.

Tanks are generally sited externally, with gases piped in. Mobile vessels can however be provided where necessary.

Note that some tanks can be connected together to increase the number of incubators they will supply.



Generic specifications:

Tank Type	Capacity (litre)	Diameter (mm)	Height (mm)	Full Weight (kg)	Max Pressure (psi / bar)	Max Tank** Flowrate (m ³ / hr)	Suitable for* (no of incubators)
CS18	160 to 180	508	1613	258	235 / 16.2	9.2	1-4
CS25	230	609	1575	340	235 / 16.2	9.9	2-6
CS80	800 to 950	1200	2004	1523	246 / 16.9	25	8-23
Bulk tanks	1000 to 10,000	Details on request					

Note that the exact specification of the tanks may vary, depending on model.

*Estimated figures based on heavy and average usage.

** Flowrates can be increased using external vapourisers.

Science and Industry

CryoService

Gases for Science, Leisure and Industry

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INVESTOR IN PEOPLE



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Generators:

A nitrogen generator provides a continuous on site supply of gas at the touch of a button, and eliminates the need for cylinders. This means no manual handling, checking of rental statements, and carrying of buffer stocks.

They can be mounted inside the lab they are supplying, which makes the monitoring of the supply convenient, and removes the need for long pipe runs.

The space requirements of a nitrogen generator unit are a fraction of the equivalent tank or cylinder supply.

Generators are often used in situations where access for tanks or cylinders is limited. Our fit and forget systems eliminate the need for customer involvement in the day-to-day management of the gas supply.

CryoService provide systems to meet a number of different purity and flow rate requirements, and to suit a wide range of individual situations. These can be leased or purchased.

An annual maintenance and repair service can be provided by CryoService.

Generic specifications:

Generator Type	Flow rate (L / min)	Purity	Outlet Pressure (psi / bar)	Suitable for ² (no of incubators)
N2 Micro	1.5	99.99%	58/4	1-4
NG2301	3	99.9995% ¹	101 / 7	2-7
N2 Micro	4	99.5% ³	72 / 5	3-9

¹ Total hydrocarbons residual < 0.1ppm, with catalytic hydrocarbon remover fitted, (unit weights 5Kg).

² Estimated figures based on heavy and average usage.

³ Different settings allow higher purity levels, however flow rate decreases as a result.

Generator Type	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)	Power Rating VA	Reservoir Capacity (L)
NG2301	400	1190	800	112	850	6.5
N2 Micro	400	830	580	62	600	7.76

Power supply is 230VAC – 50Hz, (115VAC – 60Hz available on demand).

Noise level: < 60dB

Operating temperature: between 5°C and 40°C

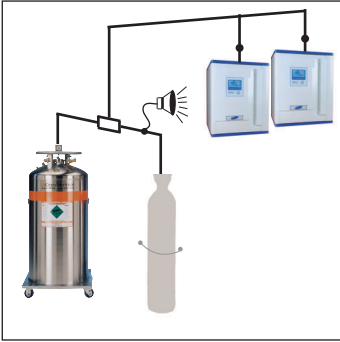
Consumables: filters and silencers

The purities and flow rates can be adjusted to meet specific requirements. Our experienced Sales Executives will advise on the correct system.

Installation

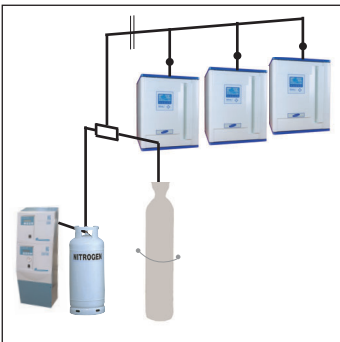
Security of supply is critical to protect your work. Therefore the following configurations have been designed to meet a variety of situations.

Remote supply, piped in to labs:



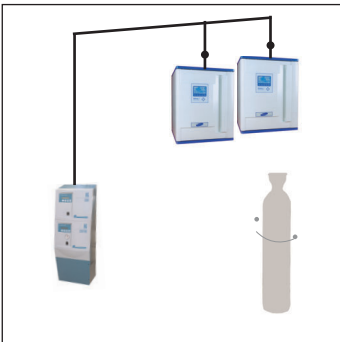
- This is ideal for supplying a multitude of incubators, in a number of labs.
- Supply maybe from tanks mounted externally, (or internally where possible).
- Cylinder back-up supply is provided¹.
- Back-up activates automatically and raises an alarm.

Remote Generator supply:



- This is ideal for limited access situations.
- Unit can be installed close to or in the lab environment.
- A multitude of incubators, can be supplied in a number of labs.
- Supply is from a generator mounted internally.
- Cylinder back-up supply can be provided.
- Back-up activates automatically and raises an alarm.

Lab Generator supply:



- This is ideal for smaller requirements in limited access situations.
- A number of incubators can be supplied in the same room.
- Supply is from a generator installed within the lab environment.
- Manual back up cylinder can be provided.

For all installations the control valves, regulators, and connection onto incubators are provided.

Pipelines can be in either Copper or Nylon.

¹ Cylinder back up filled to 172Bar, contains 8m³ gas and is filled off site on a full for empty basis.



Alarms & Monitoring:

Alarms can be provided for monitoring the supply.

Supply monitoring:

This is via an alarm on the back-up manifold. Should the back-up be activated, an audible or visual alarm will come on in the lab to indicate that either usage has increased, or a fault has developed. The reason can then be identified, and a delivery placed to recharge the supplies.

Safety monitoring:

Oxygen levels should be monitored in areas where there is a risk of them being depleted by increased nitrogen concentrations. Contact CryoService for information on these systems.

Safety

CryoService have comprehensive gases safety information, and can provide assistance where required to help keep you safe.

Our CryoSafe inspection and maintenance service is done to a written scheme of examination. It covers the tank and pipe work, and releases the customer from some of their responsibilities under the latest Pressure Systems Safety Regulations.

Site Requirements

CryoService aim to minimise the site requirements for all the systems provided. As each site has different needs, one of our Sales Executives will survey and advise on your specific requirements.

To Find Out More...

...or to enjoy the benefits of our systems, call the Science and Industry Sales team on **01905 754500**.

One of our experienced Sales Executives will visit, to determine your requirements and design a system that's right for you.

All details provided here are subject to availability and site survey.



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