

SCIENCE AND INDUSTRY CO₂ AND NITROGEN INCUBATOR SYSTEMS

CryoService has many years experience in dealing with Research and Clinical Laboratories who carry out cell culturing and understands the ever changing demands put upon these organisations, be this in terms of administration time, conformance to regulatory requirements or ensuring that laboratory space is maximised.

All of this needs to be achieved without compromising quality and safety whilst best value is always obtained.

With this in mind CryoService has two specific offerings which have been tailored to these requirements.



Liquid Carbon Dioxide

CryoService offer a unique and scalable solution to the supply of Liquid Carbon Dioxide for incubators, ranging from traditional cylinder options to the innovative CarboStore mini-bulk storage technology to full bulk supply. CryoService offer the following advantages to your operation.



- Integrated and scalable solution from small cylinders to bulk supply that allows seamless expansion if your needs grow.
- Mini-bulk and bulk supply provides increased efficiency within the laboratory as incubators are fed automatically from a mini-bulk tank.
- Reduced administration time and costs as site usage is automatically monitored and delivery frequencies adjusted to mirror requirements.
- Mini-bulk and bulk supply eliminate manual handling of heavy, high pressure cylinders and remove staff intervention from daily operation.
- Pay for what is used. Traditional Carbon Dioxide cylinders contain between 15 and 25% of their product when returned - CryoService charges for only the liquid that is delivered.*

Liquid Nitrogen

Where multi-gas incubators are used CryoService can supply Liquid Nitrogen and storage vessels to suit customer specifications.

- Typically a 230 litre vessel will contain the equivalent of approximately 18 high pressure cylinders.
- Ability to rent or purchase storage vessels.
- Mobile and static vessels supplied.
- No minimum liquid delivery requirement.



*Applies to bulk, mini-bulk and large cylinder supply only. Small cylinders are provided on an exchange basis.

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Supply of Engineering Expertise in the design and build of expanding/new laboratories.

CryoService has found over the last few years that laboratory users/managers when successful in obtaining grants for upgrading, expanding or even building new laboratories are left with the onerous task of having to design the laboratory themselves.

CryoService has assisted many such organisations by working with the users to provide the optimum system in terms of best design practice for the freezer room, advice on carbon dioxide/oxygen depletion monitors and air extraction, and the supply of liquid gases and storage vessels. By working in such a way CryoService offers valuable expertise and project management resources to users and project managers alike.

Generic Specifications

Cylinder Type	Capacity (kg)	Diameter (mm)	Height (mm)	Full Weight (kg)	Max Pressure (psi / bar)	Max Tank** Flowrate (kg / hr)	Suitable for* (no of incubators)
Cylinder	6.35 ***	140	835	16.3	500 / 34	-	1
Cylinder	34	225	1640	104	500 / 34	-	1-4
Cylinder	50.6	265	1590	134	500 / 34	-	1-5
CS18-CO ₂	180	510	1637	339	300 / 20.7	5.4	5-13
CS25-CO ₂	240	661	1392	440	350 / 24	5.8	7-17
CS25-CO ₂	270	661	1700	468	300 / 20.7	6.8	7-20
CS80-CO ₂	800 to 950	1200	2004	1724	246 / 16.9	15.6	20-66
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.

*** Not filled onsite



Other Services Available

- Personal Protective Equipment (PPE) – Glasses, Gloves, Aprons, Face Shields.
- Health and Safety – CryoService can offer a range of services from advice on best practice in the design and storage of equipment using liquid nitrogen to full safety audits and a range of safety training courses (either classroom or internet based, dependent upon the users requirement).
- Free site audits to ensure customer sites have optimised delivery frequencies and appropriate on-site storage capacity in comparison to industry standards.