

# CARBON DIOXIDE SUPPLY SOLUTIONS FOR A RANGE OF INCUBATOR REQUIREMENTS

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

## Fill on site cylinders:

A cylinder supply can be an ideal solution for the smaller user, or as a back up to a tank supply.

Cylinders can be situated inside labs, thus requiring no major installation work. Alternatively they may be sited outside and have the gas piped in.

All large cylinders are filled on site, so you only pay for what you use, and the need for back-up supplies is reduced.

Cylinders can be brought out for filling by our Customer Service Operators<sup>1</sup>, removing the need for customer involvement.



## Our cylinder range includes:

Capacity (kg)	Diameter (mm)	Height (mm)	Full Weight (kg)	Max Pressure (psi / bar)	Suitable for* (no of incubators)
6.35**	140	835	16.3	500 / 34	1
34	225	1640	104	500 / 34	1-4
50.6	265	1590	134	500 / 34	1-5

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

\*Estimated figures based on heavy and average usage.

\*\*Not filled onsite

The 6.35kg cylinders are a lightweight design with minimal manual handling risks. They are ideal for small users, or in situations where manual handling is a key issue. These cylinders can also be used as back-ups for any of the other systems.

The 34kg and 50.6kg cylinder ranges can be sited either inside the lab or outside the building. They have capacities suitable for running up to 5 or 6 incubators<sup>2</sup> at a time.

All cylinder types can be connected together on a manifold, to service a greater number of incubators.

Science and Industry

**CryoService**

Gases for Science, Leisure and Industry

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<sup>1</sup> Subject to site survey, certain limitations apply.

<sup>2</sup> Based on average patterns and a one month refill cycle.



INVESTOR IN PEOPLE



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## Tanks:

For larger requirements 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 25% 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. Our unique CarboStore design allows for remote filling. This enables a greater range of possibilities when siting the tank.



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

### 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)
CS18-CO2	180	510	1637	339	300 / 20.7	5.4	5-13
CS25-CO2	240	661	1392	440	350 / 24	5.8	7-17
CS25-CO2	270	661	1700	468	300 / 20.7	6.8	7-20
CS80-CO2	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.

## Installation:

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

### Regulator and cylinder:



- This is a simple installation comprising a cylinder, regulator and hose.
- This design is ideal for supplying a small number of incubators inside the same room.
- The cylinder contents can be monitored visually on the regulator.
- A smaller back up cylinder can be provided to maintain supplies when the main cylinder is being filled.

### Remote supply, piped in to labs:



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

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

Pipelines can be in either Copper or Nylon.

## Alarms & Monitoring:

Alarms can be provided for monitoring the supply, and the safety of the areas where CO<sub>2</sub> is used.

### 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.

These units can be connected to the customer's own alarm or building management system.

### Safety monitoring:

CryoService can supply Carbon Dioxide monitors to warn of a release of CO<sub>2</sub> into the atmosphere. Where CO<sub>2</sub> levels rise above a certain threshold, they can cause harm, and must therefore be monitored. Our Sales Executives will advise on the requirements for the supply area and the laboratories.



## 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 situation.

## 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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