

# SCIENCE AND INDUSTRY TISSUE BANKS

CryoService has many years experience in dealing with organisations within the biological cell and tissue storage, gene therapy and research markets and understands the ever changing demands put upon them, be this in terms of administration time, conformance to regulatory requirements or ensuring that laboratory space is maximised.

All of these need to be achieved without compromising quality and safety, whilst best value is always obtained.

With this in mind CryoService has a suite of products and services available to users, which dependent upon their requirements can include the gas supply, associated equipment or assistance in the design of a new or expanding cryogenic storage facility and laboratories.



## GASES



### Liquid Nitrogen

Used widely where there is a requirement to store samples at cryogenic temperatures, CryoService has a supply and storage solution for almost all applications:

- Storage vessels varying in size from 5 litres up to 12,000 litres capacity
- Ability to rent or purchase storage vessels
- Managed cycle delivery schedule, which minimises user involvement. CryoService monitor usage and automatically adjust deliveries accordingly
- Mobile and static vessels supplied
- No minimum liquid delivery requirement.

### Carbon Dioxide

Typically used as a back-up gas for mechanical freezers and also in incubators for controlling the growth of tissues and cell cultures. CryoService is one of the few organisations who have the ability to offer and deliver the Life Science market CO<sub>2</sub> in mini-bulk liquid form. This system not only removes manual handling of heavy high pressure cylinders from the laboratory, but frees up important space due to its reduced footprint size - one mini-bulk liquid storage vessel is equivalent to up to eight traditional gas cylinders.

#### *Benefits of CryoService Liquid Carbon Dioxide.*

- Increased security of tissues and cells as -80°C gas is always available as a back-up in the event of mechanical failure.
- Managed cycle delivery schedule, which minimises user involvement. CryoService monitor usage and automatically adjust deliveries accordingly.
- No downtime or changeover, as the system is permanently connected.
- Manual handling of heavy, high pressure cylinders is eliminated.



1185/01

## Freezers and Associated Equipment

For users who are expanding/consolidating their laboratory or replacing existing freezers, CryoService has one of the broadest ranges of products available. Varying from the traditional small aluminium manually filled freezers, which are suitable for individual research projects or small laboratories, through to the larger capacity auto-fill stainless steel versions which are available in either liquid or vapour phase options, CryoService can provide an integrated offering for your Cryoroom.

### Features of these ranges include:-

- Vial capacity from 150 to 90,000
- -190°C validated temperature at the lid for the Eterne range
- Long temperature hold times, with the Eterne series certified at 20 days (subject to use), before viability of cells would be affected
- Auto fill system
- Liquid or vapour phase availability
- Low nitrogen consumption rates, minimising lifetime running costs
- Integrated alarm monitoring (temperature, level)
- Alarm and temperature monitoring configurable to host site's Building Management System (BMS)
- Inventory systems
- Inventory labeling and software management



## Supply of engineering expertise in the design build of expanding/new cryorooms

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 cryoroom 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 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 cryoroom development.



## 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.