

Cryogenic Project Case Study - QMUL

A complete solution for your Cold Storage Needs!

Turn-Key Cryogenic Facility:

- Project Management
- Bulk Tank
- SIVL
- Freezers
- Oxygen Depletion Monitoring
- Air Extraction
- Facility Access and Security
- Sample Tracking

Key Considerations

Improve Safety



Protect Samples



Efficient use of Budget



Maintain a working facility



CHALLENGES



Previous facility was old, unheated, cluttered and lacked proper ventilation. End users were using a variety of old vessels which all required manual filling, creating a number of health and safety concerns. Capacity was insufficient and samples were difficult to locate and keep track of.



SOLUTION - PHASE 1



Labmode was asked to provide a solution which would be funded by QMUL.

Firstly, a new temporary facility had to be built to store the samples while the old building was knocked down making way for the new permanent facility. End users took the opportunity to relocate their samples into new Taylor Wharton LABS40 and LABS80 cryogenic freezers. These were then moved into the temporary facility, providing a safe and functional working environment for both the university staff and their irreplaceable samples.



SOLUTION - PHASE 2



With the existing samples safe and secure, the new build could begin.

This involved the installation of a new 5200Ltr bulk tank sited in an enclosure directly outside the new facility, minimising the length of the SIVL. Inside, 20 take-off points for LABS units and a gas vent system were linked to controllers to maximise efficiency of the fills and minimise liquid nitrogen usage.

For safety and automation, we employed Sintesy to control and monitor door access, camera systems, fill levels and fill control, oxygen depletion alarms and air extraction within the facility.

Finally, a sample tracking system was installed to catalogue samples going in and out of the cryogenic store making the 1M plus sample capacity more efficient and user friendly.



OUTCOME



1

Improved Safety & Security

This facility now fully meets all the guidelines for the safe storage and handling of samples in liquid Nitrogen. New access and control systems ensure a safe working environment.

2

Increased Capacity

Capacity has been dramatically increased to over 1 Million 2ml vials with future expansion needs catered for in the design.

3

Greater Efficiency

Supplying the best equipment available and using advanced automated systems, this facility is more efficient and will minimise the running cost of this facility into the future.



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PROJECT DESIGN | MANAGEMENT | SUPPLY | INSTALLATION | SERVICING