

Efficient cryogenic installation suits the green footprint of Prinses Máxima Centrum



The new Prinses Maxima Centrum for child oncology has constructed one of the larger bio repositories of the Netherlands. The installation designed and installed by Cryo Solutions was developed to ensure the most efficient use of liquid Nitrogen. And that fitted perfectly with the sustainability goals set by the Prinses Máxima Centrum.

Cryo Solutions was asked to review the other proposals - and to check whether they were up to standard with respect to efficiency, costs and safety. Cryo Solutions concluded these were far from perfect and could be improved by a different concept. And it also turned out that Cryo Solutions was the only potential partner who could implement everything up to the required standard within the set time period.



The installation from the bulk tank outside comprises of vacuum insulated VIP piping going underground into the building, and then rising three floor levels. Two

of the floors have filling stations, close to the research lab, consisting of a liquid Nitrogen tank with CryoSafe automatic filling unit and a "deadman's" manual discharge button plus stainless steel filling cabinets with dripping tray. These are for the safe withdrawal of smaller amounts of liquid Nitrogen into smaller open dewars.

On one floor of the cryo biobank is space for 30+ bio storage vessels, including a liquid Nitrogen pressure tank with a CryoSafe control for safe manual withdrawal of liquid Nitrogen. All this is centrally managed and controlled by the CryoMatic PLC cabinet. The CryoMatic also collects and controls the alarm signals, such as O2 depletion and emergency stop buttons of all three floors, and can disconnect the flow of liquid Nitrogen into the building, alarm locally via a signal light, hooter and signage and it can forward the alarms to the building's own monitoring system. The automatic

filling of all the units is synchronised (electronically) including the two other floors. The filling stations optimise the flow of liquid Nitrogen from the bulk tank into the building so that the lowest possible Nitrogen consumption, combined with the highest possible safety level, is achieved. In practise this means only one filling cycle per 24 hours instead of random filling events.

A 'solid green' solution.... low costs and high safety standards!



Product info



Pressure tank with CryoSafe, "deadman's" button, manually withdrawing liquid nitrogen and stainless steel filling cabinet with plexiglass doors and drip tray

CryoSafe safe and comfortable tapping of liquid Nitrogen

The CryoSafe is an automatic unit or filling liquid Nitrogen pressure tanks in a fixed position. This filling can be started fully automatic on level or on time. The CryoSafe in a biorepository (biobank) functions as if it was a biostorage vessel and thereby is fully functional in a one fill all fill sequence (degassing) with all other vessels which in turn ensures the best and lowest LiN consumption, while always heaving access to liquid Nitrogen at a safe low pressure of 1.5 bar. Additionally the CryoSafe can be equipped with a "deadman's" button for safely manually withdrawing liquid nitrogen and a stainless steel filling cabinet with plexiglass doors

and drip tray for an better and protected filling of smaller open dewars making tapping of liquid Nitrogen much safer.

The CryoSafe comes with a special software feature that when working with a controlled rate freezer or an electron microscope as an extra security we will block any other options for filling, by doing so we prevent pressure drops and vibrations.

The CryoSafe can be fitted on any pressure tank no matter what brand or type it is, new or existing and we can supply them including the tank or as lose option, the same goes for the "deadmans" filling button and the filling cabinet.

Exhibitions

EBW 2018 Antwerpen
4 - 7 September booth 35
Flanders Meeting &
Convention Center Antwerp
Koningin Astridplein 20,
B-2018 Antwerpen, Belgium



WOTS 2018 Jaarbeurs Utrecht
2 t/m 5 October,
Jaarbeurs Utrecht



Cryo Solutions will also be participating this edition of the WOTS the exhibition in the Netherlands for the laboratory world, we will be showing our newest CryoSafe and CryoMatic control units.

Come visit us at booth C111 Hall 7 and we will get you an nice cryogenic treat from IJs Café Boxtel.

Successful attendance at ESHRE 2018 Barcelona

This year Cryo Products (Cryo Solutions little sister) took part at the ESHRE conference in

Barcelona. It was a very successful show in cooperation with our partner Planer from the UK. We introduced our new CryoSafe unit. Planer celebrated their 45th anniversary in cryogenics.

