

# BIOTECH HARDWALL ISOPOD



## THE CLIENT

Global providers of technologies and services that advance and accelerate the development, manufacture and delivery of therapeutics. Cytiva's customers undertake life-saving activities ranging from biological research to developing innovative vaccines, biologic drugs and novel cell and gene therapies.



Biotechnology



Temperature:  
Comfort Cooling  
Humidity: Ambient



50m<sup>2</sup>

## THE BRIEF

The client required a specially segregated zone at an existing lab in their host premises in Hertfordshire. Unlike standard Isopods, this module required a temperature control solution to provide additional cooling to the area – this was in order combat the increased heat load in the general lab space. While the Isopod was designed to operate on a total loss approach, a plenum was included to effectively seal in the cleanroom to the lab walls and ceiling, leaving a 200mm gap to walls and 500mm gap above the room which will be used for a degree of recirculation to aid the efficacy of the cooling solution.



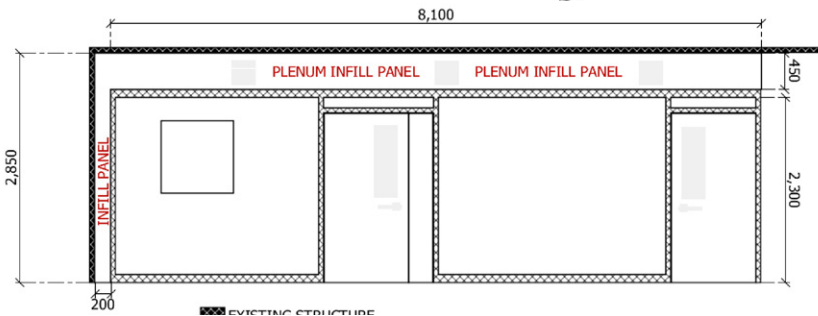
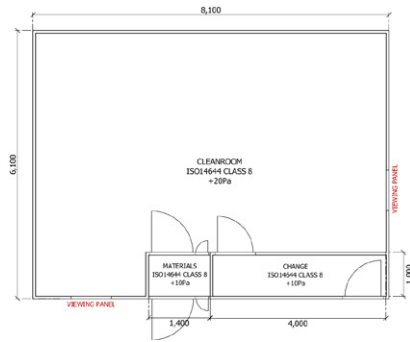
**“Finished to the utmost quality...”**

Isopod Rapid Cleanrooms Manufacturing Manager Michael Burton said: “This stunning, bespoke Isopod allowed our Design and Installation Teams to demonstrate their experience, skill and knowledge in so many new ways. Isopods are usually free-standing pod modules, so this was the first time we’d integrated the solution into the existing fabric of the host building. Because of the critical work the client will be carrying out in the cleanroom pod we installed, our engineers had to ensure this module was finished to the utmost quality and we’re delighted to share that the client was satisfied with the result.”

**Michael Burton**  
Guardtech Group Associate  
Director Manufacturing



**Isopod**  
rapid cleanrooms



Guardian House  
Unit 1A Homefield Road,  
Haverhill, CB9 8QP

0330 113 0303

sales@guardtech.com

www.guardtechgroup.com



## THE TECH SPECS

A controlled environment designed, installed, cleaned and commissioned by Guardtech built to the following specification:

◆ **Structural:** 60mm grade 304 stainless steel box section frame, GT Shell Plus 50mm Quadcore insulated Cleansafe 120 powder coat wall panels, GT Lid Plus 50mm Quadcore insulated Cleansafe 120 powder coat ceiling panels, GT Deck Plus homogeneous vinyl flooring system – covered up the walls by 100mm, GT Access Plus single doors with vision panels, GT Access Plus Leaf-and-a-half Doors with vision panels.

◆ **Mechanical:** GT Flow Lite Fan Filter Units (FFUs) with H14 HEPA terminal media achieving up to 20 air changes per hour (ACPH), compressed air outlets from GT-provided ring main with central connection to site system, GT Air Lite fan coil unit mounted above ceiling in plenum.

◆ **Electrical:** GT Lux Pro dimmable LED Lights achieving 500 to 1000

lux – flush-mounted in Ceiling Panel, 13A Double Sockets and RJ45 Ethernet in 3-Compartment curved PVC profile trunking around room perimeter, smoke detectors, Doors on Electro-Magnetic Interlock System with access control.

◆ **Equipment:** ISOcount Max on-line particle counter.

## THE CHALLENGES

◆ **Seamless integration:** Whilst on the surface this may have appeared to be a relatively straightforward Isopod installation for our experienced rapid-assembly cleanroom specialists, it was actually a bespoke innovation that boasted a number of ‘firsts’ for the solution. As a result, it must be noted what an excellent job the team did in producing such an unusual yet high-quality Isopod, integrated into the fabric of the host building in a way the Guardtech Group had never done before.

Typically, with Isopods, the modules are free-standing pod structures situated within host rooms with space around the sides and the ceiling. But in this instance the client required an Isopod to be constructed as an extension of the

existing building – a seamless, integrated, aesthetically stunning unit that complemented the surroundings. The overall finish for the room was excellent – and the client was extremely pleased with the result. An expertly designed, bespoke modular system that looked great and performed well.

◆ **Floor-some work:** One particular standout aspect of this Isopod was another element that isn’t typical for standard systems. Most Isopods don’t include flooring as standard, whilst those that do include it, tend to utilise Guardtech’s GT Deck Lite vinyl jigsaw tile system. This Isopod featured a flooring integration more akin to a traditional modular cleanroom – including Guardtech’s GT Deck Plus homogenous vinyl flooring system, covered up the walls by 100mm against the higher box section used on floor level. This was the first time this solution had been utilised in an Isopod and it not only looked fantastic but functioned supremely well. Ideal for rigorous cleaning and elite contamination control practices.

◆ **Well qualified:** In another first for an Isopod, this was the first-ever rapid-assembly pod system from the Guardtech Group to go through our rigorous DQ, IQ and OQ qualifications usually associated with GMP projects.

**Continued on next page**

# BIOTECH HARDWALL ISOPOD



Guardian House  
Unit 1A Homefield Road,  
Haverhill, CB9 8QP

0330 113 0303

sales@guardtech.com

www.guardtechgroup.com



This is because of the nature of the work the client intends to conduct in the cleanroom. As a result, this particular Isopod had to be designed and installed to achieve a level of control and performance befitting of a first-rate GMP cleanroom – and so is one of the most finely tuned Isopods we’ve installed to date.

**Total control:** Again, unlike traditional Isopods, this unit had to include a temperature control solution to combat the increased heat load in the lab as a whole. Our design team incorporated a plenum to seal in the cleanroom

to the lab walls and ceiling, allowing for recirculation to support the cooling solution. Another example of the Isopod Design and Install Team’s creativity, flexibility and determination to devise a bespoke innovation to deliver exactly what the client needed.

## THE RESULT

**Isopod Rapid Cleanrooms  
Manufacturing Manager Michael  
Burton said: “This stunning,  
bespoke Isopod allowed our  
Design and Installation Teams**

**to demonstrate their experience, skill and knowledge in so many new ways – and we’re all delighted with the result.**

**“Isopods are usually free-standing pod modules, so this was the first time we’d integrated the solution into the existing fabric of the host building.**

**“Because of the critical work the client will be carrying out in the cleanroom pod we installed, our engineers had to ensure this module was finished to the utmost quality – and we’re delighted to share that the client was highly satisfied with the end result.”**

