

# CLEANCUBE GMP CLIENT CASE STUDY



## THE CLIENT

An English teaching hospital and part of the Shelford Group, a collaboration of ten of the largest teaching and research NHS hospital trusts in England. The client is one of the UK's largest teaching hospitals and one of the largest hospitals in Europe. The trust is made up of four hospitals. Delivering compassionate excellence, the client is one of the largest acute teaching Foundation Trusts in the UK, with a national and international reputation for the excellence of its services and its role in teaching and research.



Cell & Gene Therapy



20+/-2C - 50+/-10% RH



30m<sup>2</sup>



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## THE BRIEF

The client's Pharmacy Department required a temporary cleanroom facility to facilitate the aseptic production of medicinal products – including Advanced Therapy Medicinal Products (ATMPs) for clinical trials – whilst they construct a new fully scoped-out manufacturing facility in the main building of their existing premises.

**“An interesting CleanCube with challenging modifications...”**

Guardtech Group Commercial Director Mark Wheeler said: “It was great to produce such an interesting CleanCube GMP with some really challenging modifications.

“The lessons we learnt in designing and building this model will serve us well in the future as we continue to provide more and more exciting, bespoke units for clients doing revolutionary work in the fields of Science, Engineering and beyond.”

**Mark Wheeler**  
Guardtech Group  
Commercial Director



**cleancube**  
mobile cleanrooms

# CLEANCUBE GMP



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## THE TECH SPECS

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

- ◆ **Structural:** GT Shell Pro wall panels, GT Lid Pro panelled ceiling, GT Access Plus semi flush single doors, GT Deck Plus flooring capped & covered, emergency break out perspex panel in stainless frame with rubber gasket seal.
- ◆ **Electrical:** GT Lux Lite lighting providing 750 lux at bench level, 13-amp sockets flush mounted in classified areas, double CAT6a data sockets, uninterrupted power supply (UPS) with touchscreen interface, electromagnetic door interlocks.
- ◆ **Mechanical:** GT Air Slim H14 HEPA slimline Fan Filter Units with G4 Pre-Filters, 3.6kW and 7.1kW air condition fan coil units suspended within the ceiling void above the panelled ceiling, providing temperature control within three separated plenums matched to three external condensers.

◆ **Monitoring:** GT Scan Pro environmental monitoring system (EMS) featuring in-room stainless steel LCD transmitters displaying temperature, humidity & pressure, with information fed back to desktop PC control system.

◆ **Furniture & Equipment:** Trespa TopLab workbenches with stainless steel frames, Trespa stepover bench with compartments, stainless steel mobile sink, Trespa under bench cabinets, stainless steel transfer hatches with mechanical interlocks and thermoplastic door vision panels, stainless steel wire racking, stainless steel 3-compartment dispenser, stainless steel coat hooks, full-length stainless steel mirror.

## THE CHALLENGES

**Individualised temperature zones:** This was essentially a CleanCube GMP at heart, but there were still a number of major modifications to challenge both Guardtech's Design and Installation teams. The design had to accommodate a significant amount of utilities in a minimised footprint – with an individualised temperature zone for each room in the container. Guardtech needed to

accommodate three separate fan coil units across the entire unit within a very restricted 500mm ceiling void/plenum.

**Battery back-up:** It was essential that this unit had a critical emergency power supply support solution in place, and so the CleanCube team created a dedicated plant cupboard to house an Uninterrupted Power Supply (UPS) to give complete battery back-up for the CleanCube.

**Isolating the issue:** The client needed the 40ft unit to not only include both primary and secondary change areas, but also space to house a very large isolator. This was not something we'd tackled before in a CleanCube, but it was a challenge we were more than ready for – and duly surmounted.



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Contact Us



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## THE RESULT

Guardtech Group Commercial Director Mark Wheeler said: "It was great to produce such an interesting CleanCube GMP with some really challenging modifications. "The lessons we learnt in designing and building this model will serve us well in the future as we continue to provide more and more exciting, bespoke units for clients doing revolutionary work in the fields of Science, Engineering and beyond."

