

Biocomposites®

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THE CLIENT

Biocomposites – manufacturers and engineers of world-leading products for use in infection management in bone and soft tissue, pioneering calcium compound devices to regenerate bone and carry antibiotics.

With more than 30 years' experience in manipulating the surface chemistry and crystalline properties of calcium compounds, Biocomposites engineer and manufacture products at the forefront of calcium technology.

THE BRIEF

The client required a new cleanroom suite featuring four process rooms, a clean corridor and both Personal and Materials Airlocks to be built in an existing storage area to strengthen the capacity for their innovative Medical Device manufacturing.



Medical Device



17+/-2C – 50% +/-10% RH



300m²



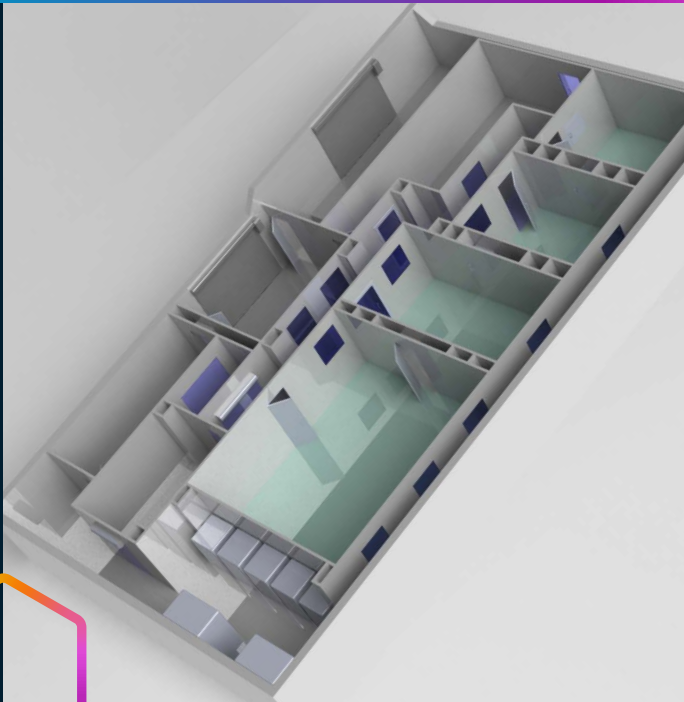
“Committed to delivering the best customer experience possible...”

Conor Barwise, Operations Director at Guardtech, said: “The Guardtech Group is committed to delivering the best customer experience possible and, given the nature of this project and the stakeholders involved, it was vital that a consistent, open dialogue was in place from day one. “I’m confident that we delivered everything that we set out to do with this stunning Medical Device cleanroom construction project and wish the client well with the pioneering work they will no doubt be undertaking in this Guardtech Cleanrooms controlled environment.”

Conor Barwise
Guardtech Group
Operations Director

Biocomposites®

MEDICAL DEVICE



THE TECH SPECS

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

◆ **Structural:** GT Shell Pro de-ended wall panel system, GT Shell Lite cladding, GT Lid Pro de-ended ceiling panel system, GT Access Max rapid rise doors, GT Access Plus semi flush single doors with vision panels and door interlocks, status indicators and break glass.

◆ **Electrical:** 13amp double sockets, PVC conduit in void behind panels, electromagnetic door interlocks on all cleanroom doors, CAT6 data sockets, 12-port network switch, GT Lux Plus LED lighting achieving 500 lux on average at 7,800 lumens per LED.

◆ **Mechanical:** GT Flow Plus H14 HEPA Fan Filter Units with G4 Pre-Filters achieving 50 air changes per hour, GT Flow Pro Upflow CRAC Units ducted to a clean plenum.

◆ **Monitoring:** GT Scan Plus environmental mon-

itoring system (EMS) with in-room stainless steel LCD panels measuring temperature, humidity and pressure connected back to client PC, with audio alarms at panel.

THE CHALLENGES

Tetris tussle: This project was something of a 'game of Tetris' for the Design team, as there were a defined number of process rooms (four) and airlocks (PAL and MAL), as well as corresponding and supporting CNC areas that had to be factored into an intelligently plotted layout.

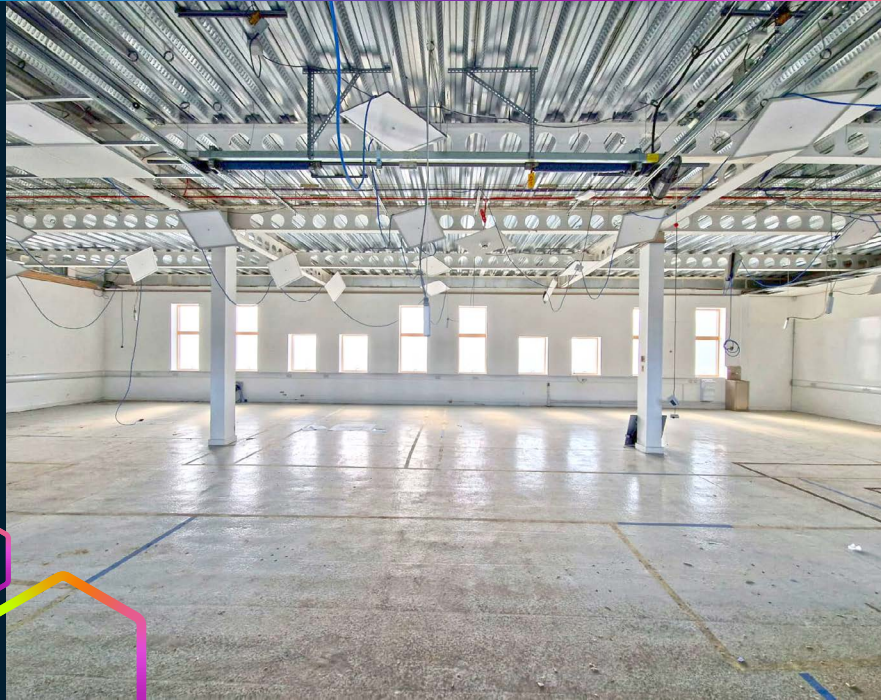
Careful consideration had to be given when accounting for personnel flow and material flow through both classified and unclassified zones in the facility design. A constant dialogue had to be maintained between the Guardtech Cleanrooms Design and Install teams and the client.

Available plant space: There were severe space restrictions when it came to installing the GT Air Pro CRAC Upflow Air Handling Units (AHUs) and so extra care was taken to achieve close control – with carefully designed ductwork runs to minimising the footprint.

Happy campus: This build was conducted on a university campus, so representatives of the institution needed to be heavily involved through the design stages, while regulatory approvals and health & safety considerations were critical. Guardtech worked diligently to maintain a strong working relationship with all stakeholders involved to ensure the project finished on time and on budget to the client's satisfaction.



MEDICAL DEVICE



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THE RESULT

Conor Barwise, Operations Director at Guardtech, said: "I'd like to congratulate everyone from the Guardtech Cleanrooms team for a job well done on this project.

"From Design to Installation, as well as the wider team behind the scenes, all the hard work, professionalism and dedication to get this build finished on time and on budget was inspiring.

"A job well done..."

"The Guardtech Group is committed to delivering the best possible customer experience possible and, given the nature of this project and the stakeholders involved, it was vital that a consistent, open dialogue was in place from day one.

"I'm confident that we delivered everything that we set out to do with this stunning Medical Device cleanroom construction project and wish the client well with the pioneering work they will no doubt be undertaking in this Guardtech controlled environment."

