

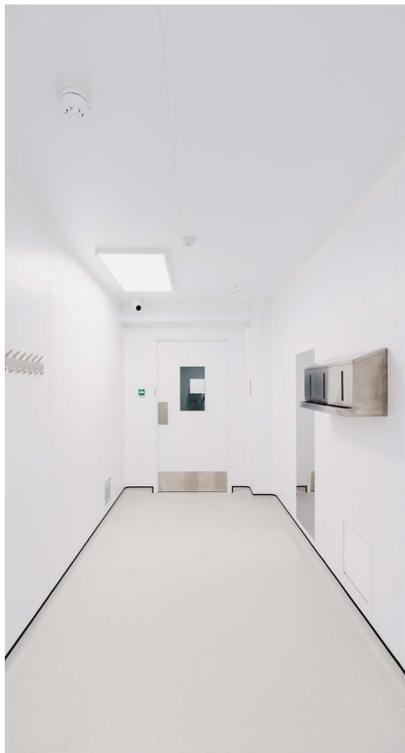


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THE CLIENT

Sense – developers of unconstrained, instrument-free molecular diagnostic technologies that allow caregivers to open the care pathway to everyone. Delivering incredibly fast and accurate results, Sense’s diagnostic medical devices are easy for clinicians to master so testing can be performed almost anywhere by anyone, reducing overall costs while driving more efficient care.

		
Medical Device	22+/-2 C 40% +/-5 to 10% RH	550m ²



THE BRIEF

Guardtech Cleanrooms were engaged by Principle Contractors COEL, the office interior design & fit-out specialists, to deliver the controlled environment elements of a major build which would give Sense more capacity to manufacture their industry-leading biodetection products – which help to detect potential illnesses such as COVID-19.

“I was impressed with Guardtech’s delivery of the cleanrooms...”

“From the outset Guardtech proved to be invaluable, offering both their experience, technical knowledge and showed a real willingness to engage with the project design team.

“I was impressed with Guardtech’s delivery of the cleanrooms – the programme was tight and despite changes in the client’s requirements, they managed to incorporate these changes and still deliver the project on time and to an exceptional standard. I look forward to working with Guardtech on future projects.”

Dean Powell
Group MEP Director at COEL

coel



Guardtech
cleanrooms

MEDICAL DEVICE



THE TECH SPECS

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

◆ **Structural:** GT Shell Pro wall panelling system, GT Lid Pro panelled ceiling system, 12 x GT Access Plus powder-coated steel single doors, 11 x GT Access Plus powder-coated steel double doors, 11 x GT Vision Plus panels with 4 x additional fish tank glazing units, 2 x GT Rise Max rapid roll doors, GT Deck Plus vinyl flooring capped & covered in Sapphire Blue, Edge Protection for boundary of panelled ceiling, steel framework.

◆ **Electrical:** GT Lux Extra LED lighting units providing 500 lux at bench level and motion sensor activation, electromagnetic door interlocks with status indicators, 92 x 13amp sockets and 32 x CAT6a in three-compartment PVC trunking.

◆ **Mechanical:** GT Flow Plus H14 HEPA Fan Filter Units with G4 filters providing

20 air changes per hour, 2 x GT Air Pro Upflow CRAC Air Handling Units (AHUs), Desiccant Dryer, Post Dryer, DX Cooling Fan Coil Unit, extraction provided by LEV arms.

◆ **Monitoring:** GT Scan Pro Environmental Monitoring System (EMS) operated by Oncall Finestra software – measuring temperature, humidity & pressure via in-room LED displays, in-room alarm beacons.

◆ **Furniture:** 26 x Trespa TopLab workbenches, 2 x stainless steel stepover benches with compartments, stainless steel transfer hatch with mechanical interlock, 5 x stainless steel single operator sinks with seamless basin, splash back and shroud and motion-sensor operated tap, 2 x stainless steel three-compartment wall dispensers, 2 x stainless steel coat hooks, 8 x 4 nest laminate lockers, 2 x full-length stainless steel mirrors.

THE CHALLENGES

Engaging with multiple contractors: This was a major project involving several significant stakeholders, which meant our Project Manager Craig Druce and his team had to

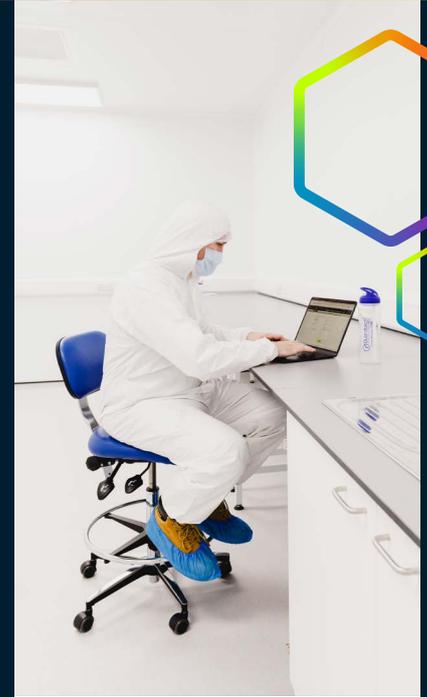
communicate effectively, schedule regular meetings and maintain a consistent dialogue with multiple contractors, both internally and with external parties. As Guardtech were not the Principal Contractor for this build, we were one of a number of contractors on site, all vying for their own space.

Things had to be done in a certain order to ensure CDM regulations were adhered to and the Guardtech Installation team had to work effectively with other parties to make the build as hassle free as possible. The end result was a stunning cleanroom build – which is testament to the hard work of PM Craig, Service Manager Chris McGinn and all the Guardtech crew involved.

Wealth of services: This project included the installation of a number of different provisions, such as compressed air and argon gasses, deionised water, comprehensive electrics and a CCTV system, which all had to be integrated smoothly with our set-up for cleanroom construction.

This often meant sharing our space with third parties and having to be flexible and malleable when being challenged by their own practices and expectations. But Craig and the

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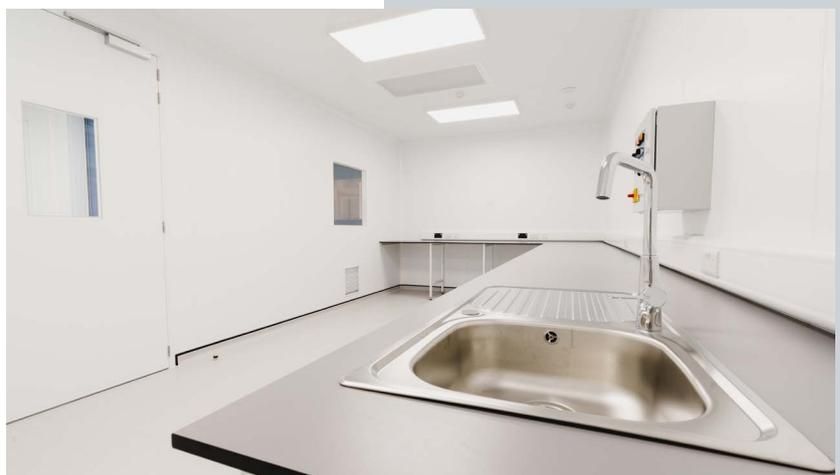


team worked hard to maintain a high level of discipline across the board – being respectful towards others and working together effectively in the shared space.

Qualification of room: The nature of this project meant that there was a rigorous level of testing required – alongside the standard Design Qualification, Installation Qualification and Operational Qualification there was also DOP and recovery testing. With this higher level of standard commissioning, Guardtech staff needed to be more diligent to ensure the rooms achieved the standards required.

Anti-slip floor amendment: There was a change of plan midway through construction which meant the flooring had to be altered in the deionised water room – helping to ensure compliance with health & safety regulations. The original flooring had to be removed and drainage and sump-pumps were then installed before a new anti-slip floor was finally laid.

This had a knock-on effect in terms of the overall schedule, but the Guardtech team worked tirelessly to ensure the quality of the overall project was in no way compromised and no deadlines were missed.



MEDICAL DEVICE

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THE RESULT

Guardtech Group Operations Director Conor Barwise added: "Myself and the other Guardtech Group Directors are delighted with the outcome of this stunning project. "We've all really enjoyed working with COEL to deliver this aesthetically pleasing high-performance controlled environment for such an interesting and important application.

"Congratulations to all involved and thanks to the Guardtech Cleanrooms team for producing such a brilliant build on time and on budget."

Dean Powell, Group MEP Director at COEL, said: "COEL were employed by Sense Biodetection to deliver their new Cambridge facility which would enable their requirement for enhanced capabilities. Having worked with Guardtech previously we felt they were the obvious choice to deliver the specialist

cleanrooms. From the outset Guardtech proved to be invaluable, offering both their experience, technical knowledge and showed a real willingness to engage with the project design team.

"Throughout the design phase the team worked with the client to design a facility that not only met their design brief but also functioned efficiently and took

into consideration flexibility for future expansion.

"I was impressed with Guardtech's delivery of the cleanrooms – the programme was tight and despite changes in the client's requirements, they managed to incorporate these changes and still deliver the project on time and to an exceptional standard. I look forward to working with Guardtech on future projects."

