



JEB



Press play for video content

THE CLIENT

JEB Technologies Ltd – experts in the design, development, assembly and manufacturing of a diverse range of medical and industrial products. JEB provide an end-to-end product development service. With extensive medical and industrial experience of manufacturing, JEB offer the best solution from early design and concept development through to commercialisation.

THE BRIEF

The client wanted to introduce new manufacturing and packaging cleanrooms in a warehouse space on their existing site in Suffolk. Guardtech were commissioned to design and construct a suite of modular cleanrooms which included a medical cleandown area.



Medical Device



21+/-2 C
40-60% RH



300m²



“Exceeded our expectations for quality and delivery...”

Sean Licence, Head of Medical at JEB Technologies Ltd, said: “The cleanroom that Guardtech have built for us has exceeded our expectations for quality and time to delivery. From the first engagement with the sales team, right through to the team building and installing the cleanroom, Guardtech as a company have been thoroughly professional and really easy to work with. We will definitely be using them again in the future, and I would highly recommend Guardtech to others looking to have cleanrooms installed.”

Sean Licence
Head of Medical at
JEB Technologies

JEB



Guardtech
cleanrooms

MEDICAL DEVICE



ALL SMILES: Guardtech Director Ray Wheeler hands over the keys to JEB Head of Medical, Sean Licence.



THE TECH SPECS

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

◆ **Structural:** GT Shell Plus PIR wall panels, GT Shell Lite PVC wall cladding, GT Lid Lite power-coated aluminium ceiling tiles, GT Access Plus semi flush powder-coated steel single and double doors, GT Deck Plus sapphire blue flooring capped & covered.

◆ **Electrical:** Electromagnetic door interlocks with status indicator and break light, 13-amp double sockets and CAT6A data sockets in 3-compartment PVC trunking, GT Lux Lite LED lighting panels providing 800 lux on average and 5,800 lumens per LED.

◆ **Mechanical:** GT Flow Plus H14 HEPA Fan Filter Units with G4 Pre-Filters providing air change rates of 35 per hour, GT Air Pro Upflow Unit ducted to plenum.

◆ **Monitoring:** GT Scan Pro Digital LED Environmental Monitoring panels display-

ing temperature, humidity and pressure reading from in-room installed probes. All fed back to a centralised 15.9" touchscreen controller located in Change Area.

◆ **Furniture & Equipment:** Grade 304 stainless steel transfer hatch with mechanical interlock and perspex vision panels, grade 304 stainless steel stepover benches with shoe compartments on levelling feet, two-bank three-tier lockers in grade 304 stainless steel on feet with sloping top.

THE CHALLENGES

Filtration puzzler: Because of the layout of the host building, we needed to be creative with our placement of the Fan Filter Units in certain places to run alongside ductwork in the cleanrooms. It was like an intricate puzzle – where every millimetre had to be accounted for and treated with the greatest care.

The FFU-to-ceiling clearance was as limited as 10mm in some spots and so the Guardtech Cleanrooms Installation team were required to put the pieces together in the GT Lite ceiling tile arrangement in such a manner that one tiny error would've

caused major issues. Fortunately, this kind of challenge is our bread and butter, and Project Manager Michael Burton oversaw a flawless ceiling/FFU arrangement.

Large scale issues: This three-room layout featured one of the biggest PALs (Personnel Airlocks) that Guardtech Cleanrooms' ModSquad had ever done, with some huge, heavy glass transfer hatches proving particularly challenging to move around and install safely.

Everything in this build was on a grander scale than the ModSquad are usually accustomed to – with the biggest processing room measuring up at 26.5m x 8m, alongside a smaller room for packaging and then the aforementioned L-shape PAL for change and storage.

Dastardly ductwork: Despite having a lot of space to work with in many ways, there were limitations – the ceiling grid had to be carefully cut around the significant amount of ductwork serving the cleanroom, while the client also wanted us to deliver a 3.5m high ceiling. Because of these two factors, the internal height space above the ceiling was extremely tight in places.

Continued on next page

MEDICAL DEVICE

Contact Us



🏠 Unit C The Brocks,
Homefield Rd,
Haverhill, CB9 8QP

☎ 0330 113 0303

✉ sales@guardtech.com

🖱 www.guardtechgroup.com



The team installed 36 Fan Filter Units, 54 LED lights and 16 return air columns in total – a pretty large-scale installation for a Guardtech Cleanrooms project. The ceiling grid was particularly challenging in the large (and long) processing room – where any small errors in calculations would've completely disrupted the aesthetic symmetry.

PM Michael Burton revealed that his "OCD kicked in on this build", adding: "If you put a mirror down the middle of the cleanroom, it is symmetrically perfect on either side, including the dado trunking." Just the kind of extra attention to detail you're guaranteed to get with a Guardtech installation.



THE RESULT

Sean Licence, Head of Medical at JEB Technologies Ltd, said: "The cleanroom that Guardtech have built for us has exceeded our expectations for quality and time to delivery. From the first engagement with the sales team, right through to the team building and installing the cleanroom, Guardtech as a company have been thoroughly professional and really easy to work with. We will definitely be using them again in the future, and I would highly recommend Guardtech to others looking to have cleanrooms installed."

