



HATTELAND TECHNOLOGY
an EMBRON Company



THE CLIENT

Hatteland Technology – a global technology partner for system integrators in the maritime industry. They provide tailored solutions comprising monitors, CCTV, panel computers, industrial automation, network hardware and software.

THE BRIEF

Hatteland approached Guardtech for a cleanroom to house Thin Film Transistor (TFT) LCD panel assembly. Following consultation with our team, we identified that an Isopod Hybrid rapid assembly unit would be an ideal solution, with PVC strip curtain entrance and exit doors. In the interest of best practise, the Guardtech team recommended the client add an external Personnel Air Lock (PAL) and Materials Air Lock (MAL) to the entrance and exits to provide a 'buffer' between the host environment and their main process area so as not to compromise the workspace's 18m2 footprint.



Electronics



Temperature & Humidity: CNC



18m²



Aksdal, Norway



If you're based in the Nordics or Baltics and would like to discuss your Isopod enquiry, email sales@guardtech.com

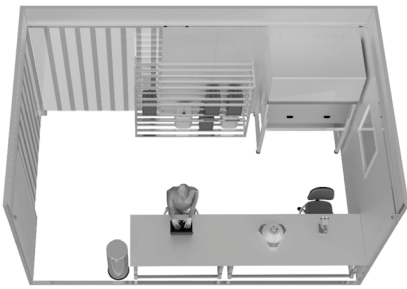
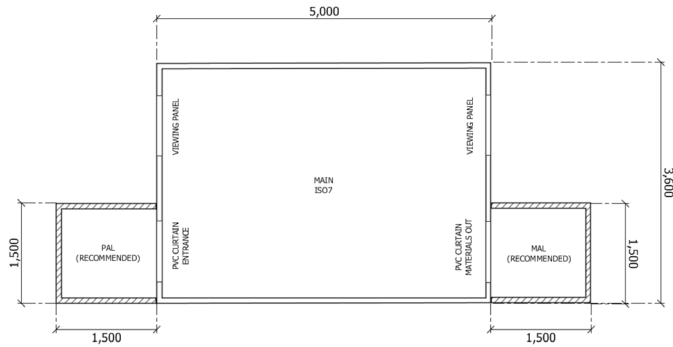
“Our first-ever project over in Norway...”

Guardtech Nordic AB said: “It was a real pleasure for us to deliver our first major project in Norway for such a distinguished and excellent client.

“Isopod offers clients the most robust, high-performance rapid cleanroom pod on the market and it is wonderful that we are now beginning to serve the Nordics & Baltics regions with this first-class solution. “I would urge any Life Sciences and High-Tech Engineering applications in our territories that require a rapid cleanroom solution or smaller-scale controlled environment to get in touch with our team to discover what options they have.”

Guardtech Nordic





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:** Grade 304 stainless steel 60 x 60mm Box Section frame, GT Shell Lite 50mm PIR insulated powder-coated modular composite wall panels, GT Lid Plus 50mm insulated tongue-and-groove ceiling panel system, Grade 304 stainless steel connectors, GT Strip Max PVC curtain system, 2 x GT Shell Plus semi-flush 900 x 900mm windows.
- ◆ **Electrical:** GT Lux Lite LED lighting panels flush-mounted in ceiling panel achieving 500 lux.
- ◆ **Mechanical:** 2 x GT Flow Plus Fan Filter Units (FFUs) with EX motors & H14 HEPA filters achieving 50 air changes per hour.

THE CHALLENGES

C for creativity: The Isopod team are always looking to improve their process – from

each job to the next. This installation was no different – with Installation Manager Steve Burton and the team opting to utilise a C-track for the cleanroom wall panels rather than usual L-track. As a result, the end panels were reduced in size, making the installation much easier and more efficient. Burton says: "We lifted

each panel into each end and then pushed them tight against the wall, cut the centre panel so it fitted perfectly, and then slid the other panels back the other way. The panels were then secured on all four sides to give a much sturdier finish than ever before."

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HYBRID ELECTRONICS ISOPOD

Contact Us



Isopod
rapid cleanrooms

 Guardian House
 Unit 1A Homefield Road,
 Haverhill, CB9 8QP
 0330 113 0303
 sales@guardtech.com
 www.guardtechgroup.com



This Isopod was another next-gen model that didn't feature the previously used corner connectors. Instead, a block was utilised on the end of each centre panel, ensuring that the panel couldn't slide off. Burton adds: "This method essentially locks in that first panel – the central panel – as opposed to working from one side to the next and then working outwards. We then screwed each panel together so they were locked in and couldn't move. It just made for an even more robust, high-quality installation."

Perfectly dispatched: The team also implemented a new packaging methodology for the transit of the Isopod components to Norway. The panels were numbered and securely and safely packaged in the order they would be installed on site. "We knew that we could take each panel out and assemble it straight into the frame," Burton continues. "This was a great time saver and a really efficient way of working. So, as you pass through the first set of PVC strip curtains, you're able to run from there all the way around to complete the wall panel system. A lot of cuts can be very similar with Isopod panels, but they're prepared so precisely – in terms of where each panel has to go. So,

by numbering them and packaging them accordingly, we could then take them straight off the pallet once we arrived on site and start putting them straight in, knowing exactly where they fit. It's a great example of that 'flat-pack, Ikea-style cleanroom' that Isopod should be – especially for clients who want to install the modules themselves."

No Scandi dramas: Because the team have now delivered several projects for Guardtech Nordic AB in Scandinavia and beyond, the process for shipping materials and then installing the systems is more efficient than ever before.

"The trip, the whole process, it was absolutely superb," Burton concludes. "The client was brilliant – they just left us to it. And as a result, we worked really hard to get it completed as quickly as possible. They seemed over the moon with the result. So that's obviously a huge bonus. We'd already pre-arranged for the materials to be delivered to site around a week before installation."

"All we had to do was pump-truck the pallets through into the host room where we were assembling the Isopod. We had a well-oiled plan of how we were building it and

away we went. It couldn't have gone any better than the way it did. It required five days all in all, and that was the perfect amount of time – on the final day, we had a little bit of silicone work to finish up with, as well as cleaning everything down, including the strip curtains, before completing our standard testing to ensure the pod was operating as it should be."

THE RESULT

Guardtech Nordic AB said: "It was a real pleasure for us to deliver our first major project in Norway for such a distinguished and excellent client. "Isopod offers clients the most robust, high-performance rapid cleanroom pod on the market and it is wonderful that we are now beginning to serve the Nordics & Baltics regions with this first-class solution. "I would urge any Life Sciences and High-Tech Engineering applications in our territories that require a rapid cleanroom solution or smaller-scale controlled environment to get in touch with our team to discover what options they have."