



## THE CLIENT

Importers and distributors of chemicals, biochemicals and solvents globally. The client conducts oil testing as part of the group's wider offering.



Pharmaceuticals



Temperature &  
Humidity: CNC



12m<sup>2</sup>  
& 8m<sup>3</sup>

## THE BRIEF

The client required two smaller-scale cleanrooms to be installed at their new facility in Stockholm, Sweden. The downstairs cleanroom required a laminar flow bench to handle incoming and outgoing goods, but had no other significant requirements – therefore, the Nordic AB team advised on installing an 8sqm negative pressure Isopod. Upstairs, the client required a slightly larger cleanroom that would be suitable for easy expansion. A 12sqm modular cleanroom was proposed, with both units not requiring temperature or humidity control – instead, conditioned air would be drawn from the existing host building.



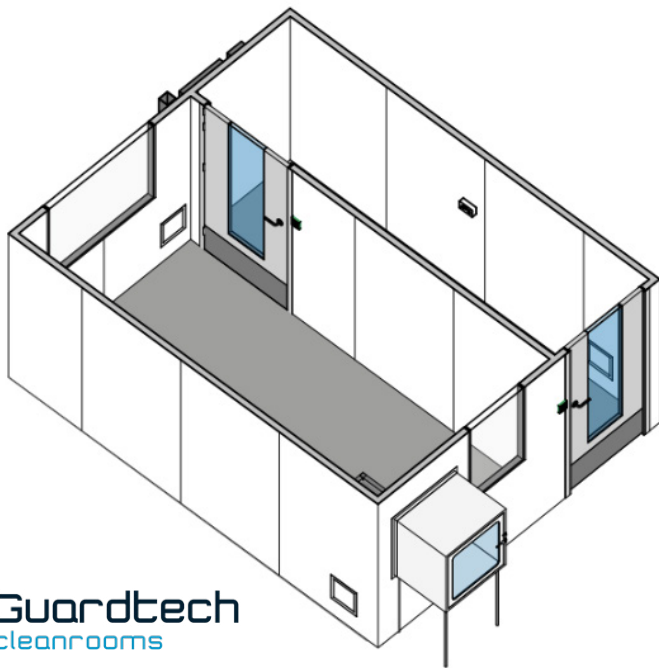
## “We found an efficient way of working...”

Guardtech Nordic AB Director Lars Strandljung said: “This was the first time we have delivered an Isopod alongside a modular cleanroom for a client in the Nordics and we are delighted with the outcome. There were of course a few teething problems, as one would expect with such a new venture, but the experience of the Guardtech Group engineers coupled with the flexibility of our Nordic AB team meant that we quickly found an efficient, collaborative method of working that ensured we delivered cleanrooms to the usual high standard that Guardtech have become accustomed to producing for 25 years.”

**Lars Strandljung**  
Guardtech Nordic  
AB Director



# HARDWALL ISOPOD & MODULAR

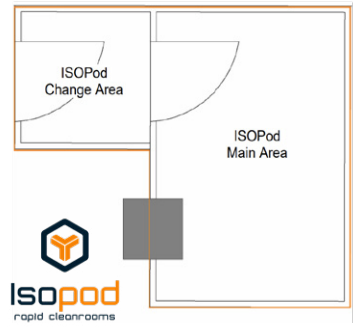


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## THE TECH SPECS

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

### MODULAR CLEANROOM:

◆ **Structural:** GT Shell Plus 60mm Quadcore insulated wall panels, GT Lid Plus 60mm Quadcore insulated ceiling panels, GT Deck Plus vinyl flooring, covered and capped, GT Access Plus single doors, doubled glazed window units.

◆ **Electrical:** GT Lux Pro LED Lights flush mounted in Ceiling Panel, 10amp Double Schuko Sockets wired back to distribution boards, 3 Compartment curved profile trunking around room perimeter and columns, RJ45 Ethernet Sockets fed back to network switch, Electromagnetic Interlock door system, Smoke Heads in each room feeding back to Fire Alarm Panel.

◆ **Mechanical:** GT Flow Pro H14 HEPA FFUs

with Roomside Change achieving up to 20 air changes per hour (ACPH).

◆ **Monitoring:** GT Scan Helic analogue environmental monitoring magnehelic gauge system reading differential pressure.

◆ **Furniture & Equipment:** Grade 304 stainless steel transfer hatch with mechanical interlock.

### ISOPOD RAPID CLEANROOM:

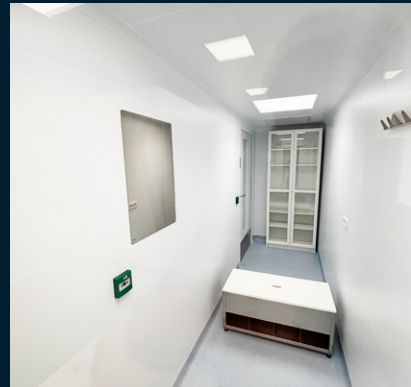
◆ **Structural:** Grade 316 stainless steel 60 x 60mm Box Section frame, GT Shell Lite wall panels, GT Lid Plus panelled ceiling, Grade 316 stainless steel connectors, GT Access Plus single doors, doubled glazed window units.

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- ◆ **Electrical:** GT Lux Lite LED lighting panels flush-mounted in ceiling panel achieving 500 lux, 10amp Double Schuko Sockets and CAT6A data sockets in three-compartment PVC dado surface-mount trunking Electro-magnetic Interlock door system.
- ◆ **Mechanical:** GT Flow Plus H14 HEPA Fan Filter Units.
- ◆ **Furniture & Equipment:** Grade 304 stainless steel transfer hatch with mechanical interlock, laminar flow unit.

## THE CHALLENGES

**Teething Problems:** As this was among the first major projects that the Nordic AB team had undertaken, there were initial teething problems with communication, Swedish process and the Guardtech Group's tried and trusted way of working. However, the Installation Teams quickly ironed out those issues and were soon all working to the usual high-quality Guardtech script, ensuring that our usual installation excellence was achieved across the two concurrent builds.

As Guardtech Group Installation Manager Miles Gardner put it: "Because

of the smaller nature of the two cleanrooms, and all the experience we had collectively, we overcame some of those communication and process issues really quickly – and it was great to be part of developing this new way of operating in a different territory. Even just something as simple as ordering basic replacement parts or tools, it can be tricky overseas. But as a result of how much we learn from every job, we put new measures in place, like ordering 20% extra of certain components to ensure we always have enough. Little things like that can a long way in making our service the best it can be."

**Door flaws:** The two modular cleanroom doors didn't fit the bespoke system required. Therefore, the Installation Team had to work their magic on site, removing some of the aluminium coving by machining and profiling it to ensure a smooth, flush finish. Installation Manager Miles was impressed by the modular set-up, which had been installed before his arrival by Michal Sikora and the European Installation Team. "For a Grade D room, it features lots of really nice bits and pieces," he said. "The transfer hatches are really quality bits of kit."

**Crossed wires:** The most compli-

cated aspect of the IsoPod installation proved to be wiring the electromagnetic interlock system. The module features a touch-free entry sensor – slightly different to the standard interlocking we tend to utilise. "It was a surprise to see this on an IsoPod, but as a touch-free system, it's ideal for all cleanrooms, so I was glad to see it and happy to learn the ropes in wiring it up," added Miles.

## THE RESULT

**Guardtech Nordic AB Director Lars Strandljung said: "This was the first time we have delivered an IsoPod alongside a modular cleanroom for a client in the Nordics and we are delighted with the outcome."**

**"There were of course a few teething problems, as one would expect with such a new venture, but the experience of the Guardtech Group engineers coupled with the flexibility of our Nordic AB team meant that we quickly found an efficient, collaborative method of working that ensured we delivered cleanrooms to the usual high standard that Guardtech have become accustomed to producing for 25 years."**