

Cignpost
diagnostics



THE CLIENT

Cignpost Diagnostics – providers of COVID-19 screening and other healthcare services. They combine operational agility with leading gold standard test technologies. Cignpost Diagnostics provide healthcare services to a range of industries including media and sport.

THE BRIEF

Develop rapid response units for the COVID-19 pandemic. CleanCube shipping containers and modular buildings created for oil and gas industries were developed quickly with Cignpost Diagnostics to find COVID-19 solutions. From conception to delivery, the first Luton Box Van mobile cleanroom was produced in three weeks. As of June 2021, we'd produced one tour bus conversion, seven vans, three modular buildings and 18 shipping containers, as well as two permanent laboratories.



Analysis/
Diagnostics



21°C +/-3



Numerous
units



“Guardtech made a complicated process very easy...”

“We started working with Guardtech soon after the pandemic hit in the UK. Cignpost Diagnostics was focused on providing screening services to allow people to get back to work safely and securely.

“To enable this, we needed mobile laboratories manufactured to BSL2 safety standards.

“We engaged with Guardtech and they made what could have been a complicated process very easy. We can recommend Guardtech unequivocally.”

Cignpost Diagnostics



MOBILE SOLUTIONS



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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 Lid Max](#), [PIR Ceiling Panels](#), [GT Shell Lite Wall Cladding](#), [GT Access Lite GRP Doors](#), [GT Deck Plus](#), [Vinyl Floor Capped & Covered](#).

◆ **Electrical:** 13amp double sockets contained in three-compartment PVC trunking ran around all perimeter walls. Safety isolation transformer provides earthing for all units. 32amp single phase hook-up.

◆ **Mechanical:** Filtration provided by H14 HEPA filters powered by fan filter units, recirculating wall-mounted air conditioning cassettes, mobile sinks with self-contained supply and effluent containers.

◆ **Monitoring:** Magnehelic pressure gauges.

◆ **Furniture:** Bespoke Trespa workbenches on grade 304 stainless steel frames, Trespa seating benches, stainless steel coat hooks.

THE CHALLENGES

◆ **Timeframe:** A rapid turnaround was required to protect both potential COVID-19 sufferers and staff working in the units. Guardtech managed to produce fully fitted-out Biosafety Level 2 labs in just two weeks per CleanCube. Sourcing vehicles, finding appropriate materials and factoring in installation time presented numerous challenges. The Guardtech team worked around the clock to fulfil orders for these vital CleanCubes.

◆ **Space optimisation:** The benefit of being able to have compact BSL2 labs in places where space was at a premium was crucial for firms tussling with the COVID-19 pandemic. But this also meant that the footprint in each unit was severely restricted. In fact, the biggest footprint in some labs was just 4.5m x 2.5m – but Guardtech engineers somehow managed to fit an entire lab in

that space, including external plant equipment such as air con condensers. The team were tasked with fitting the units with bespoke Trespa workbenches, which lined the perimeter, that couldn't be as deep as standard benches. Attention to detail was key – every millimetre needed to be diligently planned out.

◆ **Electrical connection:** Our skilled technicians installed safety isolation transformers to give the units independent earthing points – ensuring the supply was safe. The initial design featured the use of a standard 32amp single phase supply, but we have since developed an alternative domestic connections solution using two 13amp plug sockets.

◆ **Fitting in:** In one tricky case, the client wished to add a Bio Safety Cabinet to their unit after it had been sent into the field. The BSC might have been too tall to fit, but a restrictive ceiling is not the kind of thing that derails Guardtech – and so with some inspired tinkering from our Installation experts, the van's plenum was cut into and totally reworked so the tall standing unit could be included.