



ModuSec®

**Secure and efficient IT
room solutions**



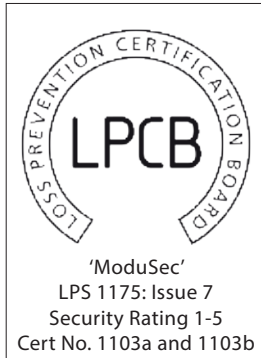
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High Security & Blast Protection Options

The foamed core panels are individually manufactured to the required size and allow the inclusion of a range of materials within the panels designed to defeat cutting and forced entry. These materials along with strengthened joints and doors enabled the ModuSec System to gain an unparalleled range of tested and certified protection levels to meet commercial and UK Government forced attack standards.

Security Options

- SR1
- SR2
- SR3
- SR4
- SR5



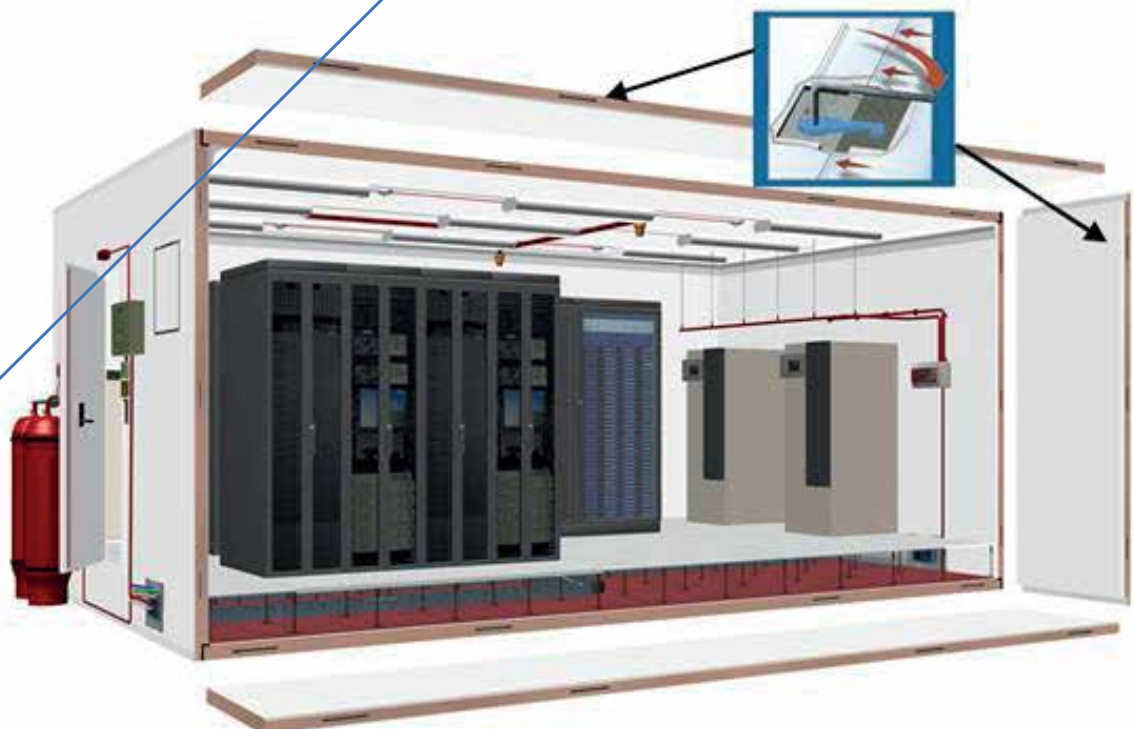
Approved by LPCB for the protection of commercial assets.

Modusec SR Options SRB & SRE



Approved for UK Government Use. For details contact CPNI.

- Steel faced pre-finished wall and ceiling panels with a high performance thermal barrier core (Pyrofoam) lock together from inside to form a protective enclosure that is quick and clean to build to any size.
- Walls support ceilings with no other structure and ceilings span up to 6m (4m for high security options) without intermediate support.



Why Use ModuSec?

Rapid Assembly

Pre finished steel faced panels fix together via a mechanical camlock system to quickly construct a room of any size. No 'wet trades' (plaster, painting, etc) required. Wall panels support ceiling panels with no additional structural steel. No intermediate structural support for spans up to 6m. For larger spans we install new steels – or fix to existing structure. Installs within 50mm of existing walls. Leave existing services above in place. Easily extend or relocate. Maintenance free.

Fire Protection

Independently tested at the UK Building Research Establishment to temperatures of over 950°C. Certified to F90 standard (BS476 Pt22) BUT also meets European standard for computer room construction EN1047-2 recommended limit temperatures for a minimum of 60 minutes. Note that a block, plasterboard or other panel construction may also meet an F90 or even F120 standard that requires 180°C limit temperature for escape routes – but critical temperatures for media/hardware storage (55/65°C) may be very quickly exceeded. ModuSec also meets IMO A60, smoke & toxicity standards for marine use.

Water Protection

Panels are steel skinned with 'tongue & groove' joints mechanically fixed and sealed with silicon mastic. The core material is almost 100% closed cell. Hence if any water penetrates a joint it will have no effect on the fire or structural integrity of the panel (unlike plasterboard or some other materials – IT WILL NOT SAG). Ceiling joints can be further protected and for external builds a roof over with gutters/downpipes is provided. Doors, vent and over pressure flaps are all double rebated with smoke/water seals. Service entry points are also sealed against water ingress.

Energy Efficiency

100mm ceiling and wall panels have a U value (rate of heat transfer) of just 0.18 – less than half an equivalent mineral wool panel or stud partition wall with mineral wool infill. This will effectively eliminate solar gain, save energy and provide a stable environment for cooling systems – significantly reducing PUE.

Strength

The standard panels weigh just 20Kg/m² but are incredibly strong and require no structural support for ceiling spans up to 6m – providing 'walk on' access to BS 6399. Ceiling panels are fitted with internal steel channels to provide protection from sagging. Light services can be fixed at any point. Special provision can be made for excessive loads. A large compressive strength allows the panels to also be used on the floor (optional) – to provide a completely sealed 6-sided box.

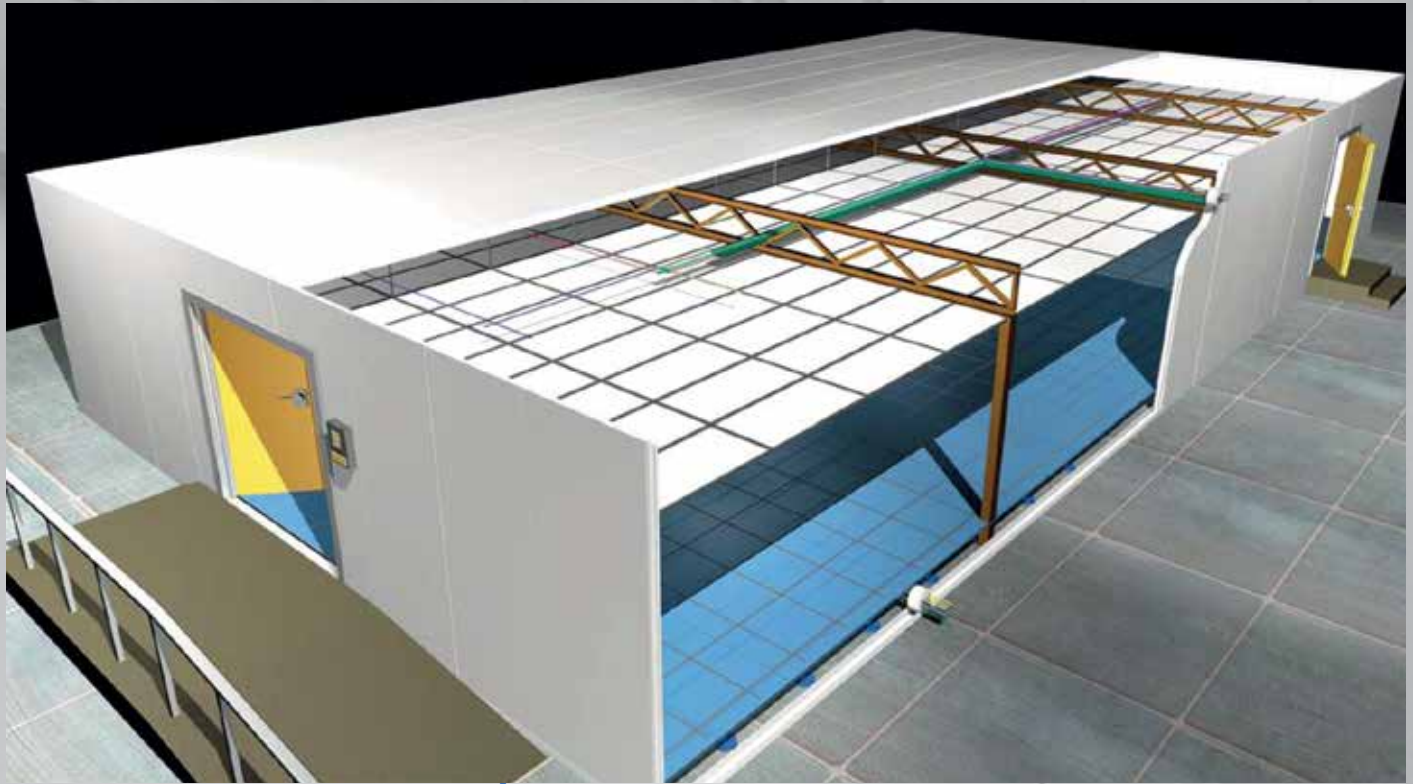
Security

The standard system provides a very high level of physical security with large steel faced panels mechanically jointed and steel doors with high security single point locks. Doors/panels resistant to thermic lance attack. For additional security we include layers of steel mesh and other elements inside the panels. ModuSec is tested and approved for protection to a number of commercial and UK Government forced attack and blast protection accreditations. No other company can offer our range of security levels, expertise and service in the provision of high security construction.

More details: www.clemar.com.br

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Large Data Centers

- Large Data Centers can be built to any size or shape
- Spans up to 6 m require no steel support

Turnkey Modular Construction

Fast clean build to any size or shape



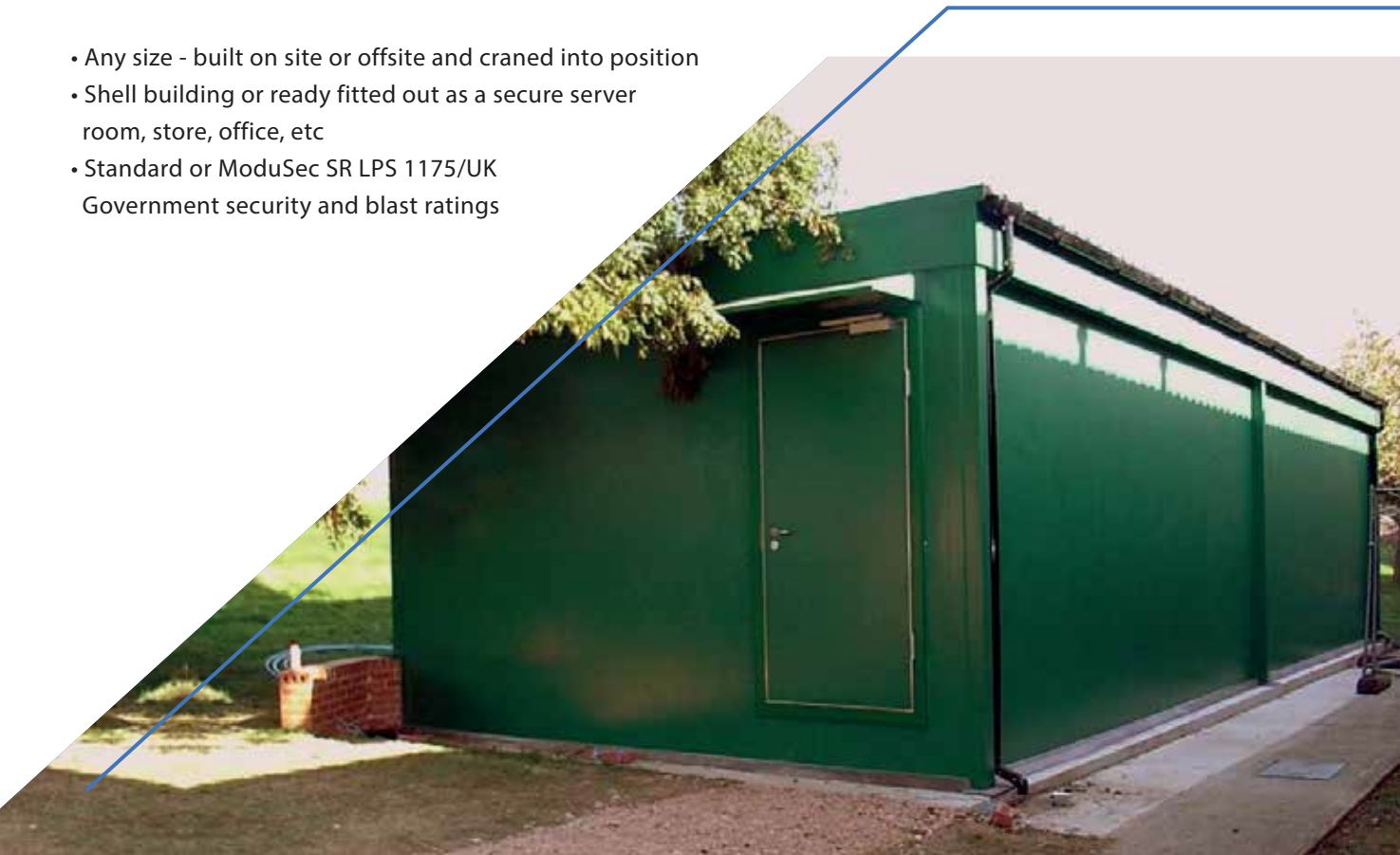
Versatility

- Single or double doors
- Double rebated with water/smoke seals all round
- Adjustable hinges with security hinge bolts
- Standard or higher security options with a range of locks and functionality
- Sliding or roller shutter doors also available

ModuPort

Secure Modular Portable Building

- Any size - built on site or offsite and craned into position
- Shell building or ready fitted out as a secure server room, store, office, etc
- Standard or ModuSec SR LPS 1175/UK Government security and blast ratings





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