





LEADING SECURITY AND AISLE CONTAINMENT SOLUTIONS FOR YOUR DATA CENTRE

COOLGENIC COLD AISLE CONTAINMENT



High-quality solutions built to last. Don't take our word for it...

Check out our client testimonials at cross-guard.com/testimonials

Save Money, Save Energy, Save IT

Optimise efficiency and enhance data centre cooling with a cold aisle system: restricts loss of cold air and prevents mixing of cold air with hot server exhaust air, keeping servers at ambient temperatures.

What is cold aisle containment?

Cold aisle containment is an enclosure built around your data centre cold aisle to seal in cold air. A cold aisle door is used in conjunction with cold aisle roof panels, and infill panels (if needed to ensure a complete seal), in order to contain cold air generated from your air-conditioning unit (ACU). Server cabinets are lined up with server exhausts facing outside the cold aisle, so hot exhaust air that's pushed out the back of the servers is unable to enter the aisle and mix with the cold air.

Why choose Coolgenic cold aisle containment?

Coolgenic cold aisle containment is developed bespoke to you. Coolgenic containment systems can be retrofitted to any type of cabinet, and easily modified or re-installed to suit your needs. Cross-Guard has over 20 years of experience supplying solutions that combine the conflicting requirements of energy saving, fire safety and security to create the optimum data centre.

Aisle containment systems consist of doors and a roof, and infill panels (if required). All cold aisle system components are powder-coated in the same colour to ensure a professional finish for your cold aisle enclosure. Turn to pages 3 and 4 to see the various door and roof options available with all our cold aisle containment solutions.

Coolgenic cold aisle containment is also available in aluminium. Enquire now about the additional benefits aluminium can bring.

THE BENEFITS

- Cost savings
- Fewer hot spots
- Excellent R.O.I.
- Improved power usage effectiveness
- Extended IT equipment life
- Reduced carbon emissions
- Confidence you'll receive high-quality products installed by our team of experts





SOLARGENIC HOT AISLE CONTAINMENT



PVC Curtains

These offer a flexible and inexpensive way to improve energy efficiency for your data centre,

and can be used in combination with other cold/hot aisle containment elements.



Save Money, Save Energy, Save IT

Optimise efficiency and enhance data centre cooling with a hot aisle system: segregate hot exhaust air and vent away from servers to keep IT equipment cool.

A hot aisle containment system contains hot server exhaust air, venting the air through a plenum back into an air-conditioning unit (ACU) intake. Server cabinets are lined up so server exhausts face into the hot aisle, which is sealed with a hot aisle door, roof panels, and infill panels (if needed), ensuring any hot air is unable to mix with the air cooling servers.

There are various door options available that can be used with hot aisle containment, as detailed on page 3, but the roof will be available only as up-panels to create a pathway for the warm air to your ACU intake.

You can choose from a variety of cabinet panels, including: framed polycarbonate, solid steel, and PVC curtains. Depending on the layout of your data centre, there is the potential to recycle hot server air within your heating system - saving you even more money on your energy bills.

Roof Chiller Containment

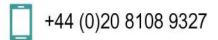
Achieve energy efficiency and security at the same time. This solution uses Connexions security cages adapted for exterior use in combination with cold aisle containment to segregate cold air from hot exhaust air. Connexions cages provide security to the roof-based air-conditioning system.



THE BENEFITS

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AISLE CONTAINMENT DOOR OPTIONS

Quality, Security & Flexibility Combined

BI-SLIDING & SINGLE SLIDING COLD AISLE LIGHT DOORS



Self-closing doors with a speed control and soft close, available in steel and aluminium. The two door leaves are linked to allow a co-ordinated closing. These doors give a lasting impression of quality and create a distinctive and professional look for your data centre. Single sliding cold aisle doors provide a single door alternative to bi-sliding. The door is self-closing with speed control and soft close, and can be combined with key operated or electronic locking options.



Premium look and feel



Suitable for installation on cabinets of any type/height





CONNEXIONS SECURE COLD AISLE DOORS



High-strength sliding or hinged self-closing doors compatible with a variety of hardware, including electromagnetic locks (can be integrated into existing access control system or stand-alone), key operated locks, or a combination of both. Polycarbonate vision panels allow optimal flow of light (but not air) into your aisle without compromising security.



Suitable for installation on cabinets of any type/height



High security

HINGED COLD AISLE DOORS



Hinged cold aisle doors are a good option for restricted spaces where there isn't room for sliding doors. Hinged cold aisle doors are available with key operated and electronic locking options.



Ideal for data centres with restricted space



Suitable for installation on cabinets of any type/height

All Cross-Guard Coolgenic cold aisle doors are available powder-coated in Pale Grey (RAL 7035) as standard with a textured finish.

We also have a range of alternative standard colours available. All cold aisle components are powder-coated the same colour.



Cross-Guard's aisle containment solutions are designed and manufactured bespoke to your business needs.







AISLE CONTAINMENT ROOF OPTIONS

Safety, Compliance, Lasting Peace of Mind

FIXED & COLLAPSIBLE ROOF PANELS



Fixed roof panels are a standard option. They are easy to clean and maintain, but do not interact with the existing fire suppression system in your building.



Flexible: panels can be installed to non-matching cabinets (any width/height)

Cold aisle collapsible roof systems have low temperature (58°C) fusible link mechanism. Suitable for use in data halls with sprinklers or gas fire suppression systems as light-weight roof collapses when dangerous temperature levels are reached.



Eliminates cost and hassle of modifying/extending room sprinklers



Flexible: panels can be installed to non-matching cabinets (any width/height)





FM-APPROVED SHRINKABLE ROOF PANELS



FM-approved shrinkable roofs use light-weight clear plastic panels that shrink when certain temperatures are reached to allow gas/liquid fire suppression into the aisle. FM-approval means roof panels are certified by US insurers in relation to quality and fire resistance.



Certified by US insurers



Installable on cabinets of any width/height



No need to modify/extend existing room sprinkler system

ACTIVE ROOF PANELS



Overhead panels integrate with suppression systems to open automatically in the event of a fire, allowing gas or water from sprinklers into the aisle.



Eliminates cost and hassle of modifying/extending room sprinklers



Flexible: panels can be installed to non-matching cabinets (any width/height)



Cold aisle roof bracketing is supplied as standard finish for all roofs. Bracketing is powder-coated to blend with the rest of your cold aisle enclosure. The standard colour is Pale Grey (RAL 7035), but a variety of colour options are available.

Get in touch to learn more about Cross-Guard's aisle containment systems, or to request a copy of our standard colour chart. We've worked with leading brands across the globe - let us help you discover your perfect fit aisle containment solution.











Global Leading IT Security

Protect your servers and other high-value IT equipment with Cross-Guard's Connexions high-strength, modular security caging and partitioning systems.

Primarily used in data centres and communications rooms, Connexions security cages are ideal for demarcation within office, co-location, and other environments where restricted access is required. Connexions cages facilitate key. electromagnetic or code locks. The cages can be self-assembled or installed by Cross-Guard's professional installation team.

Connexions cages are designed and manufactured bespoke to suit individual preferences. Cages are also developed to fit the environment and have successfully been used for outdoor security.

Underfloor barrier solutions: good security doesn't end at floor level

Cross-Guard also offers underfloor barriers available as bars or panels. Bars facilitate greater airflow, whereas panels offer enhanced security. See page 6 for details on the panel hole patterns available with cages and underfloor barriers





THE BENEFITS

- Highly flexible
- Premium look and feel
- High-quality materials
 - Stronger than welded mesh
- Interchangeable parts, doors, and locking mechanisms
- Exceptional strength/versatility
- Choice of colours, patterns, logo
- Unique design means quick & easy installation
- Adaptable to changing requirements: easy to amend and can be re-installed in a new location



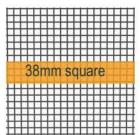




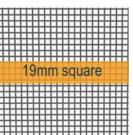
Bespoke Design & Manufacture **Standard Cage Features**

- 1.5mm, 2mm or 3mm sheet steel for various levels of security
- Holes in cage panels for ventilation
- Facilitates air circulation up to 53% free airspace (38mm square holes)
- Easy access and management of cables
- Roof and underfloor barrier options for additional security
- Cages up to 6m high (2.4m as standard)
- 900mm-2400mm door width (900mm/1200mm as standard)
- Door can be hinged, sliding or hung internally/externally
- Range of finishes available
- Standard and bespoke colours in smooth and durable powder-coated paint
- Adaptable for outdoor use

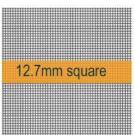
Available hole patterns for cages and underfloor panels



Greatest ventilation, good security



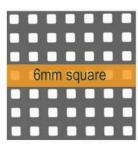
Great ventilation, additional security



Additional ventilation, enhanced security



Additional ventilation, enhanced security



Good ventilation. highest security

Ask us if you require anything different. Cross-Guard offers advice on design, layout and space maximisation for Connexions cages in your datacentre. Choose a 3mm thickness for panels to achieve greatest security.

LOUVRE CAGE PANELS: EXCEPTIONAL CAGE VENTILATION



Louvre cage panels were introduced as an alternative to standard cage panels to provide even further server ventilation. With 50% free airspace based on a 1.5mm panel, louvre cages have the additional benefit of being rust-resistant, meaning these cages are ideal for outdoor use. The way the louvre panels are constructed obstructs rainwater from getting inside the cage. keeping contents secure and protected during poor weather conditions. Unlike panels that include hole patterns, the design of louvre panels means that you'll be unable to see into the security cage.





good weather resistance



privacy of cage contents

LPCB CERTIFIED EXTENDOR CAGES







Ultimate Server Protection: LPS 1175 SR2 & SR3 Security Rated

Cross-Guard's Extendor Elite, Vulcan and Eclipse security grilles are used to create cages of the highest security for lasting peace of mind.

Vulcan cages are certified to LPS 1175 SR2, and Eclipse security cages are certified to LPS 1175 SR3, providing unrivalled security. These security cages are designed to suit any location and application. Security cages can be installed using existing solid walls as part of the structure. No 'hot works' are used during the process.

Cages provide secure containment and enhanced protection within restricted or shared areas. They have also been used to secure lobby entrances/exits and to protect light-weight partition walls.

Features of Cross-Guard's certified cages

Approved by the Association of British Insurers Certified for use with raised access floors Free airflow for climate control, fire detection and suppression

THE BENEFITS

- Unrivalled protection against theft
- Modular design allows future alteration/re-location
- Bespoke design to suit your needs
- Quick turnaround and rapid on-site assembly

SAFESTOR SECURITY ENCLOSURES FOR STORING HIGH-VALUE ITEMS



Construction: 3mm thick steel for doors and panels. Vision and cable entry holes are reinforced with 10mm steel plate

Doors: Left/right hinged and outward opening so security isn't compromised. Supplied with independent 5-lever mortice deadlocks and heavy-duty dog bolts **Design:** Extremely adaptable modular design, based on 300mm repeat patterns.

Can be re-configured to suit requirements

Installation: Manageable 300mm sections Strong room units: Bolted to the floor

Cabinet units: Supplied with floor and optional shelving

Stronger than competitive products Proven protection against theft

Easy installation Adaptable to your needs

Flexibility: construction possible in tight spaces

LPCB CERTIFIED VENTIS SERVER SAFE





Global Leading Server Security

The certified Ventis server safe provides unprecedented security and is suitable for servers, sensitive data and all 19-inch rack-mounted equipment.

The Ventis server safe is insurance-rated, Secured by Design, and approved by the LPCB and CPNI. It's supplied with four rack-mounting angles, which are adjustable front and rear.

Ventis server safes are flexible, designed so that most rack-mounted equipment can be bolted directly onto the integral framework shelves. Available in six standard sizes, the server safes can also be used to house self-contained computer servers, which do not require the internal rack mounting system.

Construction: 3mm thick steel sides and 4mm thick frame with no visible fixings. Cable entry holes for power and data are located on top and bottom elevations

Doors: Ventilated front and rear door sections are manufactured from 5mm x 25mm thick steel grids with approximately 60% free airspace. Doors include heavy-duty hinges and integral dog bolts

Locking: 2–3 deadlocks on each door (dependent on model) operated by Mul-T-Lock interactive cylinders (or equivalent). Can be keyed alike or individually

Finish: Durable polyester powder coating in textured Blue/Grey as standard (bespoke colours also available)

BENEFITS

- Server security at its best: safe certified to LPS 1214 Security Category 2, Secured by Design and CPNI approved
- 60% free airspace so servers remain at ambient temperatures
- Insurance rated so may lower premiums

- Available in a wide range of colours
- Proven attack resistance
- Bespoke to you

	Model	Width (mm)	Depth (mm)	Height (mm)	No. Units	Weight (kg. approx.)
VENTIS SERVER SAFES	45/900	725	900	2160	45	355
	45/1100	725	1100	2160	45	405
	45/1265	725	1265	2160	45	445
	45/1500	725	1500	2160	45	505
	20/900	725	900	1000	20	180
	20/1100	725	1100	1000	20	215
	20/1100	725	900	650	12	150

All server safe models are accredited to LPS 1214 SC2 with 19-inch racking. If you require further details on the technical specifications of Ventis, please give our team a call on:

+44 (0)20 8108 9327



BESPOKE SECURITY WALLING







Unique High-Strength Security Walling System

Cross-Guard's robust, secure walling is used to create maximum-security areas, including strong rooms, panic rooms and cash transfer units.

Cross-Guard's security walling has provided proven physical security for cash and valuables in transit (CVIT), and has also been used to create high-security areas within data centres, banking, retail and pharmaceutical sectors.

This multi-medium system can be used to partition rooms, or to create stand-alone structures for internal and external use.

The security walling system is manufactured in-house, and Cross-Guard is the only direct UK and worldwide supplier. It's supplied in Graphite Grey (RAL 7024) as standard, but available in a wide range of other colours.

Combining layers of steel, concrete, wood and other materials, Cross-Guard's secure walling delivers maximum resistance against a wide range of implements, including cutting tools such as angle grinders and other handheld equipment. The modular system of panels, doors and accessories can be used to construct secure areas of all shapes and sizes from small enclosures to drive-in units.

BENEFITS

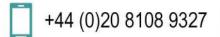
- Product designed and installed bespoke to your needs, providing highest levels of security
- Maximum resistance against a wide range of tools, including angle grinders
- Installation by Cross-Guard's specialist team

ABOUT CROSS-GUARD LIMITED

Specialising in security and cooling solutions, the company offers a range of products and services bespoke to your needs, including: cold and hot aisle containment, modular caging and enclosures, server safes, bespoke security walling, and security grilles and bar sets.

Cross-Guard has over 20 years of experience delivering high-quality products across the globe with a strong presence in the UK and Europe. Products are built to last and there are many certified options available where protection to the highest standard is required.

This brochure details our range of aisle containment solutions, security cages, server safes and bespoke security products, but if you're interested in our security grilles used in domestic and commercial markets, ask us for our security grilles brochure.





WHY CHOOSE CROSS-GUARD?

Across the UK, Europe, and worldwide, Cross-Guard has an enviable reputation for delivering security and containment solutions on time, on budget, and with exemplary customer service.

The team at Cross-Guard put you first - ensuring you always receive high-quality products, designed and manufactured to your requirements. The company provides bespoke products and services with a friendly team of specialists on-hand for dedicated support. Highly efficient at overcoming client problems, such as tight turnaround times and challenging installation environments, the Cross-Guard team respect the nature of your business by operating discretely and effectively.

We've served prestigious brands across the globe:















































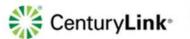




















Over 80% of our work is from recommendation, referral & repeat business, highlighting the trust we build with our clients.

If you'd like to partner with us, give our friendly team a call:

