TRIPP·LITE

Powering and Connecting Your World

SmartRack®
Aisle Containment System

Modular system simplifies installation and improves cooling efficiency for edge-of-network applications.

- Works with hot-aisle/cold-aisle configurations to reduce energy requirements up to 25%

- Supports diverse edge deployment solutions, including EdgeReady™ micro data centres

Simplify Edge Deployment & Improve Efficiency with Tripp Lite's Aisle Containment System

Tripp Lite's modular aisle containment system is a simple solution for improving cooling efficiency and performance in edge-of-network applications, data centres and server rooms. Paired with Tripp Lite's EdgeReady micro data centres, it makes deploying self-contained edge computing infrastructure quick, easy and cost-effective—especially when retrofitting spaces like offices and factory floors to accommodate IT equipment. It can also be used with Tripp Lite rack enclosures, or most other rack brands.

Designed to be installed without the assistance of specialists, the aisle containment system creates a semi-airtight room to prevent hot air exhausted by IT equipment from recirculating to rack intakes. This physical barrier makes existing cooling measures more predictable, efficient and effective. The aisle containment system is compatible with Tripp Lite's full line of edge-friendly IT infrastructure solutions, including racks, PDUs, UPS systems, sensors, cooling, cable managers, KVMs, console servers and network management tools.

Key Benefits

COOLING OPTIMISATION

- Separates hot and cold air to eliminate hot spots and provide more uniform, predictable, effective and efficient cooling.

- Combines with hot-aisle/cold-aisle configurations to reduce cooling fan energy requirements up to 25%.[*]

- Allows increased IT equipment density without requiring costly active cooling system upgrades.

CONVENIENT SETUP

- Allows installation by non-specialists to save time, simplify scheduling and reduce costs.

- Includes assembly hardware and floor-mounting brackets to streamline installation.

- Fits through standard doorways for easier transit to installation site.

- Stands independently to prevent rack weight overloads and permit quick cabinet swaps.

SECURE ACCESS

- Locks to control access to aisles and equipment.

- Permits room lighting to illuminate aisles for enhanced visual monitoring.

- Works with optional remote door locks, open door alarms, video surveillance and security sensors.

FLEXIBILITY

- Adjusts to fit 42U, 45U and 48U rack cabinets, including standard-width (600 mm) and extra-wide (750 mm) racks of any depth.

- Supports new installs and retrofits, including raised-floor or slab-floor installations with perimeter or in-row cooling.

- Contains longer aisles by interconnecting kits.

- Can be used with rack enclosures from most manufacturers.

- Works with optional LED lighting, pressure monitors and other accessories.

*National Renewable Energy Laboratory, U.S. Department of Energy.

EDGE INTEGRATION

- Combines with EdgeReady micro data centres to make deploying self-contained edge computing infrastructure quick, easy and cost-efficient.

- Provides seamless compatibility with Tripp Lite's full line of edge-friendly IT infrastructure solutions, including racks, PDUs, UPS systems, cooling, cables, cable managers, patch panels, KVMs, console servers and network management tools.

**Configure your Tripp Lite aisle containment system at tripplite.com/acs.**

Without Aisle Containment

A hot-aisle/cold-aisle configuration separates hot and cold air with rows of racks. Although hot-aisle/cold-aisle configurations are beneficial when properly implemented, hot exhaust air can still leak into the cold aisle and recirculate. This creates hot spots that reduce cooling efficiency. Severe hot spots can also reduce system availability by prompting thermal shutdown, or even catastrophic equipment failure.

Hot Aisle
Cold Aisle (With Perforated Tiles)
Hot Aisle
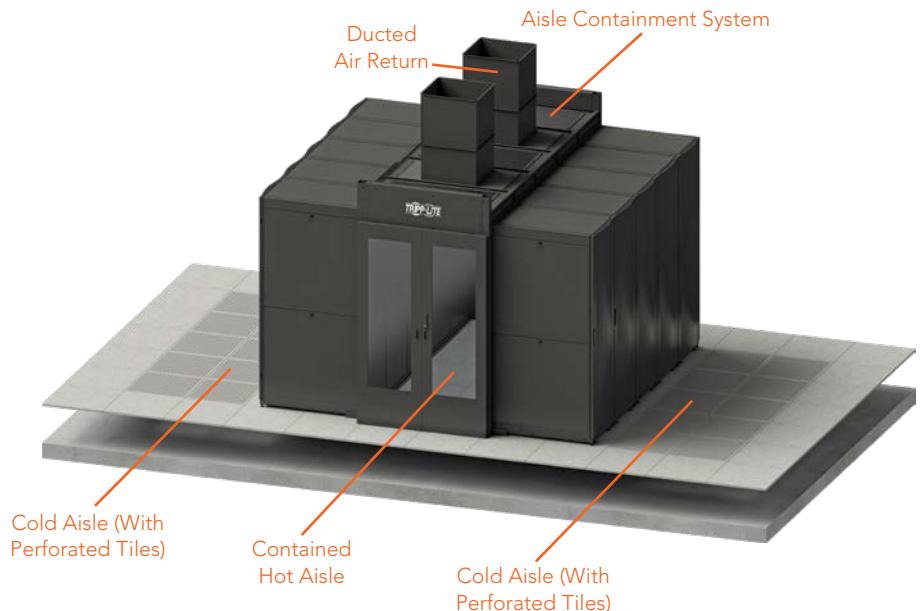Raised Floor
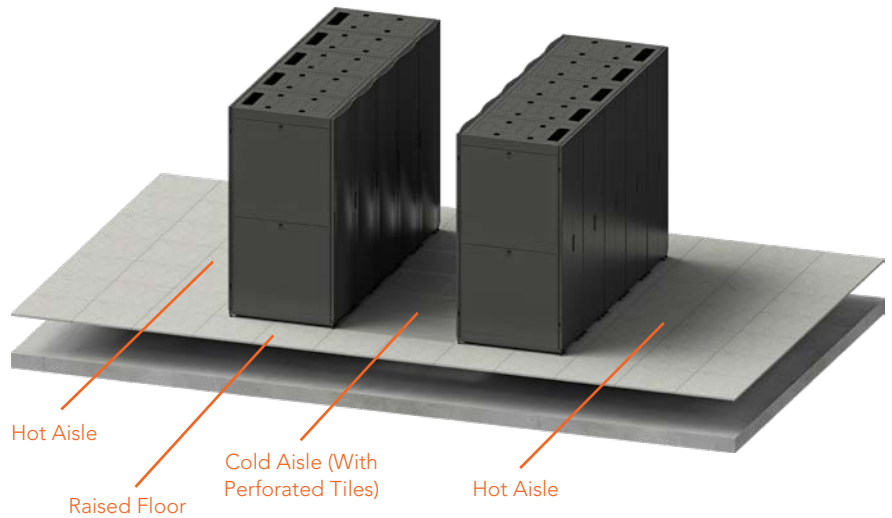
Cold-Aisle Containment

Tripp Lite's SmartRack aisle containment system adds a roof and doors between rows of racks to physically separate hot and cold air, preventing recirculation from creating hot spots. In this example, the cold aisle is contained, improving temperature uniformity, cooling predictability, IT equipment reliability and cooling efficiency. Optimising existing active or passive cooling also allows you to increase IT equipment density without capital-intensive upgrades.

Aisle Containment System
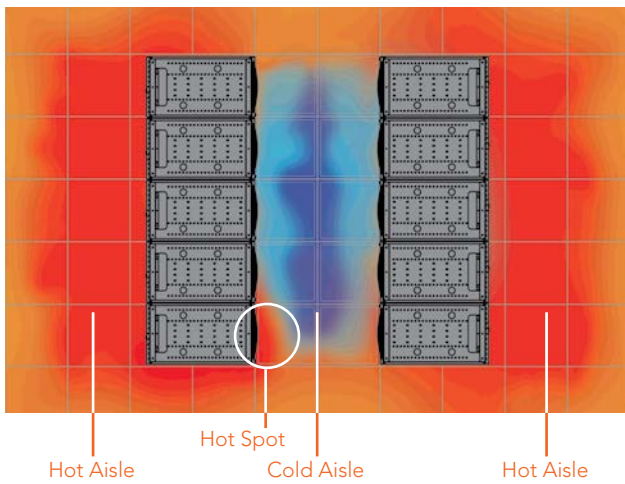Hot Aisle
Contained Cold Aisle
Hot Aisle
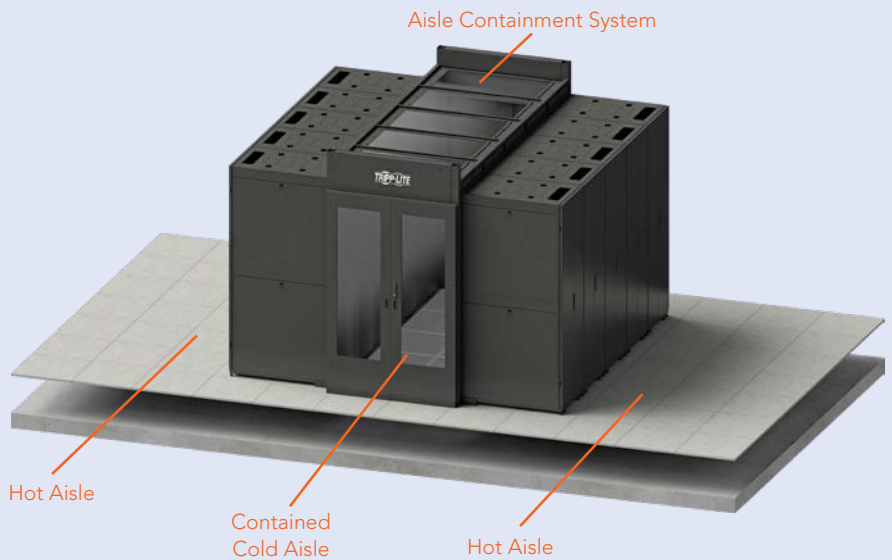
Hot-Aisle Containment

Hot-aisle containment provides a ducted return of hot exhaust air to a perimeter cooling system (as shown, with user-supplied exhaust venting) or incorporates in-row cooling systems that draw intake air from the hot aisle.
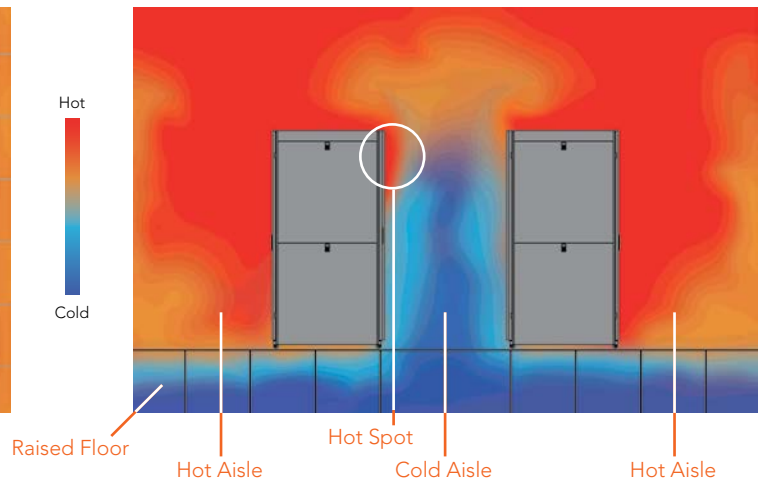
Hot-aisle containment is generally more difficult to implement than cold-aisle containment, but it may provide higher efficiency gains. Contact Tripp Lite if you are not sure which approach best suits your application.
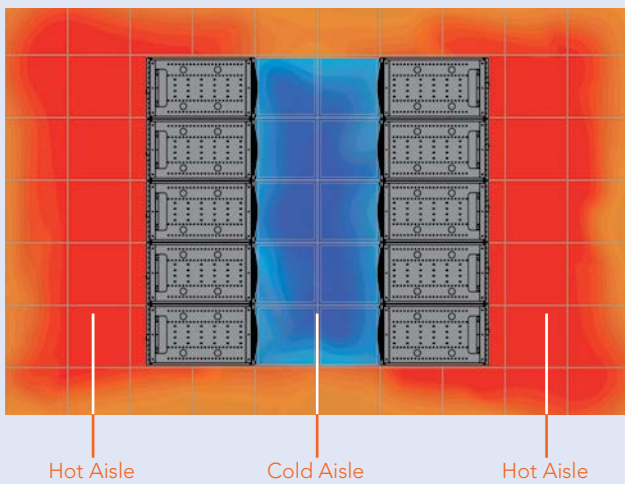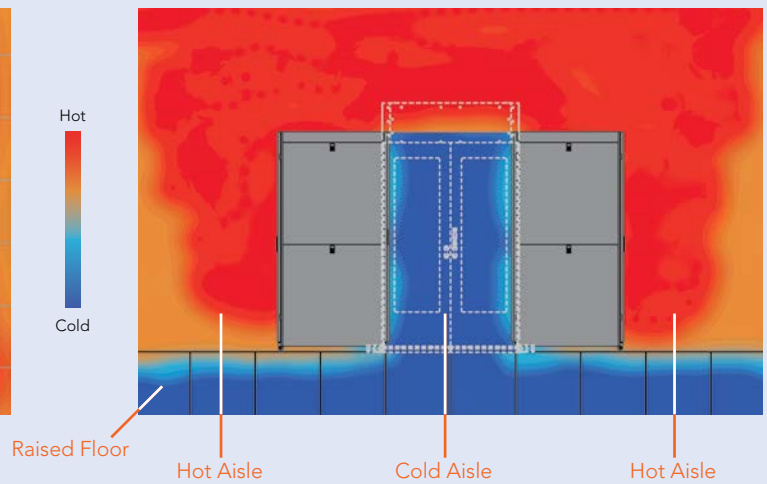
Ducted Air Return
Aisle Containment System
Cold Aisle (With Perforated Tiles)
Contained Hot Aisle
Cold Aisle (With Perforated Tiles)

Thermal View without Aisle Containment (Top)

Hot Aisle   Hot Spot   Cold Aisle   Hot Aisle

Thermal View without Aisle Containment (End)

Hot

Cold

Raised Floor   Hot Aisle   Hot Spot   Cold Aisle   Hot Aisle

Thermal View with Cold-Aisle Containment (Top)

Hot Aisle   Cold Aisle   Hot Aisle

Thermal View with Cold-Aisle Containment (End)

Hot

Cold

Raised Floor   Hot Aisle   Cold Aisle   Hot Aisle

Thermal View with Hot-Aisle Containment (Top)

Cold Aisle   Hot Aisle   Cold Aisle

Thermal View with Hot-Aisle Containment (End)

Hot

Cold

Raised Floor   Cold Aisle   Hot Aisle   Cold Aisle

Configure your Tripp Lite aisle containment system at tripplite.com/acs.
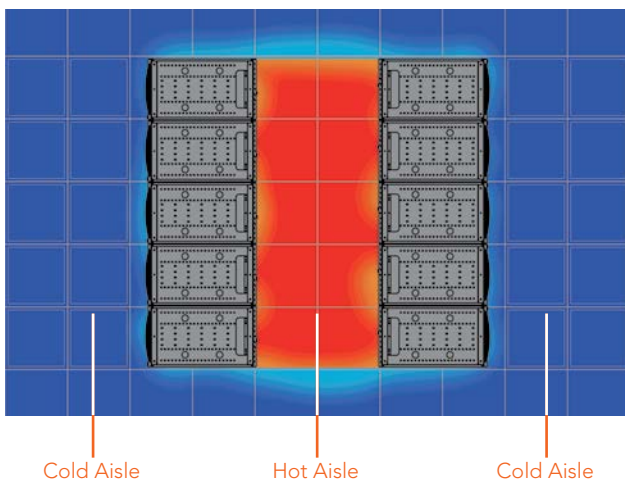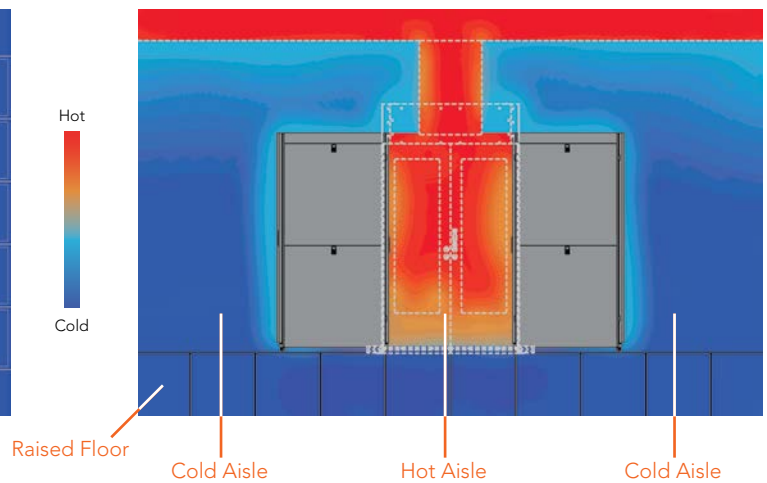
The Edge Made Easy™

Tripp Lite's modular aisle containment system makes deploying self-contained edge computing infrastructure quick, easy and cost-effective—especially when retrofitting spaces like offices and factory floors to accommodate IT equipment. It's a perfect complement to Tripp Lite's EdgeReady micro data centres, and it also works with rack enclosures from almost any brand.

Aisle containment optimises the efficiency and effectiveness of existing cooling to allow increased equipment density without costly capital expenditures. Rather than spending precious time and money on building dedicated IT spaces from scratch, you can quickly and easily retrofit non-traditional spaces like spare offices and factory floors to accommodate edge computing. You can also free stranded capacity to increase equipment density in existing racks. This ability to adapt your IT capability to changing market conditions by quickly and easily reconfiguring IT infrastructure is key to the organisational agility required to thrive in today's fast-paced world.

Modular design enables easy expansion and reconfiguration to respond to changing business needs and market conditions.

Works with perimeter, in-row and passive cooling.

Supports cold-aisle and hot-aisle containment, including configurations with a single row of racks.

Provides a cost-efficient path to increasing equipment density without major capital expenditures.

Sliding double doors lock for access control and support a variety of remote access and monitoring options.

Works with raised floors or slab floors, including new installations and retrofits of spaces not designed for IT equipment.

Configure your Tripp Lite aisle containment system at tripplite.com/acs.

Flexible Configuration Inside and Out

Designed for flexibility and compatibility, the aisle containment system adapts to the unique requirements of your edge application, whether you have several racks in a single row or a full data centre. In addition to EdgeReady micro data centres, the aisle containment system is compatible with Tripp Lite's full line of edge-friendly IT infrastructure solutions, providing unlimited options for customisation.

Tripp Lite application engineers have helped customers build and deploy thousands of critical edge solutions, and we are ready to help you customise your aisle containment system and other edge infrastructure to meet your technical and budgetary needs, both today and into the future. Our team is available by phone and email to provide quick answers and fully customised solutions, no matter how big or small your application may be.

Clear door and ceiling panels transmit room lighting and enable easy visual monitoring.

Works with optional remote door locks, open door alarms, video surveillance, security sensors, LED lighting, pressure monitors and other accessories.

Provides seamless integration with EdgeReady micro data centres and our full line of edge-friendly IT infrastructure solutions, including racks, UPS systems, PDUs, cooling, KVMs, console servers, cables and remote management tools.

Configure your Tripp Lite aisle containment system at tripplite.com/acs.

Components are grouped into kits. Each kit combines multiple required parts and assembly hardware under one model number to simplify ordering, streamline inventory management and help ensure you order all the parts required for the install.

(A) Frame End Kit (2 Shown)
SRCTMTFRM

At least two kits are required. Keyhole slots make beam installation easier.

(B) Telescopic Beam Kit (1 Shown)
SRCTMTTLBM

Adjustable beams connect to frame ends and support clear roof panels.

(C) Sliding Double Door Kit (2 Shown)
SRCTMTSDD

Key-lock doors with clear panels include brush strips to help seal aisle.

(D) Roof Panel Kit (Several Shown)
SRCTMTCVR600 (600 mm Racks)
SRCTMTCVR750 (750 mm Racks)

Includes clear roof panel and two magnetic filler panels to close gaps.

Riser Panel Kit (Not Shown)
SRCTMTR600SH (3U, 600 mm Racks)
SRCTMTR750SH (3U, 750 mm Racks)
SRCTMTR600TL (6U, 600 mm Racks)
SRCTMTR750TL (6U, 750 mm Racks)

Closes gaps for varying rack heights.

All kits include assembly hardware and 5-year warranty.
Hot-aisle containment requires user-supplied exhaust venting.

Compatible Tripp Lite Solutions

EDGEREADY MICRO DATA CENTRES

Pre-configured 42U models with up to 10 kVA (N+N) power for IT equipment.

SMARTRACK ENCLOSURES

Premium floor-standing enclosures with up to 1360 kg weight capacity.

CABLES & PATCH PANELS

Copper and fibre network cables, patch panels, power cords and USB cables.

UPS SYSTEMS

Line-interactive and on-line UPS systems from 500 VA to 400 kVA.

POWER DISTRIBUTION UNITS (PDUs)

Horizontal or vertical rack-mount models with up to 48 outlets and 28.8 kW.

COOLING SOLUTIONS

Close-coupled cooling, including in-row, rack-mount and portable options.

KVM SWITCHES

Rack-mount models with or without built-in LCD monitors and IP access.

CONSOLE SERVERS

Remote access to serial and network devices via Ethernet, Wi-Fi or modem.

REMOTE MANAGEMENT TOOLS

Network management hardware and software, including remote sensors.

Additional Options

Vendor-neutral design supports a wide range of add-on remote door locks, open door alarms, video surveillance, security sensors, LED lighting, pressure monitors and other accessories.