AISLELOK®

MODULAR CONTAINMENT

Containment made easy.

*The industry's first
and only tool-less
containment solution
designed for quick and
easy installation on
individual racks.*

Contact us for a proposal

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Rich Reedy (312) 213-6208
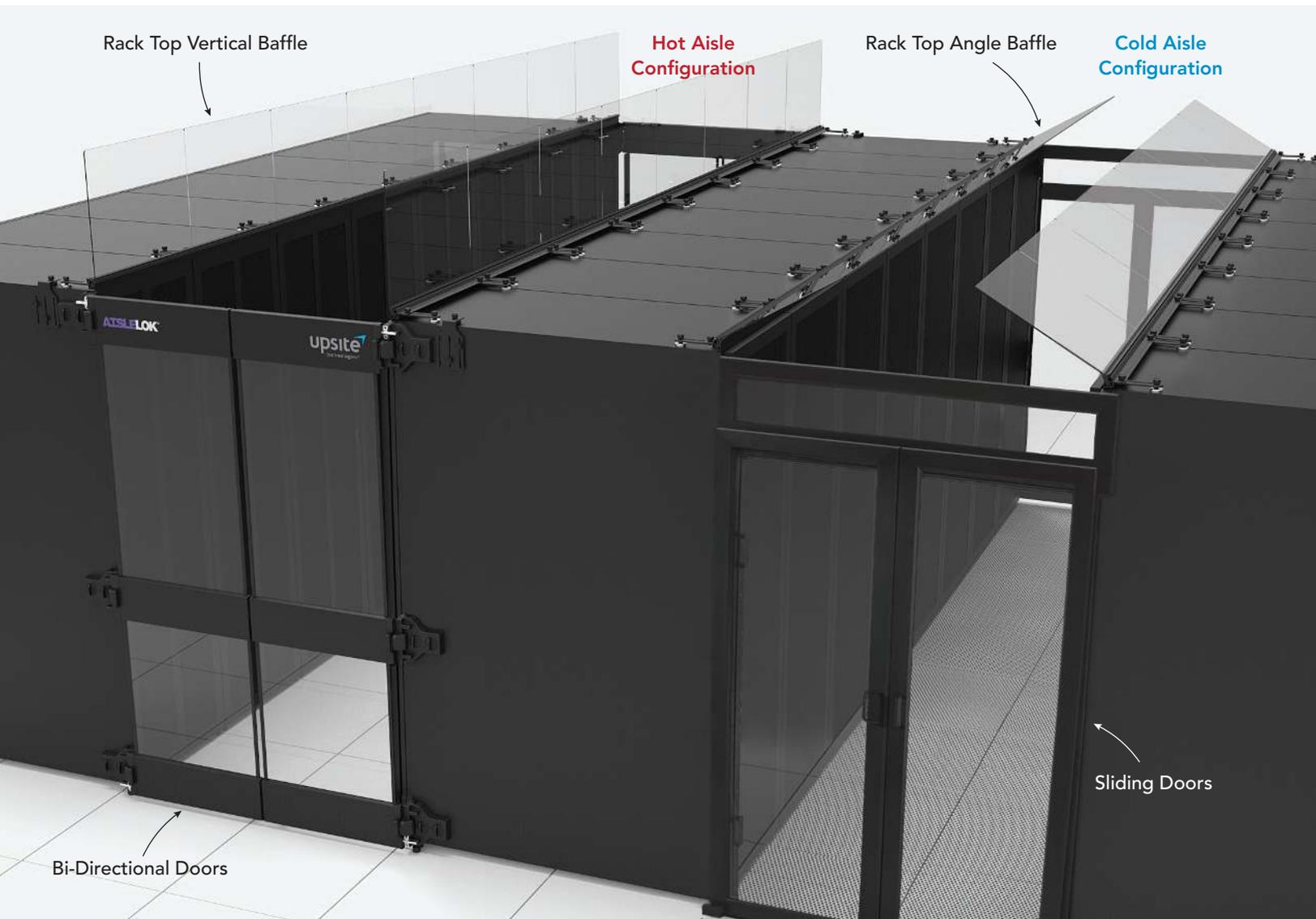Rich.Reedy@team-prosource.com

AISLELOK®

A New Approach to Containment

Hot and cold aisle containment have become proven methods to improve computer room cooling efficiency, increase rack densities, and improve overall utilization of the data center. Until now, the data center industry has only had two containment options to accomplish these goals: hard wall containment, and soft curtain containment.

Upsite's solution, AisleLok® Modular Containment, provides an exciting alternative to the status quo by offering a much simpler and cost-effective containment solution that is easier to implement than any containment solution ever created.

AisleLok® Modular Containment offers the same core airflow management benefits of traditional containment solutions, but with the major advantage of saving time and money upfront. The key benefit AisleLok® Modular Containment offers is rapid deployment with little or no disruption to existing operations, and the ability to reconfigure the installation as the needs of the computer room change. And with no 3rd party required for design or installation, it's affordable enough to deploy over multiple aisles or rooms.

Depending on your data center, either hot aisle containment or cold aisle containment will be more appropriate (door styles are interchangeable).

Rack Top Vertical Baffle

Hot Aisle Configuration

Rack Top Angle Baffle

Cold Aisle Configuration

Sliding Doors

Bi-Directional Doors

Containment Made Easy

AisleLok® Modular Containment offers the core airflow management benefits of containment, but with greater flexibility and value.

Effective Airflow Management

- Lowers server intake temperatures and reduces hot spots.
- Allows for higher rack densities.
- Prevents hot air recirculation.
- Supports reduced energy costs by providing the opportunity to increase temperature set points and/or turn off cooling units or reduce fan speeds.

Modular and Flexible

- Flexible design can be applied to hot or cold aisles.
- Can be reconfigured quickly and easily.
- Adapts to your computer room as it evolves.
- Components can be used independently.

Easy to Install

- Can be self-installed, removed, and re-installed in minutes without tools.
- Minimal disruption in computer room as no custom construction or drilling required.
- Saves time and money as no professional installation is needed.

Available Off-the-Shelf

- Easy to order; no custom measuring required.
- Ready to install out-of-the-box.
- No 3rd party engineering, design, or installation required for set-up.

Get the Core Benefits of Containment for Half the Cost

For a data center measuring 5,280 ft^2 (490 m^2), the cost to fully equip all cold aisles with AisleLok® Modular Containment is about half the cost of installing legacy containment. Beyond the initial cost savings, AisleLok® continues to provide payback as it can easily be moved and reapplied by internal staff as your data center needs evolve.

	AisleLok® Modular Containment*	Legacy Containment
Installed Cost	$36,180	$70,993[†]
Annual Energy Savings[‡]	$32,172	$35,520
ROI	13.5 Months	24 Months
Installation Time	3 Staff Hours	80 Staff Hours
Ability to Move and Reapply	Easy	Difficult
Risk Level	Low *No tools required. Only internal resources used.*	Moderate *Requires 3rd party construction.*

Rack Top Baffles and Bi-Directional Doors were used for this study

[†] *Based on installing the leading legacy containment system in a 5,280 ft^2 (490 m^2) data center, does not include the potential cost of relocating sprinkler heads*

[‡] *Based on cost of $.10/kWh*

Learn more about the comparison of AisleLok® Modular Containment vs. Legacy Containment in our recent white paper, available at upsite.com/aislelok.

Open Architecture Design

The primary purpose of any containment solution is to create a barrier between hot and cold air. In cold aisle applications, the Angled Rack Top Baffles provide a barrier to block hot air from wrapping over the cabinet tops into the cold aisle. The angled baffles also reduce the open area at the top of the cold aisle, creating a slight positive pressure that prevents exhaust air from entering the top of the cold aisle. In hot aisle applications, Vertical Rack Top Baffles direct hot air vertically, away from cold aisles.
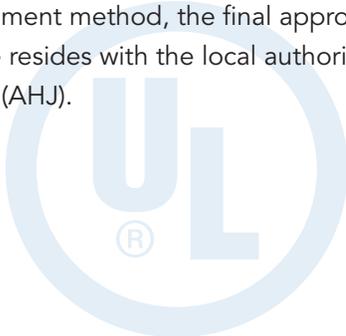
Magnetic Attachment

AisleLok's simplicity and ease of installation are attributed to its patented magnetic attachments. Testing by Upsite Technologies has shown that when AisleLok® Modular Containment is properly installed as designed, the magnets do not exceed the allowed magnetic field strength limits given by manufacturers of IT equipment.
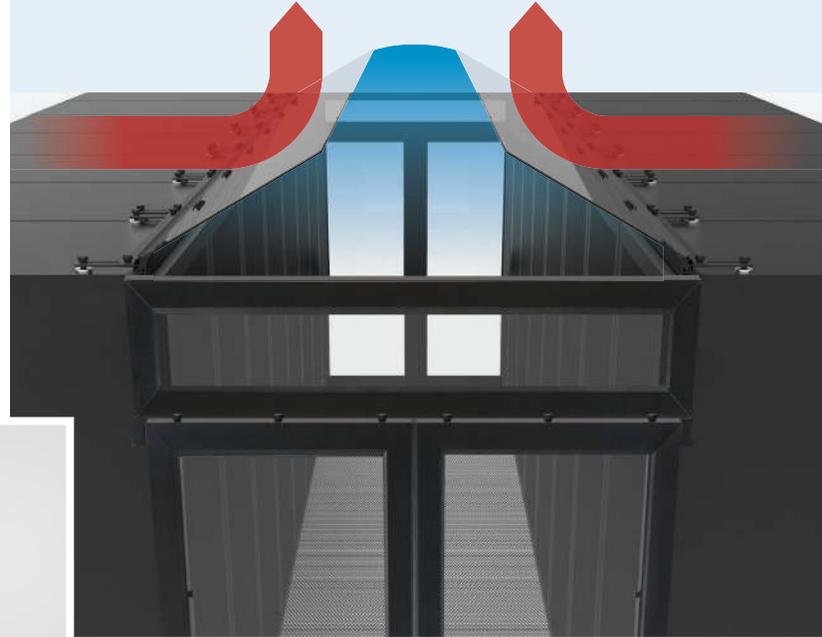
Fire Safety

AisleLok® Modular Containment components are designed with UL94 flammability rated materials. The AisleLok® Modular Containment solution is suitable in most data centers using gaseous fire suppression systems. As with the installation of any containment method, the final approval for compliance resides with the local authority having jurisdiction (AHJ).
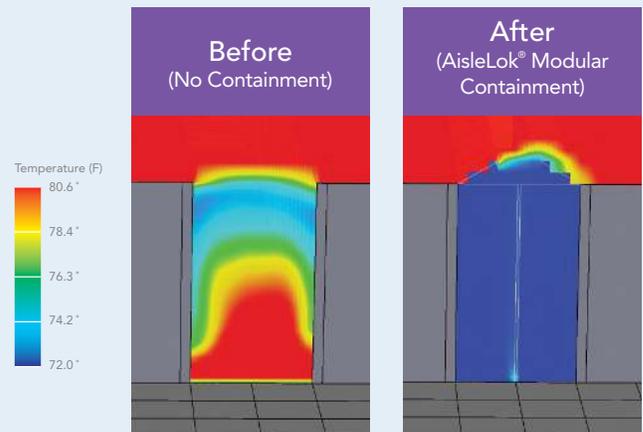
Analysis and Testing

Extensive CFD analysis on the AisleLok® Modular Containment design shows that the solution can reduce server inlet temperatures by as much as 20°F in some conditions. On-site computer room testing of large financial and government institutions yielded similar results.

Before (No Containment)	After (AisleLok® Modular Containment)

Temperature (F)
80.6°
78.4°
76.3°
74.2°
72.0°

CFD Analysis shows hot air recirculation into the cold aisle.

After AisleLok® Modular Containment is installed, cold air is effectively contained, decreasing server inlet temps.
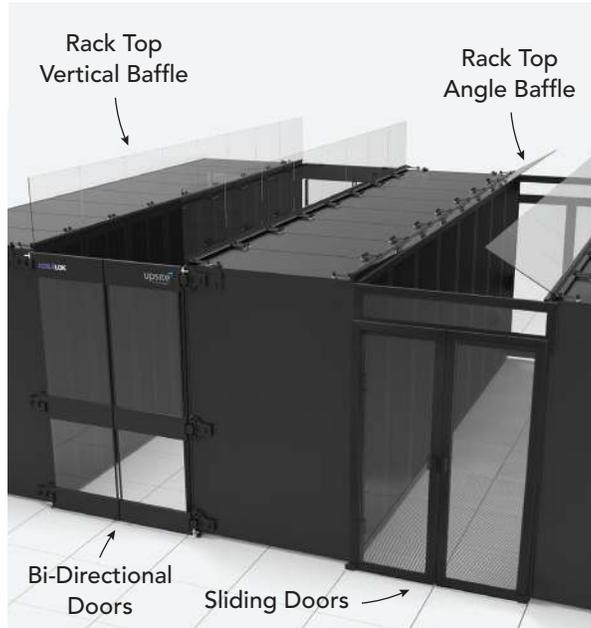
AisleLok® Modular Containment Products

Depending on your data center, either hot aisle containment or cold aisle containment will be more appropriate (door styles are interchangeable).

Containment Doors

Contains hot or cold aisles and prevents air mixing.

- Can be applied to hot or cold aisle.
- Made of clear polycarbonate.
- Attaches to side of rack magnetically.
- Tool-less design allows for easy installation, removal, and re-installation.
- Solution for both new builds and retrofit data centers.

Rack Top Vertical Baffle

Rack Top Angle Baffle

Bi-Directional Doors

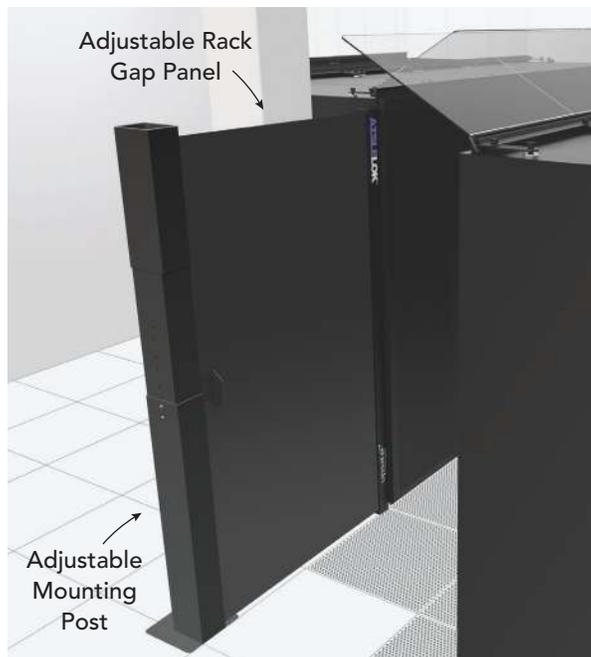Sliding Doors

Rack Top Baffles

Contains cold air and prevents hot exhaust air from wrapping over the tops of racks.

- Made of clear polycarbonate.
- Attaches to top of rack magnetically.
- Angular baffle designed for cold aisle application.
- Vertical baffle is designed for hot aisle application.
- Reconfigurable design allows angular or vertical configuration.

Adjustable Rack Gap Panel

Blocks spaces between racks to contain cold air and prevent exhaust air recirculation.

- Attaches magnetically between two racks or other metal surface.
- Adjusts to fill in space between racks, from 10" to 60" (250 mm to 1500 mm).
- Can easily be removed and reapplied as your computer room needs change.

Adjustable Rack Gap Panel

Adjustable Mounting Post

Adjustable Mounting Post

Serves as vertical support structure for the attachment of containment doors and rack gap panels.

- Mounts to floor tiles with framing channels and lock nuts for secure installation (can also be installed on a slab floor).
- Enables the use of containment doors and/or rack gap panels in uneven rows.
- Can be adjusted to different height positions (42U-50U).

Watch the installation demo at UPSITE.COM/AISLELOK

How to Order AisleLok® Products

AisleLok® Modular Containment products are designed to fit varying cabinet arrangements and come in a variety of sizes.

Product	Part Number	Description
Rack Top Angle Baffles*	10160-24 10160-27.5 10160-30 10160-31.5	24" W, 2 Each, Clear 27.5" W, 2 Each, Clear 30" W, 2 Each, Clear 31.5" W, 2 Each, Clear
Rack Top Vertical Baffles*	10161-24 10161-27.5 10161-30 10161-31.5	24" W, 2 Each, Clear 27.5" W, 2 Each, Clear 30" W, 2 Each, Clear 31.5" W, 2 Each, Clear
Bi-Directional Doors	10163-42 10163-45 10163-48 10163-50	48" W X 42U, Set, Black 48" W X 45U, Set, Black 48" W X 48U, Set, Black 48" W X 50U, Set, Black
Sliding Doors*†	10155-450 10155-650 10255-450 10255-650	61.25" x 85.4" ~42–45U, Set, Black 85.25" x 85.4" ~42–45U, Set, Black 61.25" x 85.4" ~42–45U, Set, White 85.25" x 85.4" ~42–45U, Set, White
Transom Window, Sliding Doors*	20155-450 20155-650 20255-450 20255-650	48" x 8.75", ~50U, Each, Black 72" x 8.75", ~50U, Each, Black 48" x 8.75", ~50U, Each, White 72" x 8.75", ~50U, Each, White
Adjustable Rack Gap Panel	10164-SM 10164-LG	42U–45U, Each, Black 48U–50U, Each, Black
Adjustable Mounting Post	10169	42U–50U, Each, Black

*Custom sizes are available
†Available in higher rated polycarbonate material

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