

# ProLine Aisle Containment



# **EXPRESS AISLE CONTAINMENT**

# Improved Air Management Helps To Reduce **Energy Costs**

The use of containment systems can dramatically reduce energy costs, minimize hot spots and improve the carbon footprint of the data center. Both hot aisle containment (HAC) and cold aisle containment (CAC) systems greatly improve the data center cooling efficiency by segregating cold and hot airstreams and preventing them from intermixing. The basic design principle is to enclose the hot or cold aisle through the use of aisle-way doors, roof or baffle panels, and internal sealing within the cabinets. nVent offers tailored modular aisle containment solutions that include containment doors, aisle top covers, cladding elements and halogen-free gaskets.

nVent offers both express and sealed aisle containment solutions. Express solutions feature Magswitch which allows for quick installation and easy data center redeployment. The sealed aisle containment solutions are more suited for overall efficiency and bottom-line energy conservation.



Containment systems allow for higher cold temperatures per ASHRAE and ΔT, optimizing cooling systems and contributing to reduced energy costs.

#### **Benefits**

- · Consistent separation of cold and hot air
- · Enables optimized aisle airflow and temperatur
- · Options include Express and Sealed containment solutions

# Express vs. Sealed Containment Comparison

		Express			Sealed		
	Low	Medium	Hlgh	Low	Medium	Hlgh	
Initial Investment	X				х		
Installation Complexity	Х				х		
Existing Infrastructure Needs	Х				х		
Air Flow Management			х	х			
Total Energy Conservation		х				х	

# **EXPRESS AISLE CONTAINMENT**

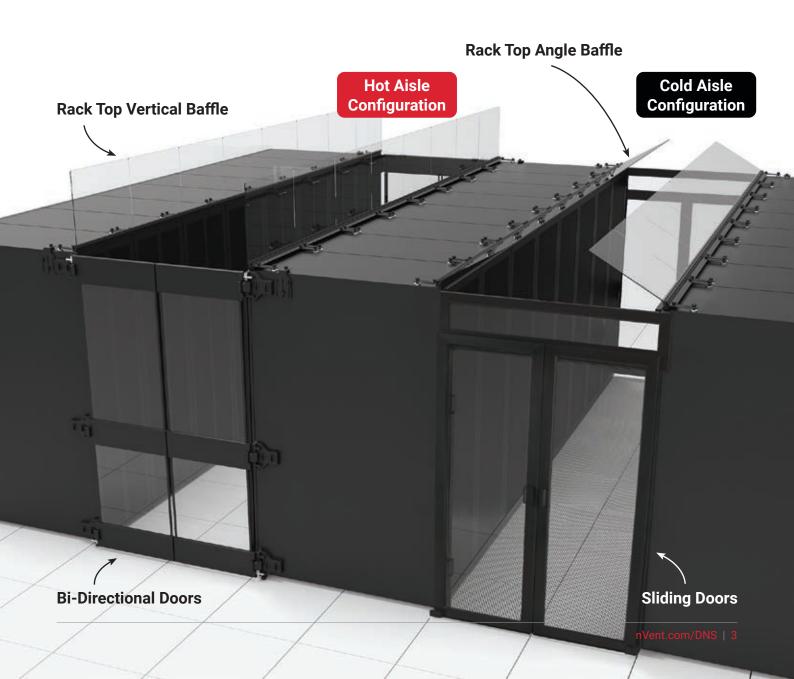
# A New Approach to Containment

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.

nVent solution, ProLine Express Aisle Containment, provides an exciting alternative to the status quo by offering a much simpler and cost-effective Express Aisle containment solution that is easier to implement than any containment solution ever created.

ProLine Express Aisle 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 ProLine Express Aisle 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).



# Prol ine

# **EXPRESS AISLE CONTAINMENT**

# 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.

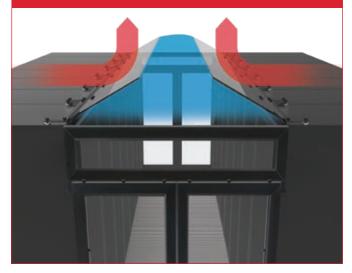
#### Magnetic Attachment

ProLine simplicity and ease of installation are attributed to its patented magnetic attachments. Testing by nVent Technologies has shown that when ProLine **Express Aisle Containment** is properly installed as designed, the magnets do not exceed the allowed magnetic fi eld strength limits given by manufacturers of IT equipment.





The open architecture design effectively contains the cold aisle while blocking exhaust air recirculation.



# Fire Safety

ProLine Express Aisle Containment components are designed with UL94 fl ammability rated materials. The ProLine 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).

# Acrycell Sealing Tape

AisleLok Acrycell Sealing Tape is the premium choice for sealing gape and openings in the data center including room perimeter, floor openings, under cabint, between racks, and aroung CRAC units. it has a revolutionary sealing technologywhuich significantly reduce costly bypass airflow, incresing usable cooling unit capacity, and ensuring maximized efficiency from HVAC equipment.



#### **HOW TO ORDER PROLINE PRODUCTS**

ProLine Express Aisle Containment products are designed to fit varying cabinet arrangements and come in a variety of sizes.

Product	Part Number	Description
Acrycell Sealing Tape	UACAST05IN UACAST1IN UACAST2IN	TAPE ACRYCELL 0.5IN TAPE ACRYCELL 1IN TAPE ACRYCELL 2IN

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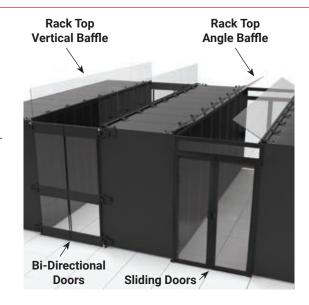
#### PROLINE EXPRESS AISLE CONTAINMENT PRODUCTS

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 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

# **HOW TO ORDER PROLINE PRODUCTS**

ProLine Express Aisle Containment products are designed to fit varying cabinet arrangements and come in a variety of sizes.

	Product	Part Number	Description
T.	Rack Top Angle Baffles*	UACTB6A UACTB7A UACTB75A UACTB8A	24" W, 2 Each, Clear 27.5" W, 2 Each, Clear 30" W, 2 Each, Clear 31.5" W, 2 Each, Clear
<b>L</b> .	Rack Top Vertical Baffles*	UACTB6V UACTB7V UACTB75V UACTB8V	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	UAC2DDR42U UAC2DDR45U	48" W X 42U, Set, Black 48" W X 45U, Set, Black
	Sliding Doors*†	UACSD4B UACSD6B	61.25" x 85.4" ~42- 45U, Set, Black 85.25" x 85.4" ~42- 45U, Set, Black
	Transom Window, Sliding Doors*	UACTW4B UACTW6B	48" x 8.75", ~50U, Each, Black 72" x 8.75", ~50U, Each, Black

<sup>\*</sup>Custom sizes are available

<sup>&</sup>lt;sup>†</sup>Available in higher rated polycarbonate material

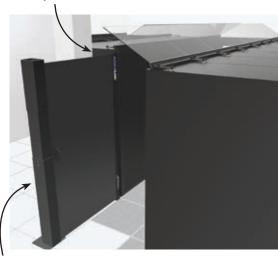
# **EXPRESS AISLE CONTAINMENT**

# 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 NVENT.COM/DNS

# **HOW TO ORDER PROLINE PRODUCTS**

ProLine Express Aisle Containment products are designed to fit varying cabinet arrangements and come in a variety of sizes.

Product	Part Number	Description
Adjustable Rack Gap Panel	UACSARGP UACLARGP	42U – 45U, Each, Black 48U – 50U, Each, Black
Adjustable Mounting Post	UACAMP	42U – 50U, Each, Black

<sup>\*</sup>Custom sizes are available

For More Information, visit: nVent.com/DNS



**5** 763-422 -2661

<sup>&</sup>lt;sup>†</sup>Available in higher rated polycarbonate material

# **EXPRESS AISLE CONTAINMENT**







# Sealed Containment:

- · Hot and cold aisle configurations
- · Hot aisle containment features chimney system that's adaptable to varying ceiling heights
- Bulb gasket seals against flat surfaces and ceilings
- S-connectors provided for duct work connection
- · Tool-less installation
- · Constructed of UL-94 rated materials

# **HOW TO ORDER PROLINE PRODUCTS**

ProLine Express Aisle Containment products are designed to fit varying cabinet arrangements and come in a variety of sizes.

Product	Part Number	Description
Roof Panels	PCP612 PCP712 PCP812 PCP312	Panel Roof 600x1200 Blk Panel Roof 700x1200 Blk Panel Roof 800x1200 Blk Panel Roof 300x1200 Blk
Chimney Components (Hot Aisle)	PCPC612 PCPC712 PCPC812 PCM1 PCM2	Panel Roof Chmy 600x1200 Blk Panel Roof Chmy 700x1200 Blk Panel Roof Chmy 800x1200 Blk Cont Chimney Short Blk Cont Chimney Tall Blk

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