

Hot Aisle / Cold Aisle Containment Solutions

Solution # 1 Relay Rack Blanking Panels

TAG PART #
TBP-H19-27 (19")
TBP-H23-27 (23")

Description:
Perforated Flame Retardant
Blanking Panel (27RU) w/ Hardware

Price: \$



Solution # 2 Hot Aisle/Cold Aisle Containment Curtain

TAG PART # KIT-407SC40ST8

Description: Vinyl Strip Curtain Kit
Includes: (40-Mil Fire Rated) Standard
Clear Material, 8" strip w/ overlap,
96"H and (8) Curtain Extrusion
Assembly w/ Hardware

Price: \$\$



Solution # 3 Containment Areas Rigid Barrier Walls

TAG PART # T-VP4884-01

Description: Custom Rigid Vertical
Barrier Panel 48"W x 84"H, 1" Black
Anodized Extruded Aluminum Frame
with 6-Mil Clear Twin-Wall Insert

Price: \$\$\$



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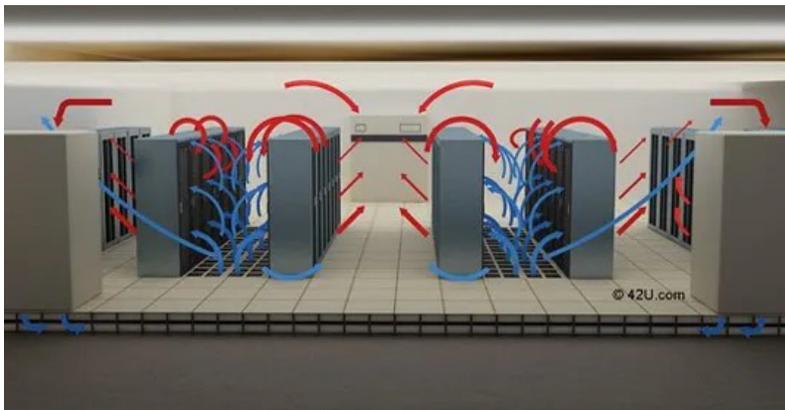
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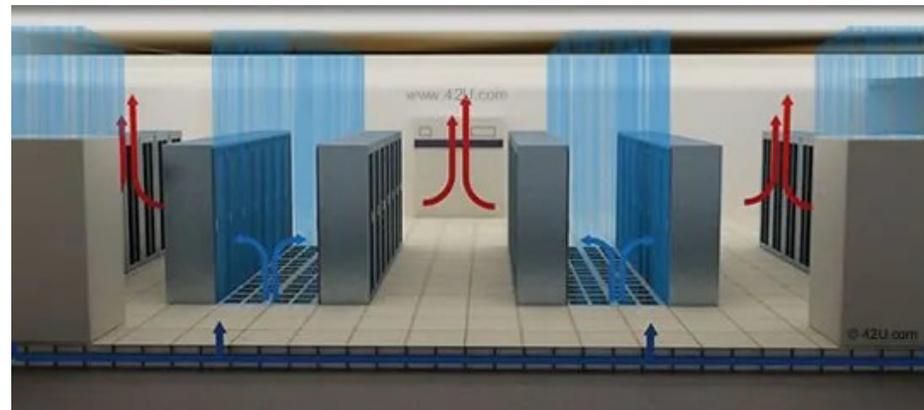
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The **hot aisle/cold aisle layout** helps prevent cold “supply” air from mixing with hot exhaust air, resulting in cooling savings from 10 to 35 percent. While hot aisle/cold aisle layout is a sound start on the road to an energy-efficient Central Office, hot exhaust air can still flow over the top of equipment, leading to higher equipment inlet temperatures at the upper portion of equipment racks. (See Figure 1.) Likewise, air from the cold aisle can “short circuit” by flowing around the sides or over the tops of racks to mix with hot return air. Both of these scenarios result in energy waste because fans and HVAC units must work harder to make up for higher temperatures in the cold aisle.

Without Containment:



With Containment:



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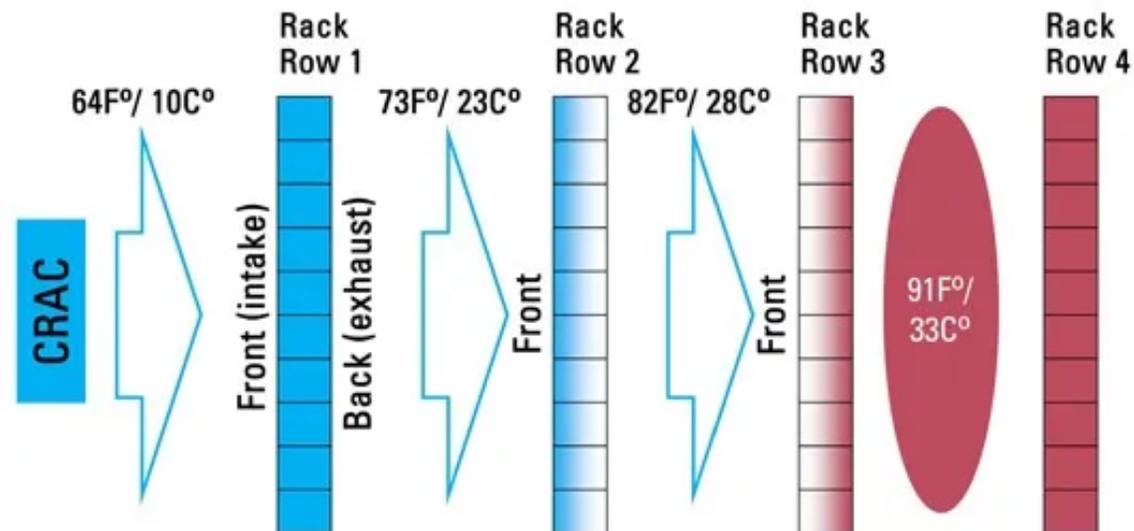
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What happens if you don't use hot aisle/cold aisle layouts?

If servers are placed in rows with their fronts all facing the same direction, a significant problem arises. The hot exhaust air from the first row of racks gets drawn into the fronts of the second row of racks. With each progressive row, the server inlet temperature increases as hot air is passed from one row of servers to the next.

Example:



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Standard-Duty Vertical Barrier Panel Examples:



**Single Std-Duty Barrier Panel
installed between PDU and IT Rack**



**Std-Duty Barrier Panels
installed Side-by-Side to
fill void between IT Racks**

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Standard-Duty Vertical Barrier Examples: Used in Above-Rack Applications



Std-Duty Above-Rack Barrier Panels used to even-out/equalize cabinet heights for Cold-Aisle Containment



Std-Duty Above-Rack Barrier Panels used between tops of racks and ceiling for Hot-Aisle Containment

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Heavy-Duty Vertical Barrier Panel Examples:



Single HD Barrier used for aisle-end offset for sliding door



Qty 4 HD Barrier Panels installed side-by-side to create rigid wall

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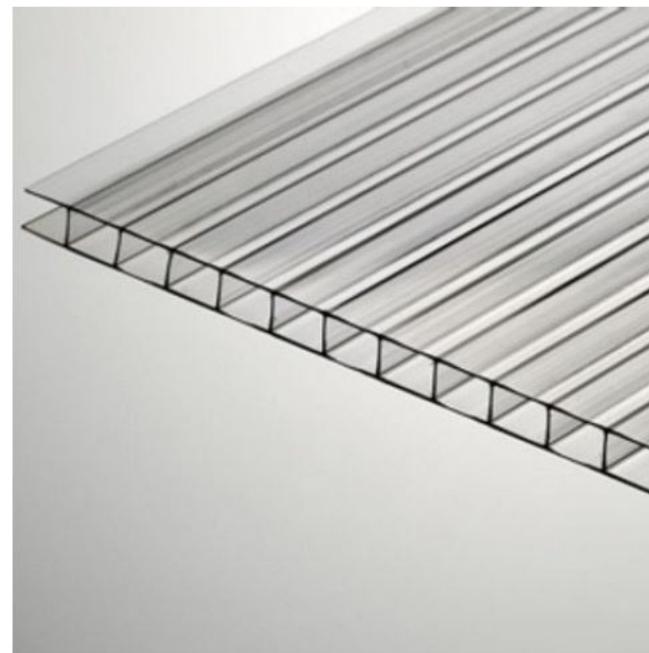
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Standard-Duty Barrier Panel Construction:



Std-Duty Barrier Panels include a 4-sided "T-Slot" frame made with a 1" x 1" clear or black-anodized aluminum extrusion



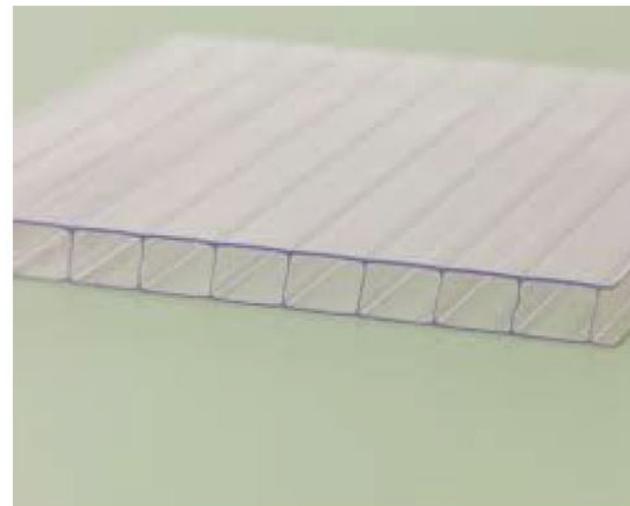
Std-Duty Barrier Panels include a clear insert made with 6MM clear polycarbonate "Twin-Wall"

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Heavy-Duty Barrier Panel Construction:



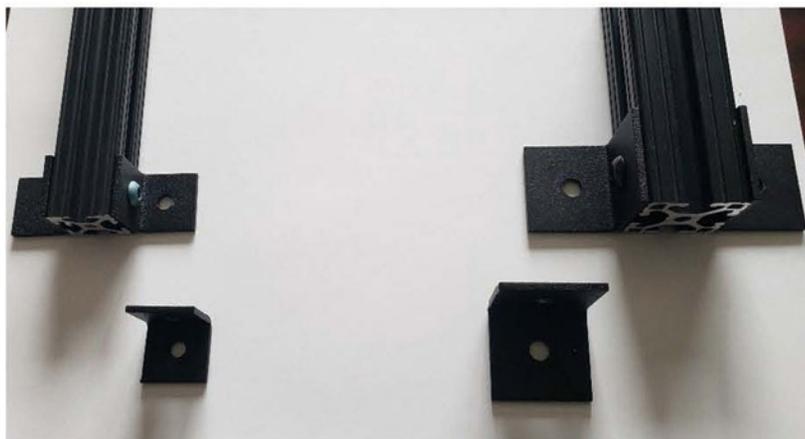
Heavy-Duty Barrier Panels include a 4-sided "T-Slot" frame made with a 1.5" x 1.5" clear or black-anodized aluminum extrusion



Heavy-Duty Barrier Panels include a clear insert made with 8MM clear polycarbonate "Twin-Wall"

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Barrier Panel Attachment Options:



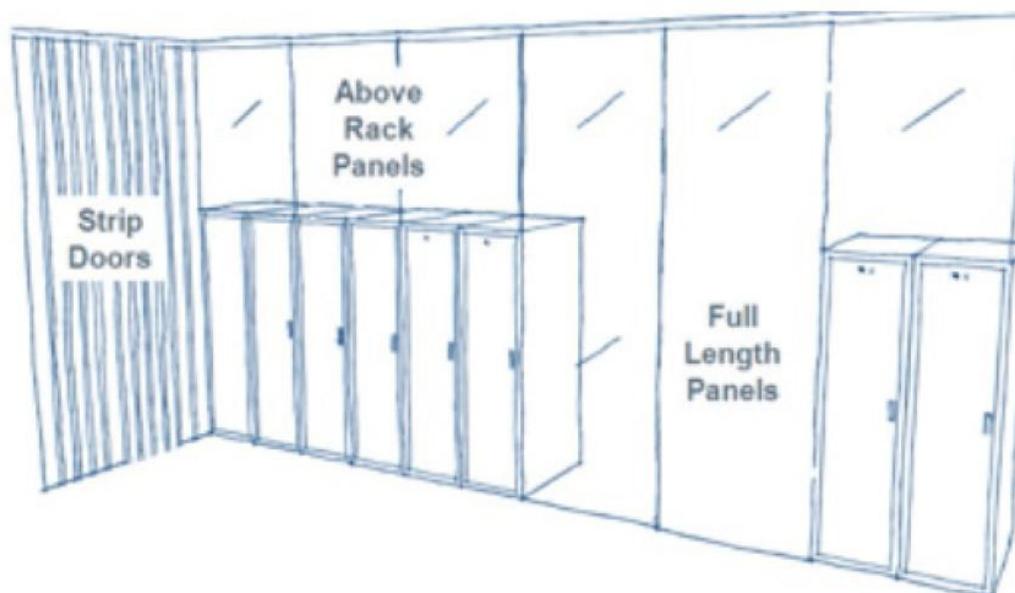
90-degree Angle Brackets used to connect Std and HD panels to floors, wall, door frames, etc



Flat Brackets used to connect adjacent panels to one another

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Vinyl Options: Strip Curtain "Doors" and Vinyl Panels



**Curtain are typically deployed in three ways:
Strip Doors, Above Rack Vinyl Panels, and Full-Length Vinyl Panels**

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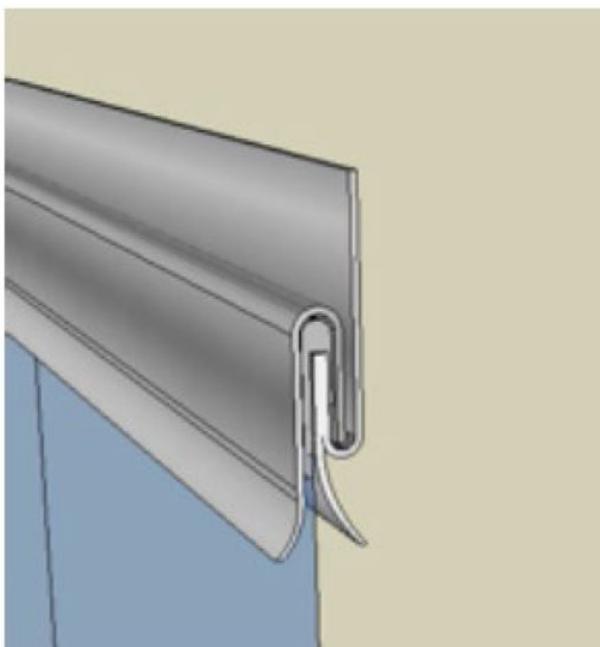
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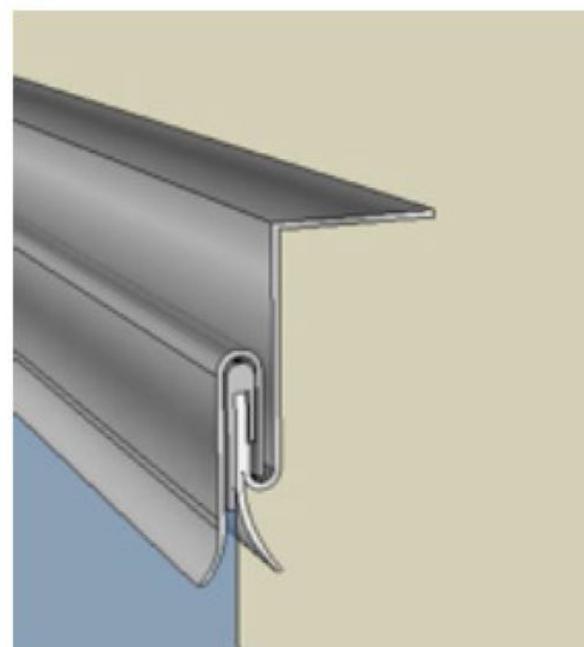
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Curtain and Vinyl Panel Extrusion: Flat-Mount and Angle Mount



Flat-Wall Mounting Channel



Angle Mounting Channel

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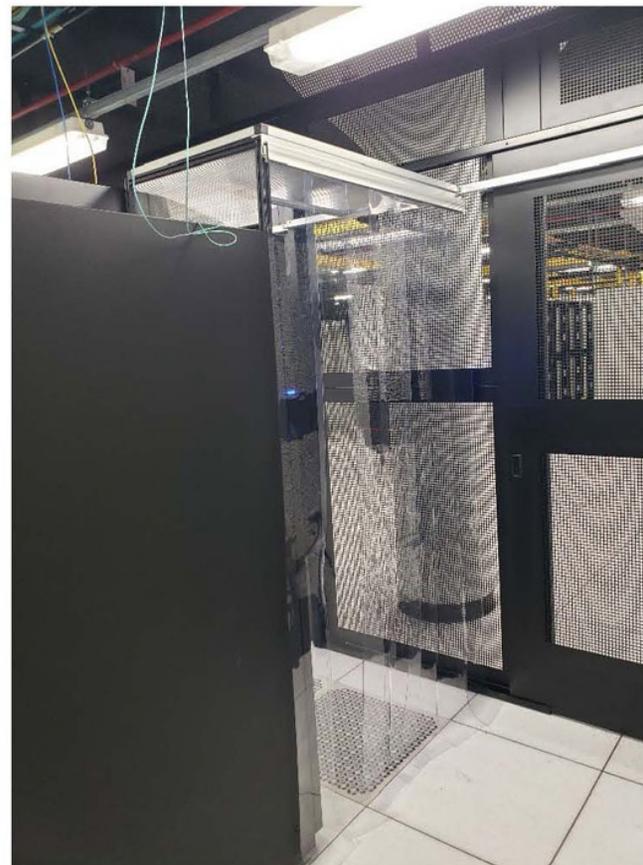
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Strip Curtain "Doors"



**Strip Curtain "Door" installed
between Heavy-Duty Panel and cabinet**



**Strip Curtain "Door" installed
between cabinet and cage wall**

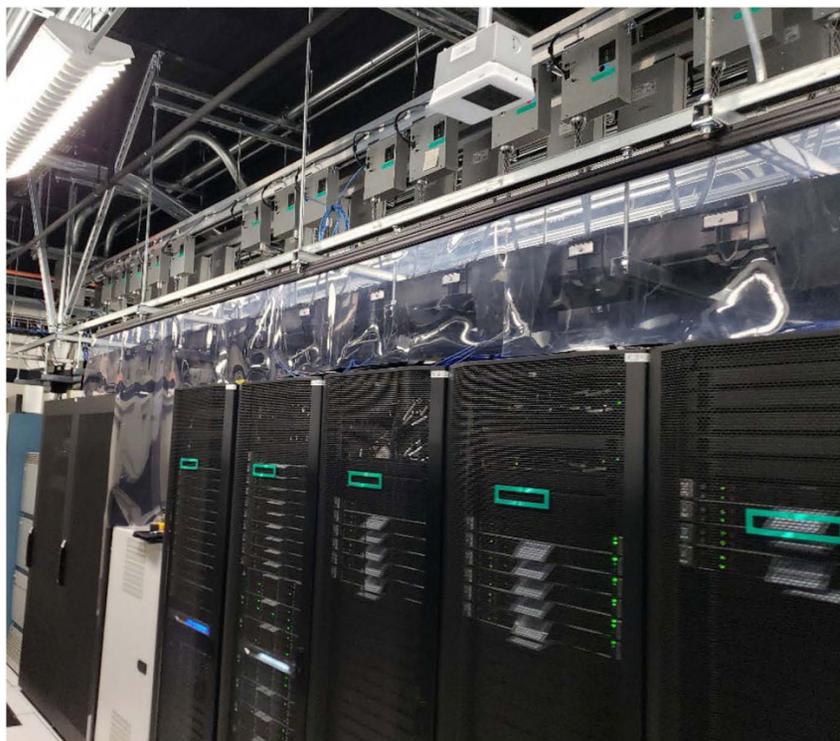
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Above-Rack and Full-Length Panels:



Above-Rack Panels installed above racks of varying heights



Full-Length Panels used to form a Cold-Aisle "Wall"

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