

VERICOM[®]

The Future Of Technology - Today.

Cold Aisle Containment System



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Vericom Global Solutions is a leading provider of network infrastructure and connectivity solutions for enterprise, government, and operator markets. With global headquarters in Knoxville, TN, we provide best-in-class solutions to more than 30 countries worldwide.

We deliver a comprehensive product portfolio designed to meet Vericom customers' network infrastructure needs in an increasingly connected world through our global network of distributors and integrators.

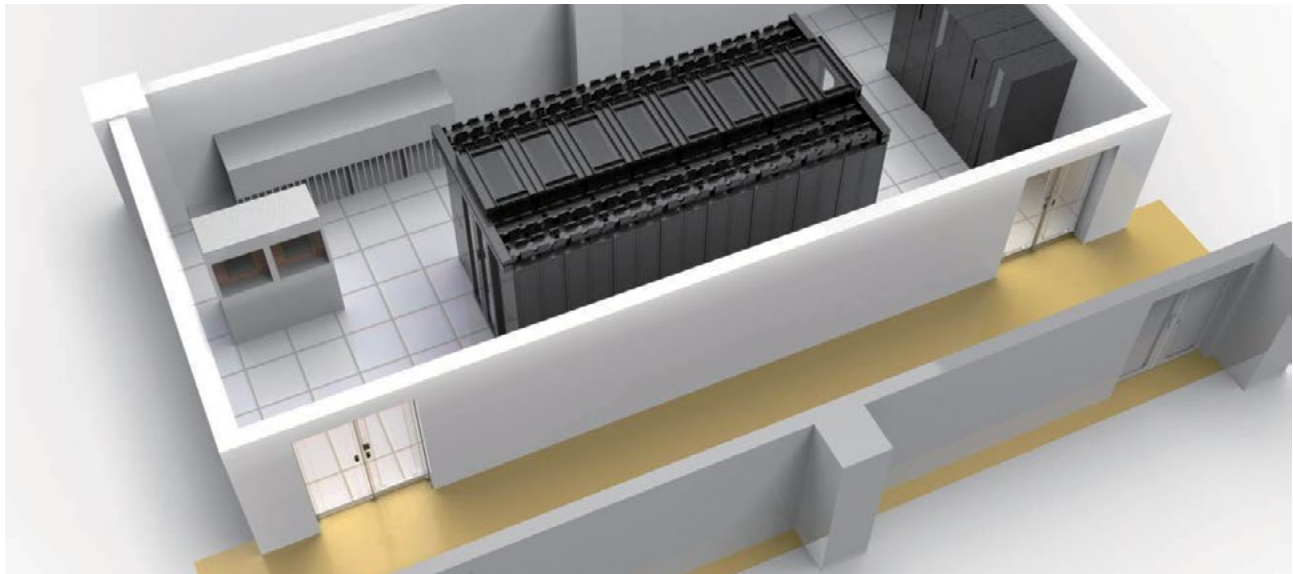
In addition to Vericom innovative design, engineering and manufacturing capabilities, we are the relationship of choice for a diverse family of clients worldwide who are confident in our ability to consistently perform to a standard of excellence that is without equal in the industries we serve.



Industry Compliant Manufacturing Capabilities

- 5+ Major Manufacturing Facilities (3.5M sq. ft)
- State-of-art Research and Development Center
- 4k+ Employees
- EC/ETL Verified
- ISO Certified
- UL Listed





Aisle Containment Offers Increase In Energy Efficiency

Vericom has created an outstanding modular solution to help you overcome the various challenges associated with data centers, such as increasing cabinet densities, budgetary constraints, lack of airflow management, and high energy costs. Our cold aisle containment solution effectively eliminates the mixing of hot and cold air to maximize efficiency and lower operating costs. We offer you a turnkey solution that provides maximum flexibility in design, operation, and upgrades.

The Vericom Cold Aisle Containment System can support single or double rows of up to 40 total cabinets and includes skylights, aisle doors, cable troughs, and other necessary components. Power density of a single cabinet can range from 1 kw to 20kw.

Ideally Suited For

- Data centers with raised flooring utilizing underfloor cooling methodology
- Data centers with a slab floor utilizing row based air conditioners
- Data centers with hybrid cooling architecture
- Flexible deployment with existing data center infrastructure retrofitting or new construction
- Flexible installation and fixture, supporting most neutral racks from other vendors
- Pivoting skylights with fire system integration that open automatically to allow suppression agent to enter the contained area

Features

Vericom's Cold Aisle Containment System is a standardized, modular platform with built-in flexibility to meet a wide range of requirements. It is a robust solution with built-in features for safety, security, and expandability, designed for rapid deployment and installation. Our energy-efficient platform reduces up-front investment and lowers operating expenses.

Cabinet System

- Flexible expansion and quick deployment
- Suitable for retrofitting or new construction
- Rack height: 78.5" (42U), 84" (45U), 89" (48U)
- Rack depth: 42", 48"
- Aisle width: 36", 48"



Skylight System

- A variety of skylight designs available
- LED lighting on each panel
- Infrared sensor for LED control
- Integration of skylights and fire suppression system provides automatic opening of skylights in 0.5 seconds



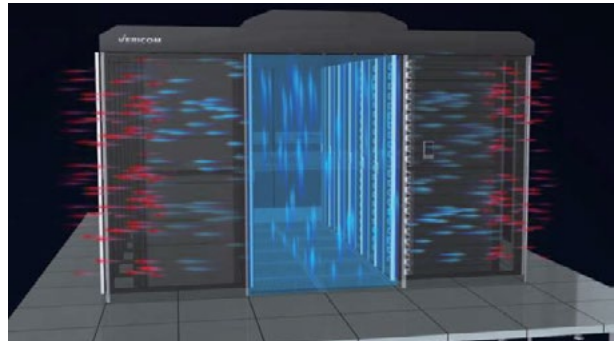
Sliding Door System

- 1/2" clear acrylic shatterproof material for added security
- Sliding doors with automatic opening and closing
- Available IC card, fingerprint, and password control
- Optional LCD touch screen
- Infrared sensor on each door frame prevents closure when standing in the doorway



Cold Aisle configuration for equipment rows is considered to be the best practice for separating hot and cold air. The goal is to achieve energy conservation and lower cooling cost by managing air flow.

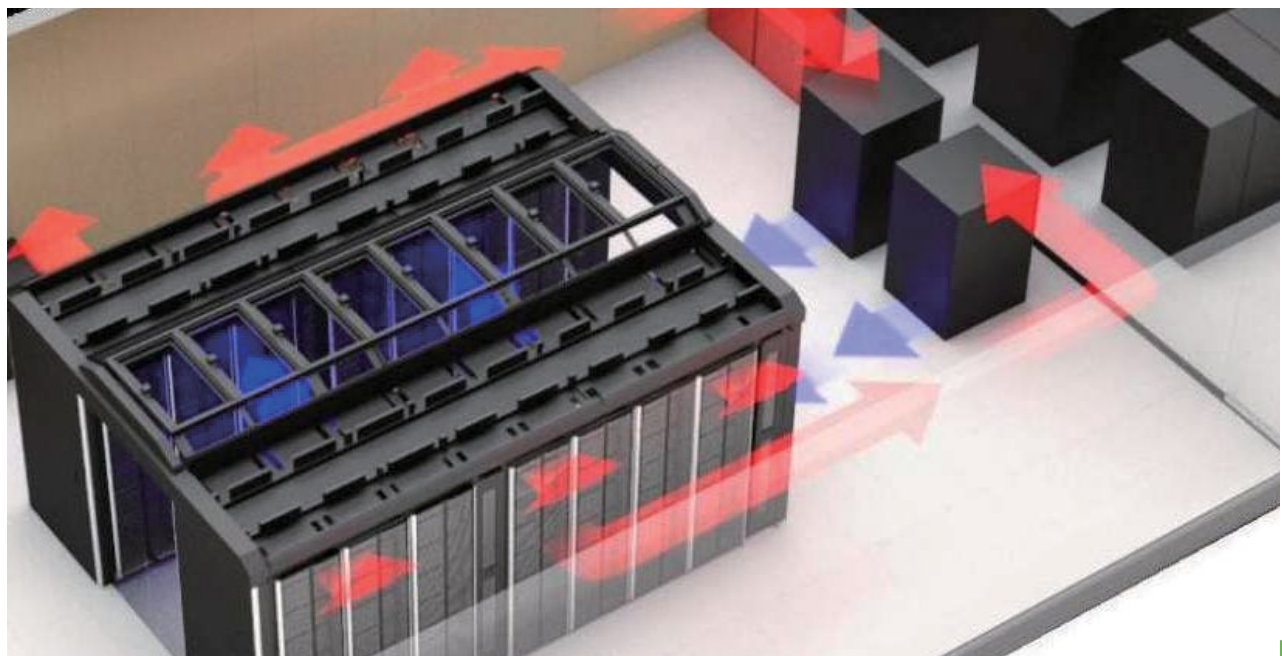
Cold Aisle Containment provides a physical barrier that isolates hot air from cold air and prevents them from mixing due to recirculation.



The Vericom Cold Aisle Containment System Offers a Flexible Approach Compatible With Hybrid Cooling Methodologies

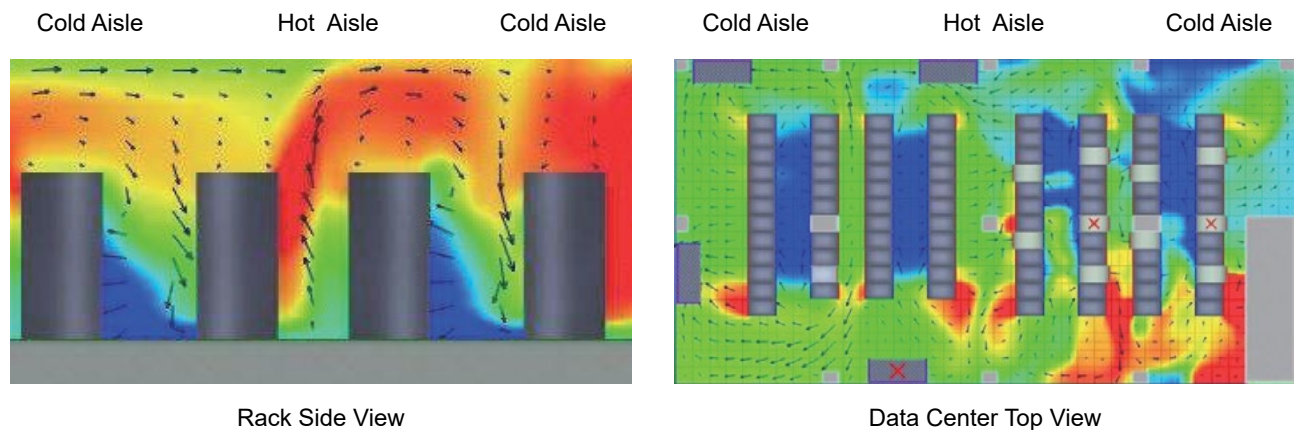
Retrofitting an existing data center with no air containment systems in place can be challenging. In some cases data centers include a mix of cooling methodologies, such as row and room-based cooling, to address varying equipment densities. However, these incongruous systems often provide inconsistent cooling across the data center and can create hot spots.

Vericom's Cold Aisle Containment System supports both cooling methodologies and helps to balance the delivery of cold air to IT equipment. The cold aisle is sealed via skylights above the aisle and doors at each end, preventing hot air from entering the aisle and mixing with the cool air supply.



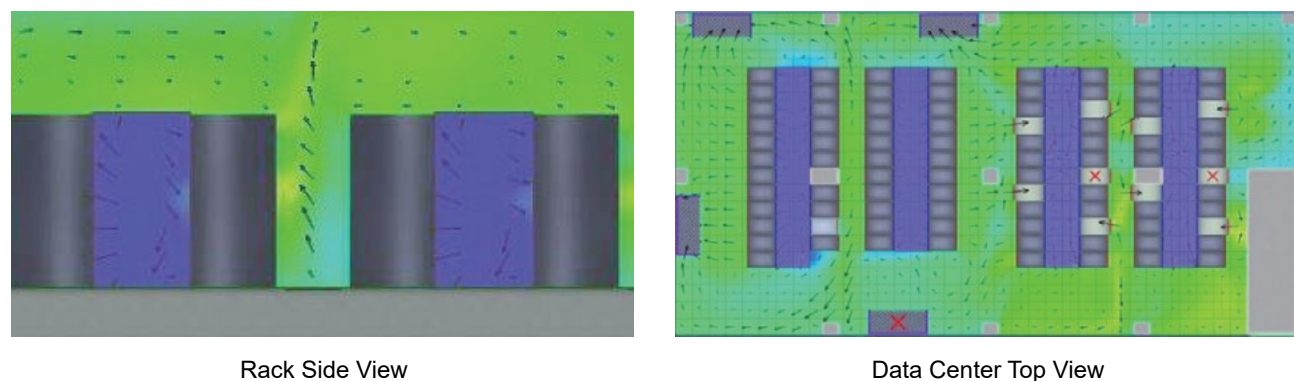
CFD Analysis Of A Traditional Data Center vs. A Data Center With Cold Aisle Containment

Traditional Data Center without Cold Aisle Containment



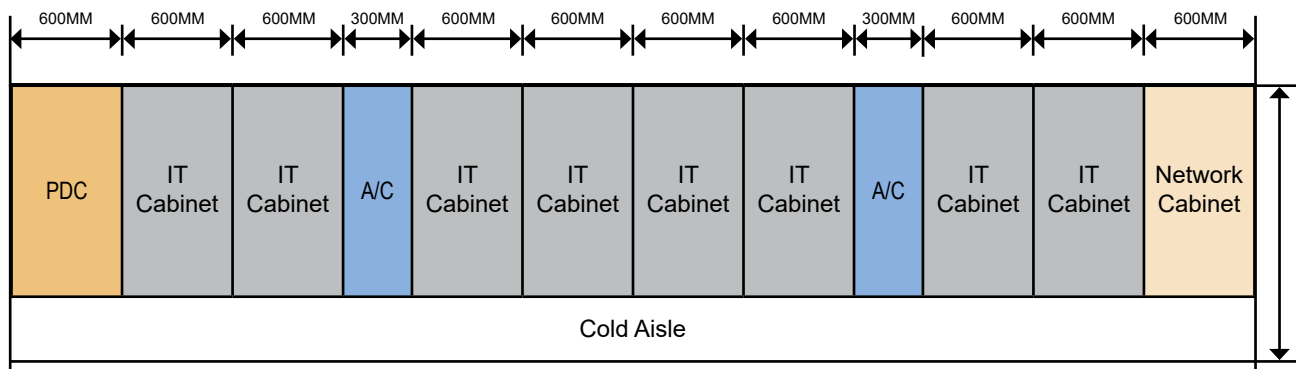
Problem: Temperature billboard for a traditional data center without cold aisle containment shows a number of hot spots, cold and hot air mixing, variation in rack inlet temperature, high inlet temperature for equipment mounted on top of racks, and higher exhaust temperatures. This results in inefficient use of the cold air supply, a lower return temperature for CRAC units, higher inlet temperature for equipment (thus leading to higher exhaust hot air), and an increase in equipment power consumption due to higher fan speed and inefficient performance by CRACs.

Data Center with Cold Aisle Containment



Solution: Temperature billboard for a data center with cold aisle containment shows a significant decrease in hot exhaust air from equipment while receiving lower temperatures in the cold aisle. Hot and cold air mixing has been all but eliminated, allowing the cold aisle to maintain the required temperature and reducing energy usage.

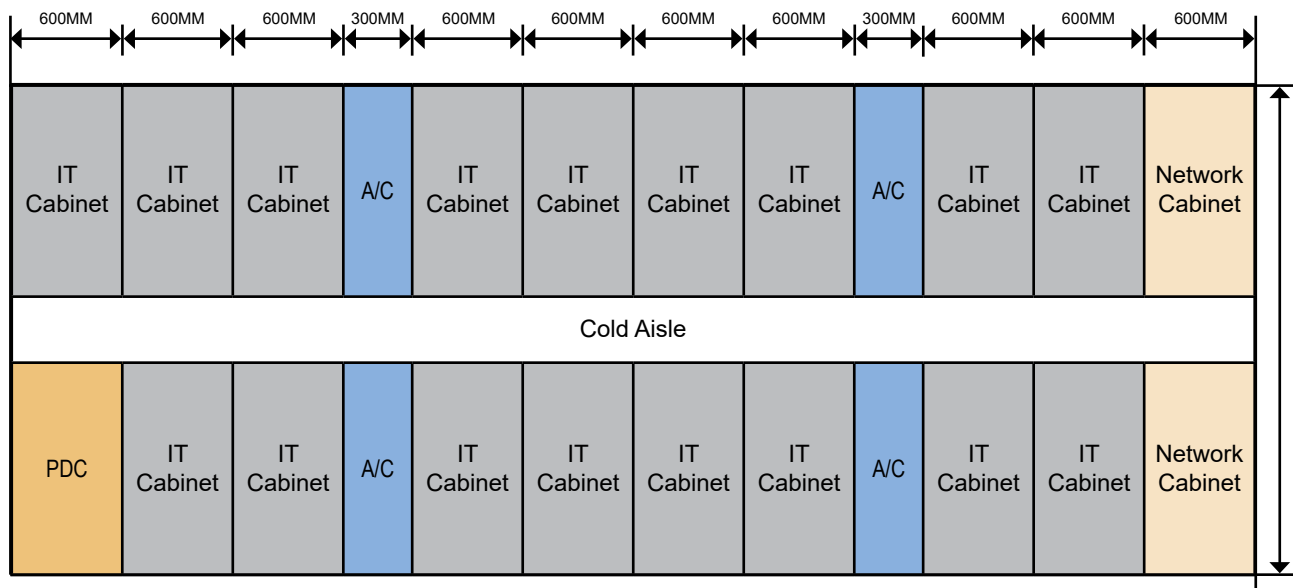
Single Row Aisle Containment Configuration



Features & Benefits

- Sliding entrance doors at both ends
- Active skylight integrated with fire suppression system
- Designed for continuous rack row without any obstruction, opening, missing rack or columns
- Easy to install and integrate with most neutral racks from other vendors
- Access control feature with IC card, fingerprint, and password

Double Row Aisle Containment Configuration



Features & Benefits

- Sliding entrance door at both ends
- Active skylight integrated with fire suppression system
- Skylights attach to both rows and require uniform rack height, width, and row length
- Designed for continuous rack row without any obstruction, opening, missing rack or columns
- Easy to install and integrate with most neutral racks from other vendors
- Access control feature with IC card, fingerprint, and password

VC5 Data Center Cabinets

Vericom Cabinets provide a customizable solution for data center build-outs, network rooms, or IT closets. The feature-rich, robust design can be shipped flat packed or as a custom configured solution that is fully assembled with Vericom accessories pre-installed.

Vericom Cabinets offer multiple size combinations and abundant accessories to meet your specific needs.



Compliance

- ANSI/EIA RS-310D
- IEC60297-2
- DIN41494; Part 1
- DIN41494; Part 7
- UL 2416



LOAD CAPACITY

Benefits

Security & Protection

- Locking doors and side panels prevent unauthorized access to equipment
- Two pairs of adjustable 19" EIA rails provide a stable mounting structure

Flexibility

- Multiple cable entry options provide greater flexibility during installation
- Half height side panels include slam lock latches and easily lift off to access equipment
- Rail depth is infinitely adjustable to match any equipment depth

Multi-Use

- Adaptable for use in data center build outs, computer rooms or data closets

Key Features

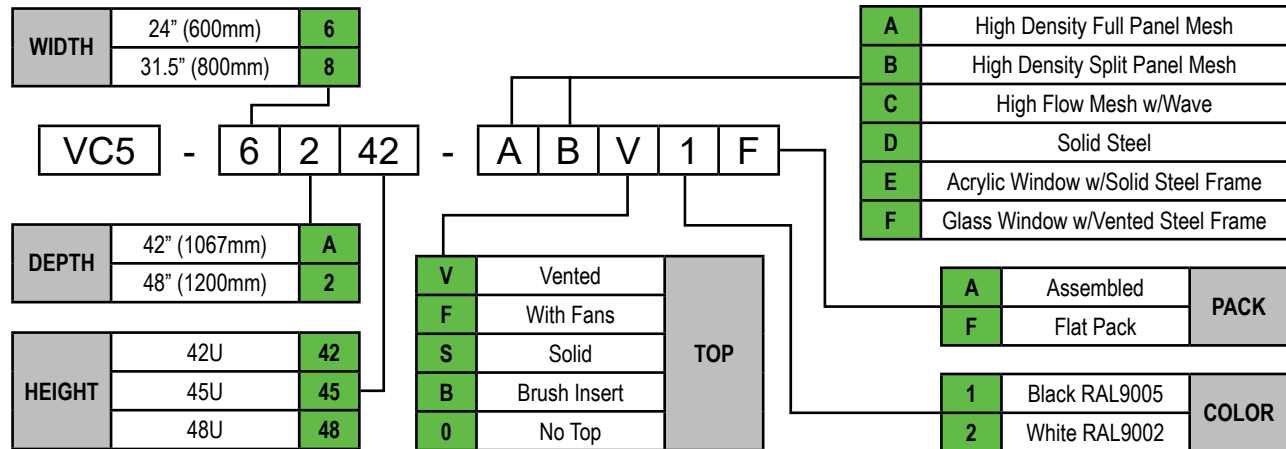
- 5" wide lacing panel in each rear corner provides additional vertical cable management and zero-U mounting of vertical PDUs
- Doors open 180 degrees and include easy lift-off hinges
- Cable entry holes on top panel include brush panels to maintain air containment and prevent debris from entering cabinet

Specifications

Front Door	Removable, Reversible, & Lockable Full Panel Mesh Door w/2-Point Latch, Opens 180°
Rear Door	Removable & Lockable Split Panel Mesh Door w/3-Point Latch, Opens 180°
Top	(1) Removable Solid Panel for Optional Fan Unit (2-6) Brush Cable Entry Openings (Quantity Based on Cabinet Width and Depth)
Side Panel	Half height, Removable (2 Per Side)
Bottom Panel	Sliding / Removable Panels

Equipment Support	2 Pair of Mounting Rails (1.75" RU Spacing, Marked and Numbered on Rails, 19" W, EIA-310-D Universal Hole Spacing)
Grounding	14AWG Ground Wires Connect Doors and Side Panels to Cabinet Frame
Static Load Capacity	3,000 lbs/1,360 kgs
Included Accessories	(50) Sets of 10-32 Screws & Cage Nuts (4) Adjustable Leveling Feet (4) Casters (1) Grounding Kits (2) Keys

Definition of Code



Ordering Information

Part No.	Capacity (U)	Height Inch (mm)	Width Inch (mm)	Depth Inch (mm)
VC5-6A42-■■■■■	42	78.66 (1998.0)	23.62 (600)	42 (1067)
VC5-6A45-■■■■■	45	83.94 (2132.0)		
VC5-6A48-■■■■■	48	89.17 (2264.8)		
VC5-6242-■■■■■	42	78.66 (1998.0)		47.24 (1200)
VC5-6245-■■■■■	45	83.94 (2132.0)		
VC5-6248-■■■■■	48	89.17 (2264.8)		
VC5-8A42-■■■■■	42	78.66 (1998.0)	31.5 (800)	42 (1067)
VC5-8A45-■■■■■	45	83.94 (2132.0)		
VC5-8A48-■■■■■	48	89.17 (2264.8)		
VC5-8242-■■■■■	42	78.66 (1998.0)		47.24 (1200)
VC5-8245-■■■■■	45	83.94 (2132.0)		
VC5-8248-■■■■■	48	89.17 (2264.8)		

Note: Not all available part numbers are listed. For more information, please contact your Vericom Representative.

End of Row Skylight



Arc Type With Flat Cable Trough



Flat Type With M-shape Cable Trough

Active Flat Skylight



Single Pane Window



Split Pane Window

Active Arc Skylight



Single Pane Window



Split Pane Window

Vericom Skylight Product Guide

- Shatter-proof clear acrylic in center enclosed within powder coated steel frames
- Fixed panels for aisle ends with flat cable troughs
- Active skylights for center aisle automatically open in case of fire via an electromagnetic lock, which is seamlessly integrated with existing room-based fire suppression system
- No plumbing extension or extra work required in areas with existing fire suppression system
- Active skylights available with single or split pane configurations
- LED lighting within the aisle provides sufficient light for access and maintenance
- Optional Infrared motion sensor based lighting control
- Quick deployment and easy changes/moves
- Skylights available in flat or arc designs

Material

- High Quality Cold Rolled Steel Plate

Aisle Width

- 36"
- 48"

Finish

- RAL9005 Black Powder Coated Finish
- RAL9002 White Powder Coated Finish

Rack Width

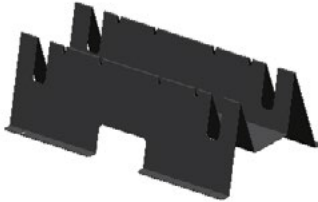
- 24" (600mm)
- 31.5" (800mm)

Ordering Information

Part No.	Description	Supporting Panel Height Inch (mm)	Cabinet Width Inch (mm)	Aisle Width Inch (mm)	Skylight Type
VR06-3612X-1	End Skylight with M-shape Cable Trough	11.81 (300)	23.62 (600)	48 (1219.2)	Right-angled
VR06-3612X-2	End Skylight with M-shape Cable Trough	11.81 (300)	23.62 (600)	48 (1219.2)	Arc
VR06-3812X-1	End Skylight with M-shape Cable Trough	11.81 (300)	31.50 (800)	48 (1219.2)	Right-angled
VR06-3812X-2	End Skylight with M-shape Cable Trough	11.81 (300)	31.50 (800)	48 (1219.2)	Arc
VR06-3612G-1	End Skylight with Flat Cable Trough	11.81 (300)	23.62 (600)	48 (1219.2)	Right-angled
VR06-3612G-2	End Skylight with Flat Cable Trough	11.81 (300)	23.62 (600)	48 (1219.2)	Arc
VR06-3812G-1	End Skylight with Flat Cable Trough	7.87 (200)	31.50 (800)	48 (1219.2)	Right-angled
VR06-3812G-2	End Skylight with Flat Cable Trough	7.87 (200)	31.50 (800)	48 (1219.2)	Arc
VR06-3612S-1	Single Skylight with Electromagnetic Lock	11.81 (300)	23.62 (600)	48 (1219.2)	Right-angled
VR06-3612S-2	Single Skylight with Electromagnetic Lock	11.81 (300)	23.62 (600)	48 (1219.2)	Arc
VR06-3812S-1	Single Skylight with Electromagnetic Lock	11.81 (300)	31.50 (800)	48 (1219.2)	Right-angled
VR06-3812S-2	Single Skylight with Electromagnetic Lock	11.81 (300)	31.50 (800)	48 (1219.2)	Arc
VR06-3612D-1	Double Skylight With Electromagnetic Lock	11.81 (300)	23.62 (600)	48 (1219.2)	Right-angled
VR06-3612D-2	Double Skylight With Electromagnetic Lock	7.87 (200)	23.62 (600)	48 (1219.2)	Arc
VR06-3812D-1	Double Skylight With Electromagnetic Lock	7.87 (200)	31.50 (800)	48 (1219.2)	Right-angled
VR06-3812D-2	Double Skylight With Electromagnetic Lock	7.87 (200)	31.50 (800)	48 (1219.2)	Arc

Note: Not all available part numbers are listed. For more information, please contact your Vericom Representative.

Cable Trough



Rear Cover Plate



Vericom Cable Trough Product Guide

- Convenient installation and placement on the top of the Vericom cabinets provides easy cable installation, routing and maintenance
- Rear cover plates are used for better protection of cables and structure appearance

Material

- High Quality Cold Rolled Steel Plate

Size

- 11.8" (300mm), 23.6" (600mm), and 31.5" (800mm) Length

Finish

- RAL9005 Black Powder Coated Finish
- RAL9002 White Powder Coated Finish

Ordering Information

Part No.	Description	Length: Inch (mm)	Width: Inch (mm)	Height: Inch (mm)
VR07-M3	M-shape Cable Trough	11.81 (300)	12.60 (320)	7.87 (200)
VR07-M6	M-shape Cable Trough	23.62 (600)		
VR07-M8	M-shape Cable Trough	31.50 (800)		
VR07-3	Rear Cover Plate	11.81 (300)	9.45 (240)	1.57 (40)
VR07-6	Rear Cover Plate	23.62 (600)		
VR07-8	Rear Cover Plate	31.50 (800)		



Vericom Single Row Cold Aisle Panel Product Guide

- Suitable for single row aisles
- Shatter-proof clear acrylic enclosed in powder coated steel frame
- Provides support for skylight
- Support sliding doors for containment access

Material

- High Quality Cold Rolled Steel Plate

Size

- 11.8" (300mm), 23.6" (600mm), and 31.5" (800mm) Length

Finish

- RAL9005 Black Powder Coated Finish
- RAL9002 White Powder Coated Finish

Rack Size

- 42, 45, & 48U

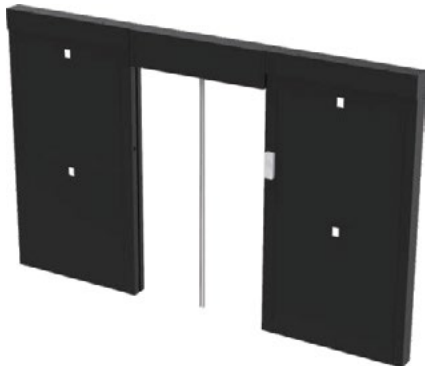
Ordering Information

Part No.	Description	Width: Inch (mm)	Height: Inch (mm)
VR09-342	Single Row Cold Aisle Panel	11.81 (300)	78.67 (1998.0)
VR09-642	Single Row Cold Aisle Panel	23.62 (600)	78.67 (1998.0)
VR09-842	Single Row Cold Aisle Panel	31.50 (800)	78.67 (1998.0)
VR09-345	Single Row Cold Aisle Panel	11.81 (300)	83.94 (2132.0)
VR09-645	Single Row Cold Aisle Panel	23.62 (600)	83.94 (2132.0)
VR09-845	Single Row Cold Aisle Panel	31.50 (800)	83.94 (2132.0)
VR09-348	Single Row Cold Aisle Panel	11.81 (300)	89.17 (2264.8)
VR09-648	Single Row Cold Aisle Panel	23.62 (600)	89.17 (2264.8)
VR09-848	Single Row Cold Aisle Panel	31.50 (800)	89.17 (2264.8)

Sliding Doors



Single Row



Double Row

Vericom Cable Trough Product Guide

- Motorized sliding access door with automatic open and close functionality
- Provides easy access with state-of-the-art access control integration
- Suitable for both double and single row cold aisle containment
- Sliding doors provide greater concealment with matching material and color of Vericom cabinets to provide unified look
- Brush grommets provide optimum sealing and prevent leakage of cold air
- Push buttons on the inside of each door for exiting the containment aisle
- Containment access with IC card, fingerprint and/or password control
- 1/2" thick shatter-proof clear acrylic
- Infrared sensors on the two sides of door prevent closure when standing in the doorway
- Quick, convenient and easy installation

Material

- High Quality Cold Rolled Steel Plate

Aisle Type

- Single Row
- Double Row

Finish

- RAL9005 Black Powder Coated Finish
- RAL9002 White Powder Coated Finish

Aisle Width

- 36"
- 48"

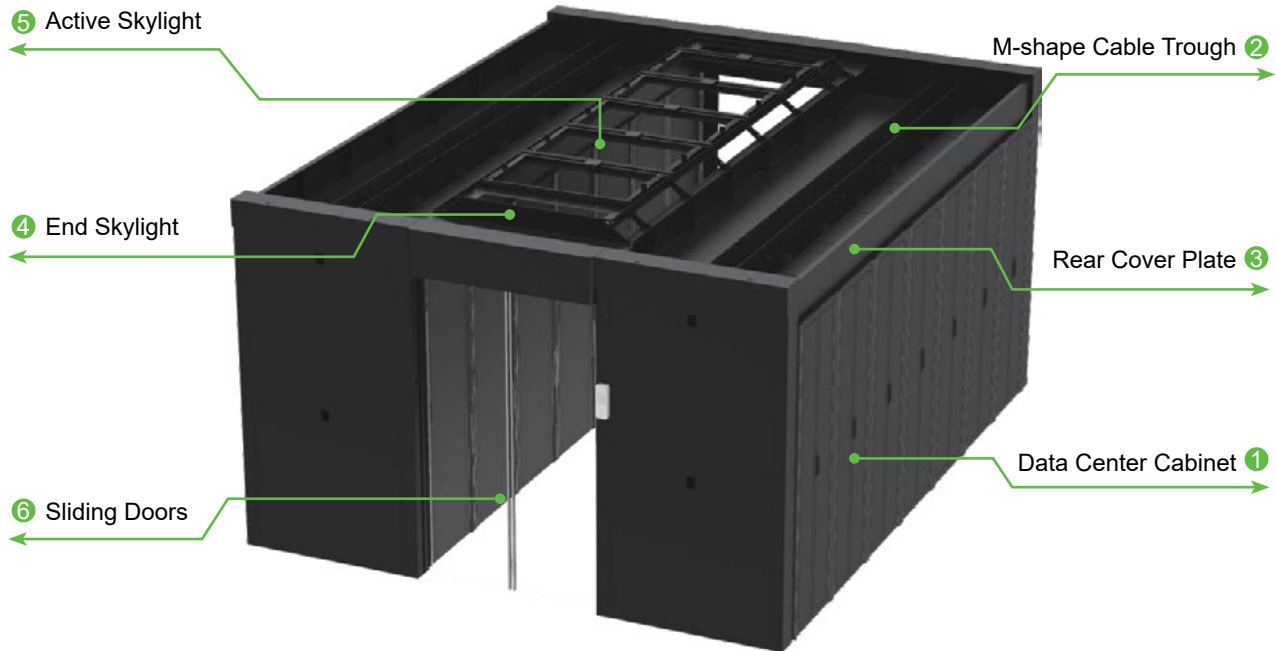
Ordering Information

Part No.	Description	Aisle Width Inch (mm)	Cabinet Depth Inch (mm)	Height Inch (mm)	Features
VR08-121242S-0	Sliding Door for Single Row Aisle Containment	48 (1218.2)	47.24 (1200)	78.66 (1998.0)	Standard Configuration with Access Control Panel
VR08-121242S-2					LED Backlight Included
VR08-121242D-0	Sliding Door for Double Row Aisle Containment	48 (1218.2)	47.24 (1200)	78.66 (1998.0)	Standard Configuration with Access Control Panel
VR08-121242D-2					LED Backlight Included

Note: Not all available part numbers are listed. For more information, please contact your Vericom Representative.

Configuration Standard

The configuration of a cold aisle containment system is determined by the specific technical requirements and the on-site layout of a given installation. For a better understanding of how the Vericom solution works, below is an example configuration of a double row containment pod based on 14 cabinets (24"/600mm width x 48"/1200mm depth x 42U height) and related components.



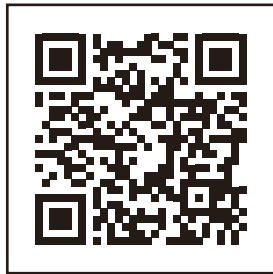
Item	Part No.	Description	Features	Qty
1	VC5-6242-ABS1A	42U x 24"/600mm W x 48"/1200mm D VC5 data center cabinet w/high density single panel mesh front door and split panel mesh rear door	1 Pair of vertical lacing panels, 4 ganging brackets, 50 sets of screws, 4* castors, 4*leveling feet, etc.	14
2	VR07-M6	M-shape cable trough, 24"/600mm width		14
3	VR07-6	Rear cover plate, 24"/600mm width		14
4	VR06-3612X-2	End arc skylight, for 24"/600mm cabinet width and 48"/1219mm aisle width, RAL9005	LED strip with infrared sensor, 11.81"/300mm width cable trough and 11.81"/300mm width clear acrylic skylight, 7.87"/200mm height supporting panel and 3.94"/100mm height supporting arc clear acrylic	2
5	VR06-3612S-2	Active arc skylight, for 24"/600mm cabinet width and 48"/1219mm aisle width, RAL9005	LED strip with infrared sensor, 12V magnetic lock, 24"/600mm width clear acrylic skylight, 7.87"/200mm height supporting panel and 3.94"/100mm height supporting arc clear acrylic	5
6	VR08-121242D-2	Double row containment sliding door, for 48"/1200mm cabinet depth and 42U (78.66"/1998mm) cabinet height, and 48"/1200mm aisle width, RAL9005	1/2" shatter-proof clear acrylic IC card/fingerprint/password access control, electric rail, infrared sensor, brush grommets	2

To ensure that your requirements can be fully met, please contact a Vericom Regional Representative or email sales@vericomsolutions.com for technical support and analysis.

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