

# PRODUCT APPLICATION

## Cabinet Supported Cold Aisle Containment (CAC) Solution

The Cabinet Supported Cold Aisle Containment (CAC) Solution by Chatsworth Products (CPI) features a cabinet supported ceiling that is used over a contained cold aisle as part of a closed cold air delivery system. This solution integrates with perimeter cooling and provides immediate improved cooling efficiency by separating hot and cold air within the room. It can be used as an alternative to hot aisle containment where there are low ceilings or where it would be difficult to add an overhead drop ceiling. It is ideal for small or medium scale data center computer rooms that are adopting containment but need to minimize changes when retrofitting the site.



**1 CPI Cabinet System** – Create cabinet rows using F-Series TeraFrame® Gen 3 Cabinets or GF-Series GlobalFrame® Gen 2 Cabinets. Configure cabinets with Thermal Management Accessories (see page 5) that block airflow through and around cabinets.

**2 Cabinet Supported Ceiling Panel Kit** – Attaches to the tops of cabinets, forming a ceiling over the contained aisle. Ordered as a single part number to match aisle width and length.

**3 Door Mounting Bracket Kit** – Adjustable height brackets used to attach the Aisle Containment Door Assembly to the tops of cabinets.

**4 Door Standoff Kit** – Optional kit used when cabinets are placed over a raised floor to offset the door approximately 2.5" (64 mm) away from the side of cabinets so that the bottom of the door is not located over the edges of floor tiles.

**5 Aisle Containment Door Assembly** – Sliding double doors (shown) or single door, both with automatic closing feature and large transparent panel(s). Attaches to the ends of cabinets to seal the ends of the contained aisle.

**6 Aisle Containment Cabinet To Floor Seal Kit** – Cabinet-specific trim panels used along the base of cabinets to seal the gap between the floor and the bottom of the cabinet frame.

### Containment Accessories

- Adjustable Height Filler Panel
- Universal Cabinet End Panel
- Door Top Seal Kit
- GlobalFrame Door Rail Support Kit
- Floor Mounting Template

### Cabinets and Accessories

- Bottom Panel
- Air Dam
- Snap-In Filler Panels
- Raised Floor Grommet

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# CABINET SUPPORTED COLD AISLE CONTAINMENT (CAC) SOLUTION

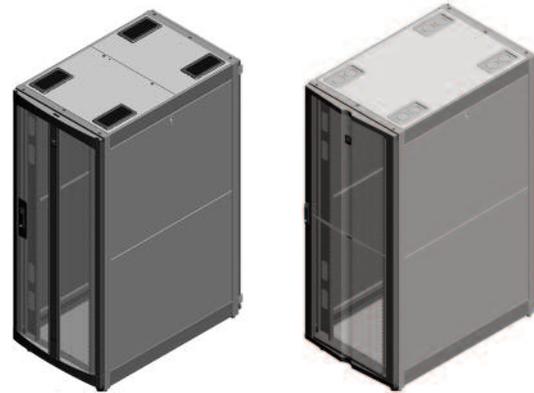
## SOLUTION OVERVIEW

- Cabinet supported ceiling panel kit, ordered as a single part number
- Compatible with F-Series TeraFrame® Gen 3 Cabinets and GF-Series GlobalFrame® Gen 2 Cabinets
- Optional accessory filler panels accommodate shorter cabinets
- Translucent ceiling and transparent door panels allow light to enter the contained aisle
- Doors close automatically to maintain containment and reduce recovery time
- A complete solution maximizes performance with baffles to seal around and within cabinets and the contained aisle
- Durable construction and maintenance-free design provide many years of use

## ORDERING INFORMATION

| CPI Cabinet Systems                        |                 |   |
|--|-----------------|---|
| Part Number & Finish                       |                 | Description                             |
| Black                                      | Glacier White   |   |
| <b>F-Series TeraFrame Gen 3 Cabinet</b>    |                 |   |
| FF1U-113C-C42-B                            | FF1U-113C-E42-B | 45U, 23.6"W (600 mm) x 51.2"D (1300 mm) |
| FF2U-113C-C42-B                            | FF2U-113C-E42-B | 45U, 27.6"W (700 mm) x 51.2"D (1300 mm) |
| FF3U-113C-C42-B                            | FF3U-113C-E42-B | 45U, 31.5"W (800 mm) x 51.2"D (1300 mm) |
| <b>GF-Series GlobalFrame Gen 2 Cabinet</b> |                 |   |
| GF-2A420-CB                                | GF-2A420-EB     | 45U, 23.6"W (600 mm) x 51.2"D (1300 mm) |
| GF-2D420-CB                                | GF-2D420-EB     | 45U, 27.6"W (700 mm) x 51.2"D (1300 mm) |
| GF-2C420-CB                                | GF-2C420-EB     | 45U, 31.5"W (800 mm) x 51.2"D (1300 mm) |

Note: Other sizes are available.



F-Series TeraFrame Gen 3 Cabinet

GF-Series GlobalFrame Gen 2 Cabinet

| Cabinet Supported Ceiling Panel Kit      |               |                             |
|--|---------------|-----------------------------|
| Part Number & Finish                     |               | Description                 |
| Black                                    | Glacier White |                             |
| <b>For 2 Tile, 48"W (1200 mm) Aisles</b> |               |                             |
| 32710-712                                | 32710-E12     | 4"H (100 mm), 20"L (6.0 m)  |
| 32710-775                                | 32710-E75     | 8"H (200 mm), 20"L (6.0 m)  |
| 32710-7BW                                | 32710-EBW     | 12"H (300 mm), 20"L (6.0 m) |
| <b>For 3 Tile, 72"W (1800 mm) Aisles</b> |               |                             |
| 32711-712                                | 32711-E12     | 4"H (100 mm), 20"L (6.0 m)  |
| 32711-775                                | 32711-E75     | 8"H (200 mm), 20"L (6.0 m)  |
| 32711-7BW                                | 32711-EBW     | 12"H (300 mm), 20"L (6.0 m) |

Note: Contact CPI Technical Support for other sizes.



Cabinet Supported Ceiling Panel Kit

| Door Standoff Kit    |               |  |
|----------------------|---------------|--|
| Part Number & Finish |               | Description                                |
| Black                | Glacier White |  |
| 32870-701            | 32870-E01     | For Aisle Containment Double Door Assembly |
| 32870-702            | 32870-E02     | For Aisle Containment Single Door Assembly |

| Door Mounting Bracket Kit                |               |  |
|--|---------------|--|
| Part Number & Finish                     |               | Description  |
| Black                                    | Glacier White |  |
| <b>For Use With Door Standoff Kit</b>    |               |  |
| 32805-703                                | 32805-E03     | 3"H (75 mm), For 85.3"H (2167 mm) to 91.4"H (2322 mm) Cabinets   |
| 32805-704                                | 32805-E04     | 5"H (125 mm), For 82.6"H (2098 mm) to 94.2"H (2393 mm) Cabinets  |
| 32805-705                                | 32805-E05     | 10"H (254 mm), For 77.8"H (1976 mm) to 98.9"H (2512 mm) Cabinets |
| <b>For Use Without Door Standoff Kit</b> |               |  |
| 32805-700                                | 32805-E00     | 3"H (75 mm), For 85.3"H (2167 mm) to 91.4"H (2322 mm) Cabinets   |
| 32805-701                                | 32805-E01     | 5"H (125 mm), For 82.6"H (2098 mm) to 94.2"H (2393 mm) Cabinets  |
| 32805-702                                | 32805-E02     | 10"H (254 mm), For 77.8"H (1976 mm) to 98.9"H (2512 mm) Cabinets |

Note: Two versions, select for use with or without Door Standoff Kit.



Door Standoff Kit



Door Mounting Bracket Kit

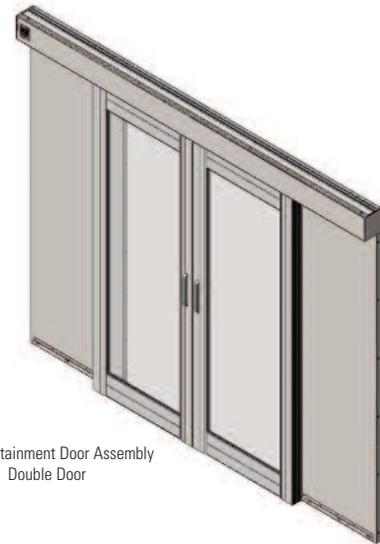
## ORDERING INFORMATION

| Aisle Containment Door Assembly        |               |                                    |
|--|---------------|------------------------------------|
| Part Number & Finish                   |               | Description                        |
| Black                                  | Glacier White |                                    |
| <b>Double Door</b>                     |               |                                    |
| 32770-701                              | 32770-E01     | With Painted Door Frames           |
| 32770-702                              | 32770-E02     | With Anodized Aluminum Door Frames |
| <b>Single Door, Opens To The Right</b> |               |                                    |
| 32780-702                              | 32780-E02     | With Painted Door Frames           |
| 32780-704                              | 32780-E04     | With Anodized Aluminum Door Frames |
| <b>Single Door, Opens To The Left</b>  |               |                                    |
| 32780-701                              | 32780-E01     | With Painted Door Frames           |
| 32780-703                              | 32780-E03     | With Anodized Aluminum Door Frames |

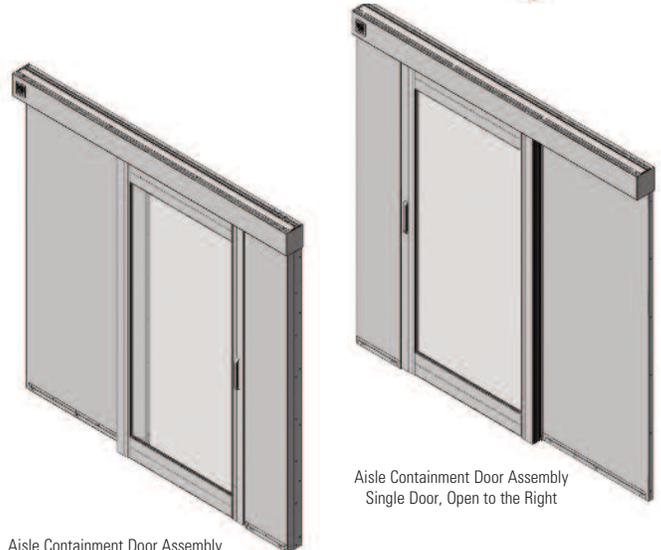
Notes: Double door spans two to three tile aisles and has a 42"W (1067 mm) door opening. Single door is right or left opening, spans two tile aisles and has a 32"W (812 mm) door opening. Order one Floor Mounting Template for each site, see Containment Accessories, page 4.

| Aisle Containment Cabinet To Floor Seal Kit<br>for F-Series TeraFrame® Gen 3 Cabinet and GF-Series GlobalFrame® Gen 2 Cabinet |               |   |
|---|---------------|---|
| Part Number & Finish  |               | Description                             |
| Black   | Glacier White |   |
| <b>Front Seal Kits</b>  |               |   |
| 39208-700   | 39208-E00     | Front Seal, For 23.6"W (600 mm) Cabinet |
| 39208-701   | 39208-E01     | Front Seal, For 27.6"W (700 mm) Cabinet |
| 39208-703   | 39208-E03     | Front Seal, For 29.5"W (750 mm) Cabinet |
| 39208-702   | 39208-E02     | Front Seal, For 31.5"W (800 mm) Cabinet |
| <b>Side Seal Kits</b>   |               |   |
| 39209-700   | 39209-E00     | Side Seal, For 31.5"D (800 mm) frame    |
| 39209-708   | 39209-E08     | Side Seal, For 39.4"D (1000 mm) frame   |
| 39209-710   | 39209-E10     | Side Seal, For 41.3"D (1050 mm) frame   |
| 39209-712   | 39209-E12     | Side Seal, For 43.3"D (1100 mm) frame   |
| 39209-716   | 39209-E16     | Side Seal, For 47.2"D (1200 mm) frame   |

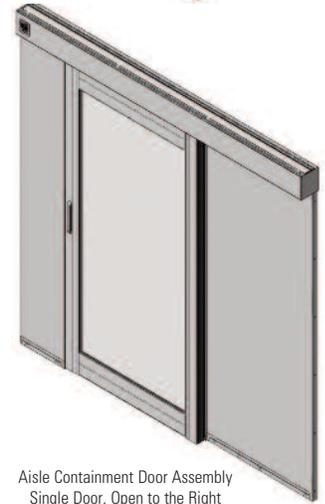
Note: Order one Front Seal Kit for each cabinet. Order one Side Seal Kit for each end of the cabinet row. Other sizes are available. For existing cabinets, check with CPI Technical Support to identify the correct Floor Seal Kit.



Aisle Containment Door Assembly  
Double Door



Aisle Containment Door Assembly  
Single Door, Open to the Left



Aisle Containment Door Assembly  
Single Door, Open to the Right



Aisle Containment Cabinet to Floor  
Front Seal Kit



Aisle Containment Cabinet to Floor  
Side Seal Kit

## ACCESSORIES

### Containment Accessories

The following accessories are used in specific applications, when cabinet heights vary, if cabinets are taller than the Aisle Containment Door and to help install the doors.

| Adjustable Height Filler Panel                     |               |                              |
|--|---------------|------------------------------|
| Part Number & Finish                               |               | Description                  |
| Black  | Glacier White |                              |
| <b>For up to 3U High Cabinet Height Difference</b> |               |                              |
| 32728-701  | 32728-E01     | For 23.6"W (600 mm) Cabinets |
| 32728-704  | 32728-E04     | For 24.0"W (610 mm) Cabinets |
| 32728-707  | 32728-E07     | For 27.6"W (700 mm) Cabinets |
| 32728-713  | 32728-E13     | For 31.5"W (800 mm) Cabinets |
| <b>For up to 6U High Cabinet Height Difference</b> |               |                              |
| 32728-702  | 32728-E02     | For 23.6"W (600 mm) Cabinets |
| 32728-705  | 32728-E05     | For 24.0"W (610 mm) Cabinets |
| 32728-708  | 32728-E08     | For 27.6"W (700 mm) Cabinets |
| 32728-714  | 32728-E14     | For 31.5"W (800 mm) Cabinets |
| <b>For up to 9U High Cabinet Height Difference</b> |               |                              |
| 32728-703  | 32728-E03     | For 23.6"W (600 mm) Cabinets |
| 32728-706  | 32728-E06     | For 24.0"W (610 mm) Cabinets |
| 32728-709  | 32728-E09     | For 27.6"W (700 mm) Cabinets |
| 32728-715  | 32728-E15     | For 31.5"W (800 mm) Cabinets |



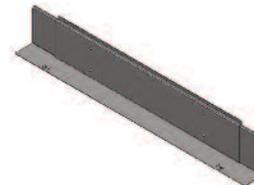
Adjustable Height Filler Panel

| Universal Cabinet End Panel                        |               |   |
|--|---------------|---|
| Part Number & Finish                               |               | Description                                     |
| Black  | Glacier White |   |
| <b>For up to 3U High Cabinet Height Difference</b> |               |   |
| 32720-704  | 32720-E04     | Adjusts from 19.7"W (500 mm) to 27.6"W (700 mm) |
| 32720-710  | 32720-E10     | Adjusts from 23.6"W (600 mm) to 31.5"W (800 mm) |
| <b>For up to 6U High Cabinet Height Difference</b> |               |   |
| 32720-705  | 32720-E05     | Adjusts from 19.7"W (500 mm) to 27.6"W (700 mm) |
| 32720-711  | 32720-E11     | Adjusts from 23.6"W (600 mm) to 31.5"W (800 mm) |
| <b>For up to 9U High Cabinet Height Difference</b> |               |   |
| 32720-706  | 32720-E06     | Adjusts from 19.7"W (500 mm) to 27.6"W (700 mm) |
| 32720-712  | 32720-E12     | Adjusts from 23.6"W (600 mm) to 31.5"W (800 mm) |



Universal Cabinet End Panel

| Door Top Seal Kit                        |               |   |
|--|---------------|---|
| Part Number & Finish                     |               | Description                                   |
| Black                                    | Glacier White |   |
| <b>For Use With Door Standoff Kit</b>    |               |   |
| 32817-704                                | 32817-E04     | Adjusts from 48"W (1219 mm) to 59"W (1500 mm) |
| 32817-705                                | 32817-E05     | Adjusts from 59"W (1500 mm) to 70"W (1775 mm) |
| 32817-706                                | 32817-E06     | Adjusts from 70"W (1775 mm) to 81"W (2050 mm) |
| <b>For Use Without Door Standoff Kit</b> |               |   |
| 32817-701                                | 32817-E01     | Adjusts from 48"W (1219 mm) to 59"W (1500 mm) |
| 32817-702                                | 32817-E02     | Adjusts from 59"W (1500 mm) to 70"W (1775 mm) |
| 32817-703                                | 32817-E03     | Adjusts from 70"W (1775 mm) to 81"W (2050 mm) |



Door Top Seal Kit

Note: Use when the tops of cabinets are over 88" (2235 mm) tall.

| Floor Mounting Template |               |                                   |
|-------------------------|---------------|-----------------------------------|
| Part Number & Finish    |               | Description                       |
| Black                   | Glacier White |                                   |
| 32875-701               | N/A           | For Aisle Containment Double-Door |
| 32875-702               | N/A           | For Aisle Containment Single Door |



Floor Mounting Template

Note: Reusable, order one per site.

## ACCESSORIES

### Cabinet Thermal Management Accessories

Because it is critical to block airflow through and around cabinets, CPI offers cabinet-specific baying kits, seal kits and internal airflow baffles. Additionally, use Snap-In Filler Panels to block airflow around equipment within the cabinet.

| Air Dam, Bottom Panel and Rail Grommets<br>for F-Series TeraFrame Gen 3 and GF-Series GlobalFrame Gen 2 Cabinets |               |   |
|--|---------------|---|
| Part Number & Finish   |               | Description   |
| Black  | Glacier White |   |
| <b>Air Dam For 45U High Cabinets</b>   |               |   |
| 39085-C03  | 39085-E03     | For 23.6"W (600 mm) Cabinets  |
| 39085-C14  | 39085-E14     | For 27.6"W (700 mm) Cabinets  |
| 39085-C25  | 39085-E25     | For 31.5"W (800 mm) Cabinets  |
| <b>Bottom Panel For F-Series TeraFrame Gen 3 Cabinet</b>   |               |   |
| 39132-C00  | 39132-E00     | For 23.6"W (600 mm) Cabinets  |
| 39132-C01  | 39132-E01     | For 27.6"W (700 mm) Cabinets  |
| 39132-C02  | 39132-E02     | For 31.5"W (800 mm) Cabinets  |
| <b>Bottom Panel For GF-Series GlobalFrame Gen 2 Cabinet</b>  |               |   |
| 39080-C00  | 39080-E00     | For 23.6"W (600 mm) Cabinets  |
| 39080-C01  | 39080-E01     | For 27.6"W (700 mm) Cabinets  |
| 39080-C02  | 39080-E02     | For 31.5"W (800 mm) Cabinets  |
| <b>Equipment Rail Grommet Kit</b>  |               |   |
| 39133-001  |               | For 27.6"W (700 mm) and 31.5"W (800 mm)<br>GF-Series GlobalFrame Gen 2 Cabinet, Pack of 8 |

Note: Match cabinet color. Other sizes available.

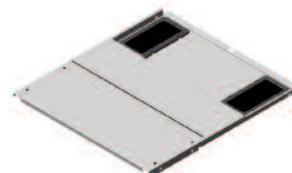
| Snap-In Filler Panels |               |                         |
|-----------------------|---------------|-------------------------|
| Part Number & Finish  |               | Description             |
| Black                 | Glacier White |                         |
| 34537-002             | 34537-E02     | 1U x 19"EIA, Pack of 50 |
| 34538-002             | 34538-E02     | 2U x 19"EIA, Pack of 50 |

Note: Also sold individually and in packs of 6 each.

| Raised Floor Grommets |   |
|-----------------------|---|
| Part Number           | Description   |
| Black                 |   |
| 13671-001             | Raised Floor Grommets, 8.25" (210 mm) x 10.75" (273 mm), Each       |
| 13671-002             | Raised Floor Grommets, 8.25" (210 mm) x 10.75" (273 mm), Pack of 10 |



Air Dam  
39085-XXX



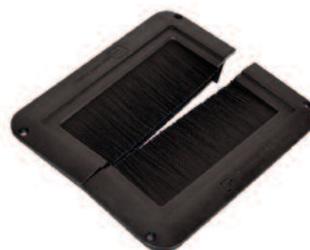
Bottom Panel



Equipment Rail Grommet Kit



Snap-In Filler Panel



Raised Floor Grommets

# CABINET SUPPORTED COLD AISLE CONTAINMENT (CAC) SOLUTION

## HOW TO GET STARTED

The specific combination of components needed to create a complete Cabinet Supported Cold Aisle Containment (CAC) Solution will depend on a number of factors including room layout, ceiling height and what types of cabinet models are selected.

To ensure you have a complete solution that addresses site- and cabinet-specific requirements, please contact CPI Technical Support for assistance developing a Bill of Materials (BOM).

Based on your input, CPI Technical Support will propose a complete solution with a drawing and detailed BOM. They will take the time to explain each selection, so you have a complete understanding of how the CPI solutions will provide the desired results.

| Example Bill Of Materials (BOM)                                |                 |  |     |
|--|-----------------|--|-----|
| Item   | Part Number     | Description  | Qty |
| <b>Cabinet Supported Cold Aisle Containment (CAC) Solution</b> |                 |  |     |
| 1  | FF1U-113C-E42-B | F-Series TeraFrame Gen 3 Cabinet, 45U, 23.6"W (600 mm) x 51.2"D (1300 mm), Glacier White | 20  |
| 2  | 32710-E75       | Cabinet Supported Ceiling Panel Kit, 8"H (200 mm), 20'L (6.0 m), Glacier White           | 1   |
| 3  | 32805-E04       | Door Mounting Bracket Kit, 5"H (125 mm), With Offset, Glacier White                      | 2   |
| 4  | 32870-E01       | Door Standoff Kit, For Double Door, Glacier White  | 2   |
| 5  | 32770-E02       | Aisle Containment Double Door Assembly, Clear Doors, Glacier White                       | 2   |
| 6  | 39208-E00       | Cabinet To Floor Front Seal Kit, F-Series TeraFrame Gen 3, 23.6"W (600 mm)               | 20  |
|  | 39209-E16       | Cabinet To Floor Side Seal Kit, F-Series TeraFrame Gen 3, 51.2"D (1300 mm)               | 4   |
| <b>Recommended Accessories</b>                                 |                 |  |     |
|  | 32875-701       | Installation Template, Aisle Containment Double Door Assembly                            | 1   |
|  | 39132-E00       | Bottom Panel for F-Series TeraFrame Gen 3, Glacier White                                 | 20  |
|  | 39085-E03       | Air Dam For F-Series TeraFrame Gen 3 Cabinets, Glacier White                             | 20  |
|  | 34537-E02       | Snap-In Filler Panel, 1U x 19"EIA, 50 Pack, Glacier White                                | 2   |
|  | 34538-E02       | Snap-In Filler Panel, 2U x 19"EIA, 50 Pack, Glacier White                                | 2   |
|  | 13761-002       | Raised Floor Grommet, 10 Pack, Black   | 2   |



*Notes: This example BOM is based on a solution for 20 each 45U, 23.6"W (600 mm) x 51.2"D (1300 mm) F-Series TeraFrame® Gen 3 Cabinets organized in two adjacent 10 cabinet rows. Parts listed under Item 3 and 6 are cabinet-specific. Recommended Accessories include Cabinet Thermal Management Accessories. Contact CPI Technical Support to develop a BOM for your site.*

For a more detailed analysis of your site, CPI offers a Pre-Installation Site Survey, a service where a CPI Technical Representative visits your site to provide a more detailed recommendation. To help ensure an optimized aisle containment installation, CPI offers On-Site Installation Supervision Services, which includes related training and examination of the initial pods. Both Pre-Installation Site Surveys and On-Site Installation Supervision Support are especially important if there are special conditions, concerns or required customization.

All suggestions and performance statements are based on using an overall approach to airflow containment through the use of CPI Products and solutions. For more information about CPI's Aisle Containment Services or products, call **800-834-4969**, email **techsupport@chatsworth.com** or contact your Regional Sales Manager.

All products quoted are subject to availability based on manufacturing capacity, and shipping dates should be considered estimates only. While every effort has been made to ensure the accuracy of all information, CPI does not accept liability for any errors or omissions and reserves the right to change information and descriptions of listed services and products.

**Not exactly what you need?** Additional products, sizes and configurations are available from CPI. Visit **www.chatsworth.com** or call **+1-800-834-4969**.