

# HOT AISLES CONTAINMENT



# Get To Know Us

**Data Clean Asia** specializes in maintenance and the identification, cleaning, and remediation of contamination. We provide maintenance services for a variety of controlled environments, from data center to cleanrooms. Data Clean has been serving our clients with Airflow Management to Eliminate Bypass Airflow, Raise Set Points, Lower PUE and Eliminate Hot Spots .

Our customer list reads like the Who's Who of the corporate world such as NTT Global DC, Global switch, Princeton DC, and Keppel DC just to name a few.

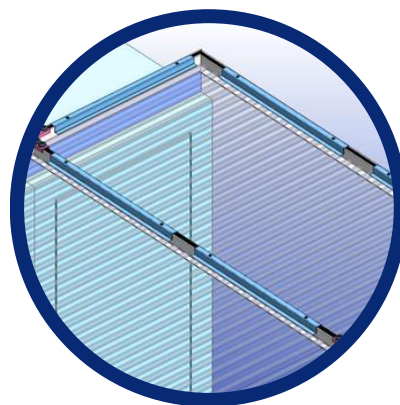
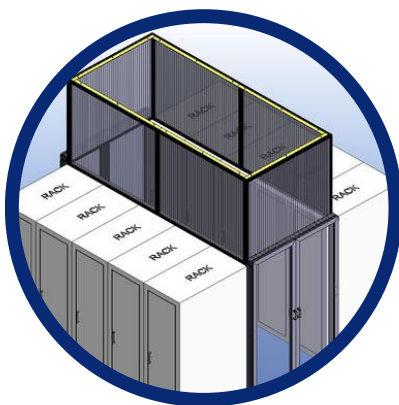


# Hot/Cold Aisle Containment Solution

**Data Clean Asia is your choice for world-class mission critical solutions**

Data Clean Asia has been the leading manufacturer of hot aisle containment solutions for new data center construction and retrofits, delivering turnkey projects with innovative solutions.

Hot aisle containment enhance the design by retaining the cold air in the cold aisle and eliminating hot air from the cold aisle. By closing off partial of the above rack approximate 2FT high, it stops the hot air from mixing with the cold air. This provides a consistent inlet temperature to the servers while helping the CRAC units to operate more efficiently with higher return temperatures. In a typical data center that is configured using hot aisles and cold aisles, the cold air from the cold aisles wraps around the ends of the aisles and mixes with hot air before it has a chance to get to the CRAC. This lowers the exhaust air temperature before it returns to the CRAC inlet. Lower CRAC return temperature cause the CRACs to short cycle which causes additional inefficiencies and higher energy costs.

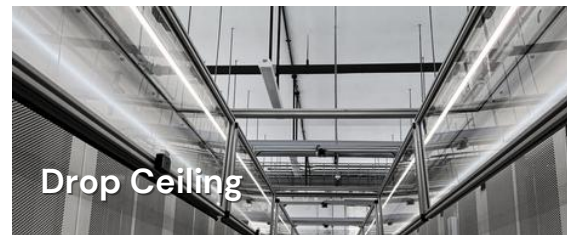


With so much effort to improve the efficiency of data centers. Partial containments is one of the proven ways to eliminate hot-spots, reduce cold-air loss, and cut energy dollars.

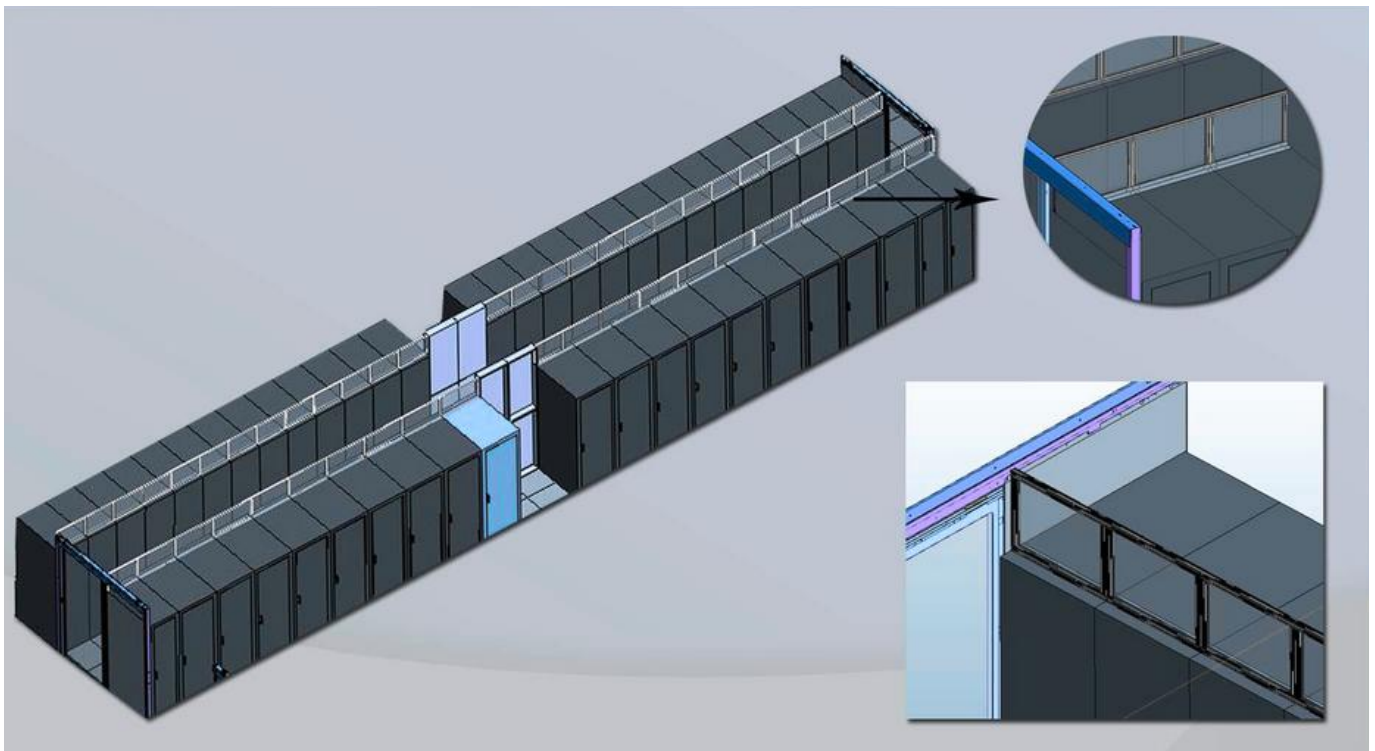
These vertical or horizontal panels are available in various supported models and can be customized to fit any application and to the design and needs of your critical environment fit any application.

Made of aluminum framing with clear or frosted inserts, these containment panels are lightweight, cost effective and so easy to install.

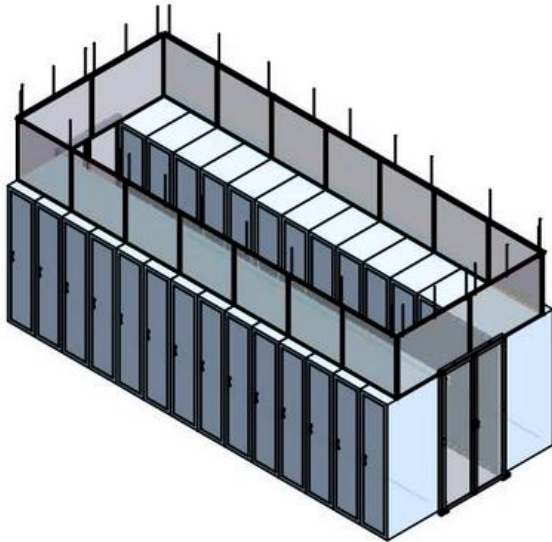
## Full Containment



## Partial Containment



# Hot Aisle Containment



## Hot Aisle Containment

### Benefits:

- Separates supply and return airflow, providing a uniform environment for IT equipment.
- Eliminates hot and cold air mixing so that the return temperature to the CRAC is higher.
- Increases the cooling capacity of CRAC.
- More energy-efficient as one cooling unit can serve several hot aisle containments.

Hot aisle containment consists of a physical barrier that guides hot aisle exhaust air back to the computer room air-conditioner (CRAC) return.

The hot aisle containment system encloses the hot aisle to collect the IT equipment's hot exhaust air, allowing the rest of the data centre to become a large cold-air return plenum. By containing the hot aisle, the hot and cold air streams are fully separated. This allows for hot aisle containment to increase the cooling efficiency of the data centre as hot air is constantly redirected from the server racks to the AC coil.

### Prerequisites prior to Installing a Hot Aisle Containment System:

For the hot aisle containment system to be the most effective, Data Clean recommends evaluating the following considerations before installation:

#### 1. Fire protection measures

Fire suppression and protection in data centres are crucial. When planning an airflow containment system, it is best to consult local fire authorities to make sure that safety codes and standards are being followed.

#### 2. IT equipment layout

Assess any ergonomic challenges and amount of layout customization that is needed for the hot air containment system to operate optimally.

#### 3. Expandability

The airflow containment system needs to accommodate the growth of the data centre. The containment system should have structures and components that are modular in design that can be easily relocated and expanded upon if necessary.

#### 4. Equipment and personnel safety

Consider the placement of workers and equipment so that they are kept at a reasonable temperature that does not violate OSHA regulations and guidelines.

# Hot Aisle Containment

The challenge of today's aisle containment is to tackle the precision of by pass air and to maximise the delivery of cold air. Our Aisle Containment Systems are designed to optimize the efficiency, design and operation of your data center infrastructure. A comprehensive selection makes it easy to support both standard and non-uniform hot/cold aisle applications.

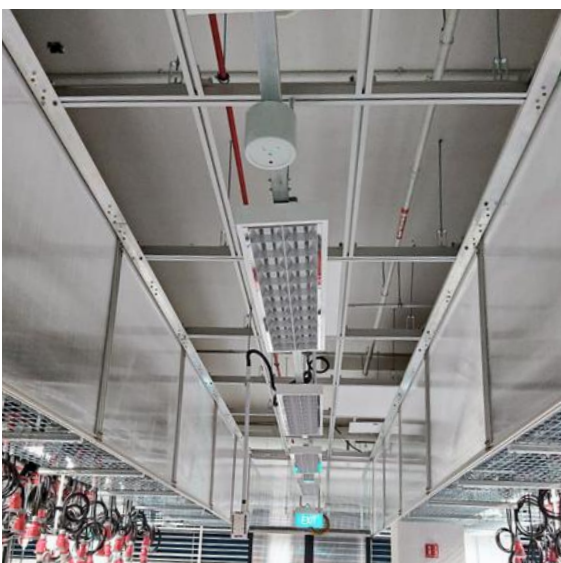
## Vertical Wall System with Twin Wall/Polycarbonate Insert



An efficient and attractive hot aisle containment solution for isolating above the racks. They are typically deployed vertically to create a modular containment barrier. This simple design is the ideal solution for maximising efficiency and controlling temperature.

This vertical panels are supported with a tight fitting bracket so that they can be either secured to the rack tops or to the ceiling. A great choice for non-parallel ceiling barriers.

TYPES OF MODEL	
Model No. FCACD-01	Model No. FCACG-01
Model No. FCACD-02	Model No. FCACG-02



## 01 The DC Modular Aluminium Sliding Door

The ideal solution for both cold and hot aisle containment designs. Combining cost effectiveness with ease of installation, the no threshold design eliminates tripping hazards.

Frame components arrive pre-assembled and easily connect to the header rail which secures the assembly together. Integrated slide-locks simplify door installation onto the frame.

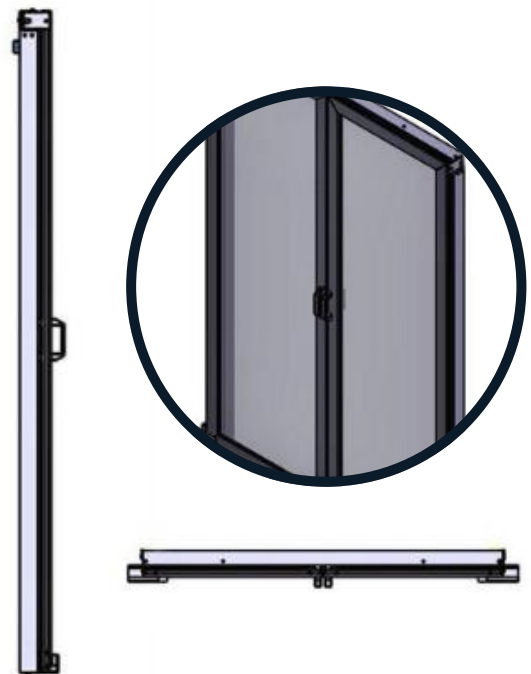
### A Revolution in Data Center Containment Doors!

The sliding doors reduce data center operating costs by improving thermal efficiency and reducing IT equipment intake temperatures, which enhances both equipment life and reliability.



## FEATURES

- Sweep seal and perimeter gasketing provides maximum containment
- Easy-glide track system
- The self-aligning door require no adjustments
- Insert range from polycarbonate
- Exclusive self-closing in minutes
- No protruding header of track assembly allowing for a sleek, simple design
- Anodized aluminium framing, available in clear and black finishing
- The modular sliding aluminium door easy glide system and self closing cartridge is integrated into the door so that the are tucked away from view when the door is closed and open
- Door is pre-hung and installed in minutes
- The tool-less design allow for quick and easy installation, removal dan re-installation



# Find Your Hot Aisle Containment Solution With Us Now



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