

Gordon DataCEL Hot Aisle Containment SPECIFICATION

PART 1: GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings, General and Supplementary Conditions apply to Work specified in this section.

1.2 SUMMARY

- A. Work on this Section includes the Hot Aisle Containment System including but not necessarily limited to the following:
 - 1. Modular Hot Aisle Containment system walls: As specified in this section.
 - 2. Double Sliding Doors at end of aisle: As specified in this section.

1.3 DESCRIPTION OF WORK

- A. Furnish Hot Aisle Containment System and doors as manufactured by Gordon Data Center Products and as indicated on drawings, including notes and details.

1.4 PERFORMANCE

- A. Completed Hot Aisle Containment System shall be capable of providing complete airflow containment as required and indicated for area installed.

1.5 SUBMITTALS

- A. Product Data: For each type of product
- B. Shop Drawings: For containment wall and doors systems.
 - 1. Include plans, elevations, sections, and attachments to other work.
 - 2. Location of Hot Aisle Containment system in coordination with the structural ceiling system by Gordon Data Center Products.
 - 3. Chimney Panel details
 - 4. Location of cable tray penetrations (if required).
- C. Samples for Verification
 - 1. Chimney Panels with glazing and attachment hardware
 - 2. Air-block brush for chimney panels or penetrations

1.6 INFORMATION SUBMITTALS

- A. Qualification Data: For Installer

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For containment wall panel glazing and containment door systems to include in maintenance manuals.

1.8 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Blanking Panels: Manufacturer's recommended assortment of blanking panels capable of covering a minimum customer-specified area including a minimum size of cabinet(s) full height and width blanking panels.

PART 2: PRODUCT

2.1 ACCEPTABLE MANUFACTURER

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1. Gordon Data Center Products Division of Gordon, Inc.

2.2 HOT AISLE CONTAINMENT SYSTEM (HACS), GENERAL

- A. Hot Aisle Containment System (HACS): Stationary assembly configured to contain hot air from two adjacent facing rows of non-proprietary IT equipment racks and to direct air into ceiling return plenum. System to include demountable ceiling supported wall panels above the equipment racks and floor supported door assemblies at each end of the contained equipment aisle.
 - 1. Quantity: As indicated on drawings.
 - 2. Size: As indicated on Drawings
- B. Containment Wall Glazing: Clear, transparent, (select: double-wall polycarbonate or plexiglass) glazing panels mounted into containment wall framing system.
 - 1. Fire-response Testing Requirements: Glazing to meet or exceed ASTM E84-01. Self-ignition temperature: 450° C (842° F)
 - 2. Thickness: minimum ¼-inch
- C. Containment Wall Framing: Extruded aluminum
 - 1. Material: Extruded Aluminum alloy 6063, temper T-6 with a 204-R1 etched and clear anodized finish.
 - 2. Panels to be manufactured with aluminum frame assembled around glazing and ready for installation.
 - 3. System to be configured to support glazing panels from structural ceiling suspension above.
 - 4. The base of panels to have a continuous air blocking brush to seal the gap between the panels and the cabinets. All panels and framing to be completely independent of cabinets for ease of cabinet removal.
- D. End of Aisle Door System: Aluminum framed door assembly

1. Provide dual bi-parting door system providing opening width to match width of aisle access opening.
2. Dual double sliding door system to include auto closers, no threshold design, and door catches to hold the doors open.
3. Material:
 - a. Frame: Extruded Aluminum alloy 6063, temper T-6 with a 204-R1 etched and clear anodized finish.
 - b. Glazing: Clear acrylic sheet.
4. Provide door gasketing and brush seal weather-stripping to maintain containment system performance.

PART 3: EXECUTION

3.1 INSTALLATION

- A. Coordinate all work with other trades to be performed in or on ceiling system and cabinets including light fixtures, HVAC equipment, Cable trays, sprinkler systems and wall partition systems to ensure other items will not interfere with containment.
- B. Examine structural ceiling system for correct location, levelness, and other conditions that could affect containment system installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
- D. Hot Aisle Containment Installation Instruction:
 1. Hot Aisle Panel Installation: Panels are designed to integrate with the Gordon structural ceiling grid above. Using the adjustable angle brackets and mounting hardware provided, panels are fastened to ceiling grid. Starting at one end of aisle align end panels flush with edge of cabinets. Work down aisle attaching panels above cabinet rows to Ceiling grid and to one another.
 2. Double Sliding Door Installation: Position doors at ends of cabinets. Align with aisle and overhead panels. Plumb and level door. Once positioned bolt to concrete or raised floor using hardware provided. Fasten top of door to overhead panels integrated and securely attached to ceiling.

3.2 CLEANING AND PROTECTION

- A. Protect glazing from damage by adjacent construction operations. Maintain protection film on glazing until final cleaning.
- B. Remove and replace glazing that is broken, chipped, cracked, or abraded, or otherwise damaged during construction period.
- C. Clean glazing per manufacturer's written instructions utilizing cleaning products recommended by glazing manufacturer.

END OF SECTION