Installing the CACS Ceiling with Aisle Ducts

Complete these instructions to install the Cold Aisle Containment System (CACS) Ceiling with Aisle Ducts. The CACS Ceiling and Aisle Ducts are designed to work in conjunction with other CACS components to maintain cold aisle containment between rows of existing data center enclosures.

Applications

Make sure you have the appropriate size ceiling components for your application. Various sizes are available, as indicated by number sign (#) placeholders.

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD####</td>
<td>CACS Aisle Duct, various sizes</td>
</tr>
<tr>
<td>CACP####</td>
<td>CACS Ceiling Panel, various sizes</td>
</tr>
<tr>
<td>CACBK#</td>
<td>CACS Ceiling Bracket, various sizes</td>
</tr>
<tr>
<td>CACHBK#</td>
<td>CACS Cable Chase Bracket, various sizes</td>
</tr>
<tr>
<td>CACBKTEORD</td>
<td>CACS End of Row Door Interface</td>
</tr>
<tr>
<td>CACBKTEORC</td>
<td>CACS End of Row Curtain Interface</td>
</tr>
</tbody>
</table>

Prerequisites

- Clear any equipment or cabling that might interfere with the CACS Ceiling.
- Unpack all components of the CACS Ceiling.
- Make sure you have common installation tools including a utility knife, powered driver, hex sockets with extensions, and a #2 Philips screwdriver.
Install the CACS Ceiling with Aisle Ducts

Complete the following steps to install the CACS Ceiling with Aisle Ducts.

1. Install riser brackets to the top of enclosures on both sides of the aisle. Use existing holes or drill as needed.

2. Install cable chase riser brackets between riser brackets as needed. Use existing holes or drill as needed. Cable chase brackets provide ceiling support and maintain aisle containment where enclosures are spaced slightly apart for cable access or other purposes.
3. From inside the aisle, attach a ceiling support bracket to each riser bracket.
4. From inside the aisle, install tie support brackets between all installed ceiling support brackets.

5. Secure ceiling panels using retainer brackets. Insert screws, washers, and wing nuts. Slide retainer brackets together on the aisle ducts and ceiling panels. Tighten wing nuts to secure aisle ducts and ceiling panels.
6. Slide the retainer brackets as far back as possible, to allow ceiling panel and aisle duct installation.

7. Place ceiling panels and aisle ducts on top of the ceiling brackets, centered on the aisle between the retainer brackets.

8. Keeping the ceiling panels and aisle ducts centered, slide the retainer brackets together from both sides to secure the ceiling panels and aisle ducts. Tighten the wing nuts.
9. Attach interface brackets to each end of the aisle. Use the correct brackets for your installation: End of Row Door or End of Row Curtain.

**End of Row Door Interface Bracket**

a. Mock up the end of row door panel to determine accurate bracket placement.

b. From inside the row, insert a screw through the slot in the bracket into the ceiling bracket and tighten. The flange facing the end of the row attaches to the End of Row Door panel.

For more information about installing End of Row Doors, see the *End of Row Doors Installation Guide*.
End of Row Curtain Interface Bracket

a. Mock up the brackets and remove any previously installed screws or nuts that interfere with installation. Any removed fasteners will be replaced with fasteners included in the End of Row Curtain brackets.

b. Insert two or more screws through the bracket into the enclosure. One or more screws must replace any removed screws securing the ceiling riser bracket.

c. Insert one screw through the slot into the ceiling bracket assembly. Attach a nut and tighten.

For more information about installing End of Row Doors, see the End of Row Curtains Instruction Sheet.

10. Install end cap interface / riser gasket. Cut gasket to size and apply to vertical end flange on riser brackets adjacent to the end of row interface.

The gasket is supplied with the end of row interface.

Note: Complete End of Row Door or Curtain installation as described in the instructions provided with the respective product.

Ceiling installation is complete.