



Mighty Mo Air Curtain,

Panel & Corner panel

MMACNCPXXxYY

MMACNCPUXXxYY

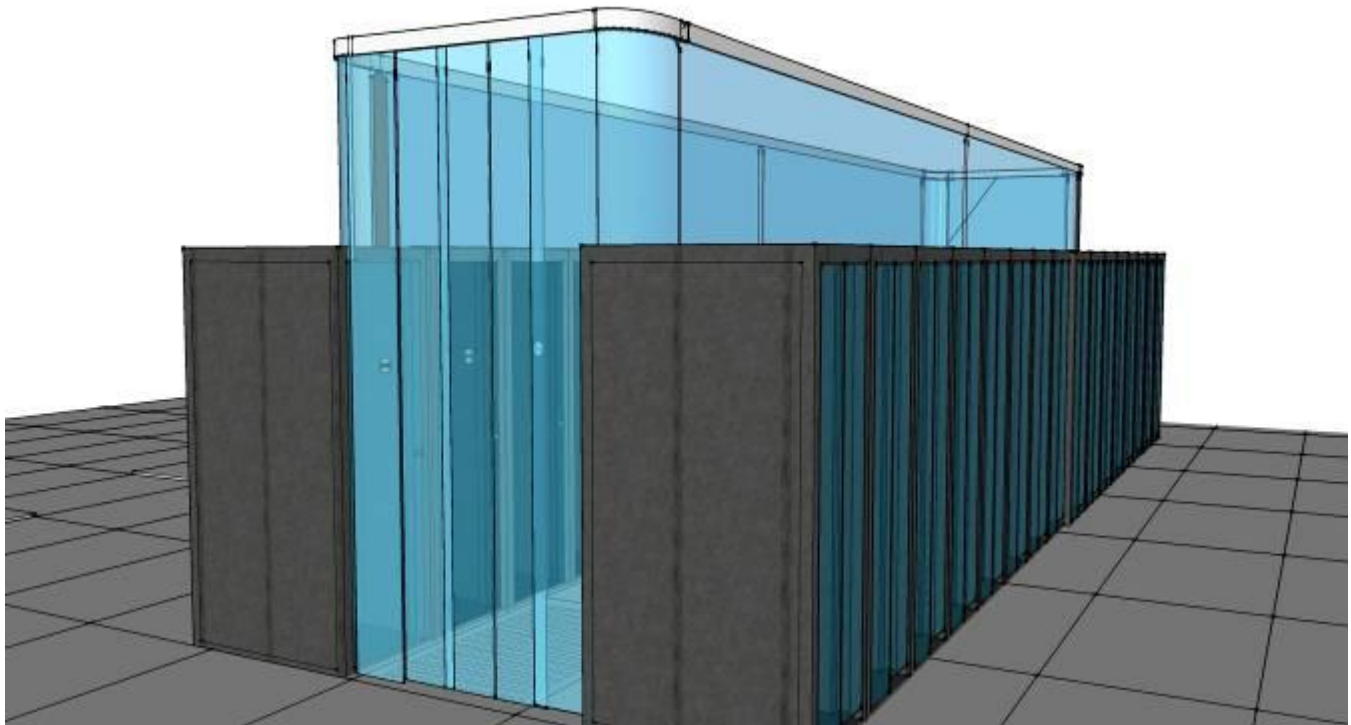
MMACNPXXxYY

MMACNPUXXxYY

Installation Manual

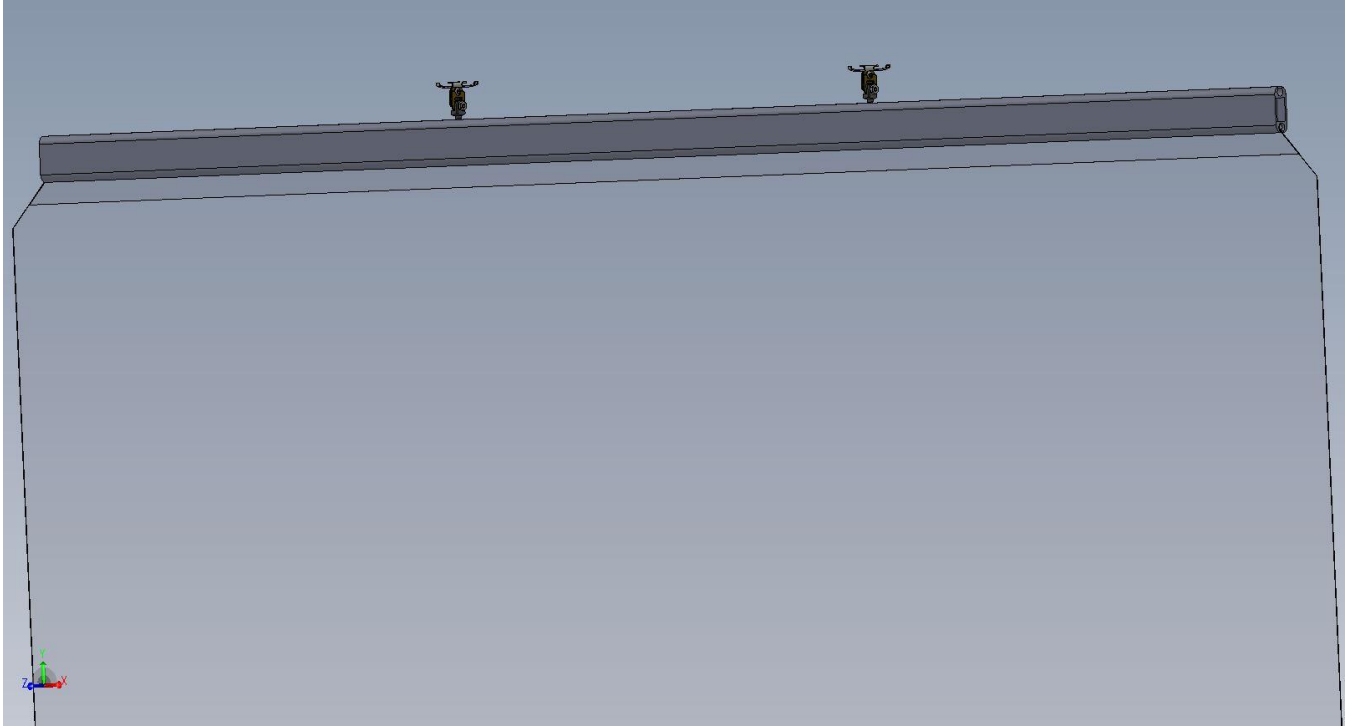
OR-71601760 rev 01

Anodized Aluminum Track
ESD Fire Resistant Vinyl
UL/FM Rated Ceiling Connection
Splicer



WWW.ORTRONICS.COM
PHONE: (860) 445-3800
FAX: (860) 405-2970

Sample: kit for a 6 foot wide track and a 54" drop down.



Mighty Mo Air Curtain INSTALLATION MANUAL

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1. Overview

The Mighty Mo Air Curtain vertical partition system is the finest ceiling mounted partition system for both cold and hot aisle containment. It combines cost-effectiveness and ease of installation. Over the long-term the Air Curtain will also reduce "total cost of ownership" by making it easier to fully separate cold supply and hot exhaust airflow.

High-grade aluminum track, UL and FM rated fire suppression links, and ESD fire resistant vinyl will ensure a long lasting vertical partition solution.

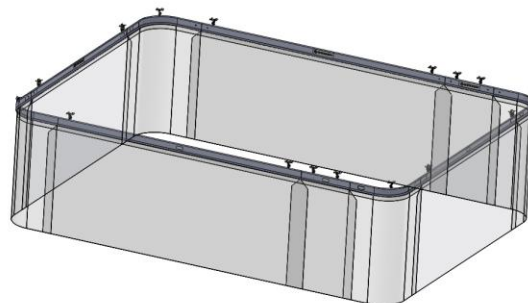
The Air Curtain kit includes all of the components and fasteners required to assemble and install the partition system. Air Curtain can be installed on the drop-ceiling grid or be hung onto any stationary ceiling system such as cable trays, U channel, and or directly into a variety of ceiling materials (metal, cement, etc.).

As shown in Figure 1, the Air Curtain system is modular in design. The aluminum track comes in 6 sizes (1-6 feet). It connects using push button splices (no tools required). The vinyl slides into a slot on the bottom of the aluminum track. It

comes in widths corresponding to the aluminum track and in drop-down lengths ranging from 29 inches to 182 inches. The UL ceiling connector slides on the top of the track.

Figure 1

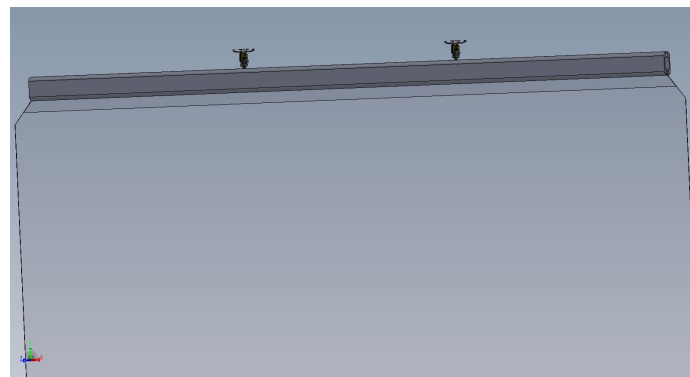
This view shows a typical Air Curtain Assembly



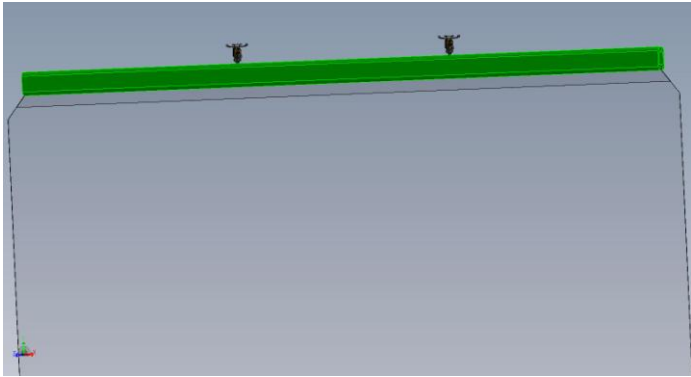
This view illustrates a 8-foot long and 6-foot wide aluminum track formed in a rectangle. The vinyl drop down is 29 inches.

Figure 2

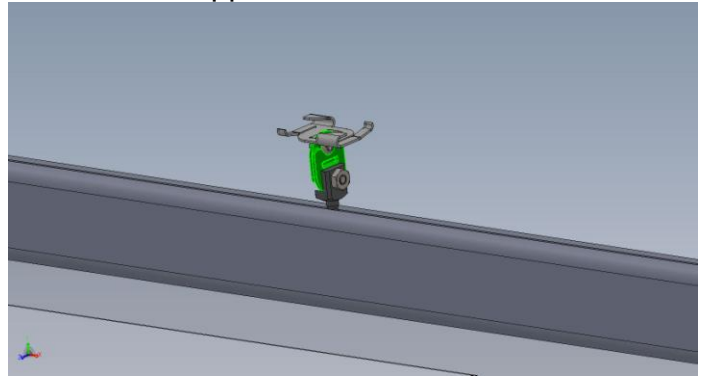
This view shows all Air Curtain parts



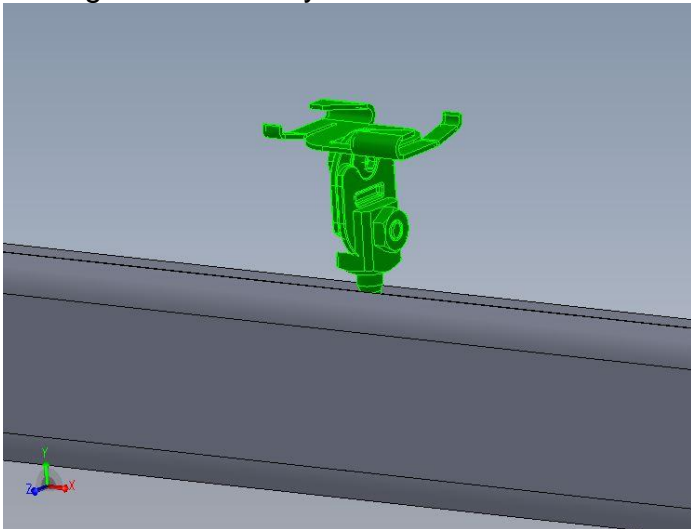
Aluminum Track



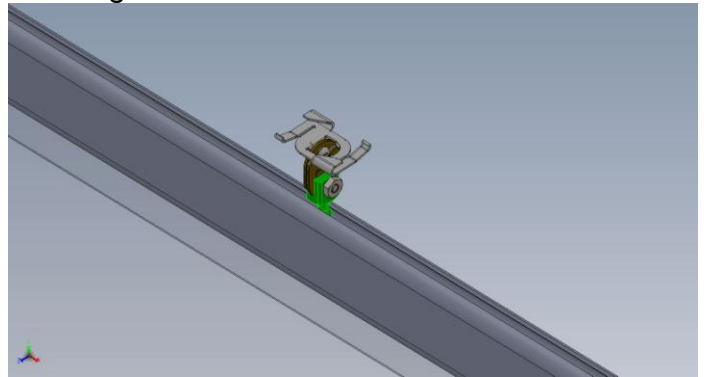
UL/FM Fire suppression link



Ceiling Connection System



360-degree ball slider



Ceiling clip

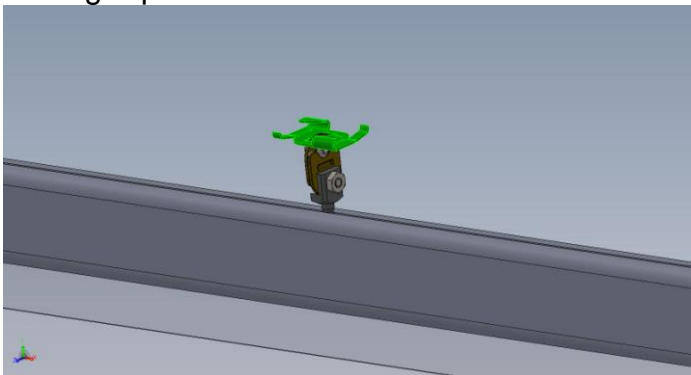
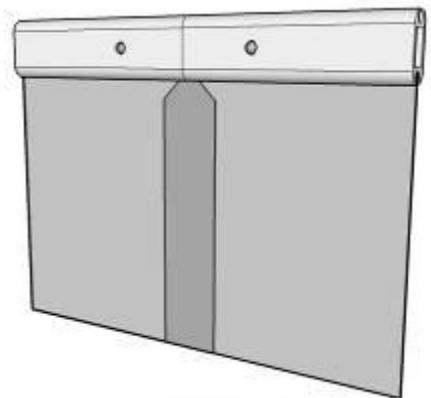


Figure 3

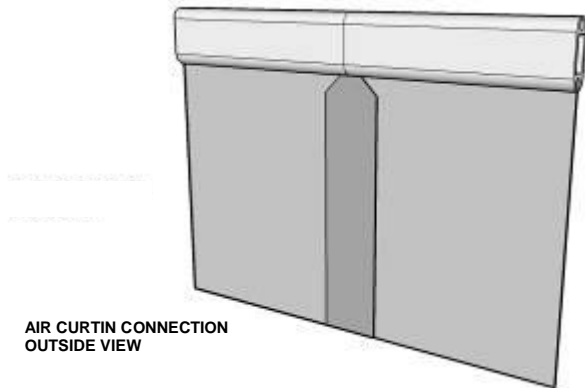
This view shows a close up of two aluminum tracks connected by one splicer. You can see the two push button connectors that the splicer uses to hold the two tracks together. This view also shows two overlapping pieces of vinyl.



AIR CURTIN CONNECTION
INSIDE VIEW

Figure 4

This view shows the other side of the track opposite of the splicer's push button connectors.



2. Safety and Quality Assurance

The following recommendations should be carefully observed as part of any Air Curtain installation. In particular, the safety of the installers must be placed ahead of all other considerations. Some of the following warnings or cautions have been highlighted in the appropriate sections of the manual.

1. Do read and follow the Air Curtain Installation Manual.
2. DO use an OSHA approved step ladder or elevated surface lift.
3. Follow OSHA guidelines for elevated work safety.
4. DO NOT use drop ceiling grid for installer support. Keep two feet on the ladder or elevated work lift.
5. DO NOT use the rack or cabinet as a elevated work platform.
6. DO wear grounding straps.
7. NEVER work in on an elevated surface alone.

3. Cautions and Warnings

This manual contains important information of the installation of the Air Curtain We strongly recommend that you read and follow the instructions contained in this manual.

At several points in the manual items of special

interest or significant impact are highlighted by one of the following notices.

Warning: Hazards or unsafe practices that could cause personal injury or death.

Caution: Hazards or unsafe practices that could cause product damage.

Note: Significant points of interest.

4. Components

The major components for the Air Curtain kit are shown in Figures 2 and 3. The components include:

1. Aluminum Track
2. Fire Resistant Vinyl
3. Ceiling Attachment system
4. Splicer

Figure 5 **Aluminum Track**

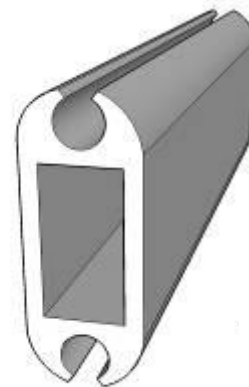


Figure 6 Splicer

This view shows the splicer inside the aluminum track. The ball-snaps hold them in place.

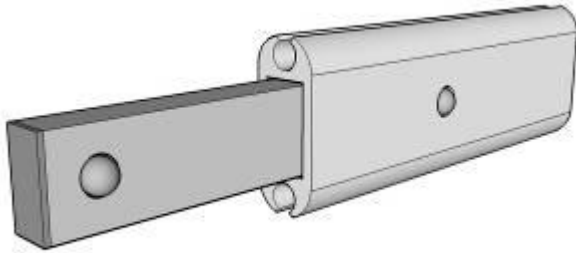
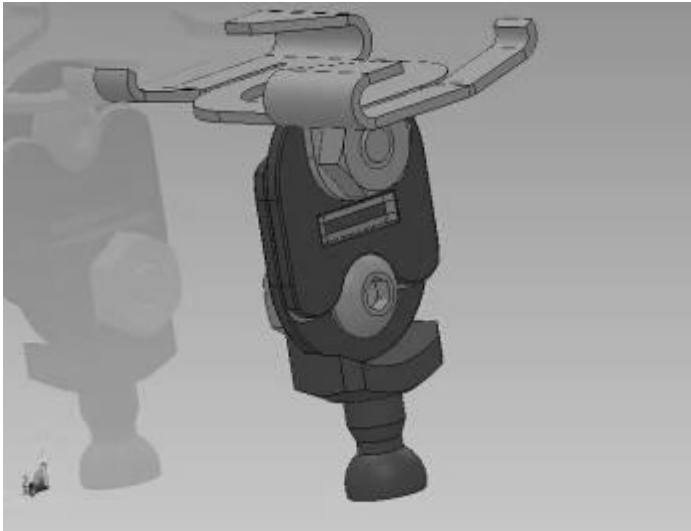


Figure 7 Drop Ceiling Attachment System



5. Air Curtain Kits and SKU #s

The Air Curtain partition system comes in pre-packaged kits. These kits come in sizes based on two measurements:

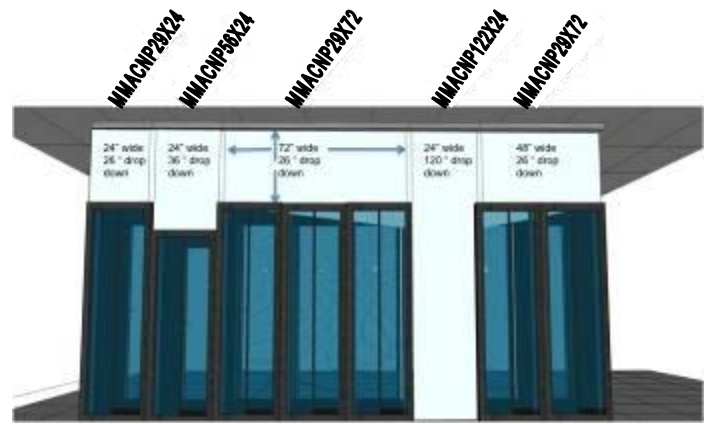
1. Aluminum track length
2. Vinyl drop-down length

Each kit has a specific aluminum track length and a vinyl drop down length.

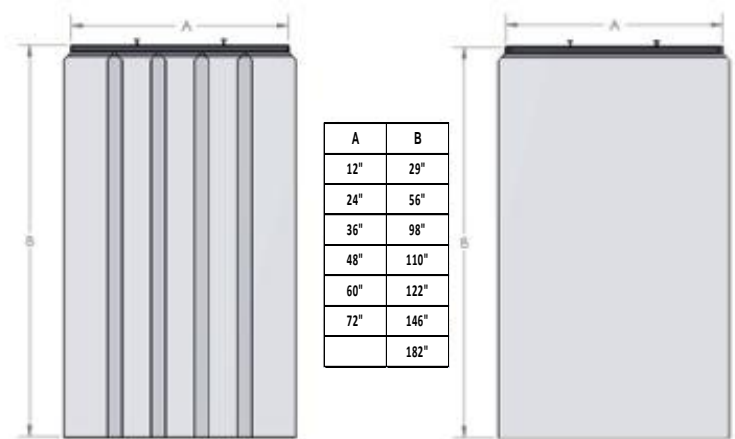
Figure 8

This view shows a 'cityscape' row of cabinets. Note that the distance length and drop-down sizes are different. This illustrates how each Air

Curtain kit can fit each space.



The kit SKU number is created with the first number as the vinyl drop-down length (in inches) and the second number as the aluminum track length (in inches).



For example:

SKU number: MMACNP29X72, would mean one Air Curtain kit with a 29 inch overall drop-down length that runs along a 72 inch (6 foot) aluminum track. Additionally, the vinyl runs four inches longer then the aluminum track so as to provide an overlap from one vinyl to another. This creates a continuous partition without openings.

The aluminum track is designed to splice one track with another so as to create the total desired length. The kits come in 6 aluminum length sizes (12, 24, 36, 48, 60 & 72 inch).

For instance if the total desired length of the partition is 38 feet you would install six of the 72 inch (6 foot) kits and one of the 24 inch (2 foot) kits. This would make a total of 38 feet of

aluminum track.

The drop-down vinyl is kitted with the aluminum. Thus a six 6-foot aluminum track would be packaged with a 6-foot wide vinyl. The key difference is the vinyl drop down length.

The vinyl comes in standard 29", 56", 98", 110", 122", 146", and 182" drop-down lengths.

The reason for the different drop-down lengths is to match the distance from the ceiling to the top of the rack, cabinet or the floor. Always order in the closest "longer" length. For example, if you require a 36" drop, you would order our standard 56" drop. You then have the option to either cut the excess or leave the excess lying on top of the rack, cabinet, or floor.

For Instance:

If the drop down length from the ceiling to the top of the rack or cabinet is 24" inches. Then the kit would be a MMACNP29X__.

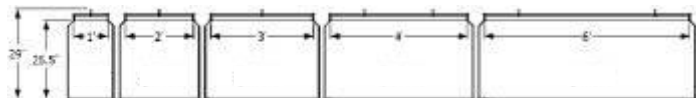
What if the rack heights vary along the row? Then the vinyl drop down length would match this variation.

For instance:

Let's say the rack row is 38 feet. Most of the racks are the same height and the distance between the top of the rack and the ceiling is 24". But one of the 2-foot wide racks is shorter and the distance between the top of the rack and the ceiling is 36".

This would change the kits to be:
Six (6) MMACNP29X72 and one (1) MMACNP56X24.

Since all the aluminum and vinyl connect to one another you can have a great variety of both aluminum length and vinyl drop down sizes.



6 . Installation Guide

Tools Required

- Measuring tape
- Plumb bob
- Marker
- Pliers
- Knife

The first step is to determine where the partition is to be installed on the ceiling.

Since the Air Curtain can be installed for either a hot or cold aisle containment you will need to determine which aisle is to be partitioned. This will help determine what area of the cabinet should be separated.

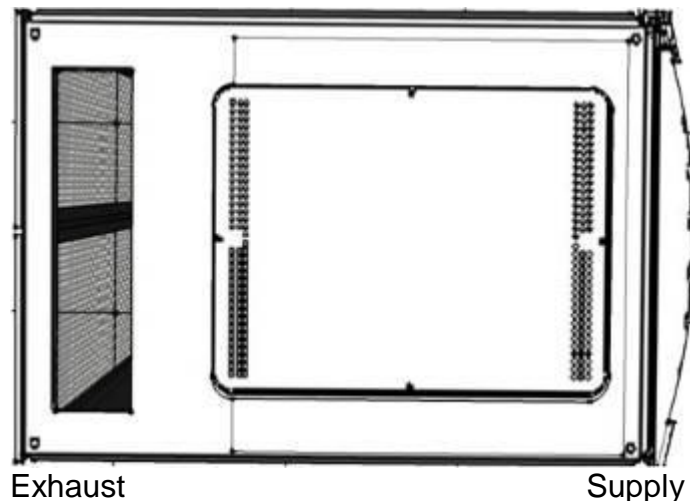
For instance:

A cold aisle partition should be placed as close to the front edge of the cabinet as possible since this is the supply side of the IT equipment.

A hot aisle partition can be placed at any area along the top of the cabinet as long as exhaust (hot) air cannot discharge into the cold aisle.

Figure 8

This view shows the top of the cabinet. The partition system separates the cold supply and the hot exhaust air. Openings in the top of the cabinet may adjust the placement of the Air Curtain partition. Make sure you place the Air Curtain partition between the supply and hot exhaust.



Step 1:

Install and attach to a drop ceiling grid

First determine where the Air Curtain will be installed on the ceiling grid. You can use either a plumb bob or electronic (laser).



Draw a line or use a laser line to establish where on the drop ceiling grid you will install the Air Curtain

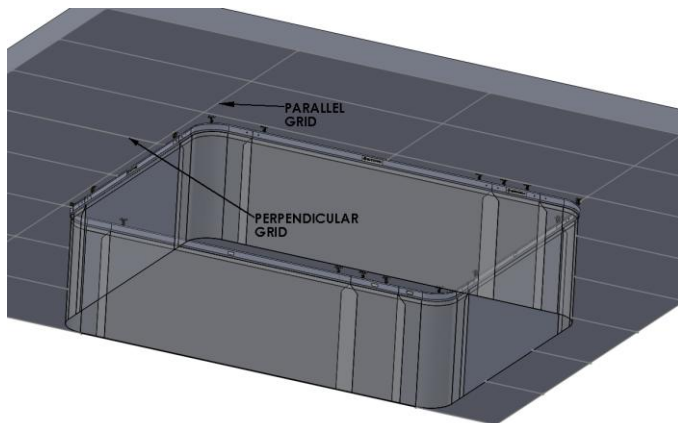


Next, twist the white clip onto the drop-ceiling grid.

Sometimes the white ceiling clip is easier to install with a set of pliers.

The 360-degree ball and the UL/FM rated link are already attached to the ceiling clip.

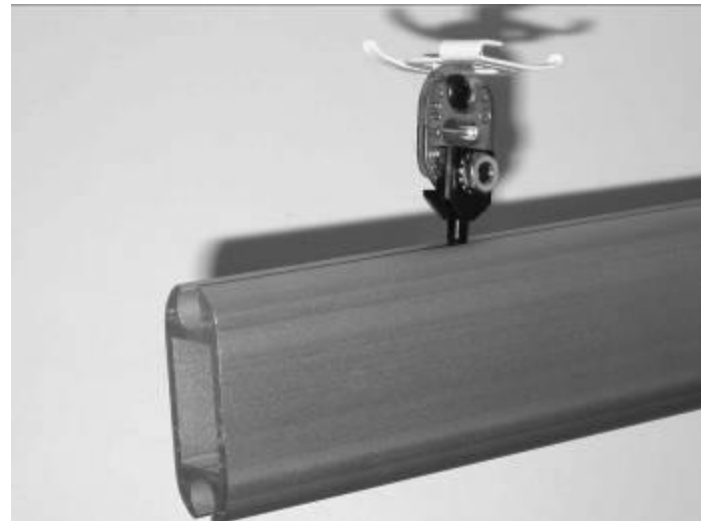
The 360-degree ball will slide into the aluminum track. This 360-degree ball allows attachment to be on either on the parallel or perpendicular part of the grid. Install the ceiling attachment over the area you want the partition to hang, in 2-3" from each end.



Step 2:

Install the Aluminum Track

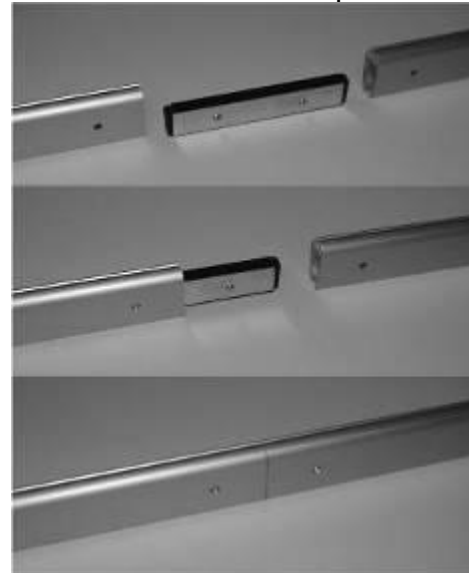
Slide the aluminum track onto the 360-degree ball.



Step 3:

Install the Splicer

Each kit can be connected to another kit so as to create one continuous partition with the splicer.



Install the splicer by sliding the splicer in the end of the aluminum track in the direction you want to continue the track. Then connect the two tracks with the splicer. Ensure that the ball connector snaps into place.

Step 4:

Install the Fire Resistant Vinyl

Slide the vinyl onto the bottom of the aluminum track. Make sure you use the same vinyl that was kitted with the aluminum track.

Step 5:

Vinyl Overlap

Ensure that the vinyl is overlapped from one sheet to the other. Make sure that there are no

gaps. The vinyl has a tendency to stick to each other. This will help the overlap to seal. Since the drop-down length is usually longer than the actual distance from the ceiling to the top of the rack there will be an excess of vinyl on the top of the rack. We suggest that in most installations that this excess vinyl be rolled up and held together with a clip. This extra weight will help the vinyl to hang better.

NOTE:

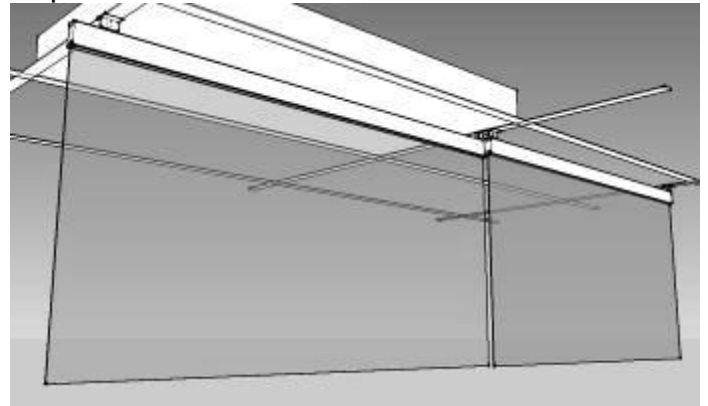
Some fire marshals prefer that the aluminum tracks not be connected.

**Step 6:
Cutting the Vinyl**

At times you may want to cut the vinyl to fit around an obstruction. It's best to mark the vinyl and cut along a straight edge.



the light. When this cannot be done you can install the Air Curtain on the perpendicular grid at the ends of the light. Be sure not to install the splicer so that you can disconnect the section over the light when light maintenance is required.



7. Misc Reference Material

We are including additional detail views of the Air Curtain system.

Working around lights

It is preferable not to install the Air Curtain over a light. It's best to install on the grid parallel to

Working around ceiling obstructions (cable trays, etc...)

The vinyl can easily be modified to work around obstructions. Cut an opening in the vinyl the same shape as the obstruction. The vinyl under

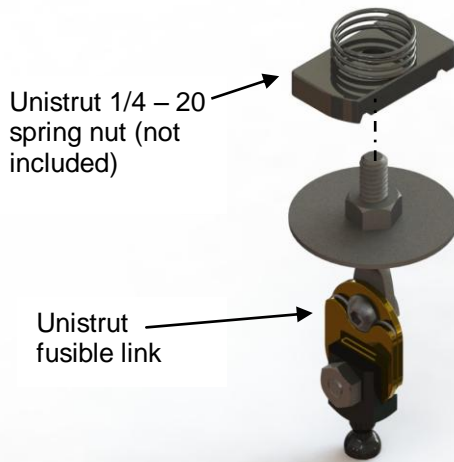
the obstruction can be adhered together using two sided tape or a hook and loop fastener.

8. Installing to “UNISTRUT”

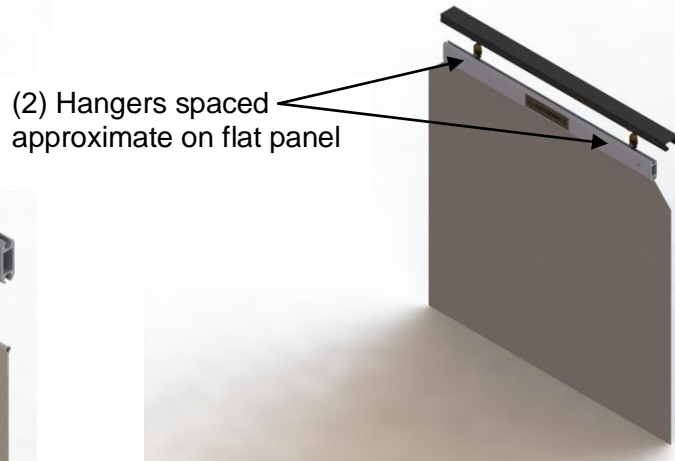
* "Unistrut" metal framing system is a registered trademark company part of *atKore International*. The Ortronics Unistrut fusible link hanger kit is optimized for use with Unistrut 1-5/8 metal framing.

After receiving hanger kits inspect product for damage. If damaged contact Ortronics customer service for replacement.

After inspection assemble Unistrut fusible link to Unistrut 1/4 – 20 spring nuts (not included) and install to Unistrut frame. Attach vinyl air curtain panel to hangers at this time (please note recommended quantities and spacing below).



MM Air Curtain Corner Panel with Unistrut fusible link kit



MM Air Curtain Flat Panel with Unistrut fusible link kit



Exploded view of Unistrut fusible link hanger kit for reference (shipped assembled)



Installed MM Air Panel in Unistrut frame

SKU #	Length- FT	Drop Down- In
MMACNP29X12	12 Inch	Air Curtain Kit (Includes 25.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall Height 29"
MMACNP29X24	24 Inch	Air Curtain Kit (Includes 25.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 29"
MMACNP29X36	36 Inch	Air Curtain Kit (Includes 25.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 29"
MMACNP29X48	48 Inch	Air Curtain Kit (Includes 25.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 29"
MMACNP29X60	60 Inch	Air Curtain Kit (Includes 25.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 29"
MMACNP29X72	72 Inch	Air Curtain Kit (Includes 25.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 29"
MMACNP56X12	12 Inch	Air Curtain Kit (Includes 52.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 56"
MMACNP56X24	24 Inch	Air Curtain Kit (Includes 52.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 56"
MMACNP56X36	36 Inch	Air Curtain Kit (Includes 52.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 56"
MMACNP56X48	48 Inch	Air Curtain Kit (Includes 52.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 56"
MMACNP56X60	60 Inch	Air Curtain Kit (Includes 52.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 56"
MMACNP56X72	72 Inch	Air Curtain Kit (Includes 52.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 56"
MMACNP98X12	12 Inch	Air Curtain Kit (Includes 94.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 98"
MMACNP98X24	24 Inch	Air Curtain Kit (Includes 94.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 98"
MMACNP98X48	48 Inch	Air Curtain Kit (Includes 94.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 98"
MMACNP110X12	12 Inch	Air Curtain Kit (Includes 106.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 110"
MMACNP110X24	24 Inch	Air Curtain Kit (Includes 106.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 110"
MMACNP110X48	48 Inch	Air Curtain Kit (Includes 106.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 110"
MMACNP122X12	12 Inch	Air Curtain Kit (Includes 118.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 122"
MMACNP122X24	24 Inch	Air Curtain Kit (Includes 118.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 122"
MMACNP122X48	48 Inch	Air Curtain Kit (Includes 118.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 122"
MMACNP146X12	12 Inch	Air Curtain Kit (Includes 142.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 146"
MMACNP146X24	24 Inch	Air Curtain Kit (Includes 142.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 146"
MMACNP146X48	48 Inch	Air Curtain Kit (Includes 142.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 146"
MMACNP182X12	12 Inch	Air Curtain Kit (Includes 178.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 182"
MMACNP182X24	24 Inch	Air Curtain Kit (Includes 178.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 182"
MMACNP182X48	48 Inch	Air Curtain Kit (Includes 178.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 182"

SKU #	Length- FT	Drop Down- In
MMACNCP29X12	12 Inch	Air Curtain Corner Kit (Includes 25.5" ESD Fire Resistant Vinyl, fusible link; splicer) Overall height 29"
MMACNCP56X12	12 Inch	Air Curtain Corner Kit (Includes 52.5" ESD Fire Resistant Vinyl, fusible link, splicer) Overall height 56"
MMACNCP98X12	12 Inch	Air Curtain Corner Kit (Includes 94.5" ESD Fire Resistant Vinyl, fusible link, splicer) Overall height 98"
MMACNCP110X12	12 Inch	Air Curtain Corner Kit (Includes 106.5" ESD Fire Resistant Vinyl, fusible link, splicer) Overall height 110"
MMACNCP122X12	12 Inch	Air Curtain Corner Kit (Includes 118.5" ESD Fire Resistant Vinyl, fusible link, splicer) Overall height 122"
MMACNCP146X12	12 Inch	Air Curtain Corner Kit (Includes 142.5" ESD Fire Resistant Vinyl, fusible link, splicer) Overall height 146"
MMACNCP182X12	12 Inch	Air Curtain Corner Kit (Includes 178.5" ESD Fire Resistant Vinyl, fusible link, splicer) Overall height 182"

Note: For Air Curtains that attach to Unistrut add "U" after character "P"

Example: MMACNPU98X48 "48 Inch Air Curtain Kit with Fusible links for Unistrut and Splicer"

MM Air Unistrut Hanger Kit Ortronics P/N OR-MMACNUNH1420 can also be purchased separately.