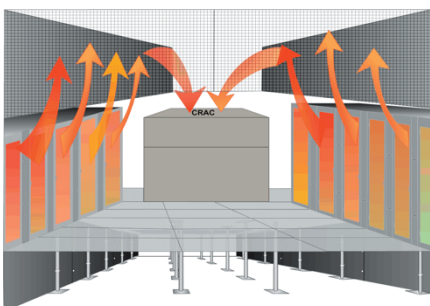
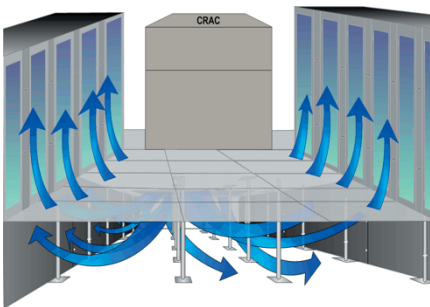
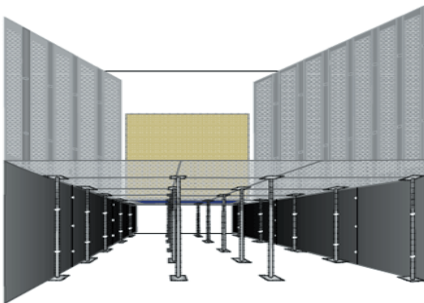
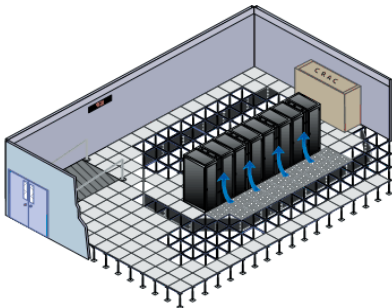
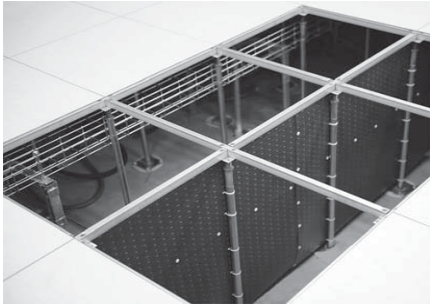


Raised Floor Partition System

PlenaForm®
Air Baffles



Specifications

- ✓ **FLEXIBLE:** The racetrack shaped holes allow for the baffles to securely attach to raised floor pedestals for any degree of attachment angle. Panels may easily be cut with scissors for the passage of conduit, cable trays, etc. Cutout sections may also be patched with sections of additional baffles if the cutout is no longer required. Each baffle is 610 mm h x 1219 mm w.

- ✓ **SCALABLE:** Any infinite height or width can be achieved by adding or removing sections in 1" vertical and 1-1/2" horizontal sections. **PlenaForm®** baffles attach to pedestals with 10.75" releasable 50 lb. test cable ties. Baffles affix to one another with PF-RR two-piece screw rivets. Cable ties and rivets are included with every order.

- ✓ **ADAPTABLE:** Creating dedicated cold aisles and partitioning off unoccupied raised floor areas with **PlenaForm®** baffles increases static pressure, delivering a higher volume of cooling through perforated tiles. The Venturi effect is attained as air flow distribution is directed from the CRAC units to further distances, improving equipment cooling.

- PlenaForm®** baffles are scored both vertically and horizontally so that sections can be removed, or new sections added, to meet any height or width requirement. All angles of bend radius may be accommodated, and the continuous pop-out hole pattern allows attachment to any raised floor pedestal type or height.

- ✓ **SUSTAINABLE:** Velocity is the time rate of motion, therefore velocity pressure is the pressure caused by air in motion. When air from a CRAC unit is forced through a partitioned air flow space, static pressure is created. Without dedicated partitioning, as the air moves further away from a CRAC unit, the air velocity decreases. To maintain velocity pressure to particular 'hot zones', **PlenaForm®** baffles help maintain the static pressure further away from a CRAC unit.

Keeping Datacenters Simply Cool

The key to controlling the airflow distribution is the ability to influence the pressure distribution in a raised floor plenum space. For specified (horizontal) floor dimensions and total air flow rate, the pressure distribution is governed by the following parameters:

- Plenum height
- Open area of perforated tiles
- Distribution of open area on the raised floor
- Relative positions of CRAC units and perforated tiles
- Presence of under floor blockages

Under floor blockages influence the flow field in the plenum by introducing additional resistance and by reducing the area and volume available for airflow. The pressure non-uniformities caused by the presence of a thick blockage are difficult to control. Further, because of the associated reduction in the plenum air space, there is a limit on the number and sizes of thick blockages that can be introduced in the plenum. Because of these considerations, installation of thick blockages in the plenum is not a practical option for modifying the air flow distribution.

PlenaForm® partition system offers several advantages. The flow resistance of a thin partition can be controlled precisely by varying its open area. Unlike thick blockages, the installation of thin partitions has negligible effect on the space available for airflow.

PlenaForm® partitions are especially well suited for existing data centers, where very limited options are available for controlling the airflow distribution. **PlenaForm®** partitions can also be used as "flow guides", that is, they can be used to create cool or hot spot channels within the plenum to direct the flow to specified regions.



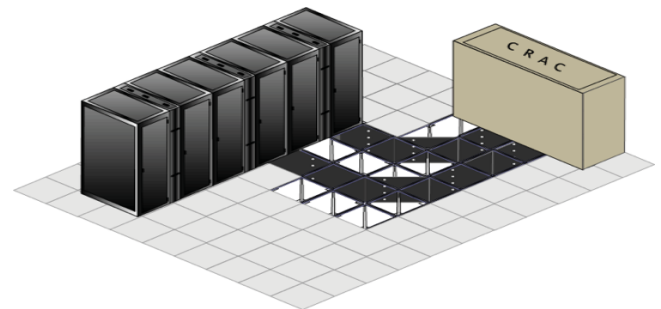
Raised floor data centers use the under-floor plenum to supply cooling air to equipment. The CRAC units push cold air into the plenum, from where it is introduced into the computer room via perforated floor tiles, tile cutouts, and floor grilles.

The distribution of airflow through perforated tiles is governed by the size of the plenum, the arrangement of perforated tiles, location and flow rates of CRAC units, and under-floor blockages such as cables, power feeds and cable trays.

Installing **PlenaForm®** baffles is an effective means for controlling air flow distribution under raised floors.





Improve energy efficiency with these basic guidelines:

- ✓ Use hot-aisle / cold-aisle cabinet row methodology and deploy blanking panels.
- ✓ Use smaller floor tile cuts for cables and use of brushes and other systems to prevent loss of air pressure through tile cuts.
- ✓ Route cable trays and power feeds overhead rather than under access floors.
- ✓ Use cabinets that enhance proper airflow, include doors with 50% or more open space.
- ✓ Adopt good cable management habits to avoid blocking airflow from equipment.
- ✓ Isolate hot and cold air streams for more efficient chiller operation.
- ✓ Orient hot aisles perpendicular to CRAC units to maximize hot air return intake.



- ✓ Part number : 49-PF-2448-12
- ✓ Includes : 12 **PlenaForm®** Baffles
88 cable ties and 44 rivets
- ✓ Dimension : 610 mm x 1219 mm x 1 mm
- ✓ Weight : approx. 0,79 kg each
- ✓ Total shipping weight per pack of 12 : 11,4 Kgs

Parts may be ordered separately :

- ✓ 49-PF-RR : pack of 44 snaps rivets 
- ✓ 49-PF-TIE : pack of 88 cable ties 
- ✓ 49-PF-COMBO : 44 snap rivets & 88 cable ties  
- ✓ 49-PF111-4 : rivet screwdriver 