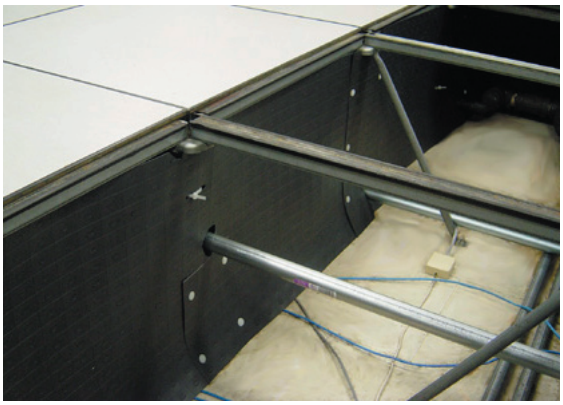
PlenaForm®

"gets the air where it's needed,
and blocks it where it's not."

Data Centre Solutions



PlenaForm® is a flexible, snap together, air flow baffle system which helps to solve dynamic thermal imbalances in data centers.

PlenaForm® is scored both vertically and horizontally so sections can be removed or added onto to meet any height or width requirement. All angles of bend radius may be attained, including inside and outside mounting to raised floor pedestals.

Continuous punch out hole pattern allows attachment to any style raised floor pedestal at any height or width location with cable ties.

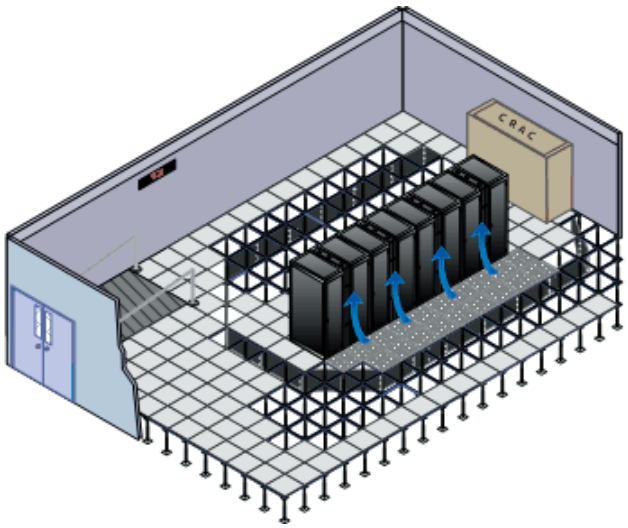
PlenaForm® is die cut from a flame retardant polypropylene compound that is inert, non-conductive, and non-hygroscopic.

Today's high density server farms, are requiring more power and cooling than ever before. The data center evolution of an all air cooled environment has become a real challenge for facility managers to deal with these heat related issues, cooling inefficiencies and increased server densities. The challenge facility managers face is how to get the air that is beneath a raised the floor through the perforated tiles and into the front intakes of rack mounted vertically integrated server housings that are producing the heat.

PlenaForm® is a passive and contributory holistic solution that can be easily installed as an effective "VUF" or vertical under floor partitioning system, to direct air flow within the plenum space. PlenaForm® directs the source of the cold air from the CRAC units to where the air is or is not needed.

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® helps to maintain the static pressure further away from a CRAC unit and is a simple solution to cool thermal hot spots in information technology equipment centers.

It is of utmost importance for today's data center facility manager and design engineer to develop a master plan when laying out equipment in relationship to the CRAC placements. The ideal objective should be to create un-obstructed dedicated air flow paths to the equipment. Open floor penetrations must also be sealed to manage air flow more effectively.



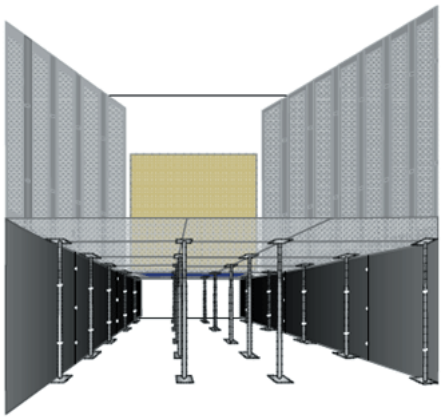
Easy to Install - Right Out of the Box!

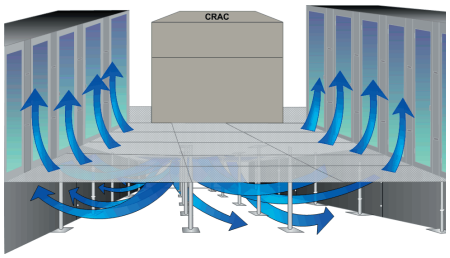
- Control and Balance Data Center Airflow
- Separate Hot Aisles from Cold Aisles
- No Installation Tools Required
- On-Site Configurable (Width and Height)
- Fits ANY Raised Floor Pedestal
- Reduces Energy Consumption and Operating Costs
- An Inert, Non-Conductive and Non-Hygroscopic Material
- Flammability rating of UL V- 0 per UL94
- RoHS and WEEE Compliant
- An Energy Saving and Thermal Tuning Tool

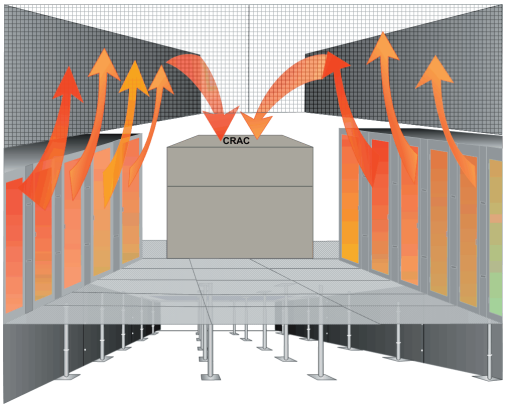
Creating dedicated "hot and cold aisles" or "rack and row" data center equipment placement configurations with **PlenaForm®** increases the static pressure, delivering a higher volume of cooling through perforated tiles and at a further distance from the CRAC units. The Venturi effect is attained, whereby more air pressure rises in the dedicated cold aisles. By installing **PlenaForm®** under-floor partitions, air flow distribution may be directed more efficiently from the CRAC units for maximum equipment air cooling or air blocking requirements in a data center raised floor plenum space.

Installing **PlenaForm®** to direct air flow from the "source of the air" plenum level, a data center manager can better achieve a thermally tuned data center. Integrating **PlenaForm®** into the data center design helps to mitigate thermally associated risk to equipment hardware.

The key word here is high density computing and **PlenaForm®** helps to solve thermal imbalances in your data center environment simply and inexpensively!







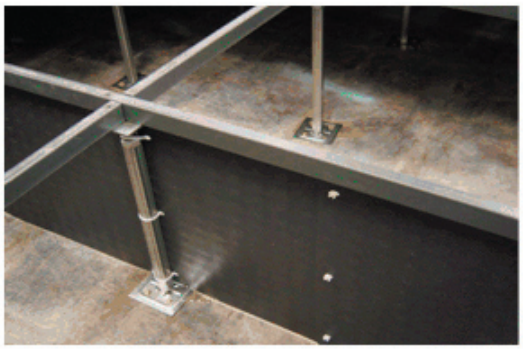
PlenaForm® can also be installed in the ceiling plenum. Create dedicated return air paths in the ceiling plenum for more efficient heat return from the hot aisles to the CRAC unit intake heads.

You can even make CRAC extension intake heads with **PlenaForm®** to the drop ceiling.

PlenaForm®

Part Number:	49-PF-2448-12
Includes:	12 **PlenaForm®** Baffles 88 cable ties and 44 rivets
Dimension:	24"h x 48"w x .040"d 610mm x 1219mm x 1mm
Weight:	Approx. 1.75lbs (0.79Kg) each

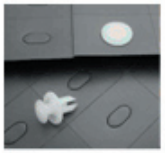
Total shipping weight per pack of 12 = 25lbs (11.4Kgs)



The following parts may also be ordered separately:

49-PF-RR:
Pack of 44 snap rivets

49-PF-TIE:
Pack of 88 cable ties



49-PF-Combo:
44 snap rivets & 88 cable ties

49-PF-111-4:
Rivet screwdriver

Note: A 1/8" (3mm) flat head screwdriver may also be used to remove 49-PF-Rivets. The 49-PF-111-4 is a flat X head screwdriver, not a Phillips head.