

THERMAL SOLUTIONS™ CoolRack HD



President's **Cool Rack-HD** is an innovative enclosure that can address heat loads up to 10 KW. This solution is based on simple principle of isolating the incoming cold air from the hot return air being exhausted from the rear of the cabinet. The innovative Fan Exhaust duct combination helps in this isolation of the cold and hot air streams in line with ASHRAE guidelines. This results in tremendous energy savings while maintaining the high heat density servers at comfortable temperatures.

Cold air emitted out from the raised datacenter flooring enters the rack through the front perforated door. The rear door is a plain door with high suction exhaust fans mounted on the top cover at the rear side which creates negative pressure. All the side openings of the rack in the front are sealed to prevent any air leakages, thereby forcing the cold air to pass through the servers. The exhaust hot air is then taken out of the rack through an exhaust duct which connects the cabinet with the false Ceiling, thus preventing the cold air mixing with the hot air.

CoolRack - HD - Front view with fully perforated steel door

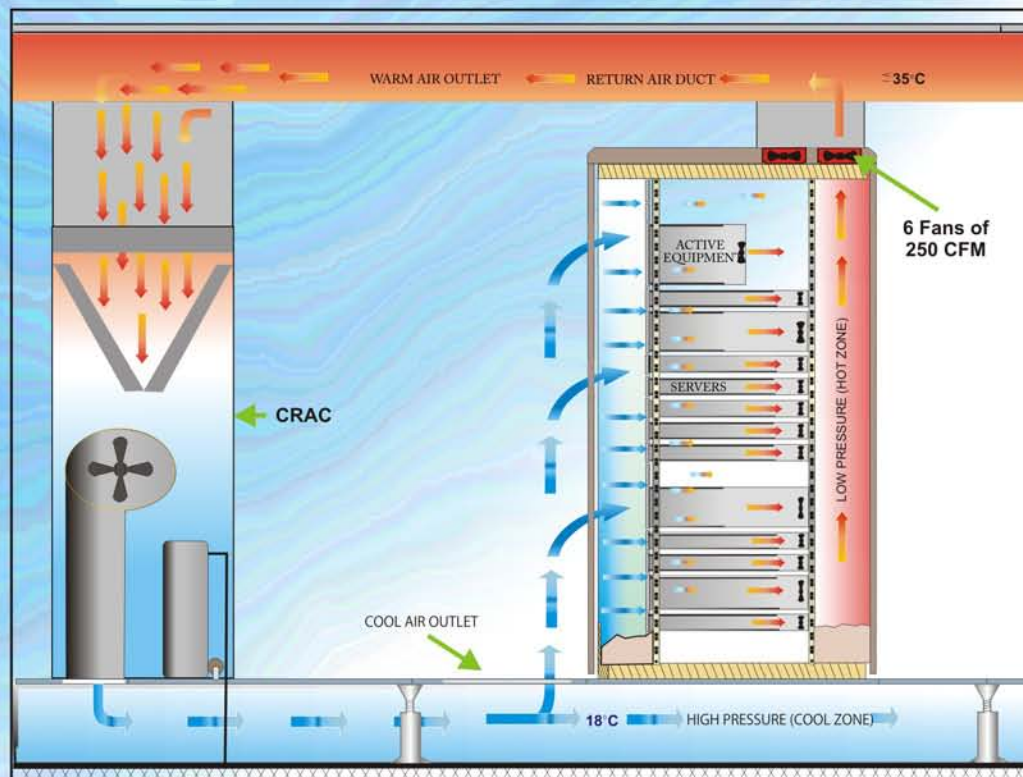
Features & Benefits:

- Ability to house more server in a cabinet...right upto 42 U
- Equipment runs cooler therefore more reliabilityMTBF is increased
- Optimal use of CRAC with maximum utilization of cold air
- Saving in CRAC running Cost



Exhaust duct for *CoolRack-HD*

INTERNAL AIRFLOW ARRANGEMENT IN COOLRACK - HD



Side view showing the internal airflow paths.

*Basic Requirement

- This solution requires a raised access floor
- Operates along with Precision Air Conditioners
- False ceiling is required with clear path for return air from rack to Precision AC.

Specifications:

| DESCRIPTION | UNIT | DETAILS |
|-------------------------|-------|-----------|
| Cooling Capacity | kW | 10 |
| Fan | | |
| Type of Fan | | Axial |
| No Of Fan | No | 6 |
| Air Flow | CFM | 1500 |
| Air Throw | | Top Throw |
| Electrical | | |
| Input Voltage | V | 230 |
| Rated Current Per Fan | Amp | 250 |
| Input Power Per Fan | Watts | 40 |
| Speed | RPM | 2600 |
| Physical | | |
| Maximum Unit Height | U | 42 |
| Maximum Unit Width | mm | 600 |
| Maximum Unit Depth | mm | 1200 |
| Unit Colour | | Black |
| Weght Carrying Capacity | kg | 500 |



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