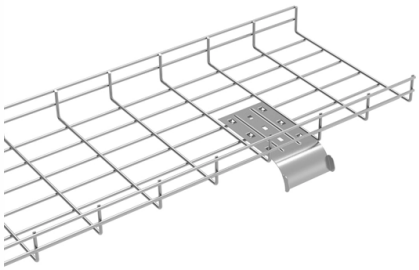
Tunisia Data Center Hot Aisle 800mm Depth



Overview

A DEEP DIVE INTO THE WORLD OF HOT & COLD AISLE THE GREEN GRID: ASHRAE Data Center Cooling Guidelines: Developed in collaboration with ASHRAE, this document.

Key Takeaways

An 800mm hot aisle depth is narrower than typical standards, but can be implemented with careful design to maintain cooling efficiency and airflow management.

Hot Aisle Containment Overview

Hot Aisle Containment (HAC) is a data center cooling strategy that isolates hot exhaust air from server racks, directing it back to the CRAC (Computer Room Air Conditioning) unit through an overhead plenum or containment system. This prevents hot and cold air from mixing, improving cooling efficiency, reducing energy costs, and enabling higher setpoint temperatures for server inlets.

Aisle Depth Considerations

Standard hot aisle widths typically range from 1. 2 meters (1200mm) or more, allowing sufficient space for airflow, personnel access, and serviceability. An 800mm depth is narrower than standard, which may limit airflow and make maintenance access more challenging.

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However, it can still be used if: Cabinet rows are uniform in height and alignment to prevent bypass air. Physical barriers such as sliding doors, vinyl strip doors, or rack hats are installed to maintain containment. Raised floor or slab systems are optimized to deliver cold air precisely to server intakes.

Cooling Efficiency Implications

Narrow aisles can increase the risk of hot spots if airflow is restricted. Proper containment ensures that hot air is funneled directly to the CRAC, maintaining temperature uniformity along the rack height.

HA

C can improve cooling efficiency by 30% or more, allowing CRAC units to operate at higher setpoints and lower fan speeds, which reduces energy consumption. Continuous monitoring with temperature and humidity sensors is recommended to ensure environmental conditions remain within safe limits.

Practical Recommendations

Use modular containment systems with sliding or hinged doors to fit the 800mm aisle while maintaining airflow separation. Ensure uniform rack heights along the aisle to prevent gaps that compromise containment. Consider overhead plenum or drop-ceiling solutions to guide hot air efficiently back to the CRAC unit.

Plan for service access: narrow aisles may require staggered maintenance schedules or retractable containment panels to allow personnel access without disrupting airflow.

Conclusion

While 800mm is narrower than typical hot aisle standards, it can be implemented effectively in a Tunisia data center with proper containment design, uniform rack alignment, and careful airflow management. This setup can still achieve significant cooling efficiency gains and energy savings if best practices are followed.

Article Content

A DEEP DIVE INTO THE WORLD OF HOT & COLD AISLE

THE GREEN GRID: ASHRAE Data Center Cooling Guidelines: Developed in collaboration with ASHRAE, this document provides best practices for data center cooling, including hot and cold aisle

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AISLE CONTAINMENT

Hot aisle containment is made from light duty aluminum profile and thermal insulation PC board, has better heat dissipation performance than cold aisle containment in high density data centers, to

Aisle Containment Systems Physical Containment Systems ...

Door Options A choice of door options is available for use with the aisle containment system to provide the right combination of safety and security. Dual sliding doors or Vertical doors can be chosen for

Data Center Design: Hot Aisle & Cold Aisle – Length

Efficient airflow management in data centers relies heavily on proper Hot Aisle and Cold Aisle configurations. To maintain thermal performance, equipment

Hot Aisle Return Plenum 800mm, 1480x800x75, Black, Polycarbonate

This is used to completely separate the hot from cold air, drastically reducing data center energy costs. It is designed to be sold as a build-to-order system that consists of side panels, end panels, and used

Hot Aisle Containment in Data Centers | Subzero Engineering

Hot aisle containment configures for virtually any data center environment regardless of ceiling type, height, or existing infrastructure. Custom configurations accommodate obstructions, non-standard

Aisle Containment | Modular Cleanroom & Data Center Containment ...

Our modular systems provide flexible, secure separation between hot and cold aisles or controlled zones to maintain optimal environmental performance.

Aisle Containment Solutions | Maysteel Industries

DAMAC''s cold aisle containment systems are a great fit for high-density data centers. This solution caps cold air at the tops of cabinets and across the aisles,

Hot Aisle Containment: Enhancing Data Centre Efficiency

Discover how Hot Aisle Containment solutions from Tate Europe improve energy efficiency, cooling, and overall performance in data centres. Learn the benefits

52U | 52U Server Rack Cabinet | 52U Data Center

52U Server Rack Cabinet 800mm Wide x 1200mm Deep with Side Panels RS52812 Features ... Standard enclosure for low to medium density server and networking

TOTAL SOLUTIONS FOR DATA CENTERS HOT / COLD AISLE

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TOTAL SOLUTIONS FOR DATA CENTERS The Hot / Cold Aisle approach is considered to be the “norm” for data center designs. Racks are aligned front to front and cold air is delivered using the

Tunisia Data Centers

List of all Data Centers located in Tunisia. Find any certified, power consumption, cooling redundancy, services and features for data centers in Tunisia.

What is the standard distance between Hot Aisles and between

When you consider current and future growth and rack dimensions what is the recommended or required distance for staff to have to work in a hot or cold aisle?

Cold & Hot Aisle Containment For Data Center Efficiency

Learn how cold and hot aisle containment improves airflow, reduces energy use, and boosts reliability in data centers. Backed by CFD insights from EXPERIQS.

Server Racks & Network Cabinets: The 2026

Optimize your data center with Weunion''s high-performance server racks and network cabinets. Explore our 2026 guide on wall-mount, floor

What are hot and cold aisles in the data center?

Using hot and cold aisles in a data center is part of an energy-efficient layout for server racks and other computing equipment. Find out more here.

800*800mm Colocation Server Rack Micro Data Center

800*800mm Colocation Server Rack Micro Data Center Solution Cold Aisle Containment, Find Details and Price about 600mm Depth Server Rack 600mm

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