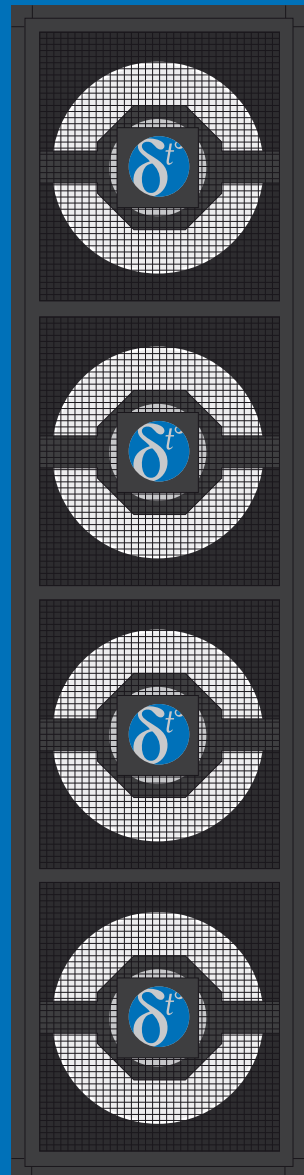


The delta-T 25



The delta-T 50

## LATERAL THINKING

In a modern datacenter you need to scale capacity easily to meet changing IT demands. The problem is, traditional approaches to IT cooling won't let you, easily.

So we turned traditional approaches on their side.

The delta-T from Datacentience follows a simple but radical piece of lateral thinking. Instead of blowing cold air around the room like a traditional air conditioning unit, the delta-T removes the heat at its source in the rack.

This means the heat does not move around the room with unpredictable thermal effects.

It also means cooling units can be as modular as the servers themselves.

The result?

- Cooling is now fully and easily scalable throughout the lifecycle of the datacenter.
- You can set up powerful data processing capabilities in any available space.

We've taken this lateral thinking further. Our patented design can create a lateral cold air curtain in front of the servers, offering all the control and efficiency of thermal containment, without the costs of raised floors or extra panels, even in a single row.

No raised floor required

Slides in like a server

Fits any rack from any vendor

Cooling delivered precisely where it's needed

Thermally neutral

## FORWARD THINKING

Datacentience develops superior technologies to simplify and improve datacenter design, performance and operation.

The delta-T builds on decades of experience in datacenter cooling but, rather than modifying traditional engineering to cope with escalating heat loads and densities, our engineers went back to the drawing board. We saw that cooling was frequently a bottleneck in datacenter scalability and optimisation, so created a solution that is as modular as modern servers themselves.

We'll continue to push the boundaries. Our Datacube brings another new dimension to datacenter flexibility. It's a complete datacenter in a rack.

End users specify the servers they want and we can put together a complete package with servers, power and delta-T cooling, supplied as a unit that can be up and running in a day. A single rack may offer all the processing smaller organisations need. Larger organisations can simply add multiple Datacubes.

We can offer advanced design and specification tools as well as a full consultancy capability in operational optimisation.

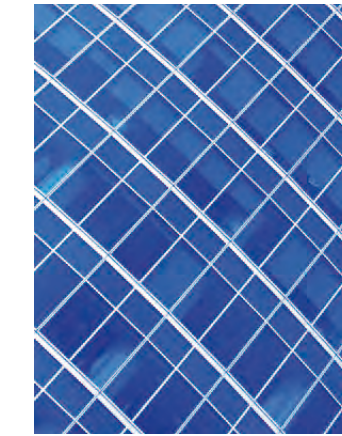
We're changing the way people think about datacenters. Want to know more? Then give us a call and we'll set up a meeting.



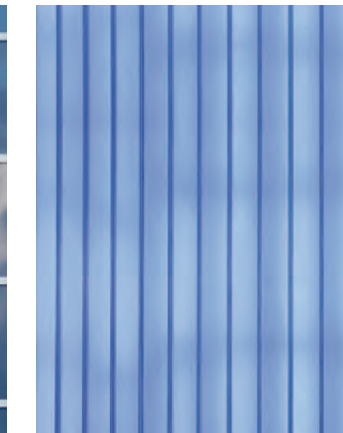
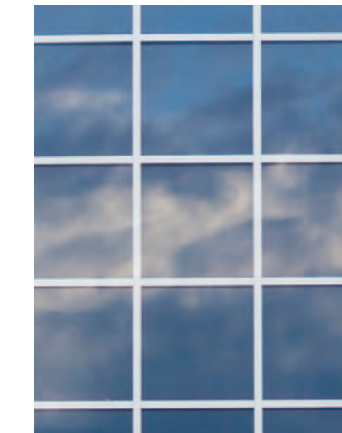
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[www.datacentience.com](http://www.datacentience.com)



Need to quickly cut your running costs?  
Want to easily increase your cooling capacity?



The answer?  
The delta T from Datacentience.



# The Future of Datacenter Cooling

[www.datacentience.com](http://www.datacentience.com)

## PRECISE

The delta-T slots into any standard server rack in any type of room.

By focusing on the rack, not the room, we have made cooling units as modular as servers. We have transformed your options for building a new datacenter or progressively upgrading and extending your existing IT capacity.

So as you add more (or more powerful) servers you can simply add the extra cooling capacity you need, when you need it.

That's it: modular, precise cooling with no need for complex new building work, and no raised floors, so refits and upgrades are vastly simplified.

## FLEXIBLE

With the delta-T you don't need to install a raised floor: the cooling is managed in the rack.

So you don't need to worry about invasive building work. You can add capacity faster, at lower cost, more flexibly.

You can easily augment capacity in low density installations, or move with minimum disruption to high density computing without worrying about hotspots.

You don't need to plan everything in advance. Add servers and cooling to existing racks, or place a new rack wherever you have room.

You specify only the capacity you need at the time. You can reduce capital expenditure, or spread it over a phased expansion.

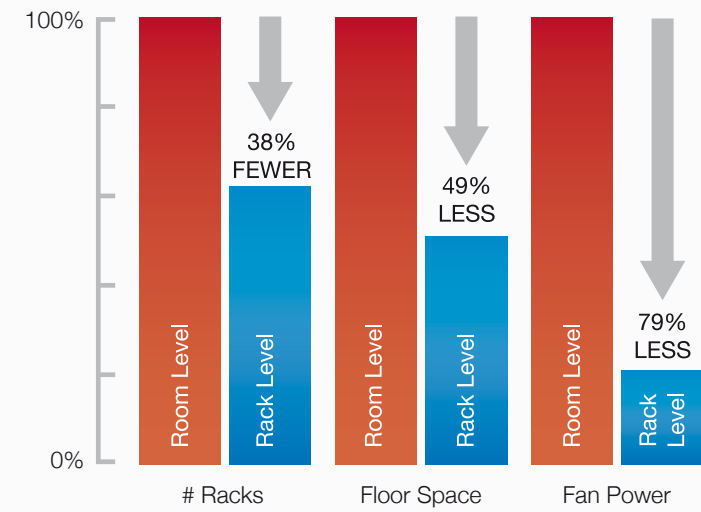
Make more efficient use of your available space. You no longer need a room with a dedicated IT infrastructure: with everything you need contained in a rack, you can put that rack in any room with free space.

## EFFICIENT

Improve your energy efficiency. delta-T units consume only a quarter of the electricity of traditional computer room air conditioners.

Enclosures, especially hot aisle enclosures, are the most efficient way to manage the increased cooling demands of higher density computing. The delta-T is perfect for both hot aisle and cold aisle enclosures.

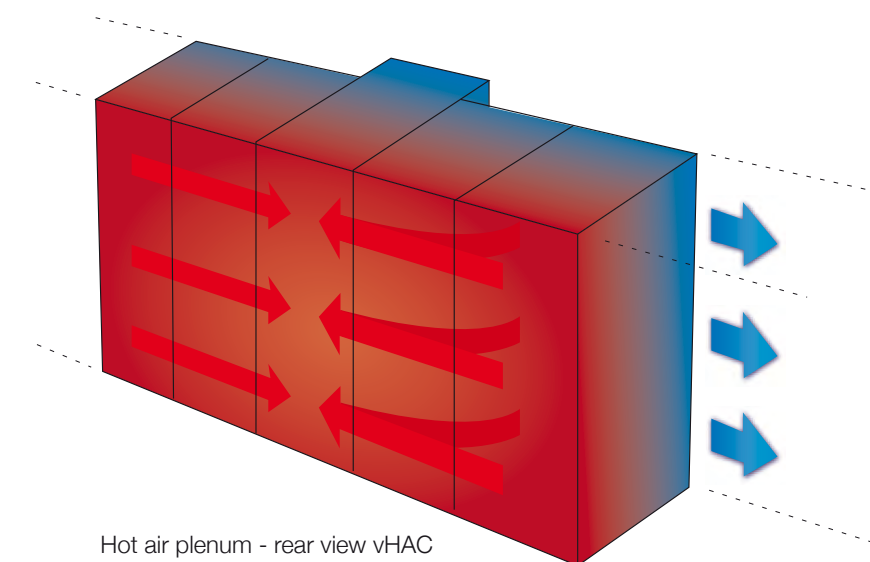
In an enclosed hot aisle the delta-T exploits available warm air to improve chiller performance, reducing overall power draw and helping you take full advantage of "free" cooling in colder months. The result can be a dramatic cut in operating costs.



## PERFORMANCE

The delta-T uniquely extends the efficient characteristics of hot aisle enclosures even to a single row configuration. With the patented delta-T air curtain you can secure the benefits of hot aisle containment in a single row, without the cost of enclosure.

Many existing datacenters are not set up for hot or cold aisle enclosure, but with the delta-T in a single row application you do not need to make substantial structural alterations to achieve hot aisle cooling performance, capacity and cost benefits.



## PATENTED

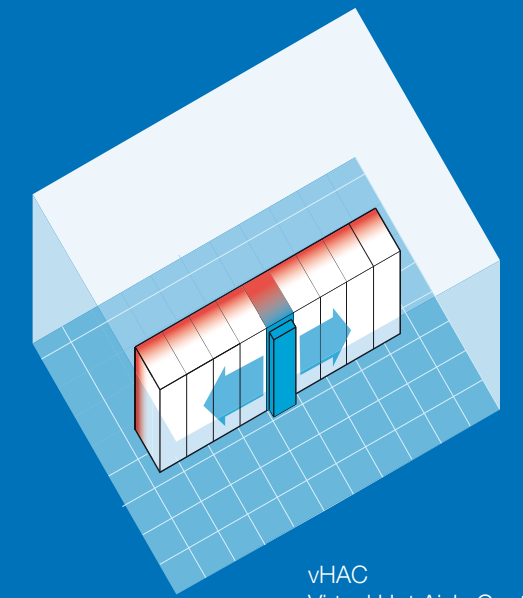
In its patented semi-recessed position the delta-T creates a lateral cold air curtain in front of a server rack, which delivers the same performance as a hot aisle enclosure – without overhead panels and doors.

The semi-recessed position itself improves fan efficiency by one third, further reducing operating costs. The delta-T also operates with half the waterside pressure drop of competitive close-coupled cooling units and requires only a quarter of the fan power of traditional perimeter air conditioners - transforming the coefficient of performance to achieve 50kW of cooling for under 1kW power consumption.

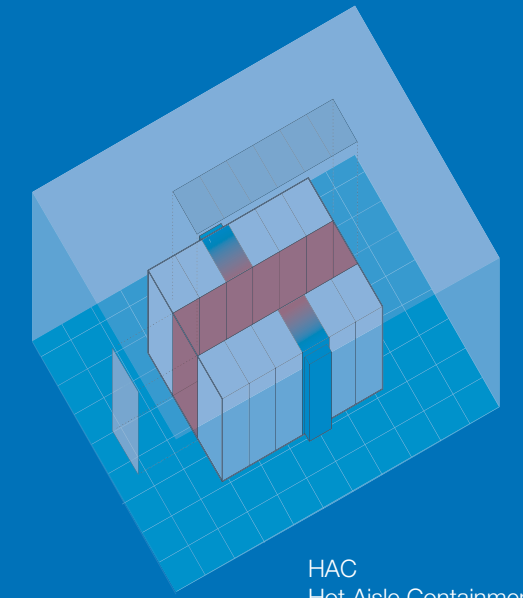
Our units use industry-standard components (simplifying maintenance) and come with a no quibble replacement guarantee (you can simply slot the replacement unit into place). We have distribution and service capabilities in more than 37 countries around the world and the list is still growing.



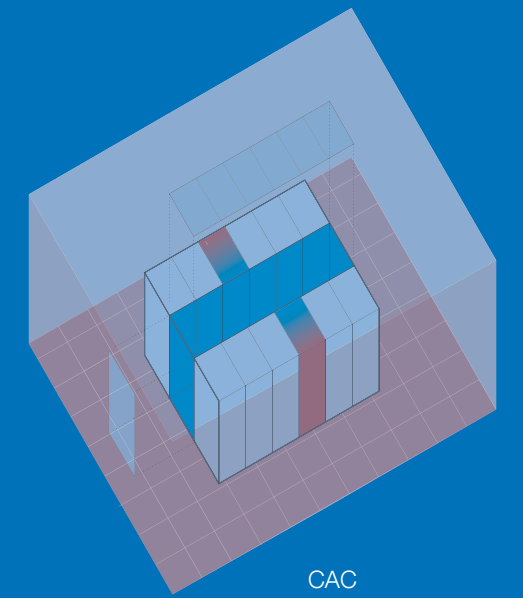
PATENTED VIRTUAL HOT AISLE CONTAINMENT – vHAC



vHAC  
Virtual Hot Aisle Containment



HAC  
Hot Aisle Containment



CAC  
Cold Aisle Containment