

# Daxten CoolControl Containment

**Inexpensive and highly flexible  
soft or solid, hot and cold-aisle-containment  
with caging capabilities**

## CoolControl Containment Highlights

- Cost-saving separation of the hot and the cold aisle (HAC/CAC)
- Caging capabilities for co-location and housing
- Supports hybrid designs with soft and solid materials
- Compatible with all rack dimensions and vendors
- Prevents re-circulation of hot air into the cold aisle
- Up to 30% energy savings
- Increased server reliability and lifetime
- Easily installed: in hours not in weeks
- No downtime required for installation
- Easily expandable and reusable
- Allows full integration of existing fire-protection systems

The Daxten CoolControl Containment system is the most flexible solution available to contain racks of any size in either the hot or the cold aisle. CoolControl Containment consists of aluminium profiles that can be connected together as a frame, under the ceiling, directly at the rack, or to the wall in any server room or data centre. The aluminium profiles allow the use of soft, inert, anti-static and self-extinguishing curtains or solid synthetic, glass or metal panels, or a combination of the various materials. Existing fire protection systems can be integrated without limitations. The solution is designed to fit to any rack height and width and is easy to install especially in data centres that have grown over time with racks from different vendors – and that are continuing to grow. The aluminium profiles also allow construction of caged compartments for co-location and housing purposes.

**Hot or Cold Aisle Containment using Daxten's CoolControl Containment can contribute to a reduction of the CRAC power consumption by up to 30 percent.**

**Re-circulation of hot air at the IT equipment intake can lead to expensive hardware failures.**

Active IT hardware takes the cooled air in from the front of the racks and exhausts it at the back of the racks. The hot exhaust air rises up the rear of the cabinet and can flow over the top or around the side of the rack. This can result in hot air re-circulating to the front of the rack and into the server air intakes. The hot air can also re-circulate through openings between servers or other hardware in the cabinet. As this process repeats, the temperature in the cold aisle gradually rises creating hot-spots. Traditionally, the most common way to eliminate these hot-spots was to increase cooling output. Unfortunately, increasing cooling increases energy consumption and the energy bill, it also does not always solve the problem. The most effective solution is to physically separate the hot air from the cold air. This separation can be done reliably with CoolControl Containment. Our measurements show that by installing our solution the temperature difference between the hot and cold aisle can be as high as 10-15 degrees Celsius. Depending on the size and environmental specifics of individual data centres, the cooling requirements and energy costs could be reduced by as much as 30% not to mention better server reliability and fewer failures.



Cable openings at the bottom of the cabinet are sealed airtight with the CoolControl Xpand.



Efficient airflow with Daxten CoolControl Tiles.

## Essentials for containment solution efficiency

Additional components that are essential for an efficient containment solution are often forgotten. It is critical to seal free space in the cabinets to prevent the re-circulation of hot air into the contained rack row. This can be easily and inexpensively done by using Daxten CoolControl Blanking Panels and CoolControl Baffles.

Furthermore, it is important to seal the cable openings at the bottom of the rack in the raised floor. Cooled air otherwise escapes in the hot aisle and necessary raised floor air pressure is reduced. There are two ways to solve these problems: You can seal the openings with the Daxten CoolControl Xpand, an expandable and very cost-efficient synthetic material, or by using Daxten CoolControl Floor Tiles with integrated brushes under each 19" Rack. These seamlessly enclose the cables making the openings airtight.

Last but not least, it is very important for a containment system to have a constant air pressure with airflow that reaches all levels of the cold aisle. Traditionally, the only way to ensure conditioned air reaches the upper most part of the racks was to increase the pressure under the raised floor. CoolControl Tiles are specifically designed to ensure conditioned air reaches all rack levels equally – even with low pressure. Lower pressure means less energy is required to transport the cooled air where you need it.

## Specifications – Daxten CoolControl Containment

<b>Material:</b>	Curtains: self-extinguishing according to EN DIN 53382, RAL colours or translucent
	Panels: glass, fibre, synthetics, non-flammable, RAL colours
	Profiles: aluminium with adapters for soft and cold panels
	Hangers: metal, for mounting curtain strips and solid panels
	Caging components: angle frame panels
<b>Installation:</b>	Ceiling, frame, at the rack or on the wall
<b>Dimensions:</b>	Available for all requirements
<b>Layout:</b>	on Demand
<b>Options:</b>	CoolControl Blanking Panels – sealing free space in cabinets
	CoolControl Xpand – sealing cable openings in the rack
	CoolControl Rack Tile – Tile for cabinets with integrated brushes
	CoolControl Tile – efficient airflow and pressure for the cold aisle



In 2010 the EU Joint Research Commission published the second version of the EU Code of Conduct Best Practice Guidelines for increasing Data Centre energy and cooling effectiveness. According to these guidelines the containment of the cold or hot aisle is rated with the top value 5. Since 2009 Daxten Ltd. is official endorser of the EU Code of Conduct on Data Centre Efficiency.

For further information please contact us at [info.uk@daxten.com](mailto:info.uk@daxten.com), +44 (0)20 8991 6200 or visit [www.daxten.co.uk](http://www.daxten.co.uk)

### Company profile

Daxten was founded in 1994 as Dakota Computer Solutions. Today Daxten is a market leader in data centre cooling optimisation solutions. As a manufacturer and distributor of innovative solutions, Daxten is at the forefront of promoting energy efficiency within the data centre. Daxten offers cutting edge mission-critical power distribution and management solutions which improve the energy efficiency and reliability of the data centre. Power distribution solutions such as Starline Track Busway support IT managers in their pursuit of reliability and efficiency of IT operations. The company has facilities and subsidiaries across Europe. As a provider of power and cooling optimisation and connectivity solutions it is our mission to support IT managers worldwide, to ease their working life, to protect their companies against downtime and to realize significant cost savings in their data centres. In Europe Daxten is headquartered in London and Berlin. For further information please visit [www.daxten.co.uk](http://www.daxten.co.uk).

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