

DANTHERM COUNSELLING: IDEAL DISPLACEMENT FREE COOLING IN EUROPEAN NETWORKS

The efficiency of any cooling solution depends on the conditions at your site. This is why Dantherm met with a large Telecom operator, who was convinced that displacement free cooling was the best choice for rooms and containers in their entire network.

A hands-on meeting with Dantherm

How do you explain when and where to apply traditional Free Cooling, Displacement Free Cooling or Air Conditioning without getting lost in manuals? Well, it's not easy. Therefore, Dantherm loaded a van with three products and a corresponding number of engineers, and took the trip to the Czech Republic for a hands-on meeting with a large Telecom operator. This opened the operator's eyes to the technologies behind all three cooling solutions and why knowing your site conditions are critical to the cost-efficiency of your solution.

Displacement Free Cooling: ideal conditions

Displacement Free Cooling (DFC) is most efficient under the following conditions:

- In rooms up to 12m²
- When the internal air is stagnant

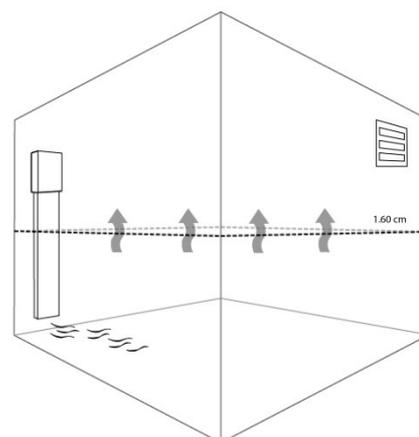
This is why: Cool outdoor air is supplied at the bottom of the room through a bag filter. A cushion of cool air builds up at the bottom of the room, forcing the warmer air to move up.

Specific strengths of the DFC-solution

The Dantherm DFC-units are less cost-intensive and more silent than traditional Free Cooling solutions, because they operate with lower air flow and fan speed. Furthermore, the units are small in size, taking up a minimum of space inside the room.

Shared knowledge – different strategies

Displacement Free Cooling turned out to be the ideal solution for the operator's sites in the Czech Republic. For the remaining sites in Europe, the operator chose to approve two Dantherm solutions: The Combo Cooling, a unit operating with Free Cooling and Air Conditioning, and the Flexibox, a unit operating just with Free Cooling. At present moment, the DFC-solutions are in operation at test sites in the Czech Republic. By sharing technical knowledge and strengths and weaknesses about different cooling methods available, the client was equipped to making decisions about differentiated cooling strategies, thus ensuring the highest possible savings across their network.



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