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Introducing the Alfa Laval Cooling Pod – a plug-and-play cooling solution for edge data centers

Alfa Laval launches the Cooling Pod as an answer to the demand for more flexible and sustainable cooling solutions for edge computing data centers. The new solution consists of a 20-foot container with all the components needed to deliver cooling for direct-to-chip and immersion cooling applications.

In the recent World Economic Forum in Davos, it was established that “Digitalization is the key that can unlock net-zero for industry”. Industries around the world are already embracing technologies such as machine learning, artificial intelligence, and internet of things to become more sustainable. Applications like these demand redundancy and low latency (delay), which our current large-scale data center infrastructure was not built to provide.

Instead, we see a trend where the world is investing in smaller, decentralized data centers referred to as edge data centers. These enable “edge computing” – a form of distributed IT architecture where client data is processed as close to the originating source as possible to deliver fast services with minimal latency.

An innovative solution to the cooling problem

Edge data centers need a different approach to cooling because traditional cooling solutions for big cloud storage data centers are energy and water intensive and not cost effective, especially when scaled down. This is where the new Alfa Laval Cooling Pod excels. Rather than relying on groundwater to cool, it uses Alfa Laval’s extremely energy-efficient air-cooled heat exchanger technology to keep the temperature of the edge-computing hardware down. A variable frequency drive increases the sustainability performance of the Cooling Pod even further by adjusting the cooling effect to the prevailing conditions, saving additional energy in the process.

Location, location, location

The point of edge computing is to provide the quickest possible delivery of time sensitive data. For this to work, the data center needs to be located close to the client. The small footprint of the Cooling Pod means that it can be placed almost everywhere where there is space for a 20-foot container. The modular, containerized design also maximizes flexibility, allowing users to move their data centers if requirements change. And if more cooling capacity is needed, additional pods can easily and quickly be added.

Easy installation

The Cooling Pod comes in 500kW and 1MW versions for single or dual loop as well as for direct-to-chip or immersion cooling. This allows customer to mix and match any combination of modules to meet their cooling needs. The Cooling Pod is delivered with all the components needed to deliver cooling already installed. All that’s needed to get up and running is a power connection.

A game-changer for edge data centers

“Perhaps the best feature of the Cooling Pod is that it can be up and running quickly almost everywhere, including in harsh environments like deserts and in places where access to water is limited”, says Afonso Lopes, Sales Manager. “And if you add the fact that the Cooling Pod is

completely plug-and-play, the customer can focus on their core competencies, rather than worry about how to cool their data center. The Cooling Pod is a real game changer for the edge computing industry."

To learn more about the Alfa Laval Cooling Pod, please visit:

www.alfalaval.com/coolingpod

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Editor's notes

This is Alfa Laval

Alfa Laval is active in the areas of Energy, Marine, and Food & Water, offering its expertise, products, and service to a wide range of industries in some 100 countries. The company is committed to optimizing processes, creating responsible growth, and driving progress – always going the extra mile to support customers in achieving their business goals and sustainability targets.

Alfa Laval's innovative technologies are dedicated to purifying, refining, and reusing materials, promoting more responsible use of natural resources. They contribute to improved energy efficiency and heat recovery, better water treatment, and reduced emissions. Thereby, Alfa Laval is not only accelerating success for its customers, but also for people and the planet. Making the world better, every day. It's all about Advancing better™.

Alfa Laval has 16,700 employees. Annual sales in 2020 were SEK 41.5 billion (approx. EUR 4 billion). The company is listed on Nasdaq OMX.

www.alfalaval.com