Product news

February 2022

Introducing the new Alfa Laval AC65 brazed plate heat exchanger – specially optimized as an evaporator for residential heat pump applications

Alfa Laval launched the new Alfa Laval AC65 brazed plate heat exchanger at their first online net-zero launch event, where they showcased new, cutting-edge thinking in energy-efficiency, clean energy, and circular-economy solutions. Produced at Alfa Laval's state-of-the-art factory in San Bonifacio, Italy, the AC65 is designed to meet the growing market demand for next-generation heat exchangers for the high-volume heat pump market.

https://energy.alfalaval.com/making-heat-pumps-more-efficient

Every year, Alfa Laval supplies millions of extremely cost-competitive heat exchangers to the boiler market; as well as hundreds of thousands of high-performance, premium-quality heat exchangers to the heat pump market. However, the heating world has begun a rapid, dramatic transformation. Boilers are gradually being phased out in favour of heat pumps. This shift is creating an increasing demand for heat exchangers optimized for use with heat pumps, including Alfa Laval's latest innovation, the AC65, which delivers what Alfa Laval refers to as: total efficiency.

Total efficiency includes:

- **Thermal efficiency**. The performance of the AC65 is unrivalled. Heat pumps designed using the AC65 as an evaporator can reach COPs above 4.5 at nominal conditions.

- **Development efficiency**. The compact design of the AC65 makes it ideal for residential heat pumps, and it is ready to handle new low-GWP refrigerants, including propane.

- **Process efficiency**. High production capacity keeps the AC65 cost-competitive, while still meeting the highest quality standards.

The Alfa Laval AC65 is a perfect fit for newly-developed heat pumps
The tall, thin design of the AC65 creates a high thermal-length, which guarantees that the unit is not only a highly-effective evaporator, but is also a great condenser for reversible heat pumps.

A few unique key features give the AC65 its edge. The first is FlexFLow™, a unique, asymmetric plate design that makes it possible to minimize the evaporator's refrigerant charge, lowering the overall cost of applications that use synthetic refrigerants. In applications that use propane – a natural, low-GWP refrigerant that is a growing trend – this feature is

even more critical, since the amount of propane that can be used in a single unit is strictly limited.

Asymmetric design also reduces the pressure drop on the secondary side, making it possible to use a smaller pump and less electricity.

The second important feature of the AC65 is the DynaStatic™ distribution system.

DynaStatic ™ is the latest distribution system developed by Alfa Laval. This technology allows Alfa Laval to tailor the geometry of the distributor, making it possible to adapt the AC65 to future trends and future customer needs, including changes in application requirements, new refrigerants, or any other requests. Together with the high-thermal-length design of the AC65, it also accounts for the high efficiency of the evaporator, since it ensures that the gas-and-liquid mixture that goes into the unit is distributed properly along the plates.

A future-proof investment for our customers
"The AC65 can be adapted to meet future trends and customer needs, including changes in application requirements, new refrigerants, or any other requests. The unique features of the AC65 make it a truly future-proof investment for our customers," says Fredrik Ekström, President, Business Unit Brazed & Fusion Bonded Heat Exchangers.

"The AC65 is produced at Alfa Laval's new San Bonifacio factory, which offers both high production volumes and high production quality, thanks to next-generation tooling and machines, according to industry 4.0," he continues. "With double the production space of its predecessor and a state-of-the-art thermal lab, the San Bonifacio plant makes it possible to test all new refrigerants safely, including flammable refrigerants, such as propane,"

To learn more about the Alfa Laval AC line of brazed plate heat exchanger, please visit:

https://www.alfalaval.com/products/heat-transfer/plate-heat-exchangers/brazed-plate-heat-exchangers/ac/

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Editor's notes

Brazed plate heat exchangers
Alfa Laval copper-brazed plate heat exchangers are a compact, efficient and maintenance-free solution for heating, cooling, evaporation and condensing in numerous applications. Each unit is designed for duty optimization, with a range of unique features that ensure both superior thermal performance and maximum reliability. This enables the longest possible service life – even under conditions with extremely high design pressures. An ideal solution for use with natural refrigerants, thanks to the compact footprint, optimized plate design and high design pressure.

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