Alfa Laval Abatigo

Redefining adiabatic cooling

Experience and expertise recognized throughout the world

With decades of broad experience and practical expertise in heat transfer, Alfa Laval is today a world-leading supplier of heat exchangers. Innovation, performance, and sustainability are at the core of every product that we develop. With the Alfa Laval Abatigo, we continue setting a new standard for the cooling industry. Adiabatic coolers are designed for customers who are considering using cooling towers, but have concerns regarding the environment and performance, such as Legionella contamination or high costs.

Worldwide support for total peace of mind

To keep your equipment in top working condition, Alfa Laval offers a comprehensive portfolio of services including monitoring, smooth and safe start-up, and maintenance services. Our global sales channels and service engineers ensure that you get timely and reliable support where and when you need it.

Alfa Laval near you

- 103 sales offices in 53 countries
- Worldwide support from product and application specialists
- Original spare parts available from Alfa Laval channel partners

The next generation in efficient cooling

Experience a new level of efficiency, delivered with greater performance, sustainability and adaptability. Alfa Laval pushes the boundaries of innovation to bring in the future's alternative in cooling with adiabatic technology.

Introducing Alfa Laval Abatigo, a closed-chamber adiabatic cooler optimized for different applications to deliver long-term savings in water, energy, chemicals and maintenance time.

Optimal cooling efficiency for different applications

Alfa Laval Abatigo utilizes a unique method of cooling by spraying a fine mist of water to cool the air before it enters the heat exchanger coil. This state-of-the-art closed-loop cooling system has a moisture-absorbent cellulose honeycomb interior. It significantly reduces water consumption and energy use, and is highly adaptable to different applications and climates.

Sustainability

The adiabatic chamber is activated with higher ambient temperatures to pre-cool incoming air. The closed-loop system with moisture absorption interior ensures that there is no evaporation of process water, keeping water clean and equipment scale-free while:

- Reducing water consumption by up to 95% vs. cooling tower.
- No water treatment required for adiabatic system.
- No need for anti-freezing treatment.
- No waterborne diseases thanks to absence of drift.

Performance

The Alfa Laval Abatigo ensures that clean process liquid is supplied at the right temperature according to ambient climate conditions all year round, ensuring minimal monitoring and maintenance. Incorporating EC fans and other unique features into a quiet-operating design, Alfa Laval Abatigo delivers:

- Lower energy consumption by up to 95% vs. air-cooled central chiller.
- Higher cooling efficiency with optional fan exhaust diffusers.
- Perfect water temperature through precise controls that continuously adjust fans and adiabatic chamber activation as needed.
- Maximized uptime thanks to scale-free operation, durable construction, and safer acrylic-coated heat exchanger.

Adaptability

The Alfa Laval Abatigo is easily optimized for different locations and applications. Its unique features help maintain precise cooling temperature and maximize uptime, regardless of climate, system demands or space constraints:

- Optimized for any climate with configurable options and set-up.
- Maximum capacity, low footprint compared to dry coolers.
- Air flow optimized in tight spaces with extended support legs.

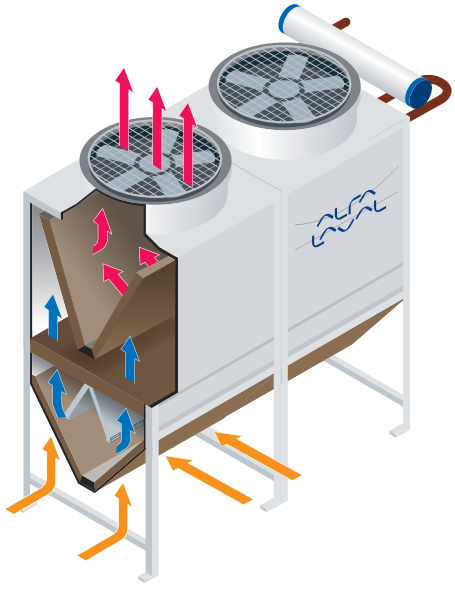
Optimized for minimal lifetime costs

- Available with 1–20 EC fans per unit in single or double row configurations and capacities of 30–2100 kW (8–600 tons), depending on location, ΔT and supply temperature.
- Standard EC fans operate with close temperature control and energy consumption based on actual load conditions.
- Available fans with exhaust diffusers for increased energy efficiency and reduced noise levels.

Adiabatic technology with zero moisture leakage

Alfa Laval Abatigo prevents any water drift to the heat exchangers, keeping them completely dry – preventing scaling, corrosion, and dangerous waterborne diseases such as Legionella.

The cooler is designed to usually work in dry mode, when the adiabatic mode is activated, it works as follows:



1. High-temperature ambient air passes through lower adiabatic chamber.
2. Inside this chamber, nozzles spray the coil with a fine mist of water from a separate source.
3. The air is cooled due to humidification, prior to contact with heat exchangers.
4. The chamber's design prevents any water drift outside the chamber when the cooled air travels to the heat exchanger.
5. Digital control system continuously adjusts the amount of water sprayed to ensure consistent cooling.

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineering solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again. We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuff, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com

Scan the code to learn more about the Alfa Laval Abatigo.

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