



Efficiency on an industrial scale

Steam, hot water & waste heat recovery solutions for industry



A century of heat in industry



The first boiler is built at the Aalborg Shipyard.

1919

Small boilers for process industries are designed and manufactured for the first time.



1920s



Aalborg Shipyard develops its own design of oil and gas-fired burners.

1930s

Aalborg Shipyard develops and builds its first boilers designed for power stations.



1940s



In 1987, the Aalborg Shipyard closes. However, the Aalborg boilers division continues on and ultimately becomes Aalborg Industries A/S.

1980s

Aalborg Industries acquires ATA Combustão Técnica, located in Petrópolis, Brazil, from the Japanese firm Mitsubishi Heavy Industries.



2000

For decades, Alfa Laval has developed boiler solutions for a wide range of industries. Today's Aalborg boilers encompass the most efficient features we have pioneered over the years, along with the latest advances.

Efficient heat production

Boilers with a measurable difference

Efficient boiler technology is now more important than ever. Your plant's economy depends on how heat is produced and the way energy is consumed across the entire production line. In short, the boiler you choose will impact your bottom line.

Alfa Laval boilers offer the market's highest energy efficiency. With a century of expertise to draw upon, we also have the practical and technological depth to advise you on the ideal boiler configuration to lower energy consumption and reduce emissions in your production. And because Alfa Laval develops and produces all necessary components in-house, we can optimize boiler systems in their entirety for use in nearly any industry.

Alfa Laval has a long history of innovation in heat transfer and boiler development. For 100 years, our Aalborg solutions have been at the leading edge of industrial boiler technology. Many of the milestone developments we have achieved throughout that first century can still be seen in our products today.

A horizontal timeline with a central line and blue circular markers for each year. Above and below the line are images of various boiler models and a factory building, with text descriptions for each year.

Year	Event
2002	Aalborg becomes part of Alfa Laval, adding to an already extensive portfolio of thermal solutions for industry.
2011	A new boiler design is launched under the MISSION concept as the MISSION 3-pass.
2014	Alfa Laval introduces the Aalborg Micro, a compact exhaust gas heat exchanger for industrial needs.
2015	Alfa Laval releases the Aalborg High-Pressure Natural Circulation (HPNC) boiler, developed to meet the demanding needs of the food and vegetable oil industry.
2015	Alfa Laval introduces the Aalborg Mini, a compact and highly efficient 3-pass boiler of small capacities.
2017	Alfa Laval establishes a new industrial hub in China, close to our boiler factory in Qingdao, which includes sales, engineering and service.

Energy efficiency has always been a strong driver in Alfa Laval's boiler development. This makes us a key part of the push to reduce energy consumption in all industries.

Efficient heat recovery

Heat exchangers that turn waste into win

No matter how efficient your engine or turbine is, much of the energy it produces is lost as exhaust gas heat. With today's energy prices, that means money lost too. That's why the focus is widening from efficient heat production to reusing heat that already exists.

Building on our expertise with traditional boilers, Alfa Laval has pioneered the concept of waste heat recovery. With the Aalborg Micro exhaust gas heat exchanger, we have developed a compact solution for using otherwise wasted heat in a variety of essential industrial applications. Thanks to effective heat recovery, you may be able to reduce your fuel consumption by 20 to 30%.

Flexible solutions for industrial needs

The more you get from your boilers, the more you get from your fuel. Optimized in every detail, Alfa Laval's oil- and gas-fired Aalborg boilers create savings in industries all around the world. We offer a number of designs and configurations, with a broad range of capacities to suit any need.

Alfa Laval Aalborg 3-Pass

The Aalborg 3-Pass is a compact industrial boiler with a thoroughly modern wetback design. Symmetrically arranged heating surfaces secure optimum water circulation, providing uniformly high steam quality and efficiency levels of up to 96%. All aspects of the boiler are carefully designed to ensure reliability and long-term performance.

The plug-and-play Aalborg 3-Pass comes with everything you need including a ready-mounted burner, intuitive control panel, and all fittings and cables. It has also been designed with easily accessible connections and valves to simplify inspection, maintenance and cleaning.

Our Aalborg 3-Pass boiler is available in two models:

Aalborg 3-Pass: An oil and gas-fired auxiliary boiler with steam capacities up to 40 ton/hour and design pressures up to 25 barg.

Aalborg 3-Pass Mini: An industrial natural gas, light fuel oil (LFO) or dual-fuel fired boiler. The skid-mounted design has steam capacities between 0.5 and 2.5 ton/hour and design pressures up to 21 barg.





High-pressure steam for edible oils

Equipment used in the processing of food and vegetable oils must comply with the rigorous standards defined in regional, national and international legislation. To meet these demands, Alfa Laval has developed the Aalborg High-Pressure Natural Circulation (HPNC) boiler with a unique design that provides a reliable and high-quality steam supply.

Alfa Laval Aalborg HPNC

The Aalborg HPNC boiler is specially designed for the deodorizing process in the physical refining of vegetable oils and fats. The boiler features a robust coil design that ensures efficiency in heat transfer and the cooling of tube sections, as well as dependably preventing overheating. The HPNC's compact construction offers further assurance of the highest possible efficiency, and the use of high-pressure grade steel tubes guarantees a long operational lifetime.

The Aalborg HPNC boiler is available in thirteen standard sizes with steam effect ranging from 125 to 5000 kW. They are designed to operate at steam pressures up to 90 barg.



Economical use of waste heat

In any operation, there is almost always room to continue reducing power consumption and related costs. The secret is in reclaiming the energy lost as exhaust gas heat. As the pioneer in waste heat recovery, Alfa Laval has the technology and expertise to help you further increase your energy efficiency.

Alfa Laval Aalborg Micro

The Aalborg Micro is a compact exhaust gas heat exchanger, specifically designed for waste heat recovery from smaller sized gas turbines and engines powered by gas, marine diesel oil (MDO) or heavy fuel oil (HFO). It uses otherwise wasted heat to warm a range of media, including water, triethylene glycol (TEG) and thermal fluid oil (TFO). It thus creates new opportunities for a variety of industrial applications, from steam production to heating thermal fluid and raising the temperature of boiler feed water.

The Aalborg Micro is built with a durable design for long-term, trouble-free performance, with a capacity ranging from 250 to 5000 kW. A number of easy-to-use options are available for cleaning the heating surface, simplifying routine maintenance.



A full scope of solutions

Alfa Laval is by your side from day one, with all the resources for the delivery, installation and operation of your boiler. However, the boiler is only the beginning. As a global leader in separation, heat transfer and fluid handling, we can also support you with the optimal technology for a wide scope of industrial applications.

A complete partner to rely on

Alfa Laval offers a diverse and ever-growing portfolio of industrial equipment, including the most extensive ranges of heat exchangers and thermal solutions available on the market. Regardless of the industry or specific application, our experts and engineers work with you to find a solution that can match your needs with reliable and efficient performance.

Today, customers around the world rely on Alfa Laval technology in their production. Our equipment can be found in almost any industry imaginable, including:

- Food
- Pharmaceuticals
- Chemicals
- Beverages
- Breweries
- Pulp & paper
- Oil & gas
- Mining
- Textiles
- Edible oil
- HVAC
- And many more



A global support presence



- Alfa Laval service centres & sales companies
- Alfa Laval industrial boiler hubs
- Alfa Laval industrial boiler manufacturing sites



Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered 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, foodstuffs, 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

