The more you recover, the more you save

Alfa Laval Aalborg waste heat recovery boilers

Don’t send profits up the chimney

Recovering waste heat from industrial flue gases offers a unique opportunity to cut or offset rising energy costs, while simultaneously reducing CO_2 emissions.

Alfa Laval Aalborg waste heat recovery boilers offer a straightforward, proven way to increase energy efficiency. And payback time is fast.

So with energy costs rising, they’re a great way to stop sending profits up the chimney.

Excellent investment. Fast payback.

Alfa Laval Aalborg waste heat recovery boilers are the perfect solution for recovering waste heat from hot industrial flue gases. They're an excellent investment, offering a payback time that can be less than a year. The higher energy prices reach, the shorter the payback period.

There are numerous ways that waste heat recovery helps you increase profitability. And each Alfa Laval Aalborg boiler is custom-built to produce the appropriate output for your intended application or applications:

Steam production
Use heat recovered from flue gases to generate saturated steam for use in plant process – and cut fuel costs. Or sell the steam, instead.

Installation of waste heat recovery boiler at Finnish cement company Finnsementti Oy.

Generate electricity
Use recovered waste heat to generate superheated steam for electricity production. Use it in your plant or sell it to the grid.

District heating
Use recovered waste heat for heating water for your plant's district heating system. Or sell it to a neighbouring plant or a district-heating network.

Chilling and fresh-water generation
Use recovered waste heat for chilling and desalination.

Reduced CO_2 emissions
Because reclaiming, rather than wasting energy leads to lower fuel consumption, CO_2 output is reduced as well, helping you to comply with regulations and protect the environment.

Save on fuel costs

Generate electricity

Sell heat and electricity

Reduce CO_2 emissions

Chilling and fresh-water generation

Outokumpu, Finland

Two Alfa Laval Aalborg heat recovery boilers were installed behind two reheating furnaces in a stainless steel plant in Tornio, Finland. The recovered heat was used in the plant's district heating system.

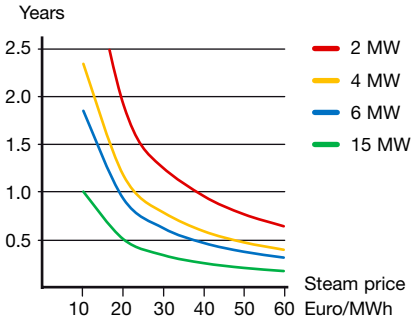
The result was fuel cost savings of approximately 480,000 Euros per year, and a substantial reduction of CO_2 emissions.

Recover more. Save more.

Alfa Laval Aalborg waste heat recovery boilers maximize savings because they maximize heat recovery. They're compact water tube boilers with a small footprint and finned tubes. Water or steam passing through the tubes is heated by the flue gases passing through the boilers. The design of the tubes can be optimized for the composition of different flue gases.

A single compact Alfa Laval Aalborg unit can include many sections – superheater, evaporator, economizer, low-pressure evaporator, hot-water generator, and so on.

Paypack time as a function of steam price



The higher the cost of steam, the shorter the payback period.

Each section extracts additional heat from the flue gases, producing appropriate output for different applications.

High performance. High heat recovery.
Alfa Laval Aalborg waste heat recovery boilers don't need to be shut down for cleaning. Highly efficient rake-type soot blowers – or air blowers – automatically clean the finned tubes. This minimizes downtime. Even more important, performance remains consistently high over time – keeping waste heat recovery consistently high as well.

Less downtime, less maintenance, less electricity
Alfa Laval Aalborg waste heat recovery boilers feature reliable natural circulation, so no circulation pumps are needed. This provides more reliable operations, lowers maintenance costs and savings on electricity.

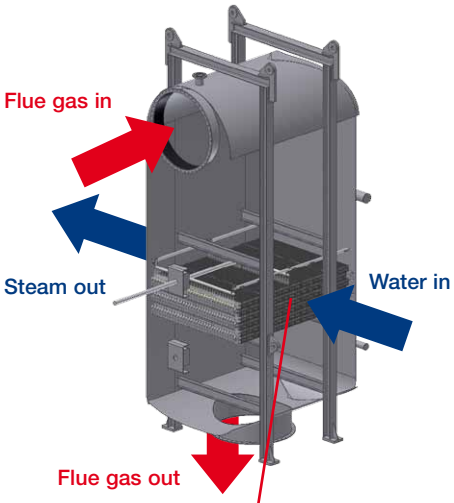
Alfa Laval Aalborg waste heat recovery boilers are compact and flexible, so they can easily be installed as part of an existing system. They can include many sections for multiple output types and maximum heat recovery.

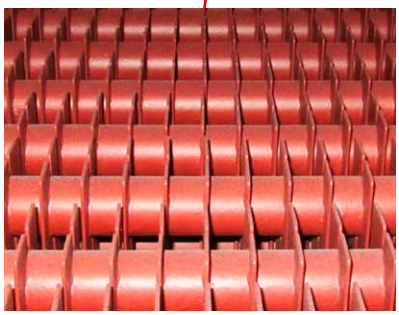
Kaolin JSco, Bulgaria

By installing an Alfa Laval Aalborg waste heat recovery boiler behind a rotary kiln in cooperation with EnergiMidt, Kaolin JSco increased heat recovery from 2.2 MW to 6.7 MW. The boiler produces 7 ton/h steam at 7-8 barg.

CO_2 emissions were reduced by over 4,000 tonnes per year, and the payback time was less than one year.

6 reasons to choose Alfa Laval Aalborg





Flue gases pass through the waste heat recovery boilers, heating water or steam that pass through tubes inside. The tubes are finned to maximize heat transfer surface.

A global leader in process heat recovery
Alfa Laval has extensive experience with waste heat recovery. Our focus on development and innovation allows us to keep building new and better solutions.

More than 100 years of experience
Alfa Laval Aalborg waste heat recovery boilers are the result of more than a century of experience designing and manufacturing boilers.

Proven design
Alfa Laval is a world-leading supplier of exhaust gas heat recovery boilers for diesel, gas or liquid bio fuel power plants. Over 1000 boilers have been supplied since 1995.

Custom-built solutions
Our solutions are custom built to suit your operating conditions and to produce the appropriate output for your intended application or applications.

High performance
Alfa Laval Aalborg waste heat recovery boilers are highly efficient, offering the possibility of full heat recovery. In standard installations the flue gas temperature is in the area of 500°C, but heat can be profitably recovered at temperatures as low as 300°C. The generated steam typically has a temperature of around 400°C and a pressure of roughly 40 bar.

Complete systems
We supply complete systems with all necessary auxiliary equipment: feed water tanks and pumps, auxiliary boiler, steam header, control panel, and so on. For efficient installation, auxiliaries can also be supplied as ready-made modules.

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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, 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

Contact details for all countries are continually updated on our web site. Please visit www.alfalaval.com to access the information.

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