



Structural Growth

by meeting changing market demands



The world's energy needs continue to increase at a rapid rate. The oil extraction, refining and petrochemical industries are booming. High refining margins are inducing countries like Russia, that previously focused mainly on oil and gas extraction, to expand their oil refining capacities.

Liquid natural gas (LNG) is growing in importance since it is a way to cope with the geographical imbalance between the supply and demand of natural gas.

More and more countries have plans for how to phase out oil dependence. Renewable sources such as ethanol and biodiesel help to realize their visions.

Distribution of energy is another issue with considerable topical focus. District heating and cooling are reliable, energy-efficient and environmentally-friendly ways of creating comfortable indoor environments.

Supporting a **global energy vision**

Russian LUKOIL upgrades refinery

LUKOIL is one of the world's leading oil and gas companies with most of its exploration and production activity located in Russia. LUKOIL is gradually increasing its refinery throughputs. Alfa Laval recently received an order from LUKOIL for spiral heat exchangers and welded plate heat exchangers to the value of about SEK 50 million. The equipment will be installed in LUKOIL's thoroughly modernized Nizhny Novgorod Refinery.



Gas from the Middle East to USA

In the last twelve months Alfa Laval has been awarded major contracts by the Liquid Natural Gas market for more than SEK 500 million. One of the recent orders was for 50 all-stainless steel plate heat exchangers to be supplied to one of the world's largest LNG facilities located in the Middle East. The project is dedicated to delivering liquid natural gas to the US market starting in 2009.



Biodiesel – forever renewable

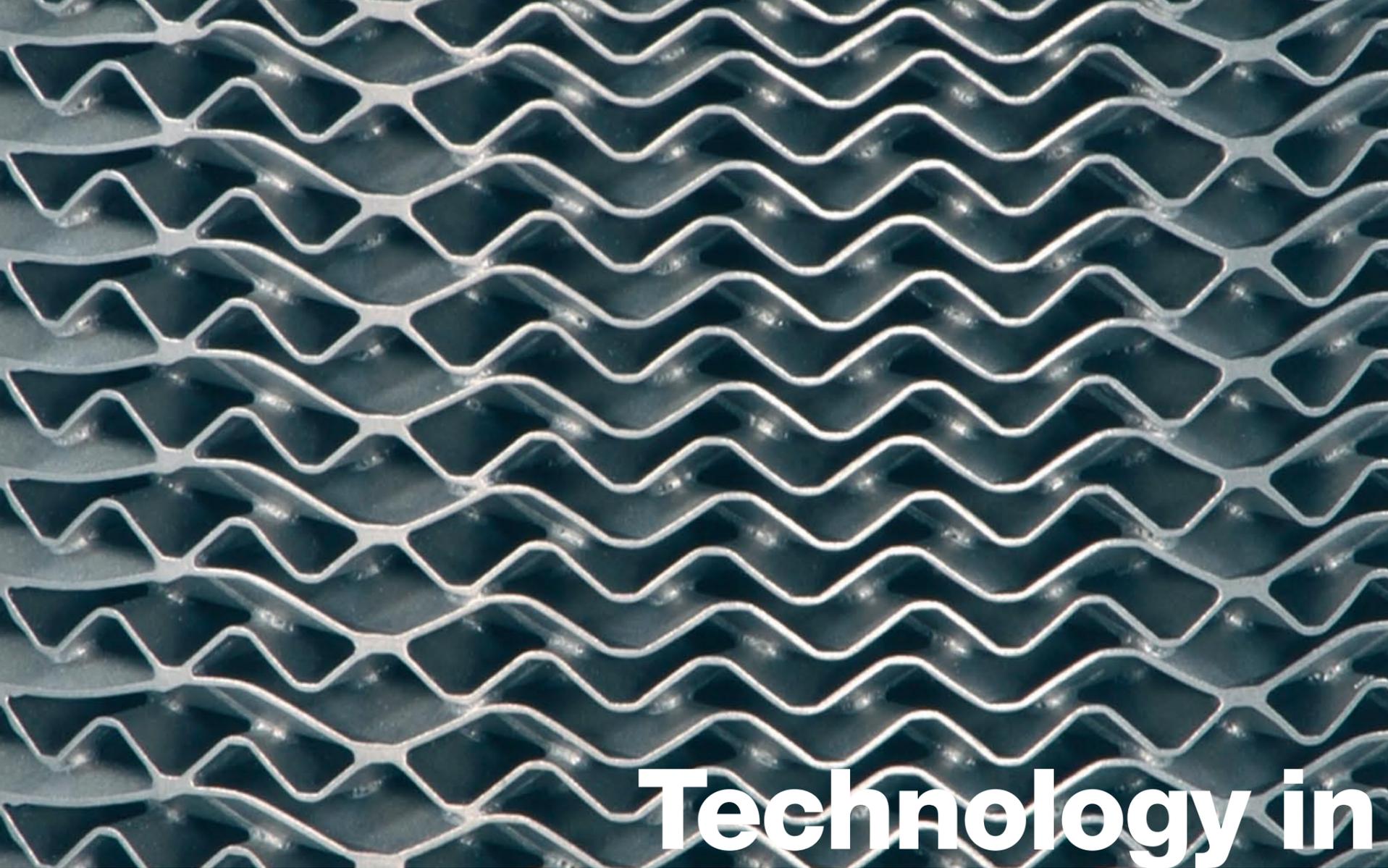
Biodiesel, a renewable fuel derived from vegetable oils, is a low-emission, environmentally-modified alternative to petroleum diesel with the highest energy balance of any transportation fuel. Last year, biodiesel production in Europe grew by 65%. Biodiesel is a focus area for Alfa Laval. With the company accounting for almost half of the vegetable oil processing equipment in operation today and a large range of solutions designed for biodiesel, Alfa Laval has a very strong foothold in this industry.



Heavenly cool

Since air conditioning accounts for up to 70% of the energy consumed in the Gulf States, using systems that consume as little energy as possible is a matter of priority. Alfa Laval's solutions for district cooling, refrigeration and air conditioning of high buildings have a prominent position in the region. The Burj Dubai Tower, presently under construction, will be almost 800 metres high and the world's tallest building. Plate heat exchangers from Alfa Laval will be installed in the building's air conditioning system.





Technology in transformation

Alfa Laval's key technologies – heat transfer, centrifugal separation and fluid handling – play a decisive role in most industrial processes. Alfa Laval has leading global positions within all three areas.

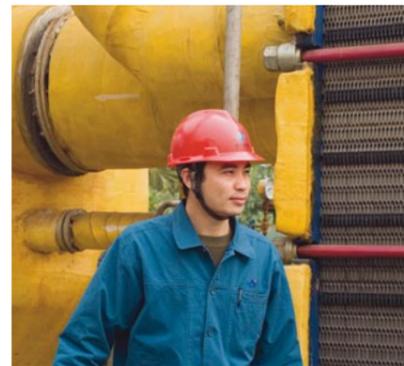
To maintain its technological leadership, Alfa Laval continuously launches new, innovative products and upgrades existing ones to match the changing needs of its markets and customers. Developments are driven by factors such as more rigorous legislation, increased demands on efficiency, changed market trends and structural changes.

Compact efficiency

Traditionally shell-and-tube heat exchangers for heat transfer duties have enjoyed a strong foothold in the process industry. But plate heat exchangers are now used to an increasingly greater extent. Due to its highly-efficient plate heat exchanger solutions, Alfa Laval benefits greatly from this development.

Chinese concentration

China's chemical giant Nanning Chemical Industry has installed AlfaVap evaporators and AlfaCond condensers from Alfa Laval for concentrating sodium hydroxide. "It was beyond our imagination several years ago that the equipment we use today could be so highly efficient and so easy to operate at the same time," says Wei Rongzhang, Technician at Nanning Chemical.



AlfaNova breakthrough in heat pumps

German Stiebel Eltron is at the forefront in the development of energy-saving heat pumps. Stiebel Eltron uses Alfa Laval's innovative AlfaNova plate heat exchanger in 100% stainless steel in its water-to-water heat pumps to transfer heat energy from the groundwater to the cooling agent. The AlfaNova resists corrosive compounds that used to cause problems in the system.



Impressive energy saver

In spite of their huge dimensions, the Alfa Laval Packinox welded plate heat exchangers, used for oil refining and petrochemical applications, have a small footprint in relation to their performance. Alfa Laval has received several substantial orders for Packinox heat exchangers lately, including a SEK 100 million order for delivery to the Kuwait Paraxylene Production Company.

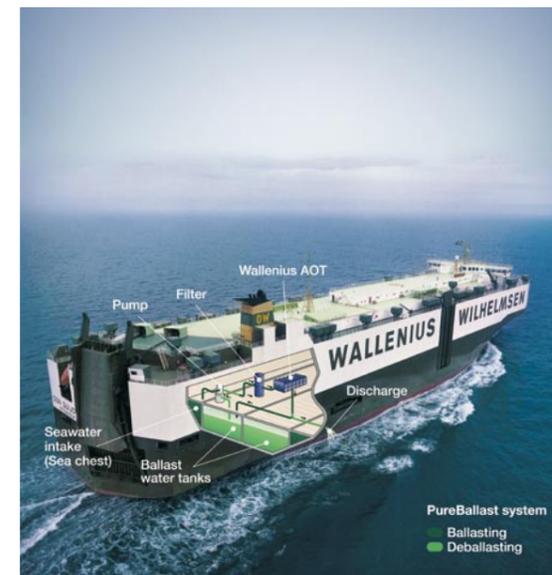


New dimensions of separation

Alfa Laval has successfully separated fluids from fluids and solids from fluids in many different industry applications for more than 100 years. Through recent epoch-making developments and cooperation with strong partners, Alfa Laval has created new dimensions for its separation technology.

Alfdex in leading truck brands

With the introduction of the Alfdex separator for cleaning crankcase gases from diesel engines, Alfa Laval took the step into separating fluids and solids from gases. Global interest in Alfdex is precipitated by tougher engine legislation, and some ten of the world's leading truck brands, including Scania, Volvo, DaimlerChrysler and Detroit Diesel, have opted for the Alfdex system. With deliveries scheduled to reach some 300,000 units in 2010, Alfdex is now firmly established as the world's leading crankcase gas cleaning solution.



Out of consideration for the oceans

A further development of Alfdex is PureVent for crankcase gas cleaning onboard ships. Another marine solution with very interesting potential is PureBallast, a chemical-free system for removing potentially-invasive species from ballast water, thus protecting marine ecosystems. PureBallast is developed in cooperation with Wallenius Water AB.



New global perspectives

Brazil, China, India and Russia are all presently enjoying strong economic growth due to factors such as improved business climates, increased foreign investments, stabilized political situations, controlled inflation and increased exports.

Alfa Laval benefits greatly from this favourable business development thanks to its established presence, its comprehensive manufacturing resources and its broad coverage of rapidly-expanding market segments in all these countries.

Brazil – large growth in oil and ethanol

In the country since 1959.
Employees: 110.
Production: Plate heat exchangers, pumps, valves and assembly of high speed separators and decanters.
Main industry sectors: Oil & gas, sugar and distilling, food, vegetable oil.
Orders received in 2005: 440 MSEK.
Growth 2002–2005: 63%.

World second in ethanol
 Brazil is the world leader in fuel ethanol from sugar-canes and production continues to expand. About 90 new ethanol plants for the total value of some USD 5 billion are expected to be built in Brazil by 2010.
 Alfa Laval is the leading supplier of plate heat exchangers and high speed separators to the Brazilian ethanol and sugar industries.



China – a solid base for expanding business

In the country since 1984.
Employees: 600.
Production: Plate heat exchangers, fluid handling equipment, tank cleaning equipment, assembly of decanters.
Main industry sectors: Energy, environment, food, shipbuilding, steel, petrochemicals, pharmaceuticals.
Orders received in 2005: 1340 MSEK.
Growth 2002–2005: 40%.

Pioneering beer filtration
 The Zhujiang Beer Group has introduced Alfa Laval's renovated cross-flow filtration technology in China. This technology has brought significant advantages such as elimination of waste disposal and related costs, high beer quality, simple operation and maintenance and elimination of health hazards.



India – complete solutions for many industries

In the country since 1937.
Employees: 1000.
Production: Separators, decanters, plate heat exchangers, spiral heat exchangers, pumps, valves, fabricated process equipment.
Main industry sectors: Vegetable oil, distilling including ethanol, biotech, starch, brewery.
Orders received in 2005: 665 MSEK.
Growth 2002–2005: 33%.

Stiffened position in starch
 When Riddhi Siddhi Gluco Biols, India's largest starch producer, was expanding its Gokak plant the company installed Alfa Laval spray driers, evaporators, flash driers and decanters.
 "Alfa Laval not only supplies quality equipment but also helps with engineering expertise in our plant," says Managing Director Madvesh Kallapur.



Russia – dominant in district heating

In the country since 1903.
Employees: 265.
Production: Plate heat exchangers, assembly of air heat exchangers.
Main industry sectors: Comfort climate, refrigeration, oil and gas, vegetable oil, food, brewery.
Orders received in 2005: 575 MSEK.
Growth 2002–2005: 25%.

Perfecting the attractions of Moscow
 Many of Moscow's most prestigious buildings have systems from Alfa Laval for the creation of a comfortable indoor climate. The buildings include the Russian parliament, the Bank of Russia, the Pushkin Museum and the Church of Christ the Saviour, to mention but a few. Alfa Laval has also supplied a number of plate heat exchangers for the high-tech refrigeration and air conditioning system for the impressive Moscow Ice Palace.



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