

# Sustainability efforts must be a natural feature of daily business

*“Alfa Laval’s wide offering includes innovative products, solutions and services that help customers save energy, produce fresh water and reduce emissions. Alfa Laval’s own operations are also managed in terms of their environmental impact. Within Alfa Laval, we aim to include the goals for sustainable development in our everyday operations.”*



Already in 1883, Alfa Laval’s innovative products aimed at improving conditions for people in their everyday life. This is still a main focus and the processes to achieve this are governed by the company’s Business Principles, which are based on the UN’s Global Compact. This means that Alfa Laval’s operations are managed in terms of their environmental impact, social responsibility, business ethics and transparency. There is a strong drive to implement the business principles in all activities.

## **Principles underlying measurement and governance ensure sustainable development**

Alfa Laval has defined two operational principles to secure its business principles and sustainable development:

- The goal for sustainable development must be integrated into, and be a natural component of, daily operations.
- Reliable and consistent measuring methods are essential. Benchmarking and learning from best practices, internally and externally, are the most powerful ways of driving improvement.

This means that Alfa Laval’s four business principles apply to all employees. Open dialogue with employees, suppliers, customers, shareholders and other stakeholders is essential to ensure that aspirations become reality. Since all stakeholders need reliable data to indicate whether the actions we take generate tangible benefits, we continuously develop the section of the Alfa Laval website devoted to sustainability, where more detailed information can be found. We welcome a dialogue with those involved in the analysis or use of published data.

## **Helping to improve everyday conditions for people is a key motivator**

Alfa Laval operates globally with products that are used in processes essential to society, including processed food, pharmaceuticals, energy conservation and environmental protection. Improving the everyday conditions of people is an aim that stimulates our employees.

Lars Renström  
President and CEO, Alfa Laval

### **Accelerated work on reducing the environmental impact**

The world is facing a huge challenge when trying to ease the human impact on the environment. Reducing emissions is a key element of efforts to achieve this aim.

Alfa Laval contributes to alleviating this threat in two ways: firstly, by reducing emissions from the company's plants; and, secondly – by far the greatest contribution – by reducing our customers carbon-dioxide emissions through the use of the company's energy-saving products.

Alfa Laval has stepped up efforts to reduce the environmental impact from its processes – from new product development to disposal. Programs have been implemented aimed at cutting the company's CO<sub>2</sub> emissions by 15 percent from 2007 through 2011. In 2008, total calculated emissions were reduced to 92,000 tons (93,000), including emissions from acquisitions. On a like-for-like basis, however, emissions were reduced by over 5 percent to 88,000 tons, compared with the preceding year. The reduction was mainly due to energy-saving initiatives in several locations, including changing to electricity suppliers with lower carbon emissions.

### **Continued efforts to improve social conditions**

A greater presence in emerging economies offers Alfa Laval the opportunity and potential to assume its social responsibility and improve employment conditions for sub-supplier workforces. For a number of years, Alfa Laval has focused on the social conditions of its suppliers' employees and is now beginning to see definite improvements from these efforts.

Alfa Laval continuously audits compliance with its business principles. The audit covers health and safety, working conditions (compliance with minimum wage, working time, overtime laws, etc.) and housekeeping standards. Over 150 social audits of suppliers were carried out in India, China, Mexico and Eastern Europe in 2008.

### **Ethical behavior – a prerequisite for sustainable success**

Alfa Laval's employment policies include distinct guidelines for ethical behavior, notably in respect of conflicts of interest, political contributions, bribes and corruption. Employees are to report suspected violations to the Group's Human Resources Manager, who will coordinate investigations.

### Alfa Laval Business Principles in brief

- **Environment**  
*Optimizing the use of natural resources is our business*  
Alfa Laval makes a significant contribution to reducing the environmental impact of industrial processes.
- **Social**  
*Respect for human rights is fundamental*  
Alfa Laval respects the human rights of our employees and the communities in which we live and supply.
- **Business Integrity**  
*High ethical standards guide our conduct*  
Alfa Laval conducts its business with honesty, integrity and respect for others.
- **Transparency**  
*Our commitment to open dialogue builds trust*  
Alfa Laval believes in open communication but is careful not to reveal commercially valuable information.

### 2008 Highlights

- Alfa Laval has implemented an environmental impact lifecycle assessment – standard for new product development projects. In 2008, 20 new products were assessed using LCAs. Of these 10 were replacements of existing products with an average reduction of environmental impact greater than 20 percent. No new product had an environmental impact worse than the product it replaced.
- Alfa Laval managed to reduce carbon-dioxide emissions excluding acquisitions by 5 percent in 2008. The overall target is to decrease emissions by 15 percent between 2007 and 2011.
- Alfa Laval's 2008 analysis of greenhouse-gases showed total carbon-dioxide emissions of 33,000 tons from production and service facilities. In 2007 emissions totalled 31,000 tons. Excluding acquired companies, which contributed an additional total of 4,000 tons in 2008, emissions declined by more than 6 percent.
- The development of supplier processes has shown considerable progress in terms of employee conditions. A total of over 150 social audits of suppliers were carried out in India, China, Mexico and Eastern Europe in 2008. During the year, 88 percent of those audited in 2007 showed improvement.
- The environmental management data reporting system was implemented in 71 sites (64).
- ISO 14001 certification was completed at an additional 5 plants including two acquisitions. In total, 18 plants were approved, corresponding to approximately 80 percent of the total delivery volume.
- Alfa Laval changed the distribution routing for several product lines from air freight to sea freight in order to reduce environmental impacts.

# Accelerated work on reducing the environmental impact

*“Optimizing the use of natural resources is our business. Alfa Laval makes a significant contribution to reducing the environmental impact of industrial processes.”*

Alfa Laval is committed to reducing the environmental impact of its products and processes. The company seeks to ensure that its operations are as clean as possible and include environmental aspects when products are developed, designed, produced, marketed, serviced and finally scrapped.

Environmental management is coordinated by the Environmental Council, which is chaired by the head of Operations. It includes managers from the Process Technology and Equipment Divisions, Human Resources, Research & Development and Parts & Service. The Council harmonizes its objectives with Group Management and progress is regularly reviewed by the Alfa Laval Board. 71 sites (64) report key environmental data to a web-based reporting and management tool to ensure that the total environmental impact can be monitored and changes at site level implemented.

## Work starts with a systematic environmental management approach

Alfa Laval’s efforts to reduce the environmental impact stem from having a clear understanding of the current impact of the business processes – from new product development to eventual disposal. By following the chain of processes, Alfa Laval can identify projects and activities needed to reduce the major negative environmental impacts in each step of the chain.

## Designed for the environment

Since the total environmental impact of a product is strongly influenced by the materials selection and product design, Alfa Laval has implemented an environmental impact life-cycle assessment (LCA) method, which is being implemented in all major product design centers as an integral part of the new product design process. In 2008, 20 new products were assessed using LCAs. Of these 10 were replacements of existing products with an average reduction of environmental impact greater than 20 percent.

## Suppliers

In 2008 Alfa Laval focused on understanding how many of its key suppliers had an effective environmental manage-

ment process. A total of 215 suppliers were surveyed, representing approximately 80 percent of the purchased value in production. By year end, 173 had responded; 53 percent stated they had an environmental management system, including 43 percent with partial or full ISO 14001 certification. 26 percent of suppliers had set targets to reduce their greenhouse-gas emissions. Alfa Laval’s goal is to influence suppliers to implement effective environmental management systems and achieve specific GHG reduction targets.

## Manufacturing

Manufacturing represents approximately 20 percent of Alfa Laval’s calculated greenhouse-gas emissions. However, Alfa Laval has also identified three other significant environmental impact areas, common for all factories: the consumption of water and chemicals and the volume waste produced. Targets are in place at a local level to increase the proportion of waste recycled. Each manufacturing site is required to set improvement goals for environmental performance and initiate projects aimed at reducing the impact.

## Logistics and goods transportation

The transportation of products accounts for more than 40 percent of the company’s total GHG emissions. During 2008, several projects were up and running to change the way Alfa Laval transports products and semi-finished goods. Shifting from airfreight to surface transportation represents the main opportunity in this area.

The average emissions in 2008 were 114.6 g CO<sub>2</sub> per ton-km (115.8). However in the second two quarters of the year the average was below 110 g CO<sub>2</sub> per ton-km which suggest that we are making noticeable progress to our goal of cutting these emissions by 5 percent per year from 2007 to 2011. The total calculated emissions from goods transportation fell by approximately 2 percent to 39,000 tons (40,000).

## Sales

Employee transportation is another significant contributor to Alfa Laval’s total emissions. Due to the customers’ unique needs, there is often no realistic alternative than



for the sales staff to travel to the customer's site to fully understand the challenge and select the most appropriate solution. However, internal travel should be avoided, with the preferred solutions being telephone, video and internet conferencing. Increased business travel during 2008 caused the calculated GHG emissions from employee transportation to increase by approximately 10 percent compared with 2007.

During 2008, Alfa Laval changed its car-leasing policy to limit the choice of vehicles to those with better environmental performance. The total car fleet had average emissions of 184 g CO<sub>2</sub> per km (186). The aim is to reduce this each year as lease agreements are due for renewal. Most savings will derive from changes in the leased car fleets in the US, Australia and Sweden.

### Service

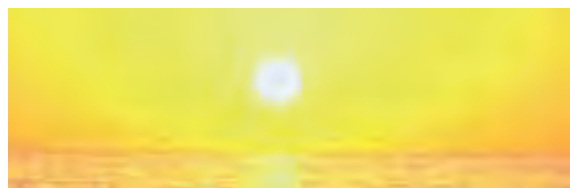
Once delivered, Alfa Laval's products normally last for decades, if properly serviced.

The service technicians are supported by service and repair workshops worldwide. The environmental performance of each workshop is closely monitored. The most significant environmental impact from these workshops results from water and chemicals consumption – both of which are essential for cleaning. Alfa Laval is developing solutions to increase the amount of water recycled and reducing the quantity of hazardous chemicals used.

### Recycling

Alfa Laval products usually last for decades. When eventually taken out of service, they have a high residual scrap metal value, due to their content of stainless steel and other metals, creating a high incentive for recycling. Accordingly, Alfa Laval's principal environmental focus is to reduce the impact of waste during production and of secondary products such as packaging.

For more information on Alfa Laval's environmental work, visit [www.alfalaval.com](http://www.alfalaval.com)



In 2008, Alfa Laval installed 120 solar panels at its factory in Pune, India, to heat water to 80 degrees Celsius for testing decanter centrifuges. This replaced the existing electrical heating system and is expected to generate savings exceeding 100,000 kWh per year.



Over a period of three years, the Alfa Laval factory in Alonte, Italy, has been working to reduce the water, solvent and energy consumption of its product washing facility. Through analysis and experimentation, the processes have been altered to completely eliminate the need to wash the product during production. This resulted in annual savings of approximately 100 m<sup>3</sup>, of natural gas, 80 MW of electrical energy and eight tons of solvent per year.

## Environment

### *Optimizing the use of natural resources is our business*

Alfa Laval makes a significant contribution to reducing the environmental impact of industrial processes.

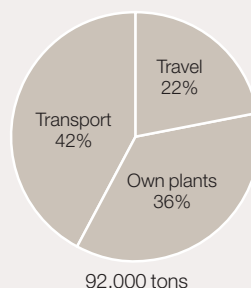
- Green processes

Alfa Laval's core competences of fluid handling, separation technology and heat transfer are at the heart of many industrial and environmental protection processes. Our products and expertise contribute to the efficient utilization of energy, cleaning of water and fluids, and efficient production of food and pharmaceuticals. We are committed to continuously improving our products and services to provide our customers with an opportunity to reduce their operational costs while improving their environmental performance.

- Green Operations

Alfa Laval endeavors to perform its own operations as cleanly and efficiently as possible, and to take environmental aspects into consideration when developing, designing, manufacturing, servicing and marketing its products.

Alfa Laval's carbon-dioxide emissions in 2008



### Climate Change

Humanity is facing a huge challenge in the form of minimizing the effects of climate change. A key element of this challenge is reducing emissions of greenhouse-gases.

Alfa Laval's compact heat exchangers are increasingly in demand from energy-intensive industries seeking ways to reduce their energy consumption. Alfa Laval's products often offer considerable GHG savings for these customers, compared with the old technology installed or available in the market. In relative terms, Alfa Laval's own processes are much less energy intensive. Alfa Laval contributes to the Carbon Disclosure Project, which aims to encourage all industries to reduce their GHG emissions.

The target is to reduce comparable annual GHG emissions by 15 percent between 2007 and 2011.

Total carbon-dioxide emissions were 92,000 tons in 2008, down 1 percent on 2007 but excluding acquisitions (4,000 tons) the comparable emissions were reduced by 5 percent.

# Continued efforts to improve social conditions

*“Alfa Laval respects the human rights of its employees and the communities in which we operate and supply.”*

## Respect for human rights is fundamental

Alfa Laval’s Social Business Principle is concerned with the way in which our business impacts the lives of people throughout the entire supply chain. With sales in over 100 countries, we encounter many situations in which adherence to our social business principle poses challenging questions.

## Risk-based assessment of suppliers

Alfa Laval’s own operations have worked in compliance with our social business principles for many years. Accordingly, the main emphasis for initiatives involving the social business principle is on our immediate suppliers. We assess suppliers to determine the risk of non-compliance based on the inherent risks from the manufacturing process and the risk due to ineffective legal enforcement. Countries with emerging economies naturally have the most difficulty in enforcing all aspects of workplace law.

The risk-assessment process identifies suppliers that will be audited to assess compliance with the business principles. The audit covers health and safety, working conditions (compliance with minimum wage, working time, overtime laws, etc.) and housekeeping standards. Any supplier whose performance is unacceptable is advised of the aspects that need to be improved. Targets and timescales are agreed. A total of over 150 social audits of suppliers in India, China, Mexico and Eastern Europe were conducted in 2008.

## Social inspections of suppliers produce improvements in India

Alfa Laval in India has been inspecting suppliers for compliance with the Social Business Principle since 2005. Each supplier is scored on over 50 different aspects of

health, safety, working conditions and working environment. The maximum score possible is 250 points.

Alfa Laval has approximately 350 suppliers in India. In 2007, 64 suppliers were inspected, some of them several times. Of these, 35 were found to be below the minimum requirement with an average score of 51 percent. One year later, 34 of the 35 suppliers had improved to above the minimum standard with an average score of 75 percent. In 2008, the program was extended to cover 126 suppliers.

The most obvious improvement in all these suppliers is increased awareness and attention to health and safety precautions. Many more companies now provide their employees with appropriate personal protective equipment, such as ear protection, safety shoes or safety glasses. Even more importantly, understanding of the importance of good health and safety training has improved.



Alfa Laval supplier audit – Shree Ganesh Engineering works, Bhosari, India.

## Social

### *Respect for human rights is fundamental*

Alfa Laval respects the human rights of our employees and the communities in which we live and supply.

- **Human Rights**  
Alfa Laval supports and respects the protection of internationally proclaimed human rights within our sphere of influence.
- **Complicity**  
Alfa Laval should make sure it is not complicit in human rights abuses in its course of operations.
- **Freedom of Association**  
Alfa Laval should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- **Forced Labour**  
Alfa Laval will not use any form of forced or compulsory labour.
- **Child Labour**  
Alfa Laval works towards the effective abolition of child labour in the community.
- **Discrimination**  
Alfa Laval works to eliminate direct and indirect discrimination in respect of employment and occupation.

# Ethical behavior – a base for sustainable success

*“Alfa Laval pursues its operations in an honest manner, with integrity and respect for others.”*

Alfa Laval’s employment policies include distinct guidelines for ethical behavior, notably in respect of conflicts of interest, political contributions, bribes and corruption.

## Application and compliance

It is the responsibility of Alfa Laval Group Management to ensure that the Business Principles are communicated to, understood and observed by all employees. The president of each Alfa Laval company is responsible for implementing these principles through appropriate rules and policies in addition to those necessary for compliance with local legislation. No manager or employee will be criticized for any loss of business resulting from adherence to these principles. Equally, the Alfa Laval Board and Group Management undertake that no employee will suffer as a consequence of bringing to their attention, or that of senior management, a breach or suspected breach of these principles.

## Whistle blowing to reveal any breaches of the business principles

Alfa Laval investigates all suspected violations of the company’s Business Principles. Employees are to report suspected violations to the Group’s Human Resources Manager, who coordinates the investigation. Alfa Laval protects all whistle blowers, meaning employees who report suspected breaches.

The Chairman of the Board is contacted if anyone in Group Management is suspected of being involved in or participating in any violation of the Business Principles.

## Open dialog creates confidence in financial markets

Alfa Laval’s financial accounting and supporting documentation describes and reflects the underlying transactions in a correct manner. No unaccounted or concealed items, funds or other assets are permitted. Alfa Laval’s reporting and internal monitoring are conducted so that external, independent parties can verify operations. All share-price-sensitive information is communicated in line with the company’s policy, stock exchange agreement and applicable legislation.

## Transparency

The company’s pledge of open dialog creates confidence. Alfa Laval believes in open communication but is careful not to disclose commercially valuable information.

## High ethical standards form the basis for Alfa Laval’s performance

During 2007 and 2008, line managers in sales companies and central organizations were involved in training concerning ethics and business integrity. The training included a risk-assessment process aimed at identifying areas where improvements to local policies, communication or compliance monitoring were needed. These exercises identified improvement opportunities. For example, in 2007, employment policies in several sales companies were revised to include more explicit rules and guidance concerning conflict of interest. During 2008, the focus was on improving training and communication of the company’s policies regarding anti-competitive behavior.

### Business integrity

*High ethical requirements comprise the basis for Alfa Laval’s performance*

- **Legal compliance**  
Alfa Laval shall not only meet regulations and requirements in countries in which the company is active but also shall continually stay abreast of developments in international legislation, social conditions and voluntary initiatives and accept these when it is relevant to the company’s operations.
- **Conflicts of interest**  
Alfa Laval’s employees shall not get into situations in which their personnel or financial interests conflict with those of the company.
- **Political contributions**  
Contributions are not to be made to political parties or committees, or to individual politicians.
- **Bribes and corruption**  
Alfa Laval and its employees shall not offer, promise, accept or demand a bribe or other inappropriate benefit to win or retain business; also, suppliers or other business partners shall not demand or expect a bribe or other inappropriate benefit.