

We want to sustainably increase the value of the company for the benefit of our shareholders. We are committed to the environment and to the efficient use of resources.



Products and applications

Sustainability in the development process

Environmental thinking already starts with product design. The focus is on sustainable and eco-efficient product development that looks at the entire product life cycle. This means minimal use of power and resources, low-impact waste disposal, the use of materials that generate low emissions in the event of fire and longer product life cycles through the use of modern technology. Optimizing existing products leads to some considerable savings in material and energy during the production process.

Customers are involved early on in the development process with a view to finding innovative approaches together and verifying promising ideas.

Innovative application solutions

Belimo secures an edge for its customers by providing them with products that offer more comfort and increased energy efficiency and safety, and are simpler to install and maintain.

Belimo solutions enable optimal performance of HVAC facilities, thanks to the following features:

- Minimal power consumption
- Prevention of circulation losses with seal-tight characterized control valve technology
- Smart applications raise plant efficiency

The following examples show how innovative application solutions have made facilities more efficient:

- The “BC Place Stadium” in Vancouver (BC, Canada) had 880 spring-return actuators installed that came from a discontinued product line of another manufacturer. The operator of the stadium was therefore looking for an alternative solution; for reasons of space, it had to be compact, easy to install and as energy-efficient as possible. The operator opted for the Belimo damper actuator, which uses 104 kWh less electricity per year than the previous solution. This equates to an annual energy saving of 91.5 MWh for the entire retrofit project.
- The seal-tight ball valve technology prevents circulation losses through leakages. This allows the valve to minimize energy losses and helps cut operating costs.
When the “Crown Plaza” hotel in Belgrade (Serbia) was refurbished, 500 motorized 6-way characterized control valves formed a major part of the new, energy-efficient HVAC plant with cooling ceilings. The innovative design of the valve prevents simultaneous heating and cooling. The two circulation systems can be controlled separately and accurately. Guests can cool or heat their rooms as they wish, depending on the ambient temperature. When the guest leaves the room the actuator sets the valve in a neutral position and shuts down water circulation in the heat exchanger completely. This smart interaction between seal-tight characterized control valves and control units means the rooms are kept at the right temperature in a way that is energy-efficient without them becoming too cold in winter or too hot in summer.
- The electronic pressure-independent valve EPIV combines measuring, controlling, balancing and shutting in one ready-to-install unit. The valve unit automatically ensures correct hydraulic balancing and flow under all conditions.

EPIV's air bubble tight closing ball valve technology prevents energy losses in water circuits.

The "DonauSplash" indoor swimming pool in Tulln (Austria) replaced its entire plant as part of a total refurbishment and installed EPIVs. Around 30m³ of water is circulated every hour to maintain the right temperature in the different swimming areas. The EPIVs' built-in sensors monitor the flow on an ongoing basis, and if there is a change in pressure the integrated control brings it back to the target value automatically. When the refurbishment was planned, the annual energy saving was calculated to be 5000 kWh.

- The Belimo Energy Valve™ simultaneously measures energy flows and optimizes water flows. This means that it is able to identify and reduce waste of energy in buildings, as numerous awards and successful use in buildings all over the world testify.

The usually short payback period for the Belimo Energy Valve™, estimated CO₂ reduction as well as numerous other key figures can be calculated in a model and thus help customers make decisions.

The University of Miami medical campus (FL, USA) had repeatedly upgraded its facilities but was unable to run them efficiently. The aging "Rosenberg" building in particular was using more water than was required for energy exchange. With the help of eleven Belimo Energy Valves™, the problems could be identified, localized and eliminated. Optimal control meant that the quantity of water being circulated was significantly reduced and the various zones provided with the exact output required. The efficiency of the facility was particularly improved by reducing the pump performance; this alone saved over USD 50 000 per year for the building.

Further developing building technology

The "Umwelt Arena Spreitenbach" (Switzerland) realizes with the support of Belimo the world's first energy self-sufficient, purely solar-powered multi-family house that meets stringent environmental and energy standards and needs no external energy supply.

The Swiss research and innovation building "NEST" (Next Evolution in Sustainable Building Technologies) is a joint project between industry, research and the public sector supported by Belimo. Therein, not only forms of living and working, but also the energy flows and utility engineering of tomorrow's houses are being researched.

Internal processes and standards

Environmental directives

The Hinwil site adheres to the international environmental management system ISO 14001. The United States sites were also certified in 2015.

Belimo adheres to the RoHS environmental directive, which prohibits the use of substances that are harmful to the environment. Compliance is implemented on the basis of a list of banned substances which is aligned to products and their areas of application. Suppliers also undertake not to use any of the banned substances in the parts they deliver.

Materials

The materials used are carefully selected to ensure that as little damage as possible is caused to the environment. Auxiliary materials such as solvents, resins, paints or lead are not used at all, or only in very small quantities.

Ecological awareness

The suppliers of cardboard packaging for the Hinwil site implement the RESY guidelines in their production activities, so all transport packaging consists of ecologically harmless materials and can be recycled. The consistent use of reusable cardboard packaging between Belimo and suppliers saves on packaging materials.

Procurement

More than 80 percent of the costs of manufacturing of Belimo products are incurred by a network of suppliers and partners. They make a major contribution to quality, innovative capacity and sustainability. When it comes to environmental and social standards, Belimo is as demanding on itself as it is on suppliers. They are involved in the environmental and quality policy.

Belimo expects its suppliers to make a clear commitment to sustainability principles. These requirements are set out in the code of conduct for suppliers and reflect what is in internal guidelines. The code of conduct has been signed by more than one hundred suppliers, which equates to around 90 percent of the procurement volume. Both new and existing suppliers are regularly audited on site, for compliance with the code of conduct amongst other things.

Production and logistics

The transfer of knowledge and technology between production locations ensures safe, efficient and resource-saving production processes. On almost every continent, the final assembly of the valve-actuator combinations takes place on site. Components procured locally are delivered by suppliers directly to customizing centers to be assembled, shortening the transport routes to customers.

The regular review and adjustment of logistics processes also addresses environmental issues. Transport mileage is reduced by means of collective shipments and consolidated direct deliveries to customers, and energy-intensive air freight is minimized on an ongoing basis. Standardized large packages are increasingly being used between Belimo sites allowing for automatic storage or further processing without having to be repacked.

Recycling and disposal

Waste is sent for recycling whenever possible. Internal collection points ensure the waste is properly sorted and recycled. These measures allow more than half of the waste produced to be recycled. The remaining waste is sent to the nearby waste incineration plant. Disposal transportation is consolidated.

Energy-efficient premises

The logistics expansion in Hinwil was built to meet the latest energy-saving criteria. All storage and retrieval equipment in the automated warehouse and all goods lifts feature energy recovery systems. The internal logistics conveyor belts are all individually controlled and shut down when not in use. The logistics expansion was additionally insulated so as to minimize temperature fluctuations caused by the cold ground water.

In addition, seven charging points for electric cars that can be used by customers and employees are offered at the main building.

The energy for heating the office, production and logistics facilities in Hinwil comes from the neighboring waste incineration plant in the form of district heating.

Procurement by region



■ Europe 74%
■ Asia/Pacific 18%
■ Americas 8%

Waste management



■ Recycling 62%
■ Disposal 38%

Ecological awareness

The premises in Hinwil are continually reviewed and adapted for comfort and energy efficiency. An analysis program collects environmental and energy data which is used as a basis for optimization measures.

The new production, logistics and administration building in Danbury has been built in compliance with the LEED standards for sustainable construction. The Sparks site has already been awarded gold certification, and Danbury is now aiming to achieve this as well.

Key figures 2011 – 2015

Locations Hinwil (Switzerland) and Danbury (CT, USA)

	Unit	2015	2014	2013	2012	2011
Environmental indicators						
Number of actuators produced	in million items	5.6	5.5	5.1	4.8	4.6
Utilization						
Paper (A4, A3 sheet) only office						
Copiers, printers	kg per FTE	13.8	15.4	12.8	13.9	15.2
Buildings and total energy consumption						
Electricity	MWh	7 360*	5 312*	4 782	4 275	4 383
Heat energy						
District heating (Hinwil)	MWh	1 154	814	1 191	1 199	986
Gas (Danbury)	MWh	2 870*	1 547*	973	1 040	924
Mains water	m ³	6 930**	8 682	8 647	8 486	8 098
Recycling and disposal						
Waste for recycling	t	458	452	340	377	353
Waste for incineration	t	190	165	145	116	108
Remaining waste	t	87	92	65	70	96
Hazardous waste (electronics, separated materials)	t		1	37	32	28
Sanitary water	m ³	6 490**	8 682	8 647	8 486	8 098

* Double occupancy because of the new buildings (logistics expansion Hinwil; production, logistics and administration building Danbury).

** Water usage for the fire line testing in Danbury as of 2015 not included anymore.

Social responsibility

We treat each other with respect and stand up for each other.

Corporate culture

Values

The mission statement and code of conduct contain the principles for internal cooperation, conduct at the workplace and interaction with suppliers and competitors. The values of trust and credibility also mean that employees get in touch with the appropriate contact person in the event of perceived violations of the applicable laws or ethical standards.

New employees learn about the values and quality standards during their introduction to the Company. The individual employee's long-term ability to internalize and put those values into practice is also part of the annual employee appraisal.

Company

In Hinwil, assembly and packaging work is given to workshops for the disabled. The location in Danbury provides more than 45 disabled people with jobs. Belimo received the "Business Leadership Award" from the "Ability Beyond" organization for its many years of pioneering work with disabled people.

Belimo supports the "United Way of Western Connecticut" organization, which helps families and households in difficulties. On the "United Way Day of Action", employees in the United States have the opportunity to use a working day to perform voluntary work.

Each year, Belimo holds a "National Future Careers Day" in Switzerland, and a "Bring Your Child to Work Day" in the United States. This gives employees' children the opportunity to accompany their parents to their workplace for an entire day.

Sustainable personnel policy

Employees

Belimo values cultural diversity and assists employees from other countries with their integration, for example by providing free German lessons. The high average length of service of eight years underlines the extent of employee loyalty and their identification with the Company. The part-time working models are equally valued by employees and the Company itself. In Hinwil, around 30 percent of employees work on a part-time basis.

Belimo works at all levels with a performance and behavioral appraisal system. This includes regular assessments of individual goal achievement, as well as a discussion of appraisals and the corresponding measures to be introduced with employees. For employees in higher positions, a competence analysis is carried out every two years. This is based on the Belimo competence model and supports individual development planning. The remuneration system allows employees to participate in the Company's success.

The process for the employee survey carried out in 2014 was continued in 2015 for all group divisions, as the actions identified were implemented. Most of the improvements targeted fall under the heading "Organization & Processes".

Training, personal and career development

Belimo helps employees develop their specialist knowledge. Thorough introduction programs ensure that new recruits are fully familiarized with their tasks and responsibilities and the corporate culture. An internal training program provides the opportunity to keep knowledge and skills constantly aligned with responsibilities. Employees' personal development is supported. Time spent abroad at one of the Company's other locations is considered an opportunity for professional and personal development and brings added value for the Company.

Managers around the world regularly complete training courses on leadership issues. In addition to managerial positions, Belimo also offers careers for professional specialists. Development prospects in both cases are treated equally. Professional specialists can prepare themselves for future challenges with defined development plans.

Promoting new talent

Belimo promotes new talent and provides apprenticeships to 21 trainees in six different professional areas. An extra apprenticeship place has been created for a young athlete who competes on the luge. Since August 2015, she has been completing her two years of practical experience at Belimo as part of her vocational training to become a commercial administrator. This will allow her to work towards her sporting goal of competing at the 2018 Olympics while simultaneously laying the foundations for her professional career.

For the first time, a trainee spent seven weeks in Danbury as part of her commercial training. This deployment abroad helped her to improve her English and gain experience in a different cultural environment. Based on the positive experiences, the exchange will be continued and expanded to cover technical trainees.

Belimo holds a parents' evening every year, which provides parents with an insight into the Company and the work performed by their sons and daughters. As part of this evening, the trainees present their apprenticeship project. In 2015, they looked at the logistics expansion and made a short film about it.

Health and safety

All employees are aware of the possible dangers in their jobs and know how to prevent accidents. The first aid team in Hinwil repeatedly receives training on the handling of various medical emergencies. The approximately 35 specially trained individuals are located in all parts of the buildings. In sensitive areas, emergency boards provide information and first aid kits are available in the event of accidents.

The Hinwil and Danbury sites are continually investing in occupational safety and ergonomics. This is being reviewed on site involving external consultants. A robotic palletizer has been acquired at Hinwil, so some of the heavy manual re-packing work will no longer be necessary in future.

The BelimoVital program to promote occupational health includes targeted relaxation and strengthening exercises, training in workplace ergonomics and other specific activities. Campaigns like "Bike to Work" and running events are very popular.

These offerings improve the satisfaction, health and motivation of employees.