Environmentally sound product design

VICTORINOX: Thinking long term – operating ecologically

Passion and precision for environmental protection
Decades before it launched its Green Shield programme, Victorinox already attached great importance to environmental protection. All the pocket knives, household knives and professional knives that leave the factory facilities in Ibach-Schwyz are produced in a sustainable manner, with a heat recovery system enabling the company to cut heating oil consumption to a record-breaking low. Thanks to their passionate approach and inventive spirit, Victorinox employees are helping to recycle resources and reduce waste.

Environmental protection and quality manufacturing go hand in hand. The aim of both is sustainability. Indeed, the only way to ensure success with customers, safeguard jobs and preserve the environment for future generations is to use resources sparingly and efficiently. A whole range of teams are tasked with ensuring that the principal of environmentally sound working practices, as enshrined in our core philosophy, is implemented consistently throughout the company.
When developing and manufacturing our products, we address all of the following criteria:
- Durability, ease of repair, sparing use of materials
- Suitability for recycling and reduction of harmful substances
- No risk to health
- Environmentally-friendly packaging
- Environmentally-friendly production: Environmental management, saving energy, preventing air and water pollution, waste prevention

Victorinox strives to maintain its worldwide reputation by implementing such high standards of quality, functionality, design and finish. The guiding principle and recipe for success behind Victorinox pocket knives is that each spring should be used several times. Putting six blades on just two springs made it possible to manufacture the truly light and elegant Officer’s Knife.

Victorinox guarantees all knives and tools to be of first class stainless steel and also guarantees a lifetime against any defects in material and workmanship. Damages caused by misuse or abuse are not covered by this guarantee.

The Victorinox customer service team is ideally qualified to carry out repairs quickly and easily. All repairs are closely scrutinised and analysed, enabling Victorinox to constantly optimise the quality of its products. The handles of most Officer’s Knives and pocket tools are centred over, and pressed onto bushings. This means it is easy to fit replacement handles yourself.

None of the materials used are harmful to people or the environment. All plastic is free from heavy metals. Products that cannot be repaired can be easily recycled.

We certify that all electronic assemblies comply with European directives 2002/95/EC (RoHS) and 89/336/EEC (EMC).
Until 1974, all our household knives had wooden handles made from rosewood or bubinga. Between 1974 and 1980, the majority of production converted to plastic handles. The remaining range of wooden-handled is slowly shrinking. They are now only purchased by hotel chefs and people who are specifically looking for beautifully crafted rosewood handles. No wood preservatives that are harmful to human health or the environment are used.

We follow the principle of: As much packaging as necessary – as little packaging as possible.

Packaging used to protect products can be recycled. However, anti-theft blister packaging made from cardboard and PET cannot. Mixed-material packaging is otherwise avoided. Cardboard packaging is made with up to 90 percent recycled paper. Only 100 percent chlorine-free bleached paper is used. Printing inks and coatings are free from solvents and heavy metals. Victorinox has been a member of the "Green dot" recycling programme since 1993.

The ventilation system created in 1980 has enabled operating power to be cut by approximately 50 percent due to its generous dimensions and low air speeds. The process of recovering waste heat from the production facilities makes a unique contribution to environmental protection. This process meets up to 75 percent of the heating requirements for the entire premises plus 120 residential buildings attached to the plant. An ongoing process of improvement will help achieve further savings.
The use of chlorinated hydrocarbons (CHCs) in production processes is avoided wherever possible. Water-based and CHC-free cleaning systems have been in use for a number of years. All the measures that have been implemented so far have led to a reduction in consumption from 108,000 kilograms to 1,530 kilograms (2006). Harmful substances are eliminated using a range of exhaust air and filter systems.

The pre-treatment of all waste water from production is carried out using an internal waste-water cleaning plant (installed in 1980). Heavy metals and harmful substances are precipitated and the waste water is fed into the municipal waste-water cleaning plant. The entire plant was renovated in summer 2006. Grinding emulsions are routed along three large circuits, each 40 m$^3$ in size. This enables us to keep water losses and cooling lubricant consumption low.

The Victorinox end-to-end waste management concept for solid and liquid waste substances.

**Separate don’t burn – maintain don’t dispose of**

Further details:

- In-house collection point for solid and liquid waste since 1997 (cardboard, paper, PET, batteries, etc.). **Savings**: Careful separation enables 300 tons of waste to be added to the recycling system.
- Coffee grounds from the drinks machines are added to a composting system (~20 m$^3$/year).
- Steel residue produced during grinding is filtered out of the cooling circuit and pressed into briquettes. This enables the recovery of an additional 300 tons of steel each year, which is sent to the steel works for recycling.
- Our machinery is carefully maintained and has an extremely long lifespan. Some machines have been in use for 50 years, having been continuously modernised. This cuts the consumption of resources considerably.

**Victorinox operates in full compliance with the stringent regulations and directives laid down in Swiss legislation.**
Current environmental management projects at Victorinox

**Waste prevention**
- Regenerating hydraulic oil in order to cut waste oil output (punching and injection moulding machines).
- Fitting filter facilities with a long-lasting filter medium. This avoids the need to dispose of used filter cartridges.

**Reduction of harmful substances / prevention of air pollution**
- Using a new vacuum cleaning facility. This has enabled solvent loss to be lowered to below the legal limit.
- Replacing and converting a cleaning facility from trichloroethylene to a water-based cleaning process.
- Installing a new exhaust air filtration facility in the polishing area.

**Energy saving**
- **Water usage**: Using a closed circuit to cool grinding and cleaning facilities.
- **Electricity**: Installing new lighting gear with electronic ballasts. This raises the efficiency of FL tubes, and extends tube replacement intervals.
- **Heating oil**: Improving the utilisation of waste heat will cut heating oil requirements to 5,000 litres.

![Water usage and Heating oil needs graphs]

The management team is working hard to ensure that our commitment to change the way we think and act benefits our planet far beyond 2007.
“Green Shield” protects the environment

In March 2007, Victorinox launched the "Green Shield" programme to encourage employees to act in an even more sustainable manner than they already do. The programme was kicked off with a screening of Al Gore's film "An Inconvenient Truth", which examines the dangers associated with climate change. Addressing the audience in the converted production hall that served as a temporary cinema, company head Carl Elsener jr. stressed the importance of environmental protection. The "Green Shield" programme consists of a range of energy-saving initiatives that promote eco-friendliness both at home and at work.

April
Victorinox’s commitment

May
Take public transport and cycle to work
Victorinox already refunds its employees the cost of train and bus tickets for their daily way to work

June
Shopping seasonally and locally

July/August
Water
Potential savings in daily life

September
Muscles not motors
Physical activity event with employees

October
Heating
Potential savings in daily life

November
Electricity and light
Potential savings in daily life

December
Competition questionnaire