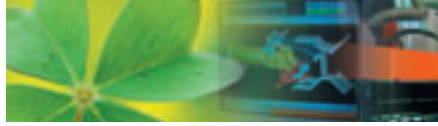


## A Successful Approach to Environmental Management





## Environmental Protection is a shared responsibility throughout the E-T-A organisation



Many factors have driven our market leading crusade: a wealth of ideas, knowhow, reliability, highly motivated employees – and, what is more, a distinct ecological awareness.

A positive approach to the protection of our environment has always been one of E-T-A's major objectives. Experience has proved the effectiveness of this approach once individuals have embraced the notion that environmental protection is truly a matter for them.

In pursuance of our objectives we are committed to:

- using energy, water and raw materials economically and efficiently
- maintaining a healthy and safe working environment
- avoiding risk to our environment and our neighbourhood

- not only meeting but exceeding all statutory requirements
- minimising waste material and separating it for treatment purposes, wherever possible
- working in co-operation with customers, relevant authorities and the community on environmental issues
- observing the importance of environmental needs throughout the life cycle of our products, from design to ultimate disposal
- minimising any detrimental effect of our activities on the environment.

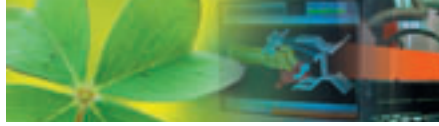
**By following these guidelines we have developed the necessary pre-conditions for non-polluting work processes.**



**Horst Ellenberger**  
On behalf of the corporate Board of Directors



**Reinhold Palmer**  
Operations Manager with overall responsibility for environmental protection



## Technical progress in harmony with man and nature

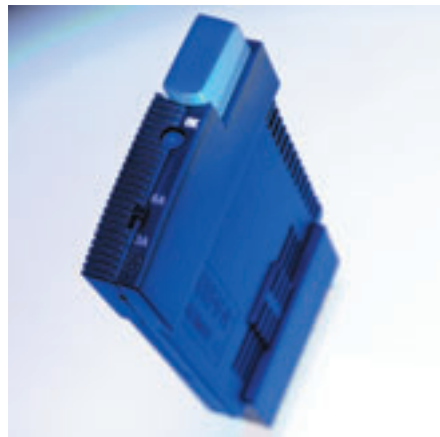
### New developments: taking the environment into account

At E-T-A, environmental protection begins when we start to develop new products.

Our designs are aimed at production techniques that will minimise waste and

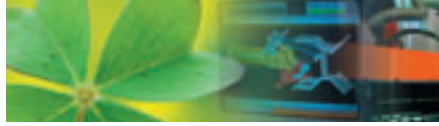
residues. Wherever possible, we use thermoplastic materials which are considerably less harmful than thermosetting plastics. In addition we select materials which are free from detrimental heavy metals. Other features of our environmental management include reduction and proper disposal of plating sludge, separate collection of waste materials such as silver, brass, copper, bronze, copper beryllium and stainless steel.

Environmental protection at E-T-A headquarters has many facets more fully described on the following pages.



**Above:** circuit breaker type 8345.  
**Right:** Electronic circuit breaker ESS20.





# Cost effective environmental protection combining ecological and economical needs



As a manufacturing company we of course use energy, water and raw materials. But it comes naturally to us to use them carefully and efficiently.

### Reduction of toxic waste

Within one year, E-T-A reduced toxic waste by 37%, in spite of increased productivity.

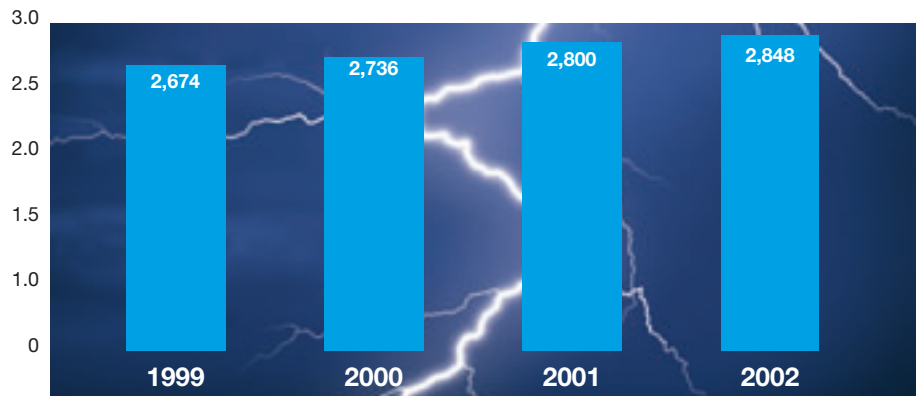
### Energy saving – an everyday task

One third of the electrical energy needed by E-T-A is generated by our standalone power station. This is not only more cost-effective than drawing it from the grid but is also ecologically beneficial. One third of

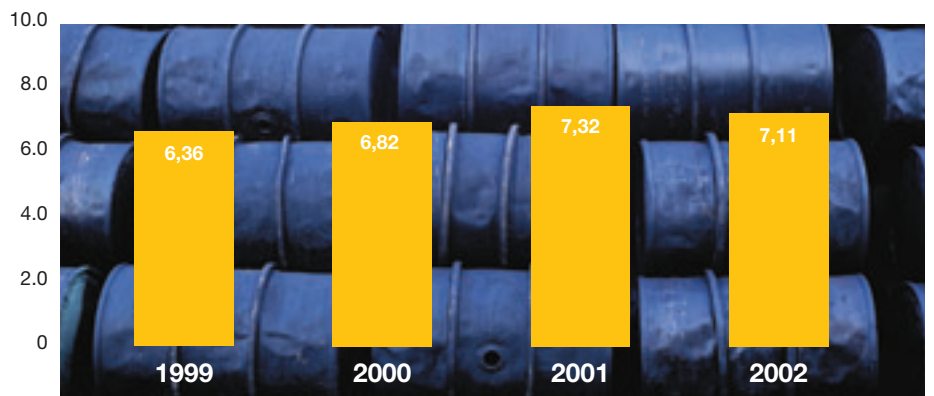
our heating needs are also satisfied inhouse. Some 3% of heat energy is saved by controlled operation of our ventilation system. Utilisation of waste heat and an added waste heat exchanger have re-duced our energy demand by a further 10%.

### Reducing water usage

Water is a precious commodity and what is more, it is expensive. Close inspection of our consumption has proved worthwhile. Thanks to recycling and using energy efficiently, we have significantly reduced our water usage in the past two years.



Electricity consumption (m kwh) 1999 - 2002.



Toxic waste (t) 1999 - 2002.

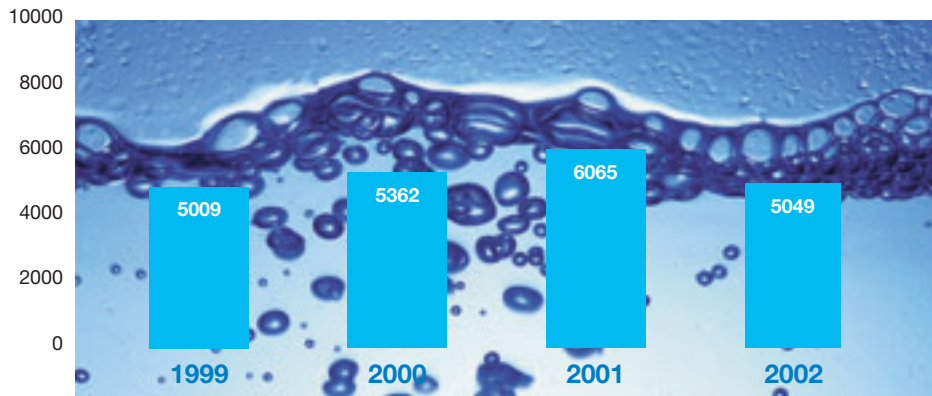


**Compressed air saves money.**

Compressed air is one of the most expensive types of energy in industrial production. Every year leakages cause damages for the economy worth billions of Euros. Latest-state-of-the-art technology and E-T-A designed flow monitors help us monitor our entire compressed air system with regard to leakages or faults. We also monitored the idle capacity costs and were able to reduce them significantly.

**Separation and collection of waste brings its returns**

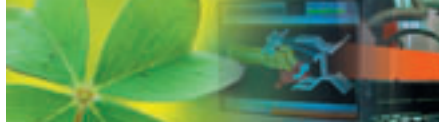
Industrial waste is an environmentally sensitive issue. Not only is waste produced in large volumes but it must also be disposed of carefully and professionally, which in itself can be very expensive. Costs can be reduced considerably through the separation of waste for subsequent sale and re-use. Thanks to the commitment of all employees, we practise effective environmental protection and achieve cost-savings throughout the organisation.



Water consumption (cbm) 1999 - 2002.



Industrial waste and waste paper (t) 1999 - 2002.



## E-T-A Control products: proven solutions for environmental protection



### Combining ecological to economical needs

E-T-A is one of the world's leading manufacturers of protection and control devices. Major companies throughout the process, automotive, aerospace and telecommunications industries, as well as many more, are customers of E-T-A.

The products from our range which are designed particularly for environmental protection include our electronic flow monitors and level sensors, providing metering and monitoring for containers and pipe-work systems.



### Flow monitors for liquids and gases

E-T-A flow monitors provide protection in the chemical industry, in sewage plants, and in air conditioning and water processing plants. Special Ex-approved versions are available for use in hazardous areas.

E-T-A flow monitors are suitable for all kinds of liquids, aggressive or non-aggressive, as well as for air and gases. Quality and reliability are assured by the design of the monitoring head which converts flow velocity into voltage and current values.

In our latest state-of-the-art series, signals are processed by means of microcontrollers. This enables us to meet customer requirements in modern process control with the latest sensor technology, self-test, linearisation, temperature compensation, display, analogue outputs and bus interfaces.

Left: Flow Monitor FS 10.  
Below: Flow Monitor SW 118.



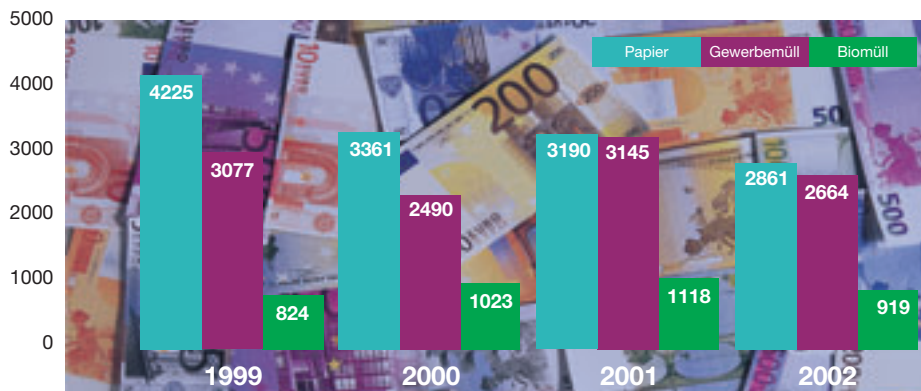


### E-T-A level sensors: monitoring the level of liquids

E-T-A level sensors are suitable for level sensing in oil and water tanks, as well as in aggressive environments. The devices signal when the levels fall below or rise above a pre-set value. They work on the capacitive principle and have no moveable parts.

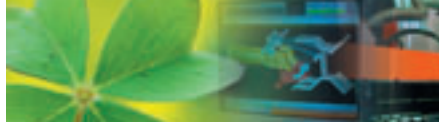


Left: Level sensor NR 160.  
Right: Level sensor NR 150.



Costs for industrial waste, compostable waste and waste paper (Euro) 1999 bis 2002.





## Environmental protection and technology: an ongoing challenge



Environmental protection has long been a major goal of E-T-A. In the new millennium we are striving for further improvements in our environmental management. A far reaching programme has been established, based on an analysis from first principles of all our production facilities.

E-T-A will continue to concentrate its energies in the pursuit of its own successful environmental programme and in the design and development of ecologically beneficial products.

**For the benefit of us all.**



Design and development  
of ecologically beneficial new products

  
**Circuit Protection & Control**

E-T-A Elektrotechnische Apparate GmbH  
D-90518 Altdorf · Industriestraße 2-8  
Phone +49 (0 91 87)10-0  
Fax +49 (0 91 87)10-397  
E-Mail: [info@e-t-a.de](mailto:info@e-t-a.de) · [www.e-t-a.com](http://www.e-t-a.com)