



Test more efficiently. **Energy optimisation for your environmental simulation systems.**

Energy optimisation of environmental simulation systems is about much more than simply reducing energy costs. Any approach aimed at improving safety, reducing energy consumption and increasing operational efficiency is worthwhile. Our measures, which are individually tailored to each system and its type, often pay for themselves within just a few months.

From the analysis of operational data to the implementation of new technologies, we develop bespoke solutions that are perfectly tailored to specific applications and are both environmentally friendly and cost-effective. Energy optimisation can be implemented in a variety of ways – from adjusting control parameters to replacing outdated parts with modern, energy-efficient components.

All adjustments are planned and coordinated to make the best possible use of technical and physical potential for improvement through possible synergies. Energy optimisation is beneficial for almost all environmental simulation systems, regardless of their age, size or complexity. Whether it is a temperature test chamber built in 1995 or a modern drive-in test chamber: for every system,

there are individual measures that are both environmentally friendly and economically viable.



Optimisation measures:

- Conversion to modern refrigeration technology
- Optimisation of the installed control system
- Monitoring and analysis of consumption data
- Adjustment of operating modes
- Replacement of obsolete components

Perfectly tailored to your system: our modular approach to energy optimisation.



1. Process optimisation:

- Evaluation of the test cycles and usage patterns
- Adjustment of operation modes
 - Energy monitoring
 - Consumption management
 - Process adjustments tailored to requirements

2. Optimisation of the existing system:

- Inspection of system components
- Assessment of thermal efficiency
 - Inspection of test space housing
 - Inspection of thermal insulation
- Software adjustments

Consumption data monitoring & analysis

We record the systems energy consumption data using our EnergyGuard measurement kit, which is tailored to test chambers. This provides us with insight into the systems use and consumption patterns, enabling us to assess both overall consumption and the efficiency of individual components.



Development of an optimisation concept

Based on the analysis, we develop a bespoke concept that includes technical measures and organisational approaches. These include the optimisation of system components, the adjustment of the control system, optimised operating times and more efficient controls programming.



From the initial idea to measurable savings: everything from a single source.



3. Modernisation of system technology:

- ▮ **Switch to more efficient drive technology**
 - ▮ Replacement of motors
 - ▮ Retrofitting of speed control systems
- ▮ **Upgrading the cooling system**
 - ▮ Modernisation of refrigeration components
 - ▮ Conversion to natural refrigerants
- ▮ **Modernisation of system components**
 - ▮ Installation of a more powerful control system
 - ▮ Replacement of the user interface unit
 - ▮ Adaptation of the switch cabinet
 - ▮ More efficient lighting
- ▮ **Upgrade of the test system**
 - ▮ Retrofit of humidification technology
 - ▮ Retrofit of drying technology
 - ▮ Upgrade of measurement technology
 - ▮ Improvement of performance

Implementation of the concept

The planned measures are implemented on site by our own experienced technicians. This includes, for example, the installation of new components, the adjustment of the control system and the training of operating staff.



Monitoring of new consumption data

Following implementation, continuous consumption monitoring is carried out once again. We demonstrate that the measures are achieving the desired effects and assess whether further optimisations are necessary.



Service is our passion.

More than just a service partner

Shaping the future together.

Energy optimisation for environmental simulation systems is far more than just a technical detail. It represents a crucial step towards future-proofness and sustainability. New energy legislation and international standards such as ISO certifications create a clear framework that not only demands environmental responsibility but also opens up economic opportunities.

The implementation of our optimisation measures not only ensures compliance with legal requirements but makes an active contribution to reducing energy costs. Every kilo-

watt-hour saved means less strain on the environment, lower costs and greater operational efficiency at the same time.

Take advantage of our offer

Invest in sustainable energy optimisation, secure cost benefits and position your company as a pioneer in responsible use of technology.



We measure ourselves by our service!

**Our services -
lots of good reasons:**

- ▮ Global service network
- ▮ Wide range of preventive maintenance
- ▮ Reliable spare parts supply
- ▮ Special deployments available at any time
- ▮ Certifies proper disposal of end-of-life devices

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You can always find a weisstechnik service expert near you.

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