

Our Climate Test Chambers.

Shaping the future together.

**With the new ClimeEvent.**







# You develop new ideas. **We provide their future.**

As passionate engineers, we design products with a vision for future developments, with attention to every detail and with absolute dedication to service. Allowing you to concentrate on your core business.

## Pioneering.

Our materials and engineering expertise make us a technology leader. With this and our pragmatic approach, we pave the way for ideas and identify new growth potential and goals together with you for achieving or exceeding them sustainably.

## Idea-driven.

We are continuously developing and improving and are passionately innovative. Based on this motivation, we advise you, offering new ideas and inspiration and securing early competitive advantages in tomorrow's growing markets for you.

## Cooperative.

We believe in entrepreneurial spirit and personal commitment in our customer relationship rather than anonymous corporate structures: this is what makes us a reliable partner for successfully implementing defined goals – together. All this has shaped our brand **weisstechnik** and established it worldwide.

## Testing for a future worth living.

Anyone who develops new perspectives, creates value and launches innovations will be sustainably successful if they consequently play it safe during research, development and quality assurance. We will support you in this as your partner!

### From hot to cold.

Your products have to withstand different thermal and climatic conditions during production, transport, storage and use. We support you to test the influence of temperature and humidity on the properties, function and service life of your products.

### Whether short or long.

Lots to test? What about lightning fast? No problem! When testing your products, you must adhere to numerous test standards and carry out long-term tests. Today, we are the first choice among engineers and researchers for innovative and safe environmental simulation systems. With customised solutions: reproducible, certified and in fast motion.

### Engineers for engineers.

**weisstechnik** –  
a brand with a uniquely broad range.

THE NEW CLIMEEVENT - the next generation	4-5
AUTOMOTIVE - sustainable mobility	6-9
ELECTRONICS - intelligent solutions	10-13
MATERIALS - reliable functionality	14-17
SOFTWARE AND CONTROL - everything in your hands	18-19
SPECIALS AND SERVICE - for specific requirements	20-21



# You shape the future. With vision. **We support you. With certainty.**

The new ClimeEvent sets innovative standards in environmental simulation.

With our latest generation of climate test chambers, you can test your ideas for tomorrow even more efficiently, comfortably and safely. The modern, functional design makes it even easier to operate. Smart technical features ensure reproducible results reliably. The new ClimeEvent can also be individually configured and integration into test laboratories is extremely simple. Discover it!

**Excellent in performance, equipment and design.**

**Precisely engineered.**

We know what matters to you during your testing: reliable, precise and reproducible results.

**Perfectly manufactured.**

We only use high-quality materials and manufacture most of the components for our test chambers in-house.

**Instantly ready.**

We ensure intelligent and intuitive operation: simply set up, connect, start.

**Individually configurable.**

Our test chambers can be individually expanded with numerous options. Fully according to your needs.

Perfect in shape. Better in handling.

New

- 1 Visual status bar**  
Operating status and test progress always in view
- 2 Homogeneous test space illumination**  
Optimal lighting conditions, even with the door open
- 3 Smart test specimen protection**  
To ensure that secrets remain secret
- 4 Flexible test space**  
Highly adaptable rail system
- 5 Integrated web panel**  
Larger (10"), fold-out, faster and easy to use
- 6 Precise absolute humidity control**  
Highest control accuracy for climate change tests
- 7 Intelligent water management**  
Always the fill level in view
- 8 Ergonomic door handle**  
Venting the test space easily
- 9 Extra large water bath**  
For increased humidification and dehumidification performance
- 10 Practical storage and accessories packages**  
Where everything finds its place



The new  
ClimeEvent live!





## Our solutions for your applications:

- **Explosion protection and ATEX**  
We can modify our equipment to comply with ATEX directives.
- **Battery testing**  
We provide the necessary equipment to ensure that people and products are safely protected from danger.
- **Standard-compliant tests**  
Standards such as PV 1200, PV 2005 or extracts from LV 124 are reliably met.

## Enhanced into the future. **We support you. Reliably.**

The automotive industry is facing major challenges. Innovative concepts are needed to achieve lower fuel consumption and reduced emissions with increased performance, enhanced safety and more entertainment. At the same time, it wants to expedite the development of alternative drive systems and autonomous driving. Whoever is to succeed in these tasks must be developing tomorrow's automotive trends today. And requires a strong partner. Get on board!

### For sustainable mobility. Future-proof testing.

Whether sun, rain or snow, de-icing salt or a sea breeze, stopped or at full throttle, it's all the same: before a vehicle goes on the road, it must be ensured that built-in materials and components will work and remain intact long-range under all conditions. Quality for tomorrow, without compromise.

## Standards finder

Our test chambers are suitable for a wide range of tests. We reliably meet the standards of car manufacturers, including PV 1200, PV 2005, LV 124. Here you can find which test chambers fit your needs:





# Reliable and future-proof. Our options and modifications.



## ATEX-compliant, no ifs, no buts.

Many components containing flammable substances such as brake fluid, batteries, paints with solvents, engine oil, fuels and lubricants have to pass very specific environmental simulation tests. The challenge: in a closed system like ClimeEvent, the gases of these substances can accumulate and lead to dangerous explosive atmospheres. But don't worry, our experts will take care of modifying, supplementing or equipping the units with special protective devices to make them ATEX-compatible.

Our safety concept – primary: avoid danger, secondary: prevent ignition.

Further  
information:



### Good to know!

- ATEX = ATmosphères EXplosibles.
- Liquids with "flammable" warnings will most likely require ATEX protection.
- Unsure? Our checklist will assist you with the risk assessment in the form of an explosion protection document in accordance with the ATEX operational directive.



## Well equipped against fire.

When testing electrical energy storage systems, things can quickly become highly dangerous. For fire suppression, we offer customised systems from our modular safety system:

- Fire detection equipment: carbon monoxide gas, smoke gas and temperature sensors
- Purging device in the event of fire: nitrogen or carbon dioxide displaces the oxygen and inhibits the spread of fire. ATEX-compliant permanent nitrogen inerting is also possible.
- Cooling: the temperature in the test chamber is rapidly reduced within a very short time by flooding it with water or by means of a high-pressure water fogger.



## Heavy weights? No problem!

To test heavy goods, we'll install special heavy-duty rails for you. Up to 500 kg floor load are possible as a surface load.



## Danger recognised, danger averted.

The EUCAR Hazard Levels are an evaluation basis for the selection of appropriate safety equipment for lithium-ion testing. Our modular safety system allows you to safely test according to your specific application – in compliance with the specifications of the machine and ATEX directives. We will work with you to determine what safety equipment is required for this.

### Example: safety options for EUCAR Hazard Level 5

- Electrical door lock
- Status bar with signal lamp and horn
- Reversible pressure release flap
- Mechanical door lock and plug retaining clamp
- Particle blocker on the door
- Fire detection via CO gas measuring with two alarm levels
- Flushing device in the event of fire with nitrogen or carbon dioxide
- Interface matrix including potential-free contacts

### Good to know!

- EUCAR (European Council for Automotive R&D) has studied hazardous situations and divided them into eight risk classes.
- Unsure? Our checklist for electrical energy storage systems supports your risk assessment.

Further  
information:



## Challenges? Manage them easily.

Even the highly demanding BMW dewing test (also known as K-15 of the LV 124 or BMW GS 95011-4) can be done without additional equipment! Electronic components installed in vehicles are tested for condensation resistance.

Would you like to  
see a case study?





## Our solutions for your applications:

- **ESD version**  
Our protective equipment ensures stress-free handling of highly sensitive electronic components.
- **EMC version**  
Our range for interference-free testing.
- **Optimal supply of test specimens**  
No problem with our flexible access ports.
- **Industrie 4.0, IoT, 5G**  
Testing the future today.

## Smarter into the future. **We support you. Imaginative.**

The future is digital: visions such as the Internet of Things, cars as supercomputers, wearables and 3D printing are gradually becoming reality. These developments are based on electronic components such as sensors, optoelectronic components and processors. The increasingly extensive recording and processing of data is only possible with the interaction of these electronic components. We support you in partnership also with our ideas. Switch it on!

### For intelligent solutions. Future-proof testing.

Simulate the future today – so that your product passes the day-to-day tests of tomorrow. Our lives are increasingly determined by electronics: whether smartphone, games console, navigation system or smart household appliances, there is a chip in almost every device. From sensors in cars to LED lights for minimally invasive surgery – we need to and must be able to rely on the quality and function of all components under all conditions. Every day, everywhere and in every weather.

### Standards finder

Our test chambers are suitable for a wide range of tests. Here you can find which test chambers fit your needs:





# Imaginative and future-proof. Our options and modifications.



## Here's how your cables can pass through safely.

Lots of flexible access ports:

- In the ceiling area: for tests where access ports at the side are not sufficient, an additional access port of up to 125 mm can be positioned in the ceiling of the test space.
- Notch port: for inserting lines and cables, a notch port of approx. 50 x 50 mm can be welded on the right. This makes it very easy to connect fitted cables for energised test specimens before introducing them into the test space.
- Flat notch port: an insert with a flat notch port is fitted in the masking frame. It holds up to 5 cables with a maximum diameter of 8 mm each, also suitable for the convenient insertion of energised test specimens or additional sensor technology.

## Testing for all it's worth.

Interference frequencies from electronic components can affect the functioning of other devices. To prevent this, they must show a certain frequency tolerance, but also stay within the limits themselves. A real challenge for EMC testing, because interference frequencies can be found everywhere. We have developed the EMC series for exactly this purpose: due to the special design, we can keep frequencies from the outside away as well as minimise those that arise within the test space. The result: a low-interference environment for reproducible and reliable results.



### Good to know!

EMC (electromagnetic compatibility) refers to electromagnetic waves that can cause interference in electronic components. These include radio and microwaves.



## Keep calm and relaxed.

For manufacturers of electronic components it is particularly important to protect their products as much as possible against electrostatic discharge. ESD can destroy the microscopic structures of chips and processors. Today's chipsets and components can already suffer premature damage from electrostatic discharge at 5 to 20 volts. As humans, we can only feel electrostatic voltage above 3,000 volts.

To guarantee the quality of your sensors, control units and PCBs, we design all relevant production processes to be ESD-safe.

### Good to know!

ESD means electrostatic discharge. It can destroy or damage electrical components. Everyone knows the feeling: you walk across a carpet, touch a door handle and get an electric shock. The voltage that flows through your body can be between 1,500 and 35,000 volts, depending on the humidity.



## Outgassing? No, thanks.

Silicone vapours can cause corrosion of various test specimens by emitting acetic acid. For this reason, i.e. circuit boards or cable connections require low-silicone or silicone-free versions of the test space in order to avoid malfunctions.

For reducing the silicone share in the test space, movable temperature sensors with Teflon cables or V2A protective tubes are installed. To achieve this, the inner door seal is replaced by a Viton seal. The standard access ports are already equipped with stainless steel flanges (inside) as standard, the slotted silicone plug is not required. In addition, the test space is degassed for 72 hours at the maximum temperature value of the unit.





## Our solutions for your applications:

Our specific equipment packages ensure that your materials are safe for people and the environment. This applies, among others, to:

- Varnishes
- Liquids
- Leather
- Aerospace materials
- Pharmaceutical products
- Building materials
- Transportation
- Plastics

## Advanced into the future. **We support you.** **Accountable.**

A wide variety of materials, from aluminium to plastic to cement stone, are used in a multitude of products. They must be safe for humans and the environment, be shaped into the desired form and fulfil their function over the long term. With **weisstechnik** systems you can safely and reliably test the durability and stability of your materials. In all weathers.

### For next-generation materials. Future-proof testing.

Legislation places special requirements on the production of medical technology products such as implants with regard to quality and hygiene. The production processes require the highest precision and standard-compliant safety to ensure maximum protection against quality deviations and contamination. **weisstechnik** offers the ideal solutions specifically for this purpose – from a single source.

Are your use cases varied? Is your test specimen demanding?  
Even in specific cases, we will certainly find the right solution for you.



# Responsible and future-proof. Our options and modifications.

### The sun in the box.

All products that are operated outdoors or indirectly exposed to the sun must pass sun simulation tests. Ultraviolet and infrared irradiation systems simulate the natural sunlight spectrum, both short-wave and long-wave radiation similar to sunlight are possible.



This allows their effects on the test specimen to be examined under laboratory conditions and the ageing caused by solar irradiation, temperature and humidity to be determined. This enables reproducible measurements under defined, continuous conditions, independent from day and season.

### Good to know!

While the short-wave components have a destructive effect that should not be underestimated, the long-wave components can lead to intense warming of the irradiated bodies and therefore to overheating.



### Superbly qualified and demonstrably compliant.

Particularly strict rules apply in the pharmaceutical industry for the proof of suitability of a system. In order for you to demonstrate the necessary compliance, we offer all the necessary qualification and re-qualification services.

### Test whatever you like.

Whether leather, chlorine-bleached paper or plastic cards – our durable, robust test chamber is made of high-quality stainless steel and can be optionally equipped with an aluminium evaporator. This means that even products with corrosive properties such as tanning agents in leather products cannot harm it.



### From scorching hot to freezing cold, but safe.

In space, technical equipment must withstand extreme temperature fluctuations. Depending on the solar radiation, they can be exposed to high temperatures of over +150 °C or, in the Earth's shadow, to cryogenic values of around -180 °C. Our liquid nitrogen cooling system enables very precise temperature control down to -185 °C. With the special equipment package, you can check the correct functioning of your valuable high-tech equipment through thermal cycles before it is sent into orbit.



# Everything at a glance. Everything under control.

## Everything perfect.

Head towards the future with **weisstechnik**.

Smart. Proven.  
Compatible.



Top performance with mature technology.

Our control software for environmental simulation, heat and climate technology is ready for the requirements of industry 4.0. Maximum flexibility and networking capability, simple operation and reliability always guarantee easy integration into automated processes. The SIMPATI range is rounded off by additional modules such as camera transmission, barcode applications or OPC UA support.

Step by step towards digitalisation.



The platform-based extension for global access.

SIMPATI online expands your software functions and enables access to your systems across locations with automated generation of test reports. The secure cloud service runs via Microsoft Azure and thanks to the automatic updates you are always in the latest state. In addition, SIMPATI online is downward compatible with weisstechnik test chambers from 1987 onwards.

Download now  
free of charge:



A picture is worth  
1000 measurements.



Keeping an eye on the essentials with a warning and reporting system.

In addition to and in correlation with the capture of traditional measured data, digital camera images are generated by a special software at set intervals and filed in a general archives folder. A combined analysis of measured data and images brings new and valuable findings to light. Especially when a specific event has occurred.

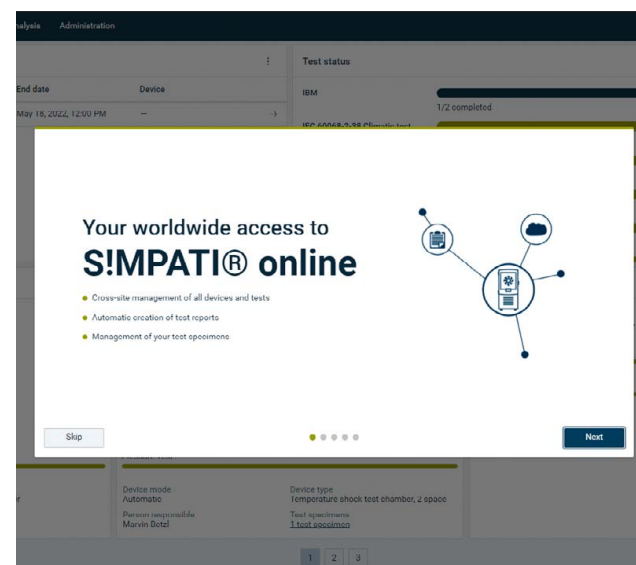
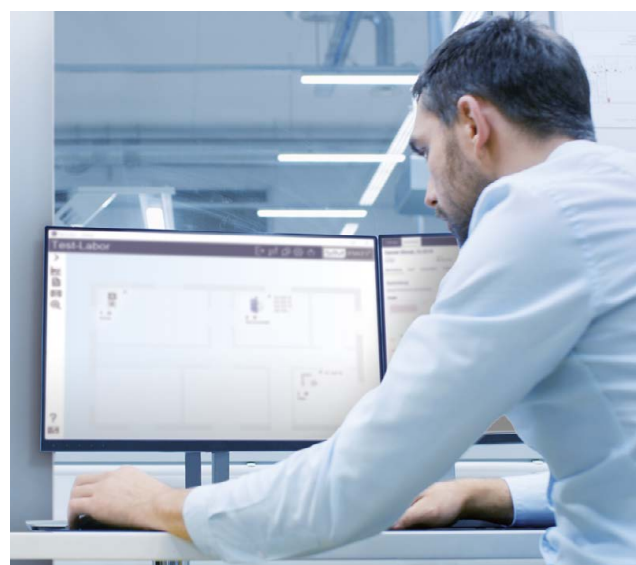
Programmed  
for industry 4.0.



Intelligent OPC UA solutions for smart processes.

With the software SIMPATI, you now get an uncomplicated upgrade for the optimal industry 4.0 integration of your **weisstechnik** systems. The simple data exchange runs via OPC UA server into a Manufacturing Execution System (MES), a Supervisory Control and Data Acquisition (SCADA) or the Enterprise Resource Planning (ERP). A software-only upgrade for SIMPATI, convenient and affordable:

- Implementation of individual customer requirements supported by **weisstechnik**
- Year of manufacture of the equipment does not matter





# Would you like some more?

Our solutions for challenging demands.

## The product configurator. Your digital adviser.

Configure your desired model to suit your application.

Customising the new ClimeEvent? Fast and simple – with our product configurator. The online tool guides you through the configuration in just a few steps. Select and combine the options to suit your requirements. Find out more with no obligation or send us your configuration for a quotation.



## Thinking about tomorrow today.

-70 °C without compromise.  
Ready for the future – with a new refrigerant.

The new refrigerant R469A (WT69) is used in all Climate Test Chambers ClimeEvent. With a GWP value of only 1,397, we achieve a reduction of over 90 % compared to R23 and already exceed the legal standards of tomorrow. Allowing you further future-proof and highly environmentally and service-friendly testing, even after 2030.



## Practical and individual – Weiss Technik Academy.

Know-how for your technology –  
24 hours, 7 days a week.

Advanced training as informative experience: for many years, Weiss Technik Academy represents successful applications, technical and product trainings: at your premises, at ours or even online:

- Free webinars on current trends and products
- Technical and user training for increased efficiency
- Individual trainings for special challenges



## We measure ourselves by our service.

We think and act as partners.

We set a high benchmark for you. With our service departments, we offer sustainable solutions for long-term, reliable unit operation:

- Expert advice with 24/7 helpline
- Maintenance and spare part management
- Calibration and qualification





# Passionately innovative.

We work in partnership to support companies in research,  
development, production and quality assurance.  
With 22 companies in 15 countries at 40 locations.

weisstechnik

For a safe future.



## Environmental Simulation

The first choice for engineers and researchers for innovative, safe environmental simulation facilities. In fast motion, our test systems can simulate all the influences in the world as well as for instance in space. In temperature, climate, corrosion, dust or combined stress tests. With a very high degree of reproducibility and precision.



## Air Solutions

As the leading provider of clean rooms, climate technology and air dehumidification, we consistently ensure optimal climatic conditions for people and machines. For industrial production processes, in hospitals, mobile operation tents or in the field of information and telecommunications technology. From project planning to implementation..



## Heat Technology

Experienced engineers and designers develop, plan and produce high-quality, reliable heat technology systems for a broad range of applications from heating and drying cabinets to microwave systems and industrial furnaces.



## Pharmaceutical Technology

With decades of experience and know-how, we guarantee the most sophisticated clean air and containment solutions. Our comprehensive and innovative range of products includes barrier systems, laminar flow systems, safety workbenches, isolators, airlocks and stability test systems.

### Weiss Technik GmbH

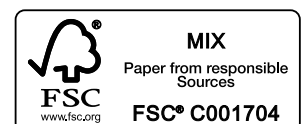
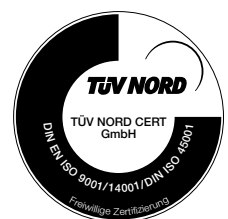
Greizer Straße 41-49  
35447 Reiskirchen/Germany  
T +49 6408 84-0

Beethovenstraße 34  
72336 Balingen/Germany  
T +49 7433 303-0

info@weiss-technik.com  
weiss-technik.com



[Click here](#)  
to see the product.



**Test it. Heat it. Cool it.**