Solar Simulation Chambers
SunEvent
Test whatever you like.

From garden chair to hardtop - in research, development and quality control you won’t want to take any chances. We’ll support you.

Putting the sun in a box

Direct exposure to the sun, heat, cold, humidity – small and large things in daily life are exposed to environmental effects that affect more than just their operating and service life: painted surfaces fade and the ageing of materials is accelerated. For many products, light resistance tests - also in combination with other environmental factors - are indispensable. The Solar Simulation Chambers SunEvent help you to simulate the effect of sunlight, temperature and humidity on the properties and the service life of your products. Reproducible, certified and under accelerated conditions.

Lots to test? No problem!

When testing your products, you must adhere to numerous test standards and carry out long-term tests. Our test chambers are designed for these situations. Our models cover a wide range of applications and satisfy every need. For specific requirements, you can upgrade every system with many options based on your individual needs.

Absolutely low maintenance.

Set up, plug in, start the test. The intelligent, compatible control elements and intuitive user interface guarantee easy operation. Easily accessible maintenance elements ensure minimal service times. Diagnostics and inspection systems in every machine additionally shorten downtimes and optimise maintenance periods.

Perfection in performance, equipment and design.

Solar Simulation Chambers SunEvent.

Precisely engineered.

We know what matters for your tests: reliable, precise and reproducible results. That’s why we design our test chambers to meet exactly these demands. Because incorrect results lead to incorrect conclusions. With your needs in mind, we already eliminate any interference factors during the design phase, relying on our comprehensive expertise and years of experience.

Perfectly manufactured.

For us, quality is our daily business. We use only high-quality materials and manufacture many of the components for our test chambers in-house. In addition, we have regular quality checks in place throughout the entire production process.

Highlights at a glance:

- New, eco-friendly refrigerant
- Optimised airflow and temperature distribution
- WEBSeason® Irradiation unit with high irradiation uniformity (made in Germany)
- BBA Sun Simulator (according to IEC 60904-9:2007)

Our innovative Test Chambers are available as WeissTechnik or VötschTechnik.
More equipment, right from the start.

Basic equipment setting standards.

Exterior

- Move safely into the future - using the new refrigerant
  The new refrigerant R449A is used in all Test Chambers SunEvent. The GWP value of just 1397 ensures safe usage even after 2030, and the refrigerant does not have to be replaced. As a result, we are already surpassing the future statutory standards today therefore future-proofing your tests, making the equipment easier to maintain and more environmentally friendly.

- Speeding up the ageing process with solar radiation
  Solar radiation is simulated with the help of an irradiation unit installed on top of the test chamber. Metal halide lamps are used as light sources, the emitted spectrum is based on global radiation according to CIE publication no. 85, table 4. The irradiation intensity is fully adjustable. Radiation passes through pre-aged, heated, double-glazed filter glass integrated into the ceiling of the test space. Lamp housings are equipped with improved heat dissipation and an optimised reflector.

Interior

- No chance for dirt or corrosion
  The test chamber floor is made of highly-alloyed, extra corrosion-resistant stainless steel 1.4404. Thanks to special welding, smooth surfaces, rounded corners and complex stamped grid layers, the test chamber is easy to clean. Standard humidity bath flushing prevents contamination of humidification water.

Regulation & Control

- Into the age of connectivity - with WEBSeason®
  You can use the innovative user interface WEBSeason to program, control and monitor your tests at any time and anywhere, even from your tablet or smartphone. Language and units can be set to suit the user and the settings can be saved. In this way, WEBSeason provides a new dimension of flexibility and efficiency.

You can find further details on equipment in our technical descriptions. Contact us.

Our innovative Test Chambers are available as weiss technik or vötsch technik.

Reliable control as standard:
Digital measurement and control system for operating and monitoring the test chamber.
Tailor-made testing.

Additional equipment for individual solutions.

Exterior

- If desired, with indoor filter
  For simulations of the indoor spectrum, the filter system can be equipped with an indoor filter glass. The test chamber is prepared for this enhancement in the standard configuration.

- Mobile and flexible
  Two fixed and two swivel castors allow for sufficient flexibility in the mobile version.

Interior

- Tropical atmosphere in the laboratory
  Thanks to the sprinkler system, you can also simulate extreme climate zones.

- Particularly precise
  With the help of a black standard temperature sensor and a pyranometer, you can take exact measurements of the temperature and irradiation intensity inside the test chamber.

Regulation & Control

- Set standards in communication
  With SIMPAT® software, operating, documenting and archiving your test sequences is very easy.

You can find further details on equipment in our technical descriptions. Contact us.

Our innovative Test Chambers are available as weiss technik or vötsch technik.

Developed exclusively for you:
The unique software package for the perfect test process.
Higher, wider, bigger. Sometimes, it just has to be bigger: in the automotive supply, electrical and electronics industries and in material testing, both large components and complete assemblies are tested. For these tests, we have developed a Test Chamber with an extra wide test space. So that your XXL test specimens can easily fit and ease of use is ensured.

You can find further details on equipment in our technical descriptions. **Contact us.**

**Basic equipment setting standards.**

- **Exterior**
  - Move safely into the future - using the new refrigerant
    Just as with the Test Chambers in the compact series, we are also focussing on the new R449A refrigerant for SunEvent SUN/3600. In this way, we guarantee the environmentally friendly and safe testing of your XXL test specimens.

- **Regulation & Control**
  - Into the age of connectivity - with WEBSeason®
    You can use the innovative user interface WEBSeason to program, control and monitor your tests at any time and anywhere, even from your tablet or smartphone. Language and units can be set to suit the user and the settings can be saved. In this way, WEBSeason provides a new dimension of flexibility and efficiency.

**Optional equipment for individual solutions.**

- **Exterior**
  - Everything in view
    An observation window with an integrated tinted window ensures that you have the best possible view. It can be installed on the right- or left-hand test space door as required.
The performance data at a glance.

<table>
<thead>
<tr>
<th>Type</th>
<th>SunEvent SUN / 100</th>
<th>SunEvent SUN / 1000</th>
<th>SunEvent SUN / 1000</th>
<th>SunEvent SUN / 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test space volume</td>
<td>l</td>
<td>340</td>
<td>600</td>
<td>1000</td>
</tr>
<tr>
<td>Test space dimensions, H x W x D</td>
<td>mm</td>
<td>775 x 580 x 765</td>
<td>975 x 800 x 800</td>
<td>975 x 1100 x 950</td>
</tr>
<tr>
<td>Test space, W x D</td>
<td>mm</td>
<td>400 x 400</td>
<td>600 x 600</td>
<td>800 x 700</td>
</tr>
<tr>
<td>Distance to the ceiling glazing</td>
<td>mm</td>
<td>480</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Irradiation intensity</td>
<td>W/m²</td>
<td>400 to 1100</td>
<td>400 to 1100</td>
<td>400 to 1100</td>
</tr>
<tr>
<td>Irradiation uniformity</td>
<td>%</td>
<td>±5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Performance data for temperature tests with irradiation:

- Maximum temperature: +100°C
- Minimum temperature: -20°C to -15°C
- Temperature-changing rate cooling: 2.5 K/min to 2.5 K/min
- Temperature-changing rate heating: 3.0 K/min to 4.0 K/min
- Temperature deviation in time: ±0.1°C to ±0.5°C
- Temperature homogeneity in space: ±0.5°C to ±1.5°C
- Maximum heat compensation: 2900 W to 2500 W

Performance data for climate tests with irradiation:

- Maximum temperature: +90°C
- Minimum temperature: +15°C
- Dewpoint temperature range: +5.0°C to +74.0°C
- Humidity range: 10.0% to 80.0%
- Humidity deviation in time: ±3.0% to ±5.0%
- Maximum heat compensation: 1340 W to 600 W

Performance data for temperature tests without irradiation:

- Maximum temperature: +100°C
- Minimum temperature: -10°C
- Temperature-changing rate cooling: 2.5 K/min to 2.5 K/min
- Temperature-changing rate heating: 3.0 K/min to 4.0 K/min
- Temperature deviation in time: ±0.1°C to ±0.5°C
- Temperature homogeneity in space: ±0.5°C to ±1.5°C
- Maximum heat compensation: 2900 W to 2500 W

Performance data for climate tests without irradiation:

- Maximum temperature: +90°C
- Minimum temperature: +15°C
- Dewpoint temperature range: +5.0°C to +74.0°C
- Humidity range: 10.0% to 80.0%
- Humidity deviation in time: ±3.0% to ±5.0%
- Maximum heat compensation: 1340 W to 600 W

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With regard to the test space, infinite adjusting in accordance with DIN V 55121, an irradiation intensity of 1000 W/m² with regard to the test space (reference level) is factory set and proven. It is possible to set other values within the stated area by entering the corresponding values in the reference level in the S!M technik expert. DAkkS calibration is carried out by Vötsch Industrietechnik GmbH, calibrated measuring equipment in the middle of the test space and documented with a certificate. A DAkkS calibration, as well as a spatial factory or a spatial DAkkS calibration, can be provided on request. DAkkS Calibration is carried out by Vötsch Industrietechnik GmbH and the International Laboratory Accreditation Cooperation (ILAC).

We reserve the right to make any technical changes without prior notice.
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
Test it. Heat it. Cool it.

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.

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.

Climate Technology, Air Dehumidification, Clean Rooms
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.

Clean Air and Containment Systems
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 and airlocks.

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