



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. With the **weisstechnik**® Solar Simulation Chambers SunEvent, you can 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.

Perfection in performance, equipment and design.

Solar Simulation Chambers SunEvent.

Completely thought through.

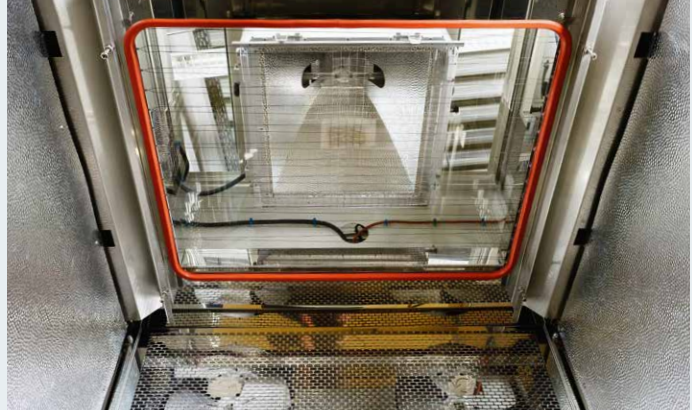
We know what matters for your tests: reliable, precise and reproducible results. That's why we design our test chambers to meet exactly these demands. Because incorrect results lead to incorrect conclusions. With this in mind, we already eliminate any interference factors during the design phase, relying 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 also have regular quality checks in place throughout the entire production process.

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.



Reliable measurement results are possible thanks to:

- Irradiation unit with high irradiation uniformity (made in Germany)
- Perfect, environmentally friendly insulation of the testing space
- Steam-proof design thanks to mechanically welded seams
- Optimised airflow and temperature distribution
- Performance-optimised tempering technology and patented climate control system

More equipment, right from the start.

Basic equipment setting standards.

Exterior



- **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, which emit 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 high-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.

- **Reliable testing**

The humidity in the test space is measured according to the internationally valid psychrometric measuring principle. Depending on the climate, the psychrometer wick is wetted and cleaned in the process.

Communication



- **Networking according to your needs**

Test and diagnostics information are sent to a PC via Ethernet interface or can be stored on a flash drive using the USB interface. Monitoring and control is possible from any workplace computer.

Safety



- **Protection for your tests, safety for you**

No need to worry about loss or excess of temperature: Test chamber and test object protection and test object shutdown are installed as standard. The test chamber itself is designed for operation at ambient temperatures of up to +35 °C, is compliant with current VDE regulations and satisfies the EMC, low voltage and machine directives.

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



Reliable control as a standard:
Digital measurement and control system for
operating and monitoring the test chamber.



Tailor-made testing.

Optional equipment for individual solutions.



Exterior



- **Upon request: 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**
The mobile version of the test chamber is equipped with two fixed rollers and two guide rollers.

Interior



- **Tropical atmosphere in the laboratory**
Thanks to the sprinkler system, you can also simulate extreme climate zones.
- **Precise measurements**
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 SIMPATI® software, operating, documenting and archiving your test sequences is as easy as child's play.

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

Developed exclusively for you:
The unique software package
for the perfect test process.



Convincing technology. Reliable results.

The performance data at a glance:

Type		SUN 340	SUN 600	SUN 1000	SUN 3400
Test space volume	l	340	600	1000	3400
Test space dimensions, HxBxT	mm	775x580x765	975x800x800	975x1100x950	1510x1995x1150
Test space with irradiation ¹ , BxT	mm	400x400	600x600	800x700	1700x800
Irradiation intensity	W/m ²	400 to 1150	400 to 1150	400 to 1150	400 to 1150
Irradiation uniformity	%	±5	±5	±5	±5
Specifications for temperature tests		with irradiation			
Minimum temperature	°C	-20	-20	-20	-20
Maximum temperature	°C	+100	+100	+100	+100
Temperature deviation over time	K	±0.3 to ±1.0	±0.3 to ±1.0	±0.3 to ±1.0	±0.3 to ±1.0
Specifications for temperature tests		without radiation			
Minimum temperature	°C	-30	-30	-30	-30
Maximum temperature	°C	+100	+100	+100	+100
Temperature change rate cooling ²	K/min	2.5	2.5	2.5	2.0
Temperature change rate heating ²	K/min	3.0	4.0	4.0	2.0
Temperature deviation over time	K	±0.1 to ±0.5	±0.1 to ±0.5	±0.1 to ±0.5	±0.1 to ±0.5
Temperature homogeneity in space ³	K	±0.5 to ±1.5	±0.5 to ±1.5	±0.5 to ±1.5	±0.5 to ±1.5
Heat compensation	W	2300	2500	4500	5000/2000 ⁴
Specifications for climatic tests		with irradiation			
Minimum temperature	°C	+15	+15	+15	+15
Maximum temperature	°C	+80	+80	+80	+80
Temperature deviation over time	K	±0.1 to ±0.5	±0.1 to ±0.5	±0.1 to ±0.5	±0.1 to ±0.5
Humidity range	% r.F.	10 to 80	10 to 80	10 to 80	10 to 80
Dew point temperature range	°C	+5 to +74	+5 to +74	+5 to +74	+5 to +74
Humidity deviation over time	% r.F.	±3 to ±5	±3 to ±5	±3 to ±5	±3 to ±5
Specifications for climatic tests		without radiation			
Minimum temperature	°C	+10	+10	+10	+10
Maximum temperature	°C	+90	+90	+90	+90
Temperature deviation over time	K	±0.1 to ±0.3	±0.1 to ±0.3	±0.1 to ±0.3	±0.1 to ±0.5
Temperature homogeneity in space ³	K	±0.5 to ±1.0	±0.5 to ±1.0	±0.5 to ±1.0	±0.5 to ±1.5
Humidity range	% r.F.	10 to 90	10 to 90	10 to 90	10 to 90
Dew point temperature range	°C	+5 to +87	+5 to +87	+5 to +87	+5 to +87
Humidity deviation over time	% r.F.	±1 to ±3	±1 to ±3	±1 to ±3	±3 to ±5
Heat compensation, max.	W	400	400	400	500
Factory calibration values temperature tests		+23 °C und +80 °C			
Factory calibration values climatic tests		+23 °C/50 % r.F. und +90 °C/50 % r.F.			

¹Depending on the test space.

²According to IEC 60068-3-5; measured on average, in the temperature range.

³Depending on the adjusted set point value; for humidity values >20% RH.

⁴At +20 °C/at -20 °C.

The performance data refer to +25 °C ambient temperature, 400 V/50 Hz nominal voltage, without specimen, optional equipment and heat compensation.

The product needs fluorinated greenhouse gases for functioning. Depending on the type, it contains refrigerants R404A.

We reserve the right to make any technical changes.

Become more efficient.

Our solutions will save you time and money.

Get the most out of your test facility.

Create your own perfect testing process with the SIMPATI® software package.



Process management/Documentation/Networking

- Up to 99 systems can be connected
- Programs for automated processes
- Documentation, visualisation and management of process data
- Traceability of process data for seamless quality control



We measure ourselves by our service!

Our services - lots of good arguments:

- Global service network
- Wide selection of preventive maintenance
- Reliable spare part supply
- Special deployments available any time
- Training programmes for our customers
- Certified proper disposal of outdated devices

You can always find a **weiss**technik® expert near you.

24/7 Service Helpline:
+49 1805 666 556

weisstechnik®

Test it. Heat it. Cool it.

Our solutions are deployed around the world in research, development, production and quality assurance of numerous products. Our experts from 21 companies are at your service in 14 countries, ready to provide support to ensure high operational reliability of your systems.

Weiss Umwelttechnik is one of the most innovative and significant manufacturers of environmental simulation systems. With these testing systems, we can simulate all climatic conditions around the globe and beyond, under accelerated conditions. Whether temperature, climate, corrosion, dust or combined shock testing: We have the proper solution. We supply systems in all sizes, from standard versions up to customised, process-integrated facilities - for high reproducibility and precise test results.

Vötsch Industrietechnik, a subsidiary of Weiss Umwelttechnik, offers a wide product portfolio in the field of heating technology. With an experienced team of engineers and designers, we develop, plan and produce high-quality and reliable heating technology systems for virtually any field of application. Products include heating/drying ovens, clean room drying ovens, hot-air sterilisers, microwave systems and industrial ovens. The portfolio reaches from technologically sophisticated standard versions to customised solutions for individual production operations.

A further Weiss Technik company, Weiss Klimatechnik, also offers reliable climate solutions wherever people and machinery are challenged: in industrial production processes, hospitals, mobile operating tents or in the area of IT and telecommunications technology. As one of the leading providers of professional clean room and climate solutions, we deliver effective and energy-saving solutions. Our experts will guide you from the planning to the implementation of your projects.

Weiss Pharmatechnik, a subsidiary of Weiss Klimatechnik, is a competent provider of sophisticated clean room and containment solutions. The product range includes barrier systems, laminar flow facilities, security workbenches, isolators and double door systems. The company emerged from Weiss GWE and BDK Luft- und Reinraumtechnik and has decade-long experience in clean room technology.

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Because environment and climate are more to us than just a part of our name.

