



Weiss Technik environmental simulation

Product portfolio overview

01 Business areas

02 Weiss Technik
Made in Germany

03 Weiss Technik Europe

04 Weiss Technik
Environmental Simulation

Weiss Technik GmbH is divided into **four** business areas.



Environmental simulation

Our portfolio of equipment and systems for environmental simulation is extensive. Whether temperature, climate, vibration, corrosion, emissions, altitude, pressure, or combined stress testing: We have the right solution and supply systems in all sizes.



Heating technology

In the field of industrial heating technology, we develop, design, and manufacture reliable systems under the vötschoven product brand for almost every application area. In addition to our standard products, our focus is on implementing customer-specific, process-integrated solutions.



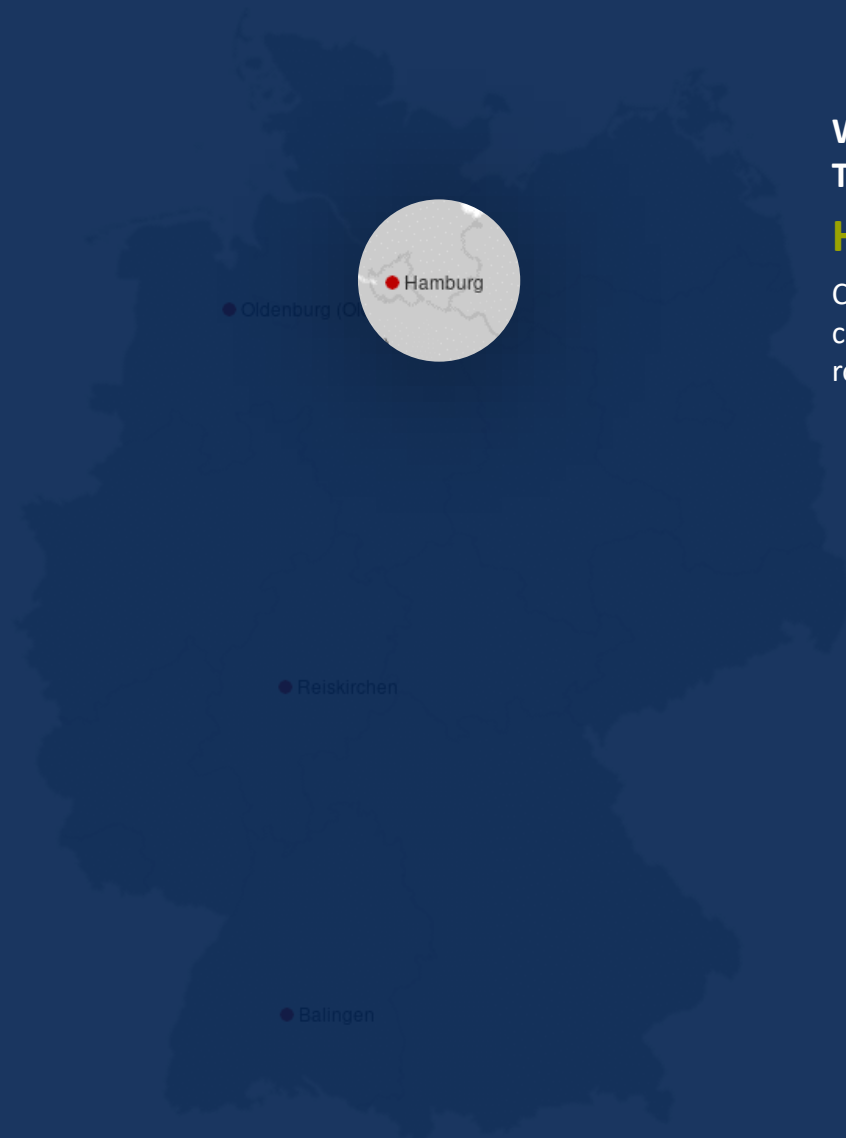
Air-conditioning technology

Wherever optimal climatic conditions are required – in industrial manufacturing processes, clean-rooms, hospitals, or in the information and telecommunications technology sector – we supply effective and energy-efficient air-conditioning and dehumidification systems under our Vindur[®] product brand.



Pharmaceutical technology

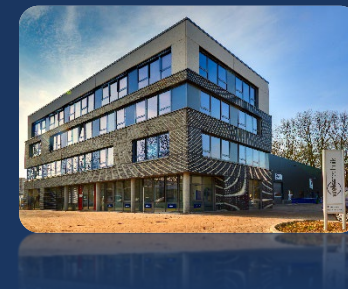
Reliably protect your workers, your products, and the environment. For this purpose, we develop technically sophisticated clean air and containment solutions for applications in the pharmaceutical, chemical, cosmetics, food, medical technology, and electronics industries as well as for research institutes and laboratories.



Weiss Technik GmbH Automotive Testing & Dry Room Solutions

Hamburg

Competence centre for drive-in test chambers for vehicles as well as dry rooms for battery production.





Weiss Pharmatechnik GmbH

Oldenburg

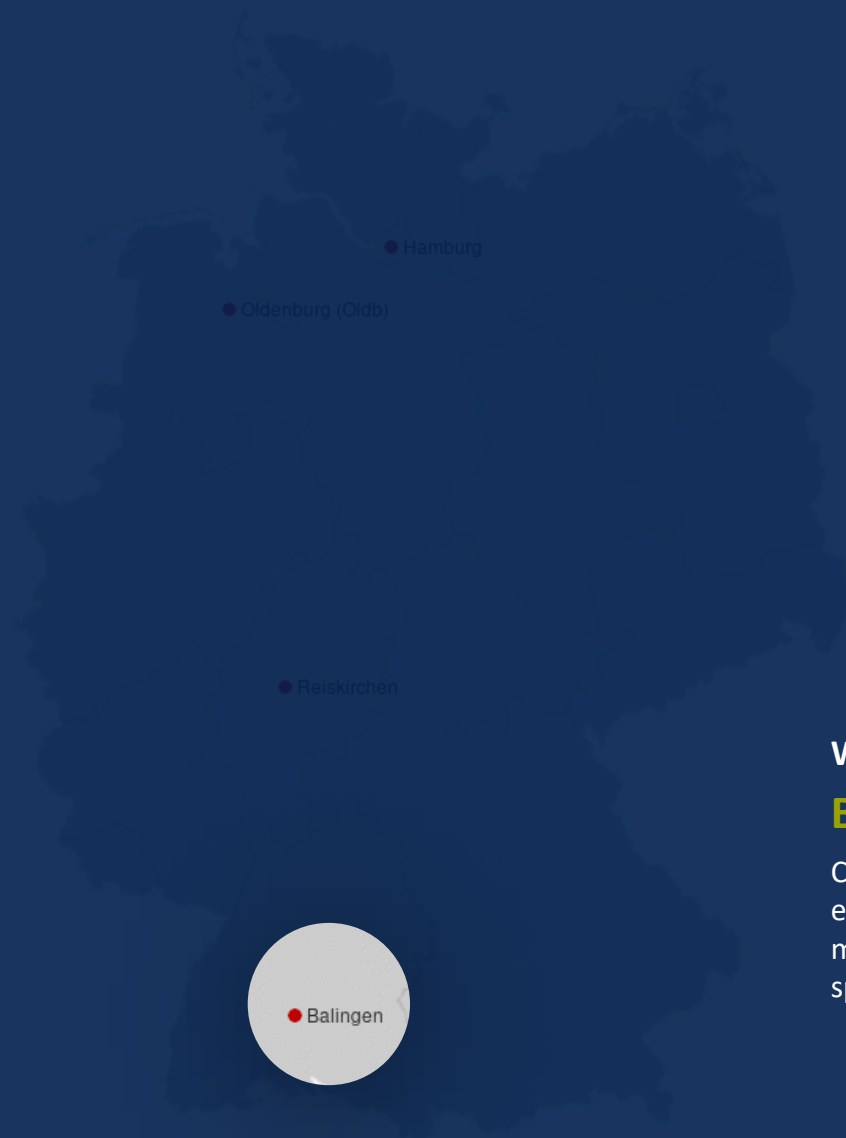
The range of services includes the design, manufacture, and installation of GMP/FDA-compliant systems and safety workstations.



Weiss Technik GmbH
Weiss Klimatechnik GmbH
Reiskirchen

The Reiskirchen site is the headquarters of Weiss Technik GmbH and Weiss Klimatechnik GmbH, the lead companies of the Business Units (Bus) Environmental Simulation and Air Solutions.





Weiss Technik GmbH

Balingen

Competence Centre for standard test equipment for simulating dynamic, mechanical, and thermal loads on test specimens.





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Additional production sites in Europe outside Germany.



Ascott Analytical **Staffordshire**

Production site for corrosion testing equipment under the Ascott brand.

Weiss Technik Nederland B.V. **Tiel**

Tiel is the production site for the TensileEvent, SGC/HGC chamber, CareEvent, and CrimeEvent product families.

Weiss Technik France **Martillac and Eragny**

Martillac is the production site for the Climats brand and the LabEvent and PharmaEvent product families under the **weisstechnik** brand. Aerospace products under the **weisstechnik** brand are manufactured in Eragny.

Weiss Technik environmental simulation

The environmental influences on products and their effects are numerous and varied.

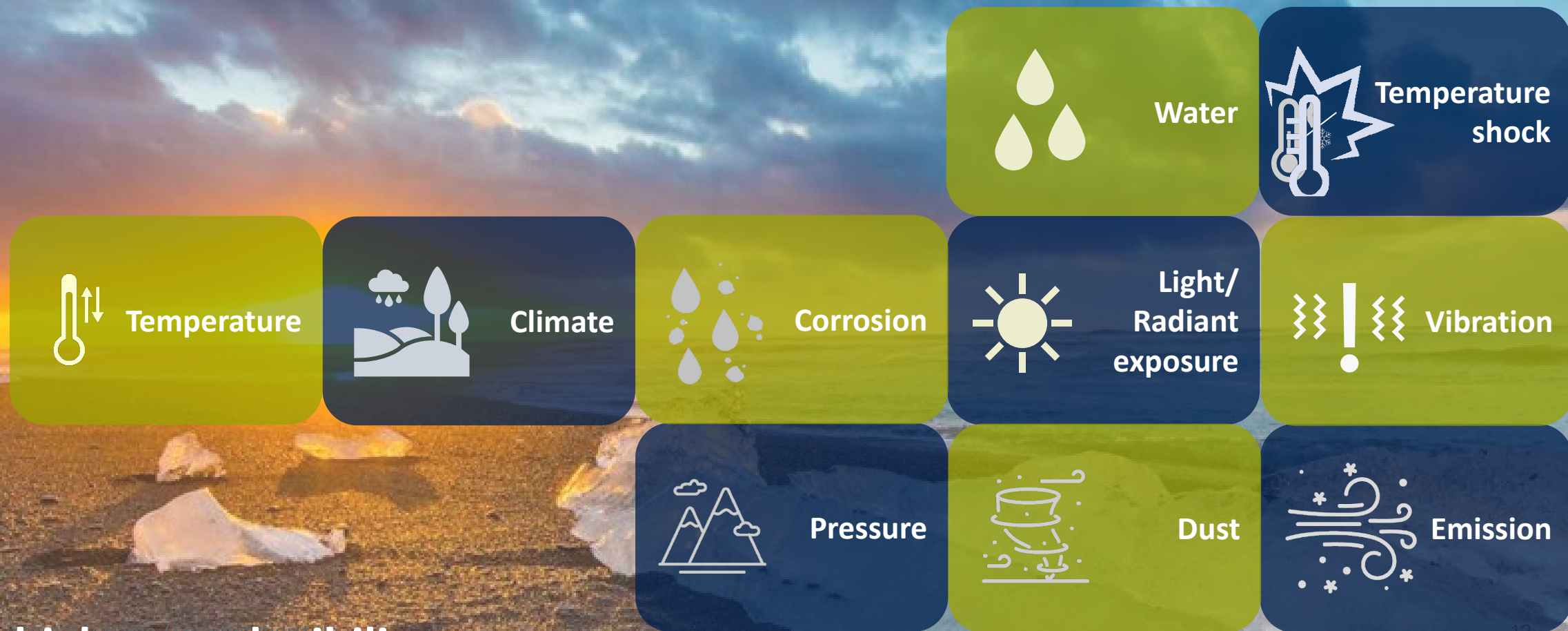
The goal of environmental simulation is to identify cause-and-effect relationships, qualify products for given environmental conditions, and optimise environmentally related product development. In ageing and weathering processes and in reliability studies, the acceleration of time and artificial ageing play a key role.

International test standards are available as the basis for testing.



Why is environmental simulation necessary at all?





**“For high reproducibility
and precise test results”**

Temperature and climate testing

Weiss Technik offers comprehensive solutions for temperature and climate testing – from bench-top models to customised systems.

To ensure the reliability and service life of our products, they are subjected to targeted temperature and climate testing. Real operating conditions such as heat, cold, humidity, and temperature fluctuations are simulated in the laboratory. This allows material behaviour, functional safety, and ageing resistance to be assessed at an early stage and potential weaknesses to be detected – even before the product is put into practical use.



Weiss Technik solutions for temperature and climate testing.



Bench-top

Compact, space-saving chambers for small test objects (Test space volume from 16 to 150 Litres). Ideal for laboratory and research environments to test the effects of temperature changes on electronic components and materials.

Reach-In

Larger chambers for medium-sized test objects. (Test space volume from 180 to 5000 Litres). Frequently used in the automotive, electronics, and aerospace industries to test reliability and performance under various conditions.

Walk-In

Large chambers that can be walked into. (Test space volume from 5000 to 50000 Litres). Ideal for stability, durability, and ageing tests in the pharmaceutical, food, and cosmetics industries.

Drive-In

Very large chambers capable of accommodating entire vehicles. (Construction site assembly). Used primarily in the automotive industry for comprehensive testing of complete vehicles.

Laboratory test chamber LabEvent



- ✓ Compact design – very small footprint, stackable.
- ✓ Low operating noise for everyday work
- ✓ Plug & Play thanks to 230 V connection
- ✓ Customisable to your requirements through options or modes.

16...210 l

Test space volume

10...98 % r.h.

Humidity range

-50/-70 ... +180 °C

Temperature range

3/5/10 K/min

Temperature change rate



Temperature & climatic test chamber TempEvent and ClimeEvent

- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ Triple test specimen protection
- ✓ Proprietary control software
- ✓ Fully welded test space

180...2000 l

Test space volume

10...98 % r.h.

Humidity range

-50/-70...+180 °C

Temperature range

3...25 K/min

Temperature change rate



Climatic test chamber

ClimeEco

- ✓ Compact equipment with clear design
- ✓ Low investment costs
- ✓ Reliable coverage of common standards
- ✓ Fast delivery from warehouses in Germany

180...1500 l

Test space volume

10...98 % r.h.

Humidity range

-40/-70...+180 °C

Temperature range

3 K/min

Temperature change rate

Constant climatic test chambers



- ✓ Inner and outer housing made of stainless steel
- ✓ Sterile steam humidifier
- ✓ Automatic defrosting
- ✓ Reliable and precise equipment at an affordable price.

330 and 620 l

Test space volume

30...90 % r.h.

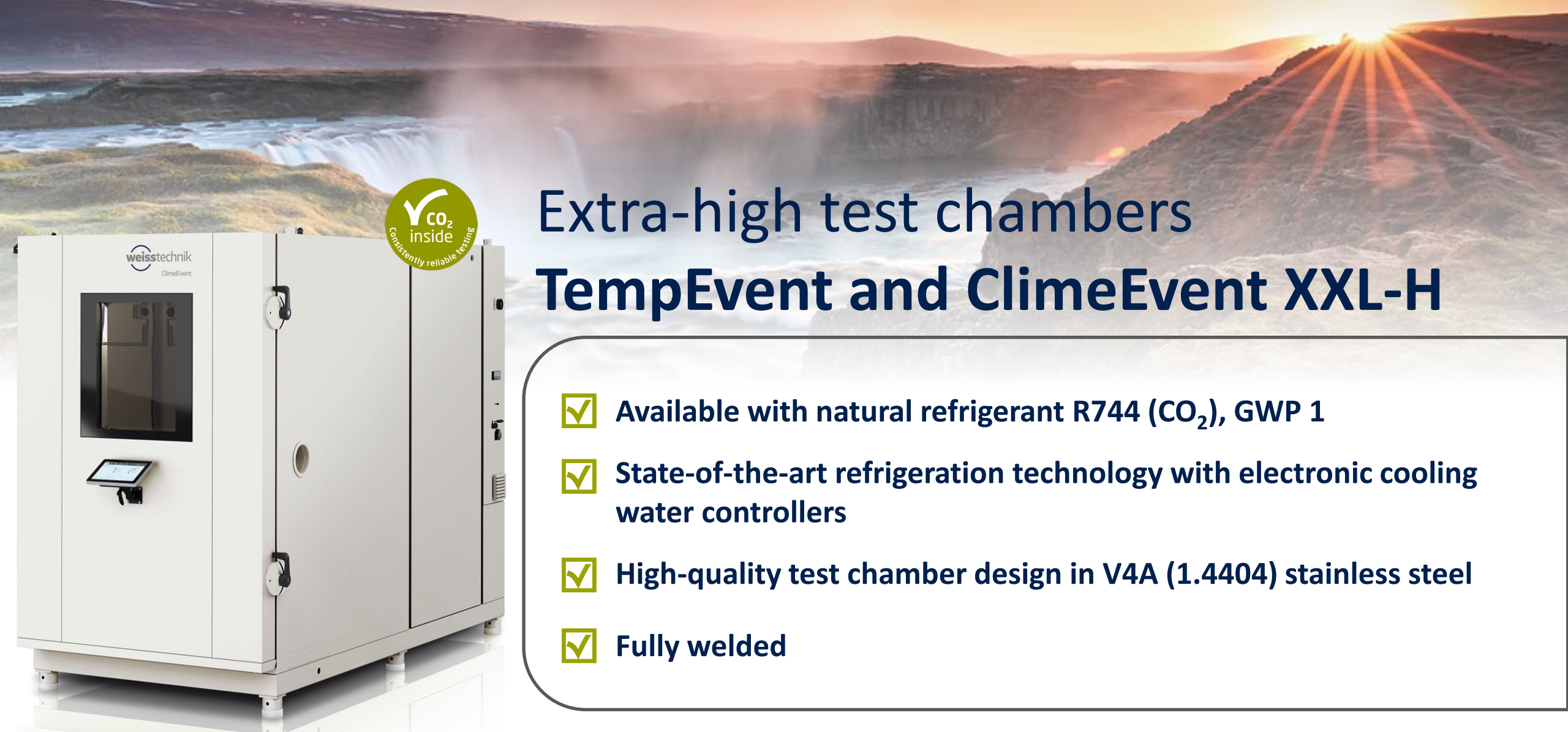
Humidity range

-10...+60 °C

Temperature range

10...48 °C

Dew point range



Extra-high test chambers TempEvent and ClimeEvent XXL-H

- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ State-of-the-art refrigeration technology with electronic cooling water controllers
- ✓ High-quality test chamber design in V4A (1.4404) stainless steel
- ✓ Fully welded

1600...3400 l

Test space volume

10...98 % r.h.

Humidity range

-50/-70...+180 °C

Temperature range

3...5 K/min

Temperature change rate



Compact temperature chamber LabEvent

- ✓ Optimised for limited space
- ✓ High-precision absolute humidity control
- ✓ Also available for minimal requirements
- ✓ Multi-layer specimen protection

580 l

Test space volume

10...95% r.h.

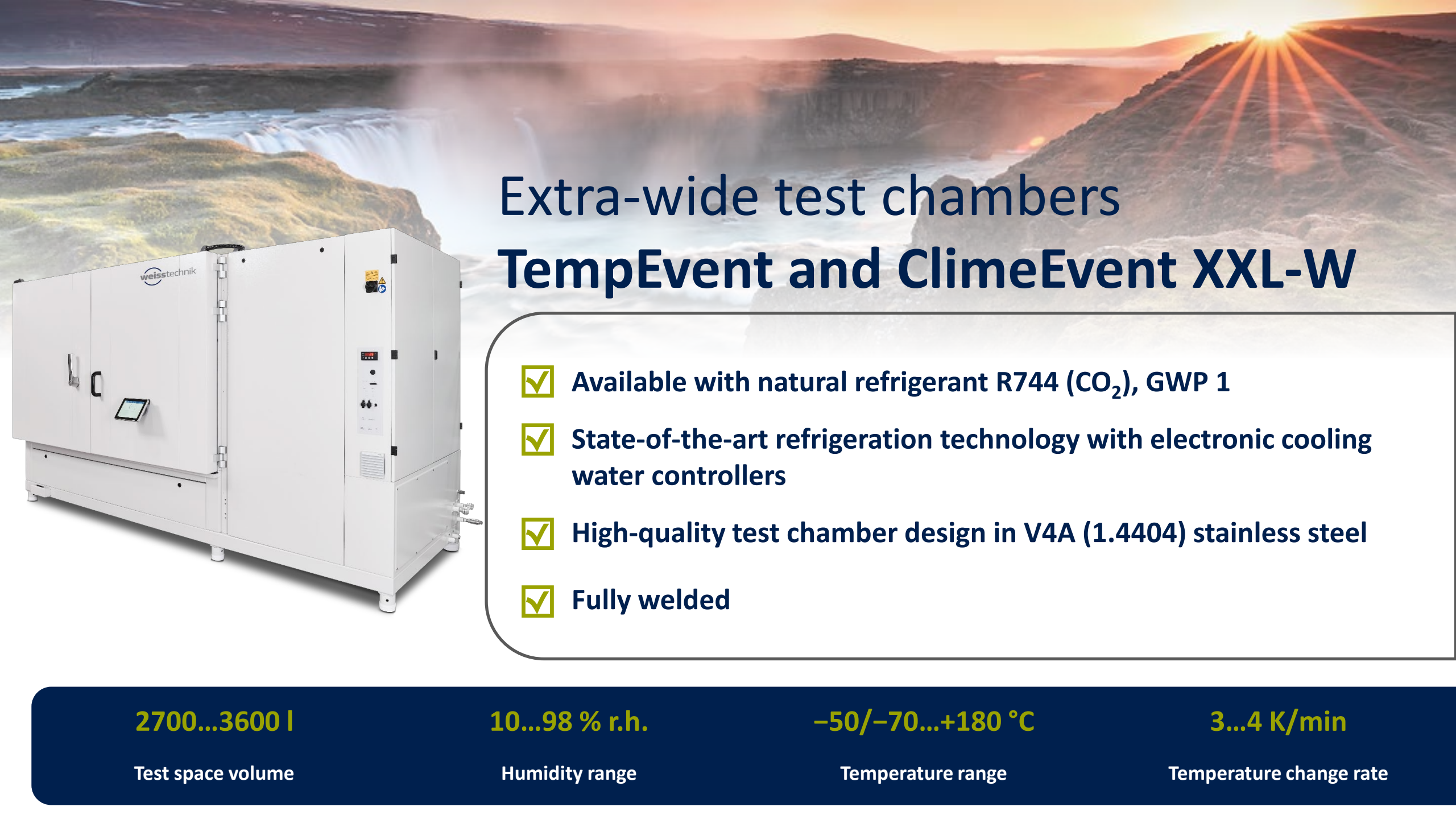
Humidity range

-50...+130°C

Temperature range

-3/4.5 K/min

Temperature change rate



Extra-wide test chambers

TempEvent and ClimeEvent XXL-W

- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ State-of-the-art refrigeration technology with electronic cooling water controllers
- ✓ High-quality test chamber design in V4A (1.4404) stainless steel
- ✓ Fully welded

2700...3600 l

Test space volume

10...98 % r.h.

Humidity range

-50/-70...+180 °C

Temperature range

3...4 K/min

Temperature change rate

Conditioning of external test spaces

Remote unit with piping



- ✓ Basic temperature or climate chamber (TempEvent/ClimeEvent).
- ✓ Temperature control/climate control of external test chambers.
- ✓ Designed for various performance ranges and applications.
- ✓ Modification for special applications, flexible hose configuration.

300...6000 m³/h

Recirculating air flow

20...80 % r.h.

Humidity range of
external test space

-55...+150 °C

Temperature range of
external test space

3...4 K/min

Temperature change rate

Conditioning of external test spaces

Remote machine set (MUR)



- ✓ Based on standardised machine sets
- ✓ Very high-performance levels and strong heat compensation.
- ✓ Long distances with no piping required
- ✓ Custom design for a wide range of applications

1000...3600 l

Test space volume

10...95 % r.h.

Humidity range

-60...+180 °C

Temperature range

up to 10 K/min

Temperature change rate



Walk-in compact chambers TempEvent and ClimeEvent Solid.

- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ On-site installation possible
- ✓ Customisable in depth
- ✓ Perfect solution for simple testing requirements.

9...18 m³

Test space volume

10...95 % r.h.

Humidity range

-40...+80 °C

Temperature range

< 1 K/min

Temperature change rate

Walk-in compact chambers TempEvent and ClimeEvent



- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ State-of-the-art refrigeration technology with electronic cooling water controllers
- ✓ High-quality test chamber design in V4A (1.4404) stainless steel
- ✓ Fully welded

individual

Test space volume

10...95 % r.h.

Humidity range

-50/-70...+180 °C

Temperature range

up to 20 K/min

Temperature change rate

Drive-in special chambers TempEvent & ClimeEvent



- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ State-of-the-art refrigeration technology with electronic cooling water controllers
- ✓ High-quality test chamber design available in V4A (1.4404) stainless steel.
- ✓ Available fully welded

individual

Test space volume

10...95 % r.h.

Humidity range

-50/-70...+120 °C

Temperature range

individual

Temperature change rate

Building material test chest

TempEvent WBT



- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ Robust test chests suitable for a wide variety of building materials.
- ✓ Multiple standard tests available (e.g. freeze-thaw cycling tests).
- ✓ Integrated water reservoir, instantaneous water heater, and circulation pump available

500 and 1000 l

Test space volume

-30...+60 °C

Temperature range

up to 600 kg

Floor load

to 540 mm

Flooding height

Thermal shock testing

Weiss Technik offers comprehensive solutions for thermal shock testing, including the ShockEvent series.

Thermal shock tests simulate rapid temperature changes between two extremes to evaluate the effects on materials and components. These tests are particularly important for the automotive, aerospace, and electronics industries to ensure the reliability and durability of products. They help identify latent weaknesses and extend the service life of products.





Vertical shock

Compact, space-saving chambers for small test objects. Ideal for laboratory and research environments to test the effects of temperature changes on electronic components and materials.



Damper shock

The damper shock test chambers are ideal for vibration-sensitive or active test specimens. The special feature is the fixed test chamber.



Ice-water shock

Ice-water shock chambers enable extremely rapid thermal shock tests, transferring specimens from hot air to ice-cold water within seconds. They are primarily used for quality assurance and development of vehicle components, electronics, and lithium-ion batteries for electric vehicles.



Vertical shock test chamber ShockEvent T

- ✓ Long-term testing with over 1.000 cycles without defrosting
- ✓ Low-vibration and interference-free transition from the hot to the cold chamber
- ✓ Triple test specimen protection for maximum safety
- ✓ Three operating modes selectable: Normal operation, time-optimised operation, energy-saving operation.

60...300 l

Test space volume

-80...200 °C

Temperature range

10 s

Transfer time

+18/-2 K/min

Temperature change rate



Damper shock test chamber ShockEvent D

- ✓ Ideally suited for vibration-sensitive and active test specimens.
- ✓ Cables remain stationary within the fixed test space.
- ✓ Three-zone thermal shock
- ✓ Optimised energy-saving mode

60...300 l

Test space volume

-80...220 °C

Temperature range

10...12 s

Transfer time

< 12...< 15 min.

Temperature recovery time



Ice water shock test chamber ShockEvent IW

- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ Compact design with full startup at the factory.
- ✓ Two test chamber sizes with proven immersion concept
- ✓ Lift basket speed up to 35 mm/s

350...600 l

Test space volume

+25...+180 °C

Air temperature range

0...+4 °C

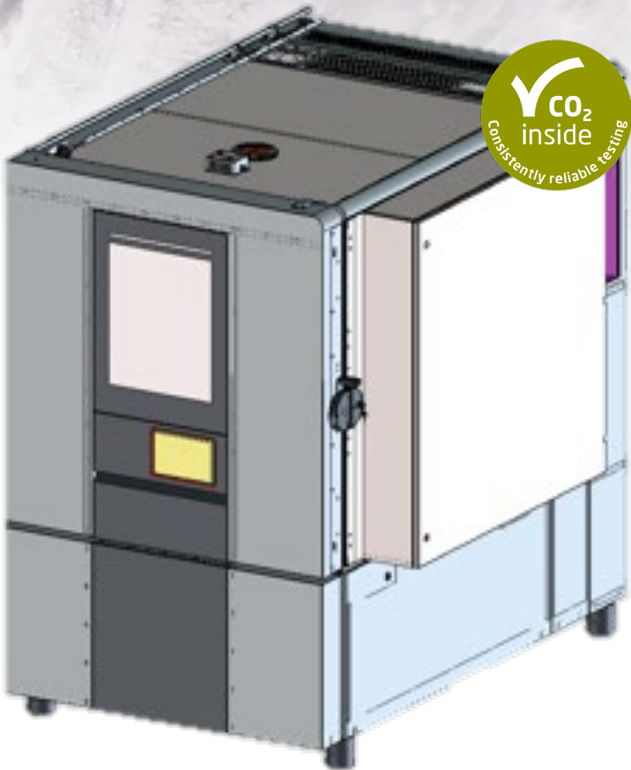
Immersion water temperature range

5...125 l

Specimen volume

Surge water shock test chamber

ShockEvent SW



- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ Two surge water nozzles installed in the test space
- ✓ High load capacity for test items up to 50 kg
- ✓ Also available for testing with Arizona dust

800 l

Test space volume

+25...+140/+180 °C

Air temperature range

0...+4 °C

Surge water temperature range

3 K/min

Temperature change rate

Corrosion testing

With the Ascott brand, Weiss Technik offers comprehensive solutions in corrosion testing.

Corrosion tests simulate the effects of corrosive environments on materials. These tests are particularly important for the automotive, aerospace, and construction industries to ensure that materials and coatings withstand real-world conditions.





Salt spray

The standard models are designed for continuous salt spray testing. The premium models are also equipped with additional functions for performing “modified” tests such as ASTM G85.



Condensation water

Condensation humidity chamber for carrying out tests with 100% saturated air humidity in accordance with ISO 6270-2 CH, ASTM D2247, DIN 50017 KK.



Cyclic Corrosion

Ascott CCT chambers are equipped as standard to generate six different climatic conditions: salt mist, condensation humidity (wetting), forced-air drying, temperature, ambient drying, and controlled humidity.



Cyclic Corrosion with cooling

Atmosfär chambers were specifically developed for fully automated testing in accordance with the demanding test profiles of the world's leading automotive manufacturers, meeting the test standards of FORD, VOLVO, SCANIA, and many others.



Salt spray test chamber

Ascott Standard SiS

- ✓ Perfect choice for ASTM B117, ISO 9227
- ✓ Low stress threshold
- ✓ 7.62 cm (3.5") colour touch panel
- ✓ Easy-to-open pneumatic canopy with automatic air venting.

120...2600 l

Test space volume

AT...50 °C

Temperature range

9 variants

Door available in various colours

over 50 accessories

Extensive accessories available

Salt spray test chamber Ascott Premium SiP



- ✓ For conducting two-part salt spray tests, salt spray as well as drying or humidification.
- ✓ 17.8 cm (7") colour touch panel
- ✓ Compatible with S!MPATI® software
- ✓ Intermittent salt spray function

120...2600 l

Test space volume

AT...50 °C

Salt fog
temperature range

AT...50 °C

Drying
temperature range

AT...50 °C

Condensate humidity
temperature range

Recirculating air corrosion alternating test chamber

Ascott Cyclic CCiP



- ✓ Capability to generate six different climate zones.
- ✓ Central viewing window in the test space door
- ✓ Pneumatic test space door with automatic air extraction.
- ✓ Compatible with S!MPATI® software

450...2600 l

Test space volume

AT...60 °C

Salt fog temperature range

-40 °C...+80 °C

Maximum temperature range
(accessory required).

10...94 % r.h.

Humidity range

Recirculating air corrosion alternating test chamber

Atmosfär ATiP



- ✓ Three models: Lite 20°C or < 0°C, -20°C, or -40°C.
- ✓ Oscillating spray system included for FORD CETP, Volvo, and Scania tests.
- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ Psychrometric humidity control included as standard.

1300...2600 l

Test space volume

-40 °C...+80 °C

Maximum temperature range
(depending on model)

10...94 % r.h.

Controlled humidity range

EU Regulation 2024-573

F-gas compliant

Recirculating air corrosion alternating test device with climate function Atmosfär Premium ATiP



- ✓ Developed to meet a wide variety of corrosion test standards.
- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ Fast-heating system up to 80°C
- ✓ Compatible with S!MPATI® software

1300 and 2600 l

Test space volume

-40 °C...+80 °C

Maximum temperature range
(depending on model)

10...94 % r.h.

Controlled humidity range

5...10 l/m² per 80 cm²

Oscillating spray range

Salt spray test chamber

Corroflex CFS



- ✓ The chamber width can be increased in 0.5 m increments from 1.5 m to 4 m
- ✓ Perfect solution for testing large samples
- ✓ High load capacity for large test items up to 500 kg
- ✓ Fully automatic hood with air purging system

1600...6400 l

Test space volume

1 m...1.5 m

Available in two depths

AT...50 °C

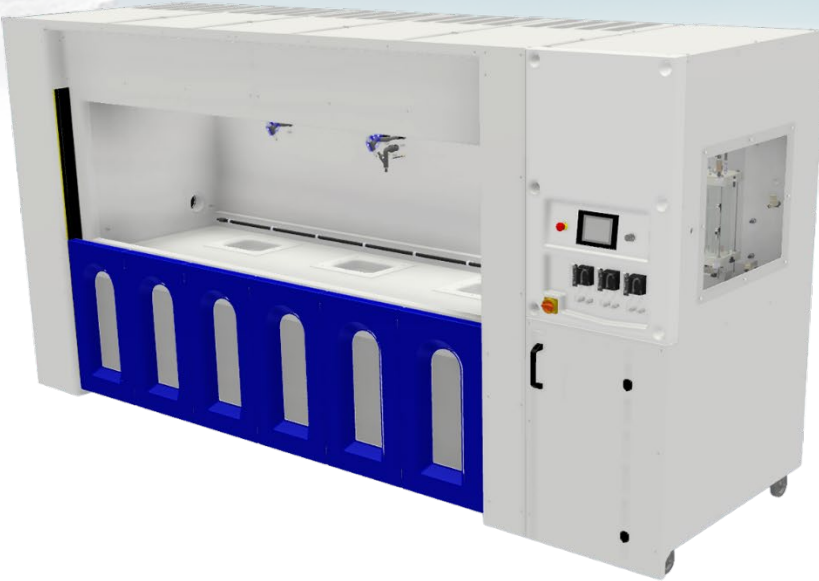
Temperature range

9 variants

Door available in various colours

Salt spray test chamber

Corroflex Premium CFSP



- ✓ Two-part salt spray tests including drying or humidification.
- ✓ 17.8 cm (7") colour touch panel
- ✓ High load capacity for large test items up to 500 kg
- ✓ Five functions included as standard: salt spray test, drying, humidification, temperature control, and drying at ambient temperature.

1600...6400 l

Test space volume

1 m...1.5 m

Available in two depths

AT...50°C

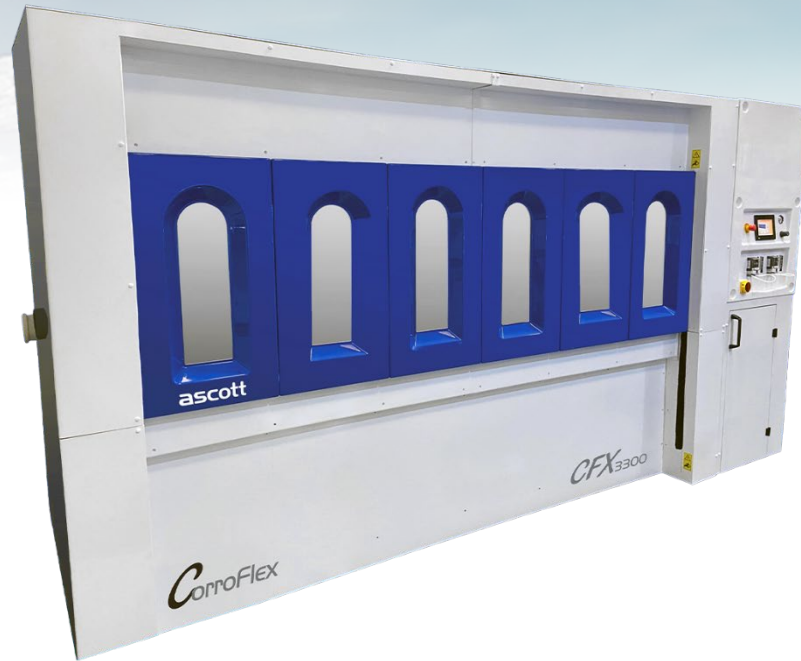
Temperature range

over 150 accessories

Extensive accessories available

Salt spray test chamber

Corroflex Cyclic CFX



- ✓ High load capacity for large test items up to 500 kg
- ✓ Available with natural refrigerant R744 (CO₂), GWP 1 (down to -40°C)
- ✓ Compatible with S!MPATI® software
- ✓ Six operating modes available: salt mist, humidification, drying, controlled humidity, drying at ambient temperature, and temperature control

1600...6400 l

Test space volume

1 m...1.5 m

Available in two depths

-40 °C...+80 °C

Maximum temperature range
(depending on model)

10...94 % r.h.

Controlled humidity range

Condensation water test chamber Alpha+ H



- ✓ Precise temperature control within 1°C
- ✓ High humidity without a recirculation air fan
- ✓ Single temperature setting or cyclic switching between two different temperatures for a user-defined time period
- ✓ Automatic filling and refilling of the humidification water tank

500 and 1000 l

Test space volume

100 % saturated

Humidity range

AT...55 °C

Temperature range

**5 or 7 racks with
30 slots each**

Test specimen holder

Salt spray test chamber Alpha+ S



- ✓ Heated by externally mounted heating mats
- ✓ The Venturi effect ensures even and continuous distribution of the salt mist
- ✓ Can be operated with either a wet or dry base
- ✓ Cost-effective choice for long-term tests under 240 h

500 and 1000 l

Test space volume

90 l

Salt tank capacity

AT...50 °C

Temperature range

**5 or 7 racks with
30 slots each**

Test specimen holder

Salt spray test chamber Alpha+ SP



- ✓ Completely transparent, seamless dome roof for 360° visibility
- ✓ Self-regenerating water separator seal
- ✓ Salt-water supply system based on a peristaltic pump
- ✓ Adjustable precision speed controller

500 and 1000 l

Test space volume

90 l

Salt tank capacity

AT...50 °C

Temperature range

**5 or 7 racks with
30 slots each**

Test specimen holder



Front-loading test chambers

Ultra Compact

- ✓ Available in three models: salt spray, salt spray premium, and cyclic corrosion
- ✓ Compact footprint, ideal for laboratories with limited space
- ✓ Front-loading system for easy sample loading
- ✓ Pneumatically operated door with automatic air purge.

1450 × 769 × 2010 mm

Outer dimensions

115 l

Salt tank included

AT...50 °C

S...IS & S...IP temperature range

AT...60 °C

CC...IP temperature range

Test chamber with SO₂ gas dosing Kesternich



- ✓ Fully automatic SO₂ gas dosing system with 0.2, 1, or 2-litre dosing
- ✓ 17.8 cm (7") colour touch panel
- ✓ Compact, space-saving design for laboratories with limited floor area
- ✓ Chamber hermetically sealed for safety reasons

300 l

Test space volume

1478 × 769 × 2010 mm

Outer dimensions

**floor-standing
or bench-top unit**

Available in two formats

over 100 accessories

Extensive accessories available

Vibration testing

**Our vibration solutions are highly versatile
and can be adapted to specific requirements**

Vibration tests are used to evaluate the resistance of products to mechanical stress caused by vibrations and shocks. They simulate real operating conditions such as those encountered during transport, in vehicles, or in industrial applications. This allows weak points to be detected at an early stage, thereby ensuring the reliability and service life of products.





Compact

Compact vibration chambers with test volumes ranging from 600 to 1700 l. The units are compact, energy-efficient, and ideal for smaller test specimens. The free-standing test space allows both horizontal and vertical movement over the shaker.



Large volume

The large vibration chambers offer an increased vertical travel height. From 4000 l upwards, a double-leaf door is used. These devices are designed for large and heavy test specimens and offer maximum flexibility.



Vibration test chamber ShakeEvent

- ✓ Temperature- and climate-superimposed vibration testing
- ✓ Usable as a stand-alone devices
- ✓ Vertical or horizontal operation
- ✓ Modular connection to all shaker types and manufacturers

600...1700 l

Test space volume

10...95 % r.h.

Humidity range

-70...+180 °C

Temperature range

5...15 K/min

Temperature change rate



Large vibration chamber ShakeEvent

- ✓ Temperature- and climate-superimposed vibration testing
- ✓ Modular connection to all shaker types and manufacturers
- ✓ Large and heavier test specimens possible on shakers up to 100 kN.
- ✓ Closed floor for vertical or horizontal operation.

2200...6000 l

Test space volume

10...95 % r.h.

Humidity range

-65...+150 °C

Temperature range

5...15 K/min

Temperature change rate

IP testing

Our IP testing solutions are highly versatile and can be adapted to specific requirements.

IP tests are used to determine the degree of protection of electrical devices and enclosures against the ingress of solid foreign objects and water. The IP protection class (Ingress Protection) is defined by international standards and provides users with clear guidance on the operating environment and product safety. This allows devices to be selected specifically for indoor or outdoor use as well as for particularly demanding conditions.





Dust test devices

Dust test devices are testing instruments designed to assess the dust tightness of products under realistic conditions. They simulate dusty environments and test whether housings, electrical components, or mechanical parts comply with ingress protection requirements according to international standards such as DIN EN 60529 or ISO 20653.



Water test devices

Spray water test devices are used to test the resistance of products to sprayed and jet water as well as partial immersion. They are essential for verifying IP protection ratings such as IPX3 to IPX6 for spray and jet water and IPX7/IPX8 for immersion tests.

Dust test devices

DustEvent ST



- ✓ Test space floor level with the loading edge
- ✓ Low-noise dust transport without vibrations
- ✓ Flexibility to perform all common dust testing standards
- ✓ S!MPATI® connection and digital data acquisition possible.

1000 and 2000 l

Test space volume

up to 50 kg

Floor load

1...62.5 l

Test specimen volume for vacuum testing

Dust test system

DustEvent MIL



- ✓ Horizontal dust transport in acc. with MIL-STD-810, Meth. 510.7
- ✓ Continuous measurement and control of dust concentration
- ✓ Frequency-controlled recirculation fan
- ✓ Delivery of the system in max. 2 parts (testing system + control cabinet)

600 litre

Test space volume

+20...+70 °C

Temperature range

1,5...9,0 m/s

Air velocity

up to 150 µm

Dust particle size



Spray water test device

WaterEvent SWT

- ✓ Modular design for testing in accordance with IP classes from IPX1 to IPX9K
- ✓ Individually adjustable spacing of the spray nozzles.
- ✓ Flexibility to perform all common spray water test standards
- ✓ S!MPATI® connection and digital flow measurement recording.

1000 and 5800 l

Test space volume

25...35 kg

Floor load

400 × 400 mm

Drip surface IPX1 and IPX2

200...800 mm

Swing pipe radius IPX3 to IPX4K

Emission testing

Weiss Technik offers comprehensive solutions for emissions testing, including emission test chambers such as the EmissionEvent series.

Emission tests evaluate the release of VOC and other harmful substances from materials. These tests are particularly important for the automotive, construction, and furniture industries to improve air quality and ensure compliance with legal regulations.





VOC test chamber EmissionEvent VOC

- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ Static and dynamic testing with or without carrier gas exchange rate.
- ✓ Background emissions reduced to a minimum
- ✓ Air jacket temperature control optimised for VOC testing.

1000 l

Test space volume

5...95 % r.h.

Humidity range

+20...+130 °C

Temperature range

up to +240°C

Desorption temperature



Formaldehyde test chamber EmissionEvent E-WKI

- ✓ Low background emissions thanks to high-quality technical design.
- ✓ Minimal space requirements thanks to compact design
- ✓ Flexibility to perform all common formaldehyde test standards
- ✓ Cooling via on-site cooling water – meaning no refrigerant is required.

1000 l

Test space volume

10...50 % r.h.

Humidity range

+20...+30 °C

Temperature range

up to +100 °C

Desorption temperature



Corrosive gas test chamber

AirEvent Gas

- ✓ Possible test gases: H_2S , SO_2 , Cl_2 and NO_2 (up to four gases simultaneously).
- ✓ Adjustable gas concentration and ventilation in the conditioning chamber.
- ✓ Low pressure and differential pressure monitoring in the conditioning chamber
- ✓ Based on the ClimeEvent C2

120...380 l

Conditioning chamber volume

10...93 % r.h.

Humidity range

+15...+60 °C

Temperature range

3...10 l/h

Ventilation rate

Light/irradiation testing

Weiss Technik provides solutions for light and irradiation testing, including UV test devices and solar simulation chambers.

Light and irradiation tests simulate the effects of UV radiation and other light sources on materials. These tests are particularly important for the automotive, construction, and plastics industries to assess the resistance of materials to sunlight and artificial lighting.



Weiss Technik solutions for **light and irradiation testing**.



Reach-In

Larger chambers for medium-sized test objects. (Test space volume from 200 to 3600 Litres). Frequently used in the automotive, electronics, and aerospace industries to test reliability and performance under various conditions.



Drive-In

Very large chambers capable of accommodating entire vehicles. (Construction site assembly). Used primarily in the automotive industry for comprehensive testing of complete vehicles.

Solar simulation test chamber

SunEvent Sun



- ✓ Available with natural refrigerant R744 (CO₂), GWP 1
- ✓ High reproducibility through stable irradiation homogeneity.
- ✓ Control of irradiation intensity
- ✓ Light-optimised test chamber design

340...3600 l

Test space volume

800...1200 W/m²

Irradiation intensity

< 5 %

Irradiation homogeneity

DIN 75220, MIL-810,....

Spectrum based on



Light/irradiation test benches

Customer-specific

- ✓ Custom irradiation solutions at the highest technical level.
- ✓ Special solutions for ATEX, military, automotive, and photovoltaic applications.
- ✓ Test spectra for sea level, atmosphere, and outer space.

individual

Chamber size

55...1200 W/m²

Irradiation intensity

5...15 %

Irradiation homogeneities

280...3000 nm

Test spectra

Material testing

Weiss Technik offers comprehensive solutions for material testing, including tensile and hardness testing equipment.

Material testing includes a wide range of tests such as tensile, hardness, and bending tests. These tests are particularly important for the automotive, construction, and aerospace industries to evaluate the mechanical and physical properties of materials.





Testing of extreme scenarios

Explosion-proof test chamber designed for testing extreme scenarios (safety tests for batteries, electronic components, hydrogen).



Material test

Temperature or climatic test chamber specially developed for conducting material tests such as tensile testing under controlled climatic conditions.



Explosion-proof test chamber ExtremeEvent

- ✓ Extreme test events (battery, electronics, hydrogen).
- ✓ Tertiary explosion protection (ATEX), fire- and pressure-resistant test space.
- ✓ Patented reversible pressure relief system
- ✓ Modular design (temperature control, testing machine, additional options).

1000 l

Test space volume

1 bar; 0.5 bar·m/s

Pressure limit

up to 1000 kN

Force range of testing machine

–40...+200 °C

Temperature range



Material test chambers

TensileEvent

- ✓ Suitable for a wide variety of material testing applications.
- ✓ Humidity control can be integrated for very high humidity levels.
- ✓ Customisable dimensions for any material testing machine.
- ✓ Steam-tight welded stainless steel interior for maximum hygiene and stability.

25...260 l

Test space volume

-70...+180 °C

Temperature range

30...95 % r.h.

Humidity range

+10...+79 °C

Dew point temperature range



S!MPAC®

Standard equipment with the **S!MPAC®** measurement and control system.

S!MPATI®

S!MPATI® control software ready to meet the requirements of Industry 4.0.

S!MPATI® *time labs*

Visual documentation system **S!MPATI® *time labs***.

WEBSeason®

The innovative **WEBSeason®** user interface creates new dimensions of flexibility and efficiency.

ESD protection for your test chambers.

Test chambers with ESD option prevent damage caused by electrostatic discharge.

ESD options are available for all Weiss Technik test chambers in the LabEvent, ClimeEvent, and ShockEvent series. These are available with test chamber volumes ranging from 20 to 1500 l as well as in various designs and performance classes. In addition, there are special versions designed to customer specifications (e.g. mobile models).



EMV protection for your test chambers.

Precise results without electromagnetic interference.

Maximum safety for your testing processes – with EMC protection from Weiss Technik. Our test chambers are designed to reliably shield against electromagnetic interference while not producing any disruptive emissions themselves. This ensures precise, reproducible results – even when testing sensitive electronic components. EMC protection is the perfect solution for industries such as automotive, aerospace, and medical technology, where maximum reliability and compliance with standards are essential.



RetroFit

Customised service programme for all systems that have been in operation for 10 years or more.

Particular attention is already paid to preventive measures to avoid failures and unforeseeably high consequential costs from the outset.

Our range of RetroFit services is extensive. The range extends from small touch panels and refrigeration technology in cooling circuits to integrated complete solutions for energy optimisation.



Explosion protection according to ATEX

**Our temperature and climate test devices are
classified under Equipment Group II in accordance
with Directive 2014/34/EU.**

The primary measure in explosion protection is primary explosion protection. Secondary explosion protection is applied when primary explosion protection does not provide sufficient safety or cannot be implemented. Tertiary explosion protection is only considered when both primary and secondary explosion protection demonstrably cannot be applied.



ATEX

DAkkS calibration laboratories in Reiskirchen and Balingen

The accreditation confirmed our expertise for calibrations in the area of temperature and humidity.

We perform on-site calibrations of temperature and climate test chambers as well as thermometers, thermocouples, and relative humidity sensors in accordance with DKD-R 5-7, DKD-R 5-1, DKD-R 5-3, and DKD-R 5-8 guidelines. All details on the measured variables, measuring ranges, and measuring methods can be found in the accreditation certificate.



CO₂ refrigeration technology

Innovation in environmental simulation

- CO₂ (R744) as a natural refrigerant replaces F-gases such as R449A.
- Achieves test chamber temperatures down to –50°C
- Increased cooling capacity at –40°C – a critical point for many test standards.
- Not affected by F-gas regulation: no quota system, GWP=1.
- **Benefits:** cost-efficient, quiet operation (< 50 dB), sustainable, easy to retrofit.
- Applications: all test chamber types, 20 l to over 50 m³.



Customised adaptations

Nothing suitable in the price list or specific customer requirements?

Certain applications place highly variable demands on the test chamber. Standardised options may not meet these requirements. Almost any requirement can be met through discussion. This is where our specialists come in – with their wealth of knowledge, our Technical Sales team can actively contribute to discussions and find a solution.



Battery Testing

Decades of experience in safety equipment for battery testing.

- Proven and certified safety system
- Modular system adaptable to specific requirements
- Hazard level 1–7 available
- Optionally combinable with ATEX (e.g. if the battery emits hydrogen).
- Collaboration with partners
- Solutions for contacting test specimens
- Can be combined via interfaces with cyclers, water-glycol cooling, and more.





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