



Fascination Environment ... Solutions without Limits

Test Systems for Quality Control



Weiss Umwelttechnik GmbH
Simulationsanlagen • Messtechnik



Our Experience – your Security



Weiss Umwelttechnik GmbH is one of the most important producers of standard test devices and special test systems for environmental simulation technology worldwide.

The range of products comprises systems for simulating exposure to weather as well as systems for temperature, temperature shock and corrosion tests in all test chamber volumes for applications in research, development, quality assurance and production.

Our efficient after-sales service ensures optimum support for our customers as well as high degree of reliability of operation of the systems.

Decades of experience in the various fields of application as well as the intensive exchange of views with our customers from all over the world ensure a good co-operation.



Temperature and Climate Tests ...



Temperature Test Chamber WT3 and Climate Test Chamber WK3

are efficient series devices of the latest generation for temperature and climate tests – powerful devices with high ease of use.

As one of the leading manufacturers of environmental simulation equipment Weiss Umwelttechnik sets standards with the development of those test chambers.

Test space volumes: 190 to 1,540 l

Temperature range: -75 to +180 °C

Humidity range: 10 to 98 % r.h.

Environmental Effects Calculable ...



Constant Climate Worlds ... Climate Test Chambers WK 111 Series

For reproducing the various seasons and world climate zones, in particular for long-term and accelerated stability tests.

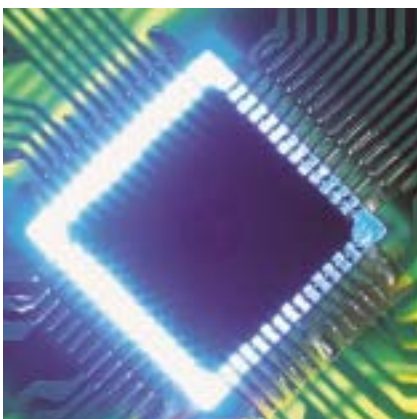
Test space volumes: 190 to 1,540 l
Temperature range: -10 (+10) to +90 °C
Climate range: +10 to +90 °C
Humidity range: 10 to 98 % r.h.



Temperature Test Chambers WT

Economical series devices which are especially applied for temperature tests without particular demand on the temperature change rate. They are equipped with everything which is required to perform temperature tests in extreme ranges complying with the relevant standards.

Test space volumes:
64, 120, 240, 450 l
Temperature range: -75 to +180 °C



... for all Sizes



Temperature and Climate Test Chamber Model WK-3100/60

This series is characterised by its high design and compact construction for bigger specimens.

Test space volumes: 2 to 20 m³
Temperature range: -70 to +180 °C
Climate range: +10 to +95 °C
Humidity range: 15 to 95 % r. h.

Safety at Top Speed ...

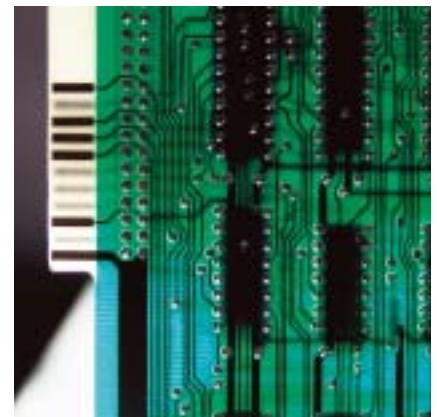


Test Systems for Rapid Temperature Changes Environmental Stress Screening Systems WT/WK

enable the reliability of technical products to be improved by identifying the cause of the defect and enabling controlled rectification at an early stage.

Test space volumes: 190 to 1,540 l*
Temperature range: -70 to +180 °C
Climate range: +10 to +95 °C
Humidity range: 10 to 98 % r.h.
Change rate: 5/10/15/20/25 K/min

* depending on temperature change rate



... and Under More Stringent Conditions



Temperature Shock Test Chamber TS 130

Temperature-shock chambers to meet the exacting demands of thermic test standards in the electronic industry, where within a few minutes the test items are exposed to temperature changes of between -80 to +220 °C.

Test basket volume: approx. 130 l
Hot chamber: approx. +60 to +220 °C
Cold chamber: approx. -10 to -80 °C
Time for changing: <10 seconds

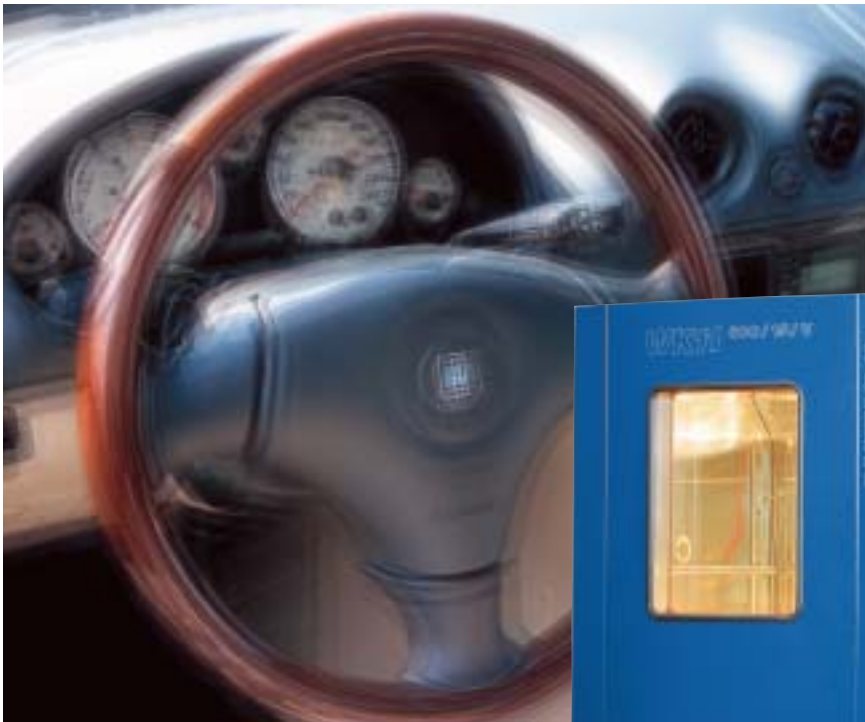
NEW

Temperature Shock Test Chamber TS 60

Test basket volume: approx. 60 l
Temperature range
Hot chamber:
approx. +60 to +220 °C
Cold chamber:
approx. -10 to -80 °C
Time for changing: <10 seconds



Movement for Security ...



Vibration Test Chambers

For simultaneous testing of the influence of vibration, temperature or temperature changes and humidity. With the floor panel closed the chambers can also be used for ESS.

Test space volumes:

600 to 2,160 l

Temperature range:

-40/-70 to +180 °C

Climate range: +10 to +95 °C*

Humidity range: 10 to 95 % r.h.*

* These values apply to closed floor panel.

Detecting Invisible Dangers ...



Fape/+60 Formaldehyde Test Device

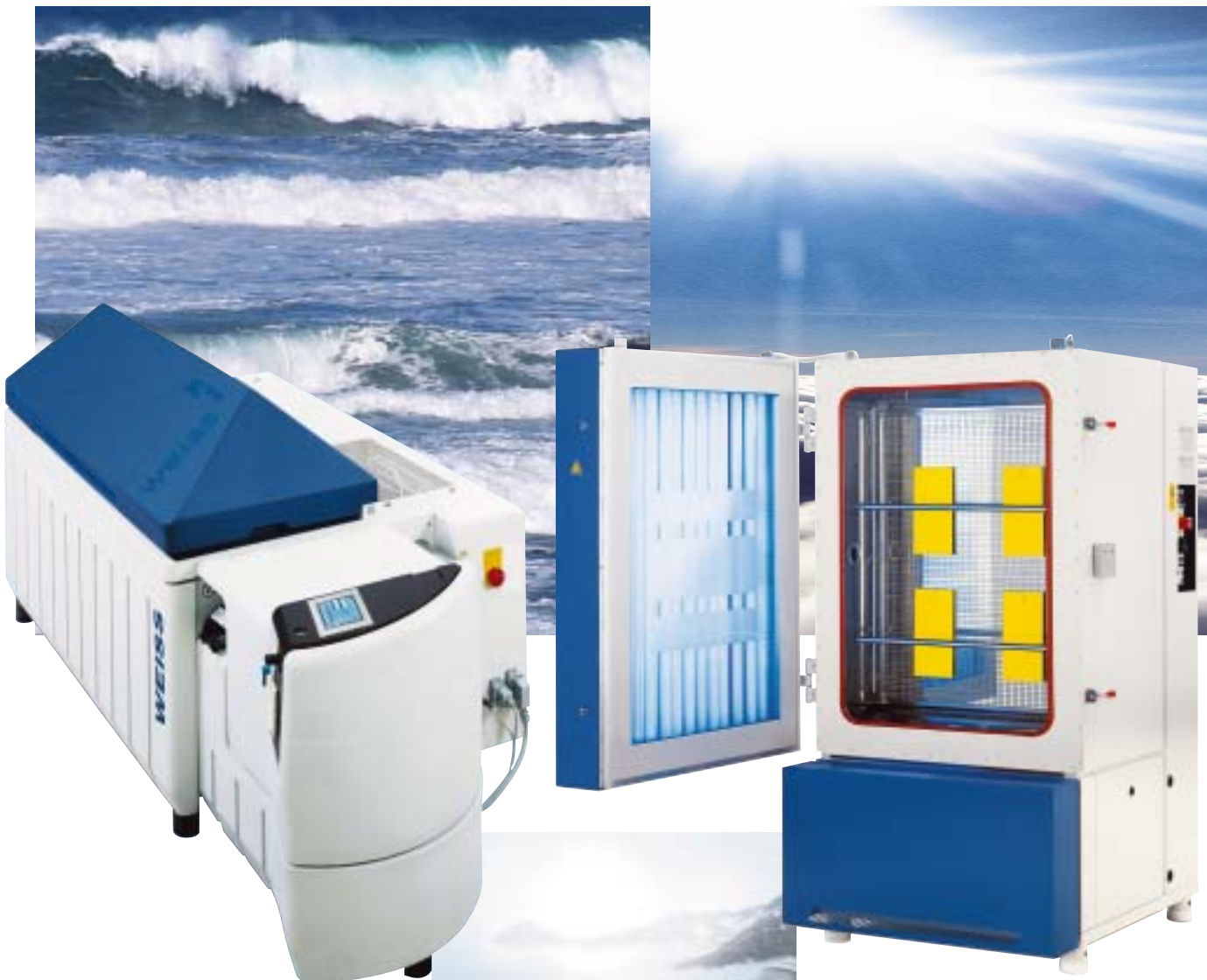
The test installation is used to determine the discharge of formaldehyde by substances which emit formaldehyde. The test requires a precise, reproducible determination of the possible subsequent formaldehyde discharge by wooden materials and components according to the relevant test specifications.



VOC Emission Test Chamber

For components and appliances in the range of 1 to 40 m³ test space volumes.

Special Test Methods ...



Salt Spray Test Chamber / Climate Alternating Unit Series SC/KWT

enable reproducible, time lapsed corrosion tests with salt mist, condensed water and controlled climate. In series, 2 test chamber sizes are available.

Test space volumes: 480, 950 l

Global-UV Test Unit UV 200 System Weiss, Type BAM

Systems for weathering tests with climate, rain or acid rain, in conjunction with global radiation in spectral range from 290 to 450 nm. In this connection the UV portion of the sun and diffuse sky radiation get a specific importance.

Test space volumes: 200 l
Temperature range: -20 to +80 °C
Temperature range with radiation: -10 to +80 °C
Humidity range: 10 to 95 % r.h.

... require Special Systems



„Atlas“ Light Climate Test Chambers

Series SC ... MH and ... MHG

Solar simulation and climate technology unified with an optimum distribution of radiation for practical conditions.

Test space volumes:
340, 600 und 1,000 l
Temperature range
with irradiation: -20 to +100 °C
Humidity range
with irradiation: 10 to 80 % r.h.
Irradiation intensity
Type MH approx. 1,000 W/m²
Type MHG 800 to 1,200 W/m²

Series SC 2000 MH and SC 2000 MHG

Special large-volume test systems
e.g. for complete fittings in the
automotive industry.

Test space volumes: 3,400 l
Temperature range
with irradiation: -20 to +100 °C
Humidity range
with irradiation: 10 to 80 % r.h.
Irradiation intensity
Type MH approx. 1,000 W/m²
Type MH approx. 800 to 1,200 W/m²

M.C.S. with Variable Sizes ...



Walk-in Temperature and Climate Test Chambers of Modular Construction, Series M.C.S.

The walk-in temperature and climate chambers of the WT/WK series were specially developed for large test objects.

The test chamber is available in 5 standardized sizes (8, 12, 17, 22, 27 m³). The machine unit comprises a fan, refrigeration unit, humidification and heating equipment, switch cabinet and system control.

It is completely pre-assembled and tested at the Weiss factory and connected to the installed cel on site.

Thus, the installation time on site is reduced considerably.

Depending on the customers requirements, we can configure the complete system. For configuration purposes, we simply require the following data:

- Desired mode of operation (temperature or climate tests)
- Desired cooling or heating rate
- Desired test chamber size

Special ranges and sizes are possible on request. Please contact us.





Altitude Temperature Test Chamber with 4-wheel-drive Dynamometer and Sunlight Simulation

Altitude test chambers from Weiss Umwelttechnik are specially designed to meet all requirements of the automotive industry and enable to simulate altitude up to 4000 meter above sea level.

In combination with temperature and climate simulation, nearly all possible tests are feasible independently of location and season.

Main assemblies:

- Steel chamber with insulation cell
- Air lock
- Temperature conditioning
- Fresh air and exhaust system
- Head wind fan
- Road simulator
- Sunlight simulation

The control system with connected process visualisation allows to enter all required operation modes and setpoints clearly represented:

Altitude:

Sea level to 4,000 m (13,123 ft)

Temperature range:

-40 to +80 °C (-40 to 176 °F)

Humidity Range: 10 to 95 % r.h.

Head wind:

until 180 km/h (115 mph)

Road Simulator:

until 250 km/h (160 mph)

Sunlight Simulation:

until 1,000 W/m²

Worst Condition for Tests ...



Dust Testing Equipment and Systems

For protection code testing (IP-code) in a dust-laden atmosphere according to IEC and DIN regulations.

The systems can be equipped with an underpressure device so that the dust not only settles on the entire specimen but can also ingress into the specimen.

Test space volume: 1m³



Spray and Splash Water Testing Equipment SWT

For performing reproducible tests for testing of the protection of housings/enclosures against ingress of water during development and quality control.

... by Communication Without Limitation

The system control software SIMPATI* enables optimum operation of your environmental simulation and oven systems for performing tests in the fields of research, development and production.

The operation of test systems becomes easy and time-saving. The integrated monitoring routines enhance the reliability of the systems.

You decide to what extent and how frequently monitoring routines are carried out. The evaluation and documenting of testing procedures and the integration of your special measuring data guarantee a high standard of quality.

SIMPATI* networks testing systems with a PC. The archiving of all parameters of chamber configurations is thus ensured.

Thanks to user-friendly operation and self-explanatory menu guiding no menu training is necessary.

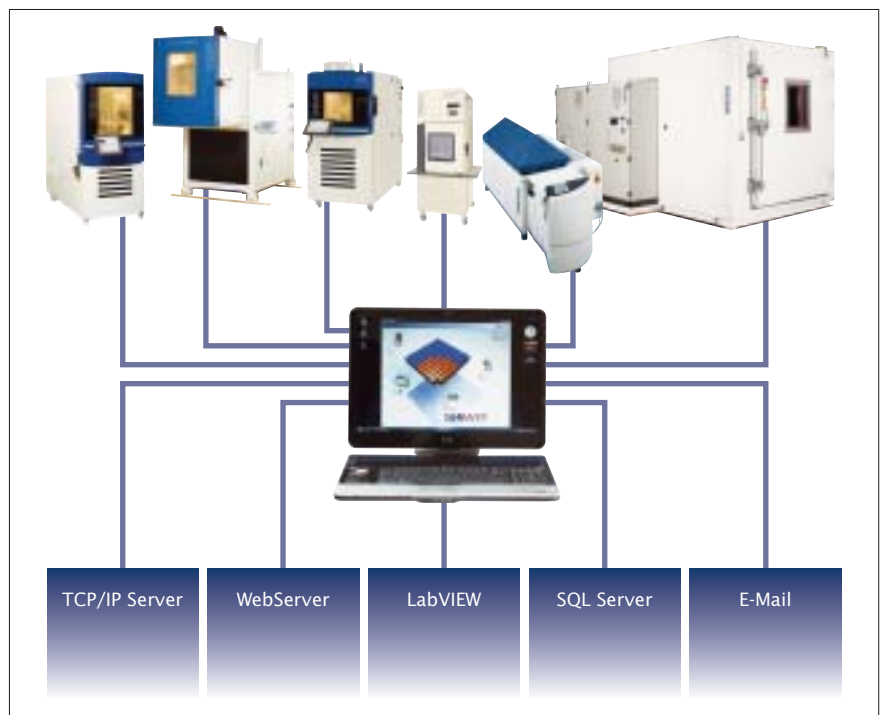
Online-help responds to any questions that you may have.

SIMPATI* integrates itself into your PC-network and enables the operation with your Internet Browser from other PC's without needing special software.

SIMPATI* manages all system and error messages on the hard disk of the PC. The error report is a clearly laid out function for browsing through the error databases with regard to individual units, default time periods or different error categories.

In addition to the normal messages on the screen and the entry in the report file, e-mails can be generated which are sent to different addresses. Recipient of such an e-mail may be the PC in the office, an operation and control centre or a mobile telephone.

SIMPATI* uses an existing mailserver and supports SMTP.



Test systems for professionals. Test the best ...

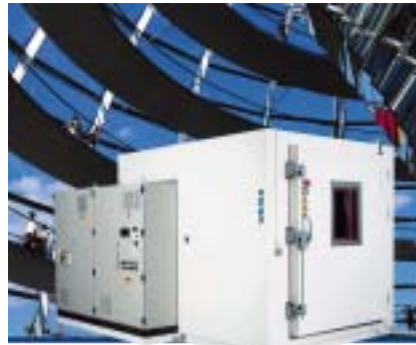


A complete line of systems for temperature and climate testing is available offering test space volumes ranging from approx. 34 l to 2,160 l, working ranges from -75 to +180 °C and from 10 to 98 % r.h.

We also offer an extensive line of field-proven test systems specially for simulating exposure to weather, temperature shock, corrosion and long-time tests for application in research, development, quality control and production.



Of course, Weiss Umwelttechnik – as one of the leading producers of environmental simulation systems world-wide – offers the entire spectrum of high-tech test systems starting from a series of cost-effective test systems up to customised walk in chambers and in-line systems as per customer specifications. If it's know-how, service and reliability that you are looking for – contact Weiss Umwelttechnik.



Further information on specific themes covered by this overview is of course available and we shall be pleased to send you detailed brochures on request.

Further information, offices in Germany, subsidiaries and representatives worldwide are available at

www.weiss.info



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