weisstechnik®
a schunk company

Test Chambers for Combined Testing with Vibration ShakeEvent

Illustration is similar, contains options

weisstechnik vötschtechnik NEURTEK instruments

www.weiss-technik.com

Test whatever you like.

From gearwheels to circuit boards – in research, development and quality control, you won't want to take any chances. We'll support you.

Good vibrations.

In real-life operation, many components, and especially those in the automotive and aerospace sectors, are exposed to intense vibrational forces. Often with extremely rapid temperature changes in very different climates. Our Vibration Test Chambers ShakeEvent allow for the precise simulation of dynamic processes in combination with thermal-climatic loads acting on components and devices. This allows you to investigate stress limits in advance to ensure safe driving or flying operations. Reproducible, certified and under accelerated conditions.

Lots to test? No problem!

When testing your products, you have to adhere to numerous testing 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.

Test Chambers for Combined Testing with Vibration ShakeEvent.

Precisely engineered.

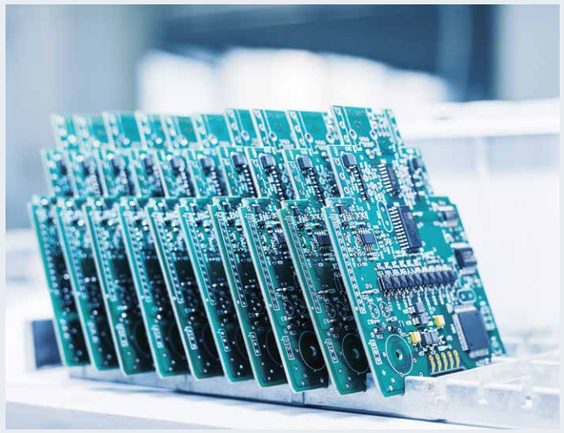
We know what matters for your tests: reliable, precise and reproducible results. That's why we design our test chambers to meet exactly these demands. Because incorrect results lead to incorrect conclusions. With your needs in mind, we already eliminate any interference factors during the design phase,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

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.



Highlights at a glance:

- New, eco-friendly refrigerant
- Optimised airflow and temperature distribution
- Web-based user interface **WEB**Season®

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

More equipment, right from the start.

Basic equipment setting standards.

Illustration is similar, contains options

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

Exterior

- **Move safely into the future – using the new refrigerant**
  The new refrigerant R449A is used in all Vibration Test Chambers ShakeEvent. 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.

Interior

- **Art of engineering for better performance**
  With its modular device structure, ShakeEvent is ideal for many vibration systems. The test chamber is adapted to the respective height of the shaker.
- **No chance for dirt or corrosion**
  The test space is easy to clean thanks to its special welding, smooth surfaces and rounded corners.

Regulation & Control

- **Into the age of connectivity – with WEB**Season®
  You can use the innovative user interface **WEB**Season 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, **WEB**Season provides a new dimension of flexibility and efficiency.

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

Tailor-made testing.

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Optional equipment for individual solutions.

Exterior

- **Offers completely new possibilities**
  In its basic configuration, the test space door is hinged on the left; on request, the door can also be hinged on the right. In addition, there are numerous special solutions, such as a motor-operated swing door or a sliding door, all according to your requirements.
- **Mobile and flexible**
  Benefit from the advantages of a mobile test chamber with a vibration system: tracks can be combined in 1.5 or 2.0 metre grid lengths – left and right as well as backwards and forwards.
- **Aim high without effort**
  With the electrical height adjustment system of the test space reaching up to 2.2 metre, you can easily test even extra-tall test specimens.

Interior

- **Test to the full extent**
  Our floor elements with perfectly adapted seals can be replaced manually. You can test in vertical and horizontal excitation directions as well as with a closed floor element and effectively utilise the full range of applications.
- **Optimum protection**
  The constant communication between shaker and test chamber ensures that your test specimens are ideally protected. When the shaker reports a problem, the test chamber simply switches itself off.

Regulation & Control

- **Set standards in communication**
  With the software **S!M**PATI®, operating, documenting and archiving your test sequences is very easy.

Illustration is similar, contains options

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

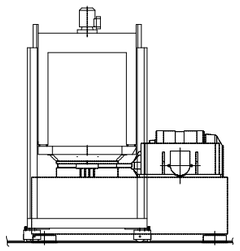
Our innovative Test Chambers are available as **weiss**technik or **vötsch**technik.

**The most energy-efficient device in its class:
ShakeEvent with green**mode® **option.**

Easily passes any test.

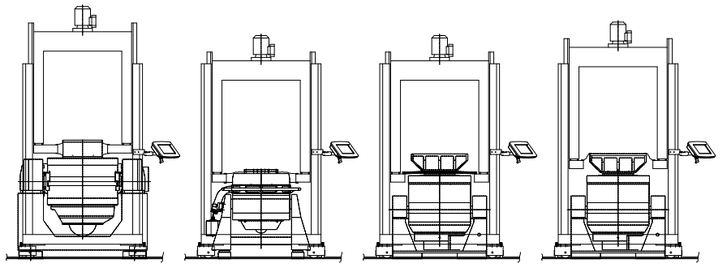
Optimal test arrangement with ShakeEvent.

Horizontal vibration



Slider bed operation

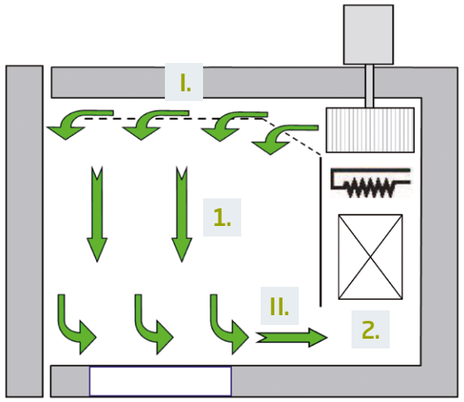
Vertical vibration



Head extender | Direct installation | Head expander | Head expander at floor level

I. Inlet
II. Outlet

1. Test space
2. Air-conditioning room



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.

All options in one device.
Depending on your requirements, ShakeEvent can be used for various tests. From the horizontal test with a slider bed to the vertical test with a head extender, direct installation or head expander up to operation with a closed floor.

It is all a matter of the floor.

- **Floor for vertical vibration**
  With a round or square duct, centred in the test space floor. Heated all around, with vertical sealing.
- **Floor for horizontal vibration**
  With a rectangular duct, off-centre in the test space floor. Heated all around, with horizontal seal.
- **Closed floor**
  Designed without duct. This way, ShakeEvent can be extended to a ClimeEvent for even more extensive testing.

The rotated air guiding makes the difference.
In our Vibration Test Chambers ShakeEvent, the air to be tempered is drawn off at the lower end of the test space, passed through heat exchangers and heater coils and blown in again from the top.

This way, the test specimen is fully surrounded and evenly reconditioned by the tempered air. And the best: this also works in shaker mode. Due to the powerful recirculating-air fans, the shaker has only a minor impact on the reconditioning of the test space.

ShakeEvent is ideally suited for shakers from a wide range of manufacturers.

Impressive technology. Reliable results.

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The performance data at a glance.

Type	Exterior housing dimensions[1], H x W x D	Test space dimensions, H x W x D	Minimum temperature[2]	Maximum temperature	Temperature-changing rate, cooling[3]	Temperature-changing rate, heating[3]	Temperature deviation in time[4]	Temperature homogeneity in space[5]	Temperature gradient[6]	Heat compensation[7], max.	Heat compensation at -20 °C	Minimum temperature[2]	Maximum temperature	Dewpoint temperature range[8]	Humidity range	Humidity constancy in time[9]	Temperature homogeneity in time[4]	Temperature homogeneity in space[5]	Heat compensation[7], max.
	mm	mm	°C	°C	K/min	K/min	K	K	K	W	W	°C	°C	°C	% RH	% RH	K	K	W
PERFORMANCES FOR			**TEMPERATURE TESTS**									**CLIMATIC TESTS**							
with temperature change rate of 5 K/min																			
ShakeEvent T/600/40/5/V	2890 x 1350 x 2950	950 x 800 x 800	-40	+180	5.5	5.0	±0.1 to ±0.8	±0.5 to ±2.0	≤4.0	5000	2000								
ShakeEvent T/600/70/5/V	2890 x 1350 x 2950	950 x 800 x 800	-70	+180	5.0	5.0				5000	5000								
ShakeEvent T/1200/40/5/V	2890 x 1600 x 3300	950 x 1100 x 1100	-40	+180	5.5	5.5				5000	2000								
ShakeEvent T/1200/70/5/V	2890 x 1600 x 3300	950 x 1100 x 1100	-70	+180	4.5	5.5				5000	5000								
ShakeEvent T/2200/40/5/V	3050 x 1830 x 3520	1100 x 1400 x 1400	-40	+180	6.0	6.0	±0.3 to ±0.8			5000	2000								
ShakeEvent T/2200/70/5/V	3050 x 1830 x 3520	1100 x 1400 x 1400	-70	+180	6.0	6.0				5000	5000								
ShakeEvent T/4000/40/5/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-40	+150	5.0	5.0				5000	2000								
ShakeEvent T/4000/70/5/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-70	+150	5.0	5.0				5000	5000								
with temperature change rate of 10 K/min																			
ShakeEvent T/600/40/10/V	2890 x 1350 x 2950	950 x 800 x 800	-40	+180	12.0	9.5	±0.1 to ±0.8	±0.5 to ±2.0	≤4.0	8000	3000								
ShakeEvent T/600/70/10/V	2890 x 1350 x 2950	950 x 800 x 800	-70	+180	10.5	9.5				8000	8000								
ShakeEvent T/1200/40/10/V	2890 x 1600 x 3700	950 x 1100 x 1100	-40	+180	11.5	11.0				8000	3000								
ShakeEvent T/1200/70/10/V	2890 x 1600 x 3700	950 x 1100 x 1100	-70	+180	10.5	11.0				8000	8000								
ShakeEvent T/2200/40/10/V	3050 x 1830 x 3900	1100 x 1400 x 1400	-40	+180	10.0	11.0	±0.3 to ±0.8			8000	3000								
ShakeEvent T/2200/70/10/V	3050 x 1830 x 3900	1100 x 1400 x 1400	-70	+180	10.0	11.0				8000	8000								
ShakeEvent T/4000/40/10/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-40	+150	7.0	7.0				8000	3000								
ShakeEvent T/4000/70/10/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-70	+150	7.0	7.0				8000	8000								
with temperature change rate of 15 K/min																			
ShakeEvent T/600/40/15/V	2890 x 1350 x 2950	950 x 800 x 800	-40	+180	17.5	16.5	±0.1 to ±0.8	±0.5 to ±2.0	≤4.0	8000	3000								
ShakeEvent T/600/70/15/V	2890 x 1350 x 2950	950 x 800 x 800	-70	+180	14.5	16.5				8000	8000								
ShakeEvent T/1200/40/15/V	2890 x 1600 x 3700	950 x 1100 x 1100	-40	+180	17.0	16.0				8000	3000								
ShakeEvent T/1200/70/15/V	2890 x 1600 x 3700	950 x 1100 x 1100	-70	+180	14.5	16.0				8000	8000								
ShakeEvent T/2200/40/15/V	3050 x 1830 x 3900	1100 x 1400 x 1400	-40	+180	15.5	15.5	±0.3 to ±0.8			8000	3000								
ShakeEvent T/2200/70/15/V	3050 x 1830 x 3900	1100 x 1400 x 1400	-70	+180	15.5	15.5				8000	8000								
ShakeEvent T/4000/40/15/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-40	+150	12.0	12.0				8000	3000								
ShakeEvent T/4000/70/15/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-70	+150	12.0	12.0				8000	8000								
Factory calibration:			ShakeEvent 600/40 and 1200/40: -25 °C and +80 °C ShakeEvent 600/70 and 1200/70: -40 °C and +80 °C ShakeEvent 2200 and 4000: +23 °C and +80 °C																

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The performance data at a glance.

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	mm	mm	°C	°C	K/min	K/min	K	K	K	W	W	°C	°C	°C	% RH	% RH	K	K	W
PERFORMANCES FOR			**TEMPERATURE TESTS**									**CLIMATIC TESTS**							
with temperature change rate of 5 K/min																			
ShakeEvent C/600/40/5/V	2890 x 1350 x 2950	950 x 800 x 800	-40	+180	5.5	5.0	±0.1 to ±0.8	±0.5 to ±2.0	≤4.0	5000	2000	+10	+95	+4.0 to +94.0	10.0 to 95.0	±1.0 to ±3.0	±0.1 to ±0.3	±0.5 to ±1.0	500
ShakeEvent C/600/70/5/V	2890 x 1350 x 2950	950 x 800 x 800	-70	+180	5.0	5.0				5000	5000	+10	+95						
ShakeEvent C/1200/40/5/V	2890 x 1600 x 3300	950 x 1100 x 1100	-40	+180	5.5	5.5				5000	2000	+10	+95						
ShakeEvent C/1200/70/5/V	2890 x 1600 x 3300	950 x 1100 x 1100	-70	+180	4.5	5.5				5000	5000	+10	+95						
ShakeEvent C/2200/40/5/V	3050 x 1830 x 3520	1100 x 1400 x 1400	-40	+180	6.0	6.0	±0.3 to ±0.8			5000	2000	+10	+95						
ShakeEvent C/2200/70/5/V	3050 x 1830 x 3520	1100 x 1400 x 1400	-70	+180	6.0	6.0				5000	5000	+10	+95						
ShakeEvent C/4000/40/5/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-40	+150	5.0	5.0				5000	2000	+10	+90						
ShakeEvent C/4000/70/5/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-70	+150	5.0	5.0				5000	5000	+10	+90						
with temperature change rate of 10 K/min																			
ShakeEvent C/600/40/10/V	2890 x 1350 x 2950	950 x 800 x 800	-40	+180	12.0	9.5	±0.1 to ±0.8	±0.5 to ±2.0	≤4.0	8000	3000	+10	+95	+4.0 to +94.0	10.0 to 95.0	±1.0 to ±3.0	±0.1 to ±0.3	±0.5 to ±1.0	500
ShakeEvent C/600/70/10/V	2890 x 1350 x 2950	950 x 800 x 800	-70	+180	10.5	9.5				8000	8000	+10	+95						
ShakeEvent C/1200/40/10/V	2890 x 1600 x 3700	950 x 1100 x 1100	-40	+180	11.5	11.0				8000	3000	+10	+95						
ShakeEvent C/1200/70/10/V	2890 x 1600 x 3700	950 x 1100 x 1100	-70	+180	10.5	11.0				8000	8000	+10	+95						
ShakeEvent C/2200/40/10/V	3050 x 1830 x 3900	1100 x 1400 x 1400	-40	+180	10.0	11.0	±0.3 to ±0.8			8000	3000	+10	+95						
ShakeEvent C/2200/70/10/V	3050 x 1830 x 3900	1100 x 1400 x 1400	-70	+180	10.0	11.0				8000	8000	+10	+95						
ShakeEvent C/4000/40/10/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-40	+150	7.0	7.0				8000	3000	+10	+90						
ShakeEvent C/4000/70/10/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-70	+150	7.0	7.0				8000	8000	+10	+90						
with temperature change rate of 15 K/min																			
ShakeEvent C/600/40/15/V	2890 x 1350 x 2950	950 x 800 x 800	-40	+180	17.5	16.5	±0.1 to ±0.8	±0.5 to ±2.0	≤4.0	8000	3000	+10	+95	+4.0 to +94.0	10.0 to 95.0	±1.0 to ±3.0	±0.1 to ±0.3	±0.5 to ±1.0	500
ShakeEvent C/600/70/15/V	2890 x 1350 x 2950	950 x 800 x 800	-70	+180	14.5	16.5				8000	8000	+10	+95						
ShakeEvent C/1200/40/15/V	2890 x 1600 x 3700	950 x 1100 x 1100	-40	+180	17.0	16.0				8000	3000	+10	+95						
ShakeEvent C/1200/70/15/V	2890 x 1600 x 3700	950 x 1100 x 1100	-70	+180	14.5	16.0				8000	8000	+10	+95						
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ShakeEvent C/4000/40/15/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-40	+150	12.0	12.0				8000	3000	+10	+90						
ShakeEvent C/4000/70/15/V	4110 x 2830 x 4350	1550 x 1600 x 1650	-70	+150	12.0	12.0				8000	8000	+10	+90						
Factory calibration:			ShakeEvent 600/40 and 1200/40: -25 °C and +80 °C ShakeEvent 600/70 and 1200/70: -40 °C and +80 °C ShakeEvent 2200 and 4000: +23 °C and +80 °C									ShakeEvent 600/40 and 1200/40: +23 °C/50 % RH and +55 °C/93 % RH ShakeEvent 600/70 and 1200/70: +23 °C/50 % RH and +55 °C/93 % RH ShakeEvent 2200 and 4000: +23 °C/50 % RH and +95 °C/50 % RH							

[1]Height: the specifications represent the test chamber in its maximum extended position. For placement at installation site, it may be possible to partially dismantle individual components.
Depth: an additional 1,000 mm must be provided behind the system for maintenance purposes.
Door opening: ShakeEvent 600 = 1,000 mm, ShakeEvent 1200 = 1,300 mm, ShakeEvent 2200 = 1,630 mm, ShakeEvent 4000 = 1,000 mm (electric lifting door).
[2]Temperatures >+5 °C are permitted in continuous operation; temperatures <+5 °C are permitted discontinuously or with additional compressed air dryer.
[3]As per IEC 60068-3-5; on average, measured in supply air.
[4]In the middle of the test space when it is empty and in steady state, without specimen, without heat radiation and without additional equipment, depending on temperature.
[5]Based on the set setpoint; in the temperature range from minimum temperature to +150 °C.
[6]Up to +150 °C according to IEC 60068-3-5:2001.

[7]At +20 °C for temperature tests, at +25 °C to +95 °C and up to 90 % RH for climatic tests.
[8]Only with closed floor element.
[9]In the centre of the treatment space in steady state, without test specimen and without additional equipment, depending on the climate value.

All values are average values of standard devices and refer to an ambient temperature of +25 °C, a cooling water supply temperature of +18 °C and a nominal voltage of 220 V/50 Hz, without test specimen and without additional equipment.

The product needs fluorinated gases for functioning. Depending on the type, it contains refrigerants R449A and R23.

We reserve the right to make any technical changes without prior notice.

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 S!MPATI® 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!

24/7-Service-Helpline:
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Our services – lots of good reasons:

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

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

Unlimited testing.

Test chambers for all requirements.

We provide a wide range of systems and devices for environmental simulation. Whether you are carrying out temperature, climate, vibration, corrosion, emissions, altitude, pressure or combined stress testing, we have the right solution and can supply systems in all sizes. From series products right through to customer-specific, process-integrated systems. The choice is yours. For excellent reproducibility and precise test results.

You can find further information on
www.weiss-technik.com

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.

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.

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.

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.

Weiss Umwelttechnik GmbH
Greizer Straße 41-49
35447 Reiskirchen/Germany
T +49 6408 84-0
info@weiss-technik.com

Vötsch Industrietechnik GmbH
Environmental Simulation
Beethovenstraße 34
72336 Balingen/Germany
T +49 7433 303-0
info.voetsch@weiss-technik.com

www.weiss-technik.com

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