

# Corrosion Test Chambers SaltEvent



# Test whatever you like.

From boot to bonnet - in research, development and quality control, you won't want to take any chances. We'll support you.

# Perfection in performance, equipment and design.

## Corrosion Test Chambers SaltEvent.



#### Corrosion firmly under control.

High humidity, salty air, sea water and road salt – many small and large everyday objects are exposed to corrosive influences. Corrosion does not just affect base metals but also highly-alloyed, tempered materials, plastics and painted surfaces. Corrosion resistance is an important quality and safety feature for many products. With our corrosion test chambers SaltEvent you can examine the effect of salt spray, condensation water and normal climates – either individually, in combination or automatically. Reproducible, certified and under accelerated conditions.

#### Lots to test? No problem!

When testing4r your products, you must adhere to numerous test standards and carry out long-term tests. This is what our test chambers are designed for. Our production models cover a wide range of applications and satisfy every need. They can also be expanded by numerous extras for special requirements. According to your precise needs.

#### 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 this in mind, we already eliminate any interference factors during the design phase, relying on our comprehensive expertise and decade-long 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 operation. The intelligent, compatible control elements and intuitive user interface guarantee user-friendly 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 ensured:

- Optimal spray mist distribution thanks to a precision two-component nozzle
- Excellent temperature constancy thanks to dual-shell construction with internal thermal insulation and heated compressed air humidifier with tracking control
- Adjustable flow meter and dosing device for spray solution
- Standards-compliant design of test space and hood: the sloping roof prevents condensate from dripping onto the test specimens

# More equipment, right from the start.

SaltEvent SC: basic equipment setting standards.

### Exterior



#### Everything sealed

The hood is hydrostatically sealed to the test space by a circumferential water channel, which is automatically filled with demineralised water and prevents salt mist from escaping – safely and permanently.

#### Interior



#### • Stay flexible

The spray solution required for the tests is stored in a removable, mobile storage tank with a volume of 125 litres. The tank can be easily cleaned and completely replaced if necessary.

#### Test more

The test specimen can be distributed on the insertion rods or the floor grid. The support bars for the insertion rods are adjustable and can be mounted at two heights on the test space wall. This gives you flexibility when placing the test specimens.

## Communication



#### • Networking that fits your needs

Test and diagnosis information are sent to your PC via the Ethernet interface or can be saved to a USB flash drive via the USB interface. Monitoring and control can be carried out from any workplace computer.

## **Regulation & Control**



#### Into the age of connectivity

With the innovative user interface WebSeason you can 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.





Reliable control as standard: Digital measurement and control system for operating and monitoring your chambers.

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



# Tailor-made testing.

SaltEvent SC: optional equipment for individual solutions.







• Fresh air space air can be transported out of the test space.

## Interior



- Measured exactly
- Accurate dosing

## **Regulation & Control**



• Set standards in communication sequences is very easy.

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

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

With the help of a ventilation device according to DIN 50014-5, the corrosive test  $% \left( {{{\rm{T}}_{\rm{T}}}} \right) = 0.012772$ 

The automatic precipitation rate recording measures the corrosive precipitation at up to 8 measuring points in the test space. This gives you a precise display of the mean value of the precipitation rate, which is updated during the test.

The unit can be upgraded with an automatic gas dosing device for testing in a climate of alternating condensed water with an atmosphere containing SO<sub>2</sub> according to DIN 50018. The additional lock prevents the hood from opening during the test.

Thanks to the software SIMPATI, operating, documenting and archiving your test



# Our specialists for alternating corrosion tests.

SaltEvent SC/KWT.

Basic equipment setting standards.



Interior

#### • Always ready

The ventilation device removes the corrosive test space air from the test space. In this way, you can reliably carry out alternating corrosion tests according to VDA 621-415 with the base unit. The installation room does not even need any additional air-conditioning.

#### • Fully automatic

A magnetic valve feeds demineralised water into the compressed air humidifier and fills the bottom tray in the condensation water test according to DIN EN ISO 6270-2. The draining of the water from the test space is also run automatically for you.

### Optional equipment for individual solutions.

#### **Exterior**



#### • Perfect climate

With the climate extension up to 40 °C/93 % RH, the base unit can be made ready for various tests. The humidity is measured in the test space and controlled accordingly.



# Our specialists for alternating corrosion tests with recirculating air.

SaltEvent SC/UKWT.

Basic equipment setting standards.

#### Interior



#### Perfect climate

In controlled climate mode, the air in the test space is conditioned by an air-conditioning unit in recirculation mode. This allows you to achieve very stable environmental conditions and, as a result, a high level of precision during testing.

#### • Fully automatic

A magnetic valve feeds demineralised water into the compressed air humidifier and fills the bottom tray in the condensation water test according to DIN EN ISO 6270-2. The draining of the water from the test space is also run automatically for you.

#### Optional equipment for individual solutions.

#### **Exterieur**



#### Everything in focus

Thanks to the camera, you can always check the status of your test specimens without having to interrupt the test by opening the hood. This saves you testing time and provides greater accuracy in your test results.

#### Interior



#### Brine go

By direct spraying, you can subject your test specimens to an additional toughness test. To achieve this, the spray solution is sprayed directly over the test material by an automatic spray in the test space hood.

#### • More mist

The precipitation rate can be increased from the standard 1.5 ( $\pm$ 0.5) ml/h to 5 ( $\pm$ 1) ml/h with a horizontal collecting surface (80 cm<sup>2</sup>) to meet special test requirements.



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

# Our specialists for alternating climate corrosion tests.

SaltEvent IU/H.

## An all-rounder for all corrosion tests.

The spacious GRP test space with correspondingly wide door opening facilitates the insertion and modification of the test item setups. The built-in refrigeration unit allows a wide range of corrosion test standards and test procedures, as well as temperature and climatic tests, to be carried out safely.

Another highlight: the test space ceiling is designed as a gable roof with a ridge to prevent the test specimens from dripping. This allows our IU/H cabinets to perform additional tests that are not possible with the corrosion chambers.

## Optional equipment for individual solutions.

#### **Exterior**



#### Full view

In this version, the test space door is equipped with a large window to encourage condensation. In addition to the CH and AHT tests from DIN EN ISO 6270-2, the supplementary installations and conversions also allow the VDA 621-415 and VW PV 1210 tests.

#### Interior



#### • Simply automatic

The test specimen is sprayed directly in the test space by means of nozzles on a swivel pipe and allows the automatic running of the Volvo VCS 1027, 1449 or Ford CETP 00.00-L-467 and Volvo STD 423-0014 tests. The brine precipitation is 15  $\pm$ 5 mm/h relative to the test area.



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

# Convincing technology. Reliable results.

The performance data at a glance:

Corrosion Test Chambers SaltEvent			SC 500	SC 1000	SC 1500	SC/KWT 500	SC/KWT 1000	SC/KWT 1500	SC/UKWT 1000	SC/UKWT 1500	1000/15/IU/H	2400/15/IU/H	
Test space volume		I.	504	1028	1450	504	1028	1450	1028	1450	1100	2520	
Test space dimensions <sup>1</sup>	Height with hood	mm	1140	1140	1140	1140	1140	1140	1140	1140	-	-	
	Height without hood	mm	720	720	720	720	720	720	720	720	-	-	
	Height with sloping roof	mm	-	-	-	-	-	-	-	-	1300 <sup>2</sup>	1750 <sup>2</sup>	
	Height without sloping roof	mm	-	-	-	-	-	-	-	-	1000²	1400 <sup>2</sup>	
	Width	mm	875	1670	2460	875	1670	2460	1670	2460	1100 <sup>2</sup>	1090²	
	Width to spraying duct	mm	765	1560	2360	765	1560	2360	1560	2360	-	-	
	Depth	mm	645	645	640	645	645	640	645	640	900²	1500²	
Dimensions of system <sup>1,3</sup>	HxWxD	mm	1370x 2100x980	1370x 2925x980	1370x 3710x980	1370x 2100x980	1370x 2925x980	1370x 3710x980	1370x 2925x1880	1370x 3710x1880	2020x 1300x2730	2465 x 1550 x 4150	
Climate control unit dimensions <sup>1</sup>	HxWxD	mm	-	-	-	-	-	-	910x 2120x900	910x 2120x900	-	-	
Temperature range	Salt spray test		5 K above ambient temperature up to +50 °C										
	Condensed water test		5 K above ambient temperature up to +42 °C							To +50⁴			
	Climate test		-	-	-	-	-	-	+23 °C to +70 °C		+10 to +60		
	Drying/ventilation		-	-	-	-	-	-	To +7	To +70 °C <sup>4</sup> 5 K above ambient temperate		nperature up to +60 °C	
	Temperature test without climate		-	-	-	-	-	-			-15 to	+60 <sup>5</sup>	
Temperature constancy⁴, in time		к				±1			±1 <sup>6</sup>		±1 <sup>7</sup>		
Dewpoint temperature range	Climate test	°C	-	-	-	-	-	-	+12 to +69		+9 to +59		
Cooling/heating rate	Temperature test without climate	K/min	-	-	-	-	-	-	-	-	0,2 <sup>8</sup>	0,21 <sup>9</sup>	
Humidity range	Climate test	% RH	-	-	-	-	-	-	20 t	20 to 98		15 to 95	
	Drying/ventilation	% RH	-	-	-	-	-	-	≤30	≤30 unregulated	-	-	
Humidity deviation, in time	Climate test	% RH	-	-	-	-	-	-	<u>≤</u> ±5				

<sup>1</sup>Tolerances of ±10 mm are possible production-related. <sup>2</sup>Overall dimensions in set-up state. Corrosion test chambers SaltEvent 1000/15/IU/H and 2400/15/IU/H are supplied with additional brine tank (HxWxD in mm = 1300x600x900).

<sup>3</sup>Usable height, usable width and usable depth.

<sup>4</sup>From 5 K above the ambient temperature.

 $^{\rm 5}\textsc{Discontinuous}.$  Prolonged operation below +5 °C may cause the evaporator to ice up.

In these cases, the evaporator must be defrosted by heating it up to 2+10 °C at certain intervals. <sup>6</sup>Temperature constancy during climate tests ±2 K. <sup>7</sup>Temperature constancy during operation without recirculation ±2 K. <sup>8</sup>Between +35 °C and -15 °C, on average, with 20 kg steel, measured at the outlet of the recirculation system. <sup>9</sup>Between +23 °C and -15 °C, on average, without test specimens, measured at the outlet of the recirculation system.

# Our products - your standards.

Corrosion Test Chambers SaltEvent	SC 500 SC 1000 SC 1500	SC/KWT 500 SC/KWT 1000 SC/KWT 1500	SC/UKWT 1000 SC/UKWT 1500	1000/15/IU/H 2400/15/IU/H						
Test modes/operating modes										
Salt spray test	<b>v</b>	<b>v</b>	<b>v</b>	×						
Condensed water test	✓ (Only manually)	<i>v</i>	V	✓ (Only as an option)						
Climate test	-	-	<b>v</b>	V						
Ventilating with compressed air	-	v	Via supply air fan	<b>v</b>						
Automatic change between test modes	-	~	~	~						

#### Our standards finder.

The right one for every test.

Our test chambers are suitable for a wide range of tests. Our service for you: a selection of test specifications and standards covering a wide range of industrial and works standards - offered by our inhouse-developed standards finder on our website.

You can find out which test chambers best suit your needs here:



Compliance with the standard requirements was confirmed by a qualification examination by the institute in accordance with test report No. US 07916/2016.

#### Better than the standard!

With this unit design, we achieve up to 60 % better temperature distribution than that required by DIN EN ISO 9227. Furthermore, the highly accurate temperature and spray distribution creates a very homogeneous test climate with corrosivity deviations of only a maximum of 12 % of the standard specifications.

## Testing on demand.

Inquire today - test next week.

Our extensive pool of stock and rental equipment provides you with a selection of equipment available at short notice. These include temperature and climatic test chambers as well as stability test chambers, corrosion test chambers and temperature shock test chambers.

Just take a look around - your available unit is just a few clicks away:



# We measure ourselves by our service.

We think and act collaboratively service-oriented. With our service teams, we offer sustainable solutions for long-term safe system operation.

# Unlimited testing.

### Test chambers for all requirements.



#### Our services lots of good reasons:

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

Our Service Experts are always near you.

# 24/7-Service-Helpline: +49 1805 666 556

We have a broad range of devices and systems for environmental simulation. No matter whether temperature, climate, vibration, corrosion, emission, altitude, pressure or combined stress testing: we have the right solution for you and deliver systems in all sizes, from series versions to customer-specific, process-integrated systems. For high reproducibility and precise test results.

You too can benefit. Contact us!

#### Professional consulting.

Our experienced experts are ready to support you from the first idea to after-sales service in every step of your project, by telephone or on site.

#### Maintenance and servicing.

We offer different service levels and guaranteed reaction times after the receipt of the fault report. Our full maintenance service provides additional safety with calculable costs.

#### Spare part management.

Many spare and wearing parts are directly available in our warehouse. To further increase operational reliability, selected spare parts can additionally be stocked on site. We would be pleased to advise you further.

#### Instruction and training.

We provide regular trainings covering the application, operation and software of the units. We also offer customer-specific workshops on request at your location.



#### The weisstechnik Product Configurator is here!

Simply configure your very own SaltEvent. The online tool guides you through the configuration of your specific application in just a few steps. Test us!



# 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 For a safe future.



## 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.



## Air Solutions

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.



## Pharmaceutical Technology

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, airlocks and stability test systems.





US SaltEvent/02.2 EN/2023-03

Illustrations may contain options. Subject to technical changes.



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## Test it. Heat it. Cool it.