

Corrosion Testing ...

Vötsch
Industrietechnik



... Salt spray testing systems
and alternating climate testing systems
Series VSC & VSC/KWT

Severe test conditions ...



Salt spray atmospheres such as those prevailing along coastal areas or such as those prevailing on the roads in winter can be easily simulated by assigning our VSC & VSC/KWT series of salt spray testing systems.

The rigorous testing conditions salt spray, condensation water as well as natural conditions not only corrode base materials but also highly alloyed and special materials. Even synthetic materials and paints are adversely affected.

Improve the resistance of your products against saltwater and de-icing salt. Enhance the resisting capability of your products against the corrosive influences of high air humidity and also against the stressing effects of alternating temperatures.

Corrosion resistance does not only mean assurance but is also - when considering rust-proof guarantees - a very important quality characteristic.

In compliance with the requirements of national and international standards, you will possess a sophisticated system that allows you to perform reproducible corrosion tests. A very important feature is the ability of these systems to perform accelerated tests for achieving specific corrosion stress conditions.



In addition to pure salt spray tests, condensation tests have become very significant.

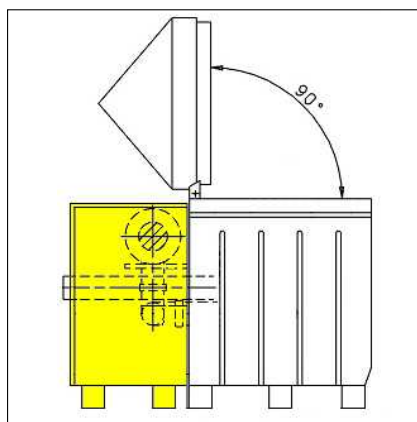
Condensation - with its unpleasant corrosive characteristics - that occurs during changes in temperature, e.g. condensation on cooled surfaces, can be effectively simulated.

Assigning the VSC series the most important corrosion tests can be performed as individual tests (the tests 3 and 4 require some options).

- 1 DIN 50021, IEC 60068-2-11, MIL STD 810, Meth. 509
Salt spray mist test**
- 2 DIN 50017, EN 5017
Condensation water test**
- 3 EN ISO 6988 (DIN 50018)
Condensation water test (containing SO₂)**
- 4 DIN 50014, Abs. 5 / ISO 554
Standard climates
IEC 60068-2-52
Salt spray cyclic**

The VSC/KWT series allows you to combine and automatically perform the above-mentioned tests in any required sequence.





Control Systems

The control and communication system provides the highest possible operating convenience thanks to user interfaces with graphic symbols.

Basis is a high-performance 32 bit (**SIMCON/32-NET**) control system for controlling and monitoring the test system.

SIMCON/32-NET offers an on-board Ethernet port for convenient integration of the system into your computer network.

All operating elements are clearly arranged and easy to operate.

The **colour touchpanel** which we have selected is simply brilliant: Touch and go, a touch is sufficient and the desired functions are activated.

The graphic display of the operating terminal reliably displays set and actual values. Up to 99 freely selectable test programmes can be easily stored and executed.

A optional precipitation evaluation and display system allows the amount of salt solution sprayed to be determined at upto 8 measuring points. The actually average value of the precipitation of individual measuring points is displayed.

Climatic extension pack ...

An optional climatic extension pack for the VSC/KWT 1000 allows cyclic corrosion and controlled temperature/humidity tests as postulated by standards such as:

- PVW 1210 (VW)
- ASTM G85-94 A3
- JASO M 610-92
- Nissan CCT IV



Description of the cabinets

Appearance and design reflect the high quality standard of our modern production technology.

Owing to their application, our systems are entirely made of synthetic materials and are thus corrosion-proofed. The suction strength stabilization ensures constant spraying through an adjustment-free innovative perplex nozzle.

The double shell design with internal thermal insulation minimizes energy consumption. Long-term tests are no problem thanks to the brine tank which can hold 180 litres and the ideal hydrostatic hood gasket.

Perfect and reliable modular technology is the basis for a durable and reliable system.

Our test systems are designed to provide ease of service thanks to perfect features that highly facilitate maintenance and service works.

The loading of large specimens into the 480 l and 950 l systems (larger test space sizes on request) presents no problems thanks to the wide-angle hood that can be opened to 90°.



Technical data, equipment and options ...

Technical data VSC & VSC/KWT

Type		VSC 450	VSC 1000	VSC/KWT 450	VSC/KWT 1000
Test space volume	Litre	480	950	480	950
Temperature range		Salt spray test: 5 K above ambient temperature upto +50 °C Condensation water test: 5 K above ambient temperature upto +45 °C			
Humidity range VSC/KWT				Room humidity/saturation	
Temperature deviation in time	K	±0,3 to ±1		±0,3 to ±1	
Air flow rate during salt-spray test		approx. 1.5 m³/h (at 0 °C and 1 bar)			
Air flow rate during ventilation		-----		7 m³/h (at 0 °C and 1 bar)	
Compressed air		min. 4 bar / max. 10 bar - 1/4 " connection			
Water pre-pressure for humidifier		demineralized water min. 3 bar / max. 5 bar - 3/4" connection			
Brine tank approx.	Litre	180	180	180	180
Weight without brine approx.	kg	180	220	180	220
Test space dimensions	mm	850	1650	850	1650
	Width	850	1650	850	1650
	to spray duct	750	1560	750	1560
	Depth	570	570	570	570
	Height	740	740	740	740
with hood	Height	1190	1190	1190	1190
	Width	1930	2730	1930	2730
	Depth	800	800	800	800
External dimensions	mm	920	920	920	920
	Height	1370	1370	1370	1370
	with hood	1370	1370	1370	1370
Rated power	kW	2.0	2.6	2.0	2.6
Electrical connection		1/N/PE AC 230 V, ± 10 % 50 Hz and 60 Hz			



A testing system for performing alternating tests for corrosion testing in the automobile industry

Options ...

- Storage tank, 200 l or 500 l, for add. salt solution
- Additional nozzle made of acrylic glass as spare part
- Demineralizing unit
- Spare cartridge for demineralization unit
- Compressed air unit
- Precipitation collecting vessel
- Fully automatic acquisition and display of precipitation
- Ventilation device acc. to DIN 50 014, part 5 (only VSC)
- SO₂-gas-dosing device for EN ISO 6988 (DIN 50 018)
- RS 422/485 network card for test cabinet
- Ethernet interface, RJ45
- Software SIMPATI*
- Climatic extension pack for VSC/KWT 1000

Standard ...

- Colour touchpanel
- Micro-processor monitoring and control unit SIMCON/32-NET
- Interface RS 232
- Operating hour counter
- Precision two-liquid nozzle made of acrylic glass
- Storage tank 180 l for salt solution with filling level indication
- 1 specimen holder
- Specimens shelf with 7 bars resp. 15 bars
- Flow meter
- Triangle viewing window
- Calibration in salt spray test (+35 °C test space temperature/ +49 °C humidifier temperature)
- Calibration in condensation water test (+40 °C test space temperature)
- **VSC/KWT only**
Extension to a corrosion cycling test unit (VDA-Test-621-415)

We reserve the right to make alterations in the interest of technical development. Some of the illustrated systems contain optional extras.

Vötsch

Industrietechnik

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