

Minis ...

Vötsch
Industrietechnik



Temperature Test Chambers
Series VT ...

Test Systems for Small Test Specimens ...



Limited laboratory space and the necessity of installing testing systems directly at the workspace are factors demanding compact and silent running equipment. Temperature testing chambers of the mini-series fulfil these requirements at all points.

The aim of a temperature test is to verify the resistance of a specimen to the environmental influence of temperature. The tests are aimed at the suitability for use and storage at low and high temperatures.

In research and development laboratories functionality and usability of a product are determined at a very early stage.

With its mini-series Vötsch Industrietechnik offers the development engineer and quality assurance specialist high efficiency in limited space.

The test chambers VT 4002, VT 4004 and VT 7004 - our **"Minis"** - offer an optimum solution with a test space volume of 16 and/or 37 l when limited space is available.

The temperature range of the VT 4002 chamber is $-40\text{ }^{\circ}\text{C}$ to $+130\text{ }^{\circ}\text{C}$ and the range of the VT 4004 / VT 7004 chamber is -40 or $-70\text{ }^{\circ}\text{C}$ to $+180\text{ }^{\circ}\text{C}$.

Temperature conditioning efficiency renders (see technical data) this compact and yet very quiet series of systems suitable for universal applications.

The test systems have been totally upgraded. Technical improvements for further increase of reliability, performance and operator convenience have been made.

In addition to our „Mini-Family“ our EMC Mini is available.

With this unit we offer an excellent effective electromagnetic shield in combination with the established controlled temperature test chamber.

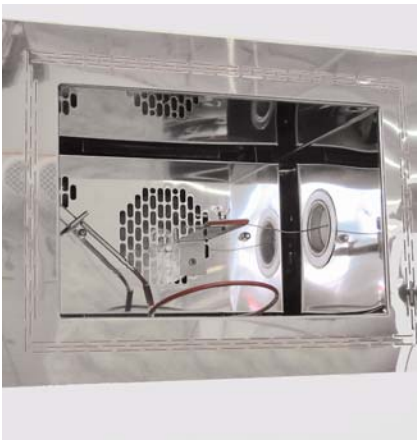
EM-Code xxx55*x

*) up to 3 GHz

(Leaflet EMC Minis VT-E 1/09)



... Mini Test Chambers



The major characteristics of the new minis

- Optically attractive units
- Compact, with optimized test space volume
- Powerful, but however silent within a large temperature range
- Enhanced performance of temperature rates of change
- Energy efficient test system
- Optimized handling
- Entry port 50 mm now serial 5*)

Type		VT 4002	VT 4004	VT 7004
Test space volume	L	16	37	37
Temperature range	°C	-40 / +130	-40 / +180	-70 / +180
Temperature deviation in time ¹⁾	K	±0,3 to ±1	±0.2 to ±0.5	
Temperature homogeneity in space ²⁾	K	±0,5 to ±2	±0.5 to ±1.5	
Temperature rate of change ³⁾				
Heating	K/min	5.0	5.3	5.3
Cooling	K/min	4.0	6.0	4.7
Heat compensation max.	W	240	550	500
Work space dimensions	Width	mm	310	320
	Depth	mm	230	290
	Height	mm	205	400
External dimensions	Width	mm	465	1000
	Depth	mm	518	780
	Height	mm	625	630
Sound pressure level ⁴⁾	dB(A)	<55	<54	<55
Electrical connection	1/N/PE AC 230 V ±10 %, 50 Hz			
Rated power	kW	0.7	0.7	0.9

Performance values refer to +25 °C ambient temperature - ¹⁾ measured in the middle of test space, ²⁾ relative to the set value in temperature range from t_{min} to +100 °C for VT 4002 and from t_{min} to +150 °C for VT 4004 / VT 7004, ³⁾ in accordance with IEC 60068-3-5, ⁴⁾ measured in 1 m distance from the front and in 1.6 m height at free field measurement according to EN ISO 11201.

- IP54 certified switch cabinet
- Serial Ethernet interface
- USB interface with recording function
- For monitoring and controlling the test chamber is equipped

- with a powerful 32 Bit control and monitoring system SIMPAC*.
- The touchpanel offers input and display of values and states.



Standard equipment and options



Touchpanel and independent adjustable temperature limiter

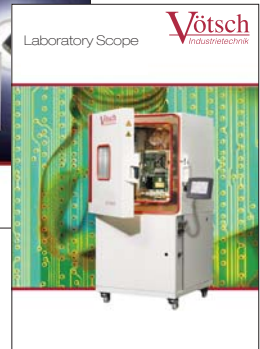
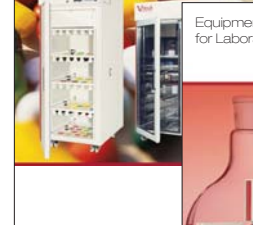


Laboratory table, mobile with drawers (option)

Special designs ...

We plan and manufacture tailor-made solutions to meet all requirements.

Other brochures for laboratory applications ...



Standard equipment

- 32 Bit **SIMPAC*** with touchpanel
- Potential-free contact for switching-off of test specimens
- Independent adjustable temperature limiter t_{min}/t_{max}
- Adjustable software temperature limiter min./max.
- Observation window with test space illumination ^{1*)}
- 1 Entry port ^{2*)}
- Holders for shelf ^{3*)}
- Air-cooled refrigeration unit
- Calibration of 2 temperature values

Options

- Software **SIMPATI***
- Digital I/O ^{4*)}
- Temperature measuring on test specimen ^{4*)}
- Interface RS 232
- Interface IEEE 488
- Networking (RS 485 interface)
- Dehumidification during heating cycle ^{3*)}
- Additional entry ports
- Shelves ^{3*)}
- Door with window and lighting ^{5*)}
- Laboratory table, mobile WxDxH 1000 x 750 x 720 mm
- Special voltage

Legend

1*) For VT 4004 / 7004 option

2*) For VT 4002 NW 50 mm and for VT 4004 / 7004 NW 80 mm

3*) Only for VT 4004 / 7004

4*) For VT 4002 modification

5*) For VT 4002 standard

Subject to technical alterations.
Some of the illustrated systems contain optional extras.

Vötsch

Industrietechnik

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