

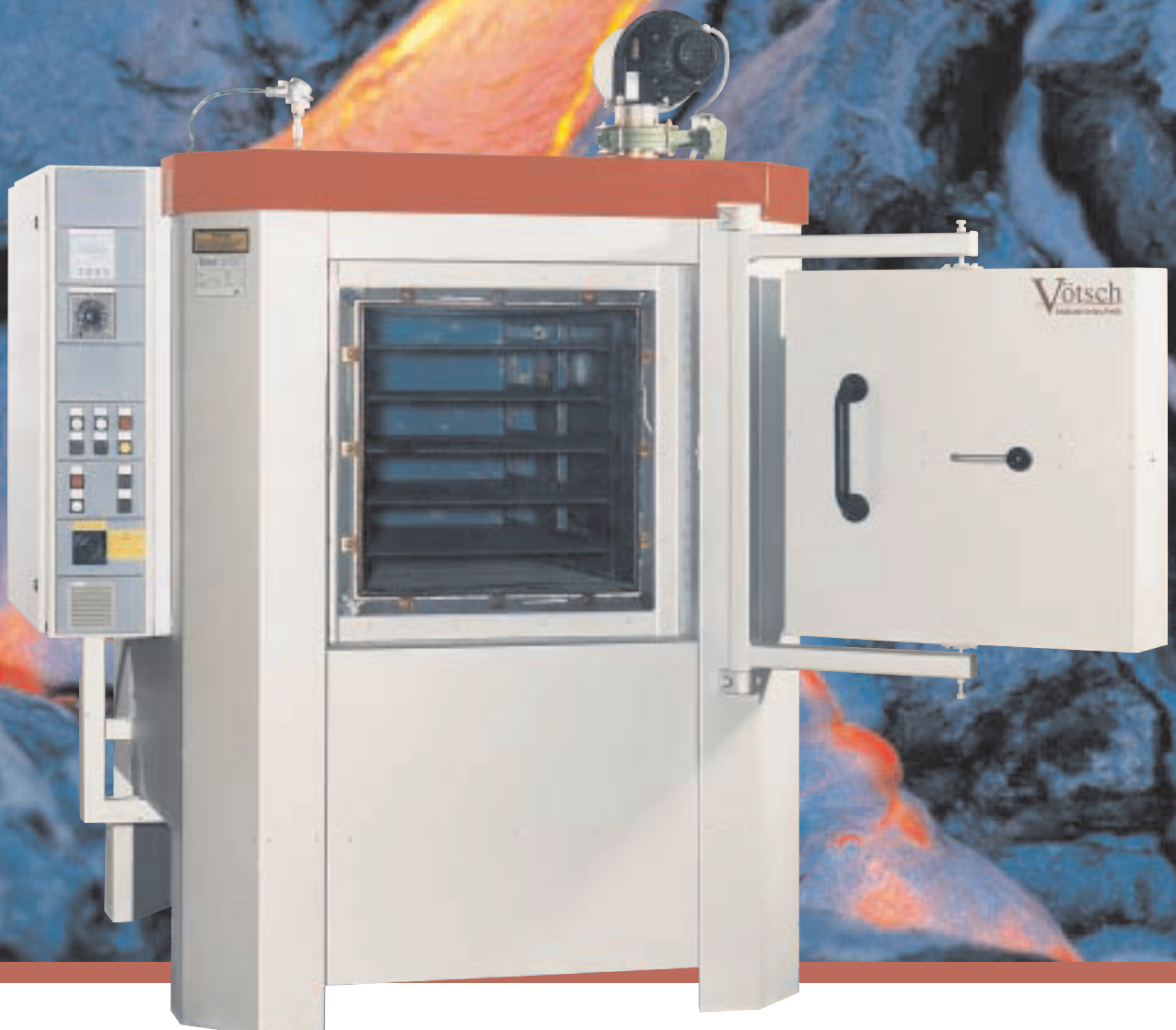
Pretty hot...

Vötsch
Industrietechnik

supplyLAB

www.supplylab.pt
geral@supplylab.pt

Cacém Park - Edifício 9
Estrada de Paço de Arcos nº88
2739-512 Aqualva Cacém
T +(351) 21 4278700
F +(351) 21 4278709



Tempering ovens, series VAW

For use at temperatures up to 750 °C

Universal use up to 750 °C ...

Functioning and Application Advantages ...

The tempering ovens series VAW represent a construction concept which was proved, tested and enhanced over decades and therefore, is suitable for many heat treatment processes on different materials. The nominal temperatures are 500 °C, 650 °C or 750 °C depending on the model in question.

The ovens consist of a double-walled, self-supporting steel plate construction with an insulation material of high-quality mineral fibres. The working chamber is made of heat-resistant material and is welded tight. The oven air is heated using an electrical resistance heater and recirculated by means of a powerful radial fan. The circulated air is routed horizontally through the working chamber.

The ovens are suitable for almost all heat treatment processes, e. g.:

- Tempering and hardening of steel
- Ageing and stress-relieving of metals
- Solution annealing of light metals
- Preheating of metals for the following manufacturing processes
- Sintering of plastic materials based on polytetrafluoroethylene basis (PTFE)
- Burning-in of special coating materials after drying
- Burning-off of organic residues on metal parts.

The advantages of the VAW series are high functionality, reliability and durability. The ovens are supplied ready for installation thus avoiding long commissioning times. Further advantages are:

● Cost-effective

High air rate: The material soon reaches the required temperature. Short heating and cooling rates thanks to insulation material with low thermal capacity. Reduced external wall temperatures thanks to high-quality insulation system.

● Flexible

Extensive range of accessories and equipment enable universal use.

● Ergonomic

Low noise emissions. Operating and maintenance-friendly concept.

● Safe

High operational safety thanks to swing mechanism of the test space door: Hot side facing away from the operator. Adjustable safety cut-out against excess temperature with selection limiter (Protection Class 2).

Control system ...

All equipment necessary for regulating and controlling are in the switch cabinet. The controller used is a micro-processor-controlled PID controller with digital display. The semi-conductor relay is silent running without mechanical wear.

Accessories ...

- Supports and shelves adjustable in height
- Grates with high loadability
- Charging trolley, transport trolley

Option ...

- Programme controller
- **MINCON/32*/SIMCON/32*-NET**
- Cooling fan for direct and indirect cooling (cooling jacket)
- Shelves of stainless steel
- Protective gas design
- and many others

Tempering oven
VAW-G 130/130/130 - 650 °C



Tempering oven
VAW 150/210/300 - 650 °C



...in various sizes

Technical data...

Series		VAW							
Size		60/60	60/100	80/100	80/150	80/200	100/100	100/150	100/200
Nominal temperature °C		500 / 650 / 750							
Interior dimensions									
Width	mm	600	600	800	800	800	1000	1000	1000
Height	mm	600	600	800	800	800	1250	1250	1250
Depth	mm	600	1000	1000	1500	2000	1000	1500	2000
Exterior dimensions ¹⁾									
Width	mm, approx.	1640	1640	1950	1950	1950	2220	2220	2220
Height	mm, approx.	1800	1800	1350	1350	1350	1800	1800	1800
Depth	mm, approx.	1270	1670	2800	3300	3800	2950	3450	3950
Heating capacity									
500 °C	kW	13.3	20	23	33	40	40	50	50
650 °C	kW	13.3	20	33	40	50	50	60	80
750 °C	kW	16.5	22	42	–	–	–	–	–
Empty state									
500 °C	kWh/h	4.5	5.5	9	11	13	15	18	21
650 °C	kWh/h	5	6	14	16	18	20	23	26
Heating time to nominal temperat.									
500 °C	min.	60	90	90	90	90	90	90	90
650 °C	min.	90	150	150	150	150	150	150	150
Mains supply		3/(N)/PE AC 400 V ±10 %, 50/60 Hz ³⁾							
Shelves (Option)									
max. quantity		9	9	o. r.	o. r.	o. r.	o. r.	o. r.	o. r.
Loadability	kg/shelf	10(20) ²⁾	15(30)	o. r.	o. r.	o. r.	o. r.	o. r.	o. r.
Empty weight	kg, approx.	460	600	1500	1700	1900	1800	2200	2500

1) with switch cabinet; at 750 °C, nominal temperature on request

2) Point load/surface load

o. r. = on request

3) 60/100 standard only available with 50 Hz, other voltages and frequencies as option

We reserve the right to make any technical alterations.

Tempering oven

VAW 80/100 - 650 °C

Tempering oven

VAW 60/100 - 750 °C for inert gas operation



Standard and customized solutions...

Customized solutions...

- Ovens for inert gas operation for applications under controlled atmosphere for preventing oxidation
- Cooling jacket for quick cooling during inert gas operation
- Bogie ovens
- Electrically operated lifting door
- Special voltages
- Defined cooling rates
- Other construction material
- Special dimensions
- Precision ovens with enhanced distribution of temperature
- Round air circulation ovens (VAWR) for top loading
- For use with inflammable solvents: design as per EN 1539



- Automatic charging systems.

Standard and customized solutions to your special applications

- Heating and drying cabinets
- Vacuum, heating and drying ovens
- Clean air, heating and drying ovens
- Explosion-proof drying ovens
- Tempering ovens up to 750 °C
- Chest ovens for easy top loading
- Drawer-type ovens
- Walk-in ovens and systems for continuous heating processes
- Hot air sterilizers for normal and clean air conditions
- Charging systems e. g. charging trolleys, transport trolleys and wire meshed shelves
- Heating options
Electrical, gas, infrared, microwave, warm water, steam, thermal oil
- For process documentation as per EN ISO 9001 we offer a variety of accessories and software for controlling, monitoring and documenting. Networking of up to 99 systems via one PC station.

Competence and dedication to customers...

- Individual consultation
- Engineering and development
- Production and assembly
- Commissioning and briefing
- Calibration in own laboratory
- Maintenance, spare parts service, repairs
- Recycling of redundant units
- Training and workshops

Further information and representatives world-wide see www.voetsch.info

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Vötsch
Industrietechnik

Vötsch Industrietechnik GmbH
Umweltsimulation · Wärmetechnik

Product Range Heat Technology

Greizer Strasse 41-49
35447 Reiskirchen-Lindenstruth
Germany
Phone +49 (0) 64 08 / 84-73
Fax +49 (0) 64 08 / 84-87 47
info-wt@v-it.com
www.v-it.com · www.voetsch.info

