



Product overview Heat Technology.

Know-how for your production.

Hot. Reliable. **vötschoven**.

You can count on it!

No matter which industry: we supply perfect thermal conditions.

We love extremes, reproducible results, energy-efficient processes and excellent service. Which is why we offer you exactly that. As a long-standing partner in production, we are aware of the challenges posed by growing requirements, shorter development times and ever more demanding processes.



Your heat experts.

Tailor-made, individualised Heat Technology for your production.

In the area of industrial Heat Technology, our experienced team develops, plans and produces reliable systems for almost every possible application. In our portfolio, you can discover a wide range of heating and drying ovens, industrial furnaces, clean room ovens, hot-air sterilisers, infrared and continuous ovens as well as cutting-edge microwave technology. Alongside our comprehensive selection of series products, we also focus on implementing customer-specific, process-integrated solutions.

| | | |
|---|---|-------------|
|  | <p>BATCH OVENS</p> <ul style="list-style-type: none">• Heating and Drying Ovens HeatEvent• Industrial Laboratory Ovens vötschoven Lab• Annealing and Heating Furnaces VAW• Clean Room Heating and Drying Ovens VTF• Hot-Air Sterilisers VHS | Pages 4-17 |
|  | <p>EXPLOSION PROTECTION</p> <ul style="list-style-type: none">• Guideline: Explosion-Proof Ovens• Industrial Ovens and Dryers• Fresh Air Heating and Drying Oven VFT 60/90• Externally Heated Ovens with Recirculating Air VTUW• Externally Heated Ovens VTW | Pages 18-27 |
|  | <p>CUSTOMISED SOLUTIONS</p> <ul style="list-style-type: none">• Special sizes• Vacuum Dry Chambers VVT• Chamber Ovens• Chest Ovens VTUT• Drawer Type Ovens• Automation Systems | Pages 28-39 |
|  | <p>ELECTROMAGNETIC WAVES</p> <ul style="list-style-type: none">• Microwave VHM• Microwave Continuous Ovens VHMDU• Infrared Systems VDIR | Pages 40-47 |
|  | <p>CONTINUOUS OVENS</p> <ul style="list-style-type: none">• Continuous Ovens VDU/VDL• Continuous Ovens with Infrared VDIR• Automation Engineering | Pages 48-55 |



Often copied, never matched.

The new generation of vötschoven Heating and Drying Ovens.

Wherever things get hot, decision makers worldwide rely on vötschoven Heating and Drying Ovens. From the electronics and automotive industries to the plastics and metalworking industries up to the chemical and pharmaceutical industries. And with HeatEvent, we are offering a new generation. Discover its many benefits and get your own impression of our innovation.

SIMPAC
controlled



Hot. Hotter. HeatEvent.

Our innovative design enables the largest working chamber volume with the smallest footprint. The proven Control System SIMPAC adds intelligence and convenience. A comprehensive security package is included so nothing burns.

More free space.

For the first time, the whole interior is now accessible when the door opens by 90°. This allows for a space-saving installation of several ovens directly on the wall and next to each other.

Highly flexible.

The HeatEvent range includes 7 sizes with a working chamber volume of 200 to 8,000 l and with nominal temperatures of up to +350 °C. All units are perfectly suited for your heating and drying processes in production and research. The proven and tested modular design and extensive accessories offer several variations for each application.

Our highlights:

- Smallest footprint with the largest working chamber volume
- Unrestricted access at 90° door opening angle
- Highest reproducibility at short process times
- Web-based User Interface WEBSeason
- More intelligence and comfort with the proven Control System SIMPAC

Highly recommendable! Small, strong, smart.

The new Industrial Laboratory Ovens **vötschoven Lab**.

Optimal heat for any process.

Be it production, quality assurance or research and development - today, the demand for reliable, fast and energy-efficient heat treatments is greater than ever. Many old devices have been in use for decades and no longer meet the rising requirements. With our Industrial Laboratory Ovens **vötschoven Lab** we offer you future-proof solutions for your special process.

Perfect protocols
with SIMPATI



For hot and heavy applications.

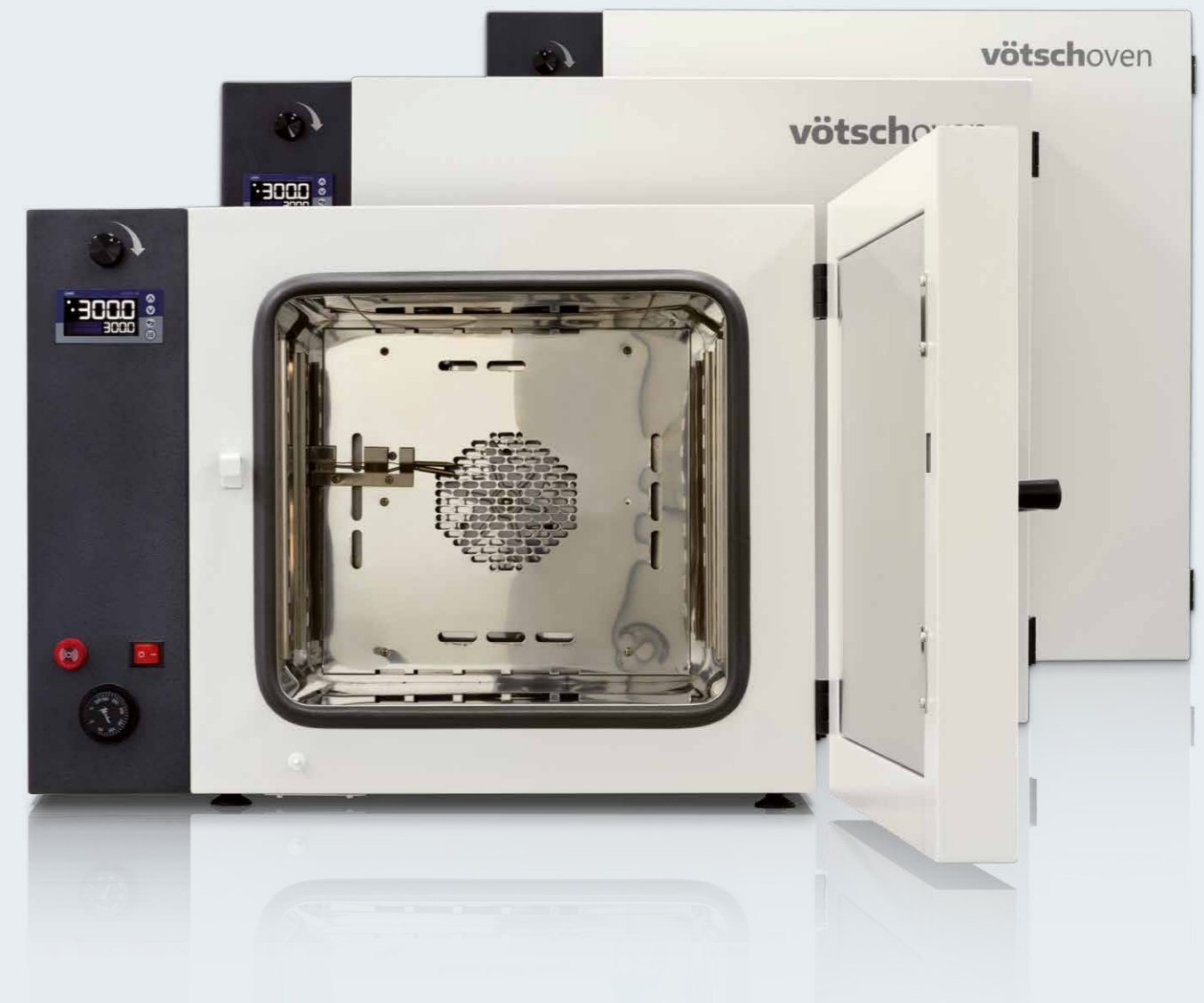
Our Industrial Laboratory Ovens **vötschoven Lab** with a processing chamber volume between 60 and 200 l are designed especially for heavy-duty applications. Ideal for applications requiring high-precision temperature control in the range between +50 and +300 °C, they guarantee reproducible, reliable results. While offering the same interior space as old units, they are beating them with both higher performance and lower footprint. Our Industrial Laboratory Ovens are now offered in three available stock lines: **vötschoven Lab Basic**, **Premium** und **Premium Plus**. This leaves no serial wish unfulfilled.

Networked to the future!

vötschoven Lab can be integrated into the industry 4.0 world at any time. A PID temperature controller, especially adapted for us, features an Ethernet interface running the TCP/IP protocol. Network connectivity and process documentation are achieved by the **SIMPATI** software. Our reliable and tested controller package additionally features programming, timer and alarm functions.

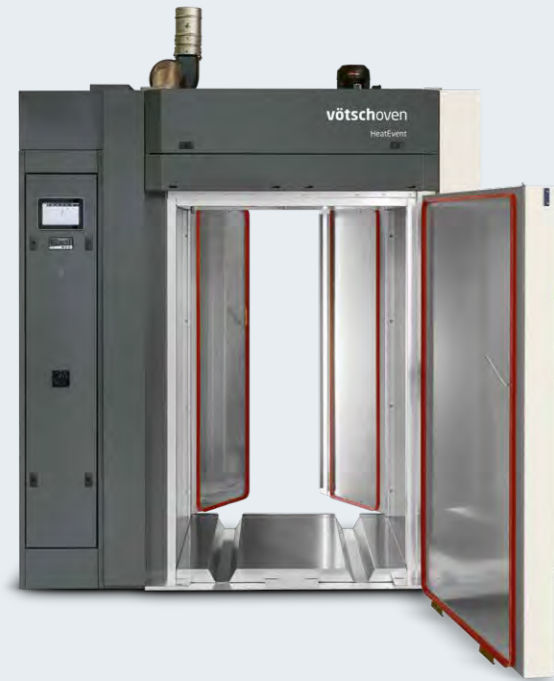
Our highlights:

- Better performance at smaller footprint
- Innovative and future-proof equipment in series
- Simple networking integration
- Easy exchange of old laboratory ovens



Highest quality. Highly reliable.

Our various vötschoven Heating and Drying Ovens.



Heating and Drying Oven HeatEvent 100/150 with pass-through design.

- Countersunk rails for loading with trolley
- Integration into line production
- Secure spatial separation of process steps



Tempering Oven VTU 140/210/75 for lead frames in electronics production

- Transport device for lead frame strips
- Operation in inert gas atmosphere
- Minimised footprint



Silicone Tempering Oven VTU 125/200 for medical technology

- Loading and tempering via a rotating drum trolley
- Continuous product movement leads to uniformly high product quality
- Easy loading and unloading of the products outside the tempering oven
- ISO-compliant: operation and installation in clean room class ISO 7 (EN ISO 14644-1)



Precision Heating Oven HeatEvent 60/60 Isobox for temperature-critical processes

- Isobox in working chamber for maximum precision
- Highest temperature accuracy worldwide: ± 0.5 K at a nominal temperature of 220 °C
- Tempering in critical processes or components
- Complies with test standards requiring heating ovens with forced air convection



**Sintering Oven HeatEvent 60/60-380 °C
for PTFE components**

- Spatial temperature distribution ± 3 K at 375 °C
- Integrated door suction for maximum personnel protection
- Networking via Control System SIMPAC, ready for industry 4.0
- Control and traceability via barcode



**Batch Oven VTU 100/165
for tempering of elastomers**

- Post-cross-linking of shaft seals
- Safe removal of fission products
- Perfect temperature distribution with large fresh air volume
- Barcode control for error-free processes and traceability



**Industrial Oven HeatEvent 100/150-G
for processes in inert gas atmosphere**

- Reduction of the oxygen content of the process material through the use of non-flammable inert gases (e.g. N₂, Ar)
- Minimal inert gas consumption
- Easy loading with folding access ramp
- Oxygen concentration measurement up to +380 °C



**Drawer Type Oven VTU 100/60/60
for simulation of continuous processes**

- Automatically movable drawers and programmable holding times for defined temperature gradients
- 3 independent drawers 100% extendible
- QA testing of e.g. furniture veneers

Successfully refined.

The proven vötschoven Annealing and Heating Furnaces VAW.

The Annealing and Heating Furnaces of the VAW series represent a proven and steadily enhanced oven construction concept that is used for many heat treatment processes for different materials. The nominal temperatures are +500 or +650 °C, depending on the design.

The ovens are suitable for almost all heat treatment processes in normal and inert gas atmospheres, e.g.:

- Annealing and finishing of steel
- Ageing and stress-relieving of metals
- Solution annealing of light metals
- Sintering of plastics based on polytetrafluoroethylene (PTFE)
- Burning-in of special paints after prior drying

Compliant:
AMS 2750E
CQI-9

Our highlights:

- Homogeneous temperature distribution for the highest demands
- Short process times due to fast temperature change of the low thermal storage mass
- Swing door protects operator from radiated heat



Annealing Furnace VAW 60/60-650 °C
with fresh air fan for rapid cooling



Bogie Hearth Furnace VAW 125/210/300-500 °C
with lifting door for the heat treatment of turbine blades



Annealing Furnace VAW 100/100/200-G-500 °C
for the stress-relieving of welded constructions

Clean room compliant, perfectly safe.

The reliable vötschoven Clean Room Heating and Drying Ovens VTF.

Reproducible tempering and drying processes under clean room conditions also require clean room heating and drying ovens. The Clean Room Heating and Drying Ovens VTF are available in 4 sizes with working chamber volumes between 60 and 3,125 l and nominal temperatures of up to +350 °C.

Compliant:
ISO 4 + ISO 5 + ISO 7
ESD

Our highlights:

- ISO-compliant: clean room class ISO 4, ISO 5 or ISO 7 according to EN ISO 14644-1
- Overpressure in the working chamber to prevent particle ingress from the unit's installation room
- Optional inert gas version: reduction of the oxygen content of the process material through the use of non-flammable inert gases (e.g. N₂, Ar)

The units are optionally available with ESD protection for applications in electronics manufacturing - the maximum product protection against electrostatic discharges.



Clean Room Heating and Drying Oven VTF 60/35 for components used in digital printing

- Working chamber ISO 5, ESD design
- LN₂ cooling for rapid cooling down
- Connectivity via Control System SIMPAC

Drawer Type Clean Room Heating and Drying Oven VTF 350/35/55 for coated precision components in CNC machines

- Working chamber ISO 7
- Drawer with full extension for easy loading
- Spatial temperature distribution of ±1 K at 150 °C over a length of 3 m



Curing Oven VTF 125/200 for siliconised electronics for wind turbines

- ESD design
- Working chamber ISO 7
- Installation in clean room ISO 7

Whenever it needs to be bacteria-free.

The qualified vötschoven Hot-Air Sterilisers.

vötschoven Hot-Air Sterilisers come equipped with the latest technology for maximum product protection, such as internal pressure control, door automation, HEPA filter monitoring and SIMPAC control.

Various sizes can be manufactured as stand-alone devices or prepared for wall installation. Or with a pass-through version with doors on both front and back to separate the sterile from the unsterile work area. The doors are then equipped with an electrical locking mechanism, so that only one door can be opened at a time (lock function).

Compliant:
ISO 5 + ISO 7
DQ/IQ/OQ

- Our highlights:**
- ISO-compliant: clean room class ISO 5 and ISO 7 according to EN ISO 14644-1
 - Hygienic: electropolished stainless steel inside, stainless steel outer casing
 - HEPA filter monitoring
 - Complies with directives: pharma qualification package DQ, IQ and OQ version according to GMP and FDA



Hot-Air Steriliser SteriEvent 75/75

- Drying of water-wet granules

Hot-Air Steriliser VHS 75/75

- Sterilising of thermostable materials



Hot-Air Steriliser 150/150/150 in pass-through design with lock function

- Sterilisation of pharmaceutical containers



Safety knows no compromise.

Manage explosion hazards optimally with vötschoven.

Be on the safe side.

Both unintentionally and intentionally explosive mixtures that can emerge during processes pose a high safety risk. Combustible, inflammable or explosive substances such as liquids or gases escape from the product and enter the interior.



Such mixtures are explosive if the concentration is within certain substance-specific limits. These limits are referred to as lower and upper explosive limits (LEL and UEL) and are specified in the safety data sheet of the substance. In the event of a fire or explosion hazard, special safety measures are required for the unit, depending on the hazard potential.

In close cooperation with you, we can modify, supplement or equip our devices individually with additional safety features, so that they always fully comply with ATEX directives.

Good to know: ATEX directives are binding.

The ATEX (ATMosphere EXplosible) standard specifies the Europe-wide regulation of the safe operation of industrial systems and units in potentially explosive environments or under potentially explosive conditions.

Two directives have been drawn up for its implementation, namely 99/92/EC and 2014/34/EU. Both of these directives are binding and without fulfilling these directives, the installation of potentially explosive or explosion-protected systems is no longer permitted.

Our highlights:

- Optimal risk management
- Individual adaptation of all units
- Compliance with all ATEX requirements
- Coordination with safety officers by our team

This way you can control the risks.



Well-equipped for every type of combustible material.



No compromise when it comes to standards!

The safe vötschoven Industrial Ovens and Dryers.

Industrial Ovens and Dryers HeatEvent F for flammable substances according to EN 1539

When drying surface coatings, sizing varnish and impregnating resins, the released substances (e.g. solvents) could mix with the process air to create an explosive gas mixture. The HeatEvent F series was specially developed for these applications. It permits a safe control of the processes by limiting the solvent quantities and a constant minimum exhaust airflow rate. This prevents the possible formation of explosive atmospheres inside such units.



Compliant:
EN 1539



Our highlights:

- Permanent monitoring of recirculation and exhaust airflow rates
- Sealed welded joints on the inner casing prevent the ingress of flammable substances into the insulation of the unit
- Safety concept for each individual application, considering the hazardous substance and its quantity

Worldwide unique in its class.

Our units safely meet all your requirements.

Fresh Air Heating and Drying Oven VFT 60/90 according to ATEX directive

The units of the VFT series work according to the principle of exclusive fresh air supply. The required process air is not circulated internally. This prevents solvents from encountering possible ignition sources.

Areas of application:

- Drying of flammable solvents of temperature classes T1 to T4 of explosion groups IIA and IIB
- Safe working according to ATEX directive including prototype testing



Compliant:
Prototype testing
ATEX



Our highlights:

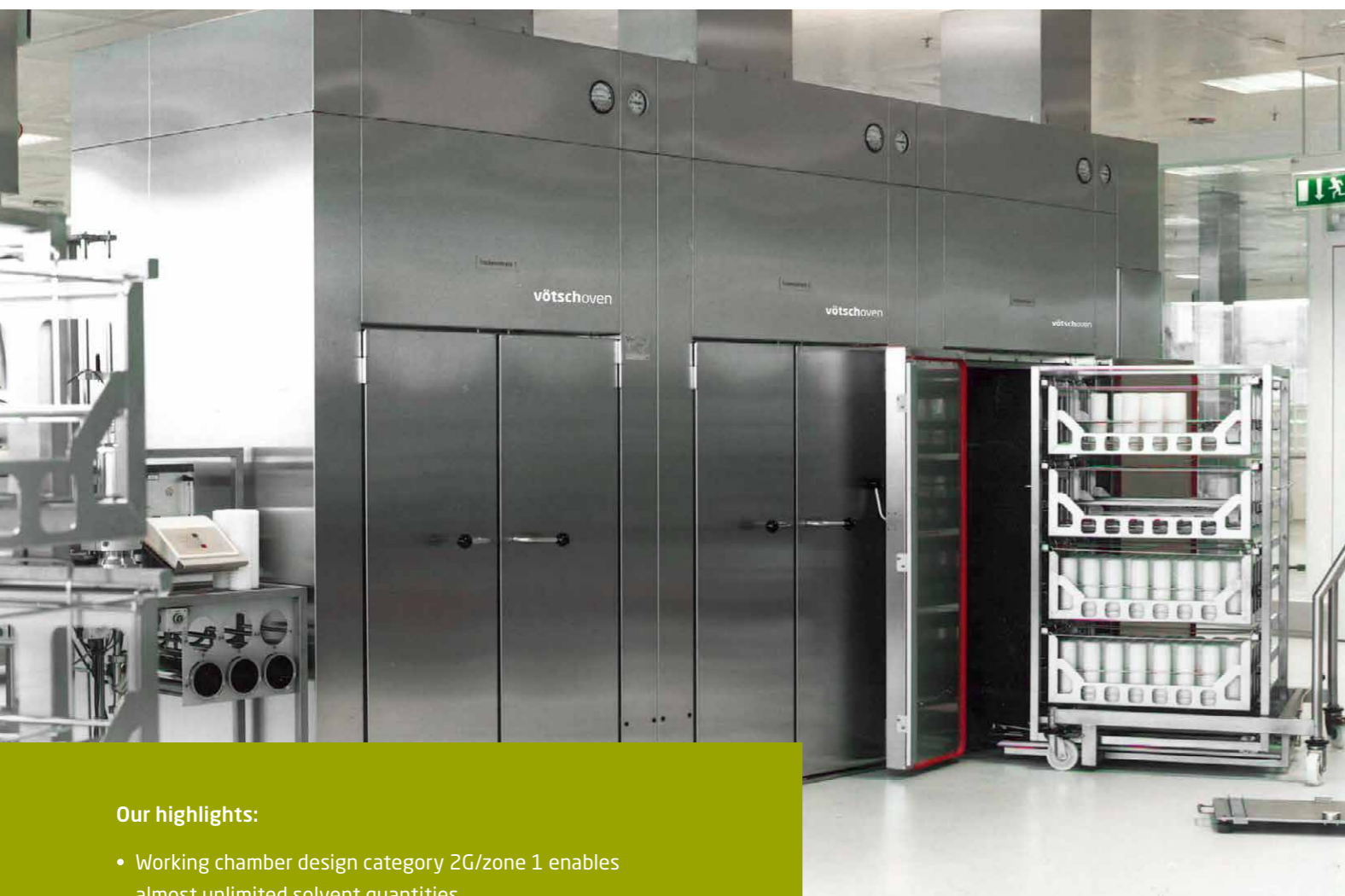
- Working chamber design category 2G/zone 1 allows for almost unlimited solvent quantities
- Direct installation in zone 2 with design category 3G
- Easy installation in the laboratory and in production

Great for large solvent quantities.

The explosion-proof vötschoven Heating and Drying Ovens.

The series VTUW and VTW (with or without air circulation) operate according to the principle of avoiding ignition sources. Heating is produced via process heat emitted from procedural courses (steam, water, heat transfer oil) or via a separate tempering unit with temperature classes T1 to T4 of explosion groups IIA and IIB. Safe working according to ATEX directive.

Compliant:
ATEX



Our highlights:

- Working chamber design category 2G/zone 1 enables almost unlimited solvent quantities
- Direct installation in zone 2 with design category 3G
- Low energy consumption and short process times thanks to recirculating air operation (in combination with exhaust air operation) with low amounts of fresh air
- Clean room compatible design possible

GMP Drying Oven VTUW 100/150 Ex for pharmaceutical filter cartridges containing alcohol

- Combination of explosion protection, GMP and clean room conditions (ISO 7)



ATEX

Drying Oven VTUW 100/150-G Ex with solvent recovery

- Safe solvent recovery through partial flow condensation
- Low fresh air volumes and therefore reduced energy consumption
- Alternatively, operation in inert gas atmosphere is also possible

Test Chamber VTUW 75/125-160 °C Ex for automotive components

- Ageing test and long-term storage, e.g. of fuel pumps and valves



Industrial Oven VTUW 100/150-G-170 °C Ex for drying solvent-containing hard-metal green bodies

- Explosion protection for very large quantities of solvents
- Energy-efficient operation due to low exhaust air volumes

GMP
ATEX



**Drying Oven VTU 100/150-40 °C GMP Ex
for herbal medicinal products**

- Working chamber in GMP design
- Gentle drying of temperature-sensitive raw materials thanks to low drying temperature
- Equipment group II, category 2, zone 1

GMP
ISO 7
ATEX



**Fresh Air Ex Drying Oven VFTF 125/200-90 °C GMP Ex C
for pharmaceutical intermediates containing solvents**

- GMP-compliant
- ISO-compliant: operation and installation according to clean room conditions class ISO 7
- Equipment group II, category 2, zone 1

ATEX



**Drying Oven VTW 75/125-120 °C Ex
for water-wet and solvent-containing granules**

- Energy-efficient thanks to indirect heating via saturated steam
- Precise temperature control directly on the process material for a safe process
- Ergonomic and fast loading thanks to transport trolley with charging trays

DIN VDE 0166



**Drying Oven VTW 60/125-120 °C Ex
for explosives**

- Optimal temperature transfer to the granules through heating plates with direct media flow
- Requirement-compliant working chamber for area E1
- Safe installation in a potentially explosive area E2



Achieving optimal solutions together.

Tailor-made vötschoven Industrial Ovens.

You and your special requirements are always at the centre of our activities. Be it for a new build, retrofit or modernisation. Together we will find the optimum solution and offer you advice, planning and implementation from a single source. Take advantage of the market leader's many years of experience. We are guaranteed to have the right product solutions for you.

Single source



Portfolio for all operating requirements.

- Recirculating air operation
- Fresh air operation
- Inert gas operation
- Airflow changing systems
- Accessible/trafficable
- Clean room design

Loading made easy.

- Levels with shelves/grates
- Trolley, support trolley
- Rotating drum trolley
- Bogie hearth trolley
- Drives and guide systems for high loads
- Integrated mechanical components

A door isn't just a door.

- Swing door
- Lifting door
- Roll-up door
- Folding door
- Drawer

Our highlights:

- Consulting, planning, implementation from a single source
- System solutions and components optimally matched to production processes
- Always the right operation mode for the process
- Large selection of different door constructions
- Optimal loading systems



Industrial Oven VTU 300/300/450-410 °C for curing in CFRP production

- For thermoplastic cross-linking CFRP-PEEK structures

Industrial Oven VTU 500/450/850-230 °C

- For large components and tools in composite curing processes in the aerospace industry

Fast. Safe. Gentle.

The cautious vötschoven Vacuum Dry Chambers VVT.

When it really matters.

In the areas of manufacturing medical products, electronic components, foods, lithium-ion batteries and in the aerospace industry, optimal solutions for dehumidification and drying processes are required. With our long-time and intersectoral know-how in industrial heat technology we developed the reliable **vötschoven** Vacuum Dry Chambers VVT. This enables us to offer you product-oriented, process-safe and highly precise drying processes.



What you can rely on.

Our Vacuum Dry Chambers are the optimal solution for drying temperature-sensitive products and for removal of residual moisture from capillary. **vötschoven** VVT builds up a vacuum in the use space and the product is tempered accordingly. Corresponding to the vapour pressure temperature curve, this also reduces the boiling point of liquid mixtures (water and solvents) which evaporate at significantly lower temperatures.

Dehumidification and drying processes with the Vacuum Dry Chambers **vötschoven** VVT are particularly gentle on the product and also reach difficult to access places. In addition, air and vapour trapped in the product are reliably removed, and recondensation is avoided.

Our highlights:

- Customer-specific vacuum drying solutions
- Product-optimised heating: jacket heating, plate heating, circulating air temperature control
- Low vacuum (up to approx. 1 mbar), fine vacuum (up to 10^{-3} mbar) and high vacuum (up to 10^{-5} mbar) applications
- Very easy: programming, operation and monitoring with control system **SIMPAC** and software **SIMPATI**
- Consulting, development and implementation from a single source



Fits and makes sense.

Our portfolio ranges from batch to automation systems.



**Chamber Oven VTU 75/100-G-200 °C
for cross-linking contact lenses in
inert gas atmosphere**

- Lifting door for automated loading of large quantities and high throughputs
- Inert gas control of the residual oxygen content to ensure the optimal atmosphere in the working chamber



**Chest Oven VTUT 520/50/75-350 °C
for heating and warm storage
of pumps and spinning nozzles**

- Trouble-free feeding of heavy components using a crane
- Pneumatic lid actuation for ergonomic and safe operation



**Drawer Type Oven VTU 175/200/80-200 °C
for curing of cast e-motor windings**

- Loading and unloading of partial quantities with only a minor impact on the temperature profile
- Drawers with 100% extension for easy loading



**Heating Oven VTUD 150/175/350-200 °C
with loading flaps for heating up plastic sheets**

- Can be easily integrated into the production flow thanks to flap opening on front and rear side
- Extendible with telescopic slides for ergonomic loading
- Easy loading and unloading, almost without any impact on the atmosphere in the working chamber



**Preheating Oven VTL 125/150/125-250 °C
with rotary conveyor system for PA pipes**

- Loading opening for integration into robotic automation
- Conveyor system with rotary indexing table and 30 storage positions for one-piece flow
- Gentle product handling thanks to suspension system
- Low space requirement due to its compact design



**Hybrid Oven VTL 75/125-200 °C
with humidity control for oxide layers on decorative aluminium strips**

- Selectable operation mode, either as chamber drying oven (EN 1539) or heat treatment with humidity control (compression)
- Particle-free recirculating air thanks to HEPA fresh air and recirculating air filters



**Curing Oven VTU 75/200/75-160 °C
with automatic loading and vertical storage system**

- Space-saving vertical storage for 10 loading levels
- Automatic loading and unloading conveyor for integration into production line



Preforming Continuous Oven VDU 200/80/300-200 °C

- Automated production of composite preforms for Airbus A350 XWB doors
- AMS 2750E, furnace class 2, instrumentation type C
- Recirculating air system ensures homogeneous temperature distribution
- Short process times due to infrared booster for heating and cooling device for cooling down
- Conveyor system permits one-piece flow and integration into production island



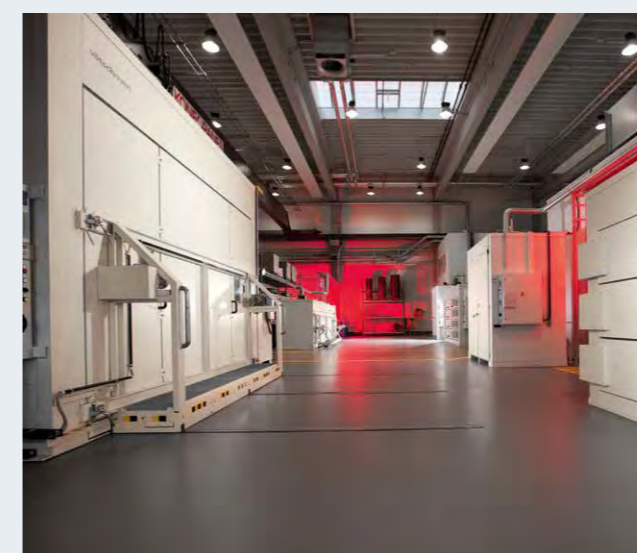
Industrial Oven VDU 200/80/300-200 °C with segmented access in electronics production

- Segmentation of the working chamber opening for trouble-free loading by robotic system results in homogeneous temperature distribution and safe holding times
- Installation and operation suitable for clean room in electronics production (ISO 7)
- Integration into the customer's one-piece flow with a high degree of automation possible



Curing Oven VTU 220/210/270-250 °C for RTM components made of CFRP

- Lifting door for automatic loading and unloading with customer-side handling system
- Suitable for very high product weights
- Operation in a CFRP production facility, e.g. offers protection against fibre filaments



Heating and Curing Ovens for CFRP production

- Curing with rotation - drawers with integrated rotary drives for filament winding parts
- Homogeneous temperature distribution guarantees reproducible product quality



**Curing Oven VTL 430/250/200-250 °C
for helicopter cockpit**

- Continuous rotation of the CFRP support structure during curing ensures extremely homogeneous temperature distribution within the component
- Extreme form stability due to elimination of gravimetric influences
- Section doors allow tools to be retracted at ground level with little space required
- Redundant ventilation, heating and rotation systems ensure high availability



**Test Chamber VTU 150/150/200-250 °C
for optical analysis of material expansion**

- Heating of vehicle components for optical analysis of thermal expansion during the cataphoretic painting process
- Distortion-free optical measurement results due to large borosilicate window
- Individually switchable headlights for optimum illumination
- Precise temperature controls with 6 flexible product temperature sensors



**Heating Oven VTU 375/230/135-200 °C
for the post-curing of liquid crystal windows**

- Fast heating speeds allow for short process times
- Highest product quality thanks to homogeneous temperature distribution of ± 1.5 K
- Loading trolleys for large-scaled and heavy components offer ergonomic handling



**Drying Oven VTU 200/670/200-75 °C
for centrifuge rotors**

- Roll-up door for quick and complete opening of the working chamber
- Working chamber height of 6.7 m also allows for long components to be loaded with a small footprint

Height 6.7 m

Riding the perfect wave into the future.

Innovative vötschoven microwave technology.

Microwaves are a real alternative to conventional heating methods. The volumetric heating, in which the material heats up from the inside, is very appealing in terms of process and material technology. On the other hand, there is selective heating - here, a thermal reaction is triggered only in the absorbent materials. With VHM Hephaistos, vötschoven now offers you the innovative and patented microwave system suitable for all-purpose use.

Patented



Partner for a trend-setting research project.

Our VHM Hephaistos microwave system was developed in close cooperation with the Karlsruhe Institute of Technology (KIT). It is the result of a joint development project sponsored by the German Federal Ministry of Education and Research (BMBF). Alongside KIT, the Composites Research Center of EADS in Munich, the Institute of Aircraft Design (IFB) at the University of Stuttgart, GKN Aerospace in Munich and Weiss Technik were involved in the project.

Faster production processes. Lower costs.

VHM Hephaistos is an internationally patented system characterised by its hexagonal geometry and very high field homogeneity. This is a major advantage, when thermoforming fibre composites (CFRPs) in the aerospace and automotive industries. The microwave system guarantees you reduced costs due to shorter heating, process and cooling times required for curing CFRP components. The microwave only introduces energy into the component to be heated while the oven itself remains cold. Compared to the process in the autoclave, process times are reduced by up to 50% and energy consumption is reduced by up to 70%.

Our highlights:

- High product quality thanks to maximum homogeneity of the microwave fields
- Volumetric and selective heating for energy-efficient processes
- Modular design for flexible adaptation
- Hybrid systems, e.g. in combination with hot air
- Sizes ranging from laboratory scale up to large-scale systems



Micro process times. Macro energy efficiency.

Our solutions for batch, automation and continuous systems.



**Curing System VHM 180/300
for CFRP structures in the aerospace industry**

- Energy-efficient curing of CFRP-based composite components with out-of-autoclave prepregs
- Short heating-up and cooling-down times for a rapid VAP procedure



**Continuous Drying Oven VHMDU 100/300
for impregnated foam materials**

- Fast drying processes through selective heating
- Hybrid system with hot-air superposition for safe extraction of the water vapour produced
- Microwave-suitable transport system with inlet and outlet filter for safe, continuous process operation



**Disinfection Chamber VHM 180/200 DC
for food containers and conveyor belts**

- Extremely effective against bacteria in containers and on conveyor belts made of PE, PU or PP
- Lifting door module for automated process



**Application System VHMD 100/200
for research and process development**

- Universal microwave system, ready for use in our technical centre, also for customer trials
- Batch microwave with arc detector, FOT measurement system, IR camera integration, PID or MPC procedure

A brilliant example of efficiency.

High-performance vötschoven infrared technology.

Infrared heating is one of the fastest heating processes for near-surface product areas and ensures the shortest process times. The IR radiator systems can be configured in such a way that homogeneous heating with a high power density is possible.

System examples

- Continuous systems for one-piece flow
- Hybrid systems with infrared and recirculating air combination
- IR emitter arrays for integration in process plants
- Long-, medium- and short-wave infrared emitters
- Continuous processing units for sheeting material

Our highlights:

- Short process times
- Optimum adaptation to the process
- Energy saving



Infrared Oven VDIR 30/10/100-200 °C for drying disc springs after grinding and washing

- IR system with air knife on the input side for pre-drying for short process times
- Safe and energy-efficient thanks to automatic component recognition in the infeed/outfeed area

Waves with a lot of power - infrared.

Our systems and modules, batch and continuous systems.



ISO 7



Curing Oven VDIR 65/40-200 °C for coated process drums

- IR booster for short process times
- Simple, fast loading and unloading with automatic feeding
- Rotation device for a homogeneous burning-in
- Clean room compatible design (ISO 7)



IR Drying Tunnel for water-based spray paints on fuel tanks

- Integration into customer's production process
- Energy-efficient (switch on/off if no product is available)
- Maximised throughput rate



Heating System VDIR 75/50/150-200 °C for melting bitumen mats onto stainless steel sheets

- Short process times thanks to fast heating times
- Homogeneous temperature distribution for the highest product quality
- Optimum use of the available production space due to production on two levels



IR Oven for curing of compressors

- Variable power adjustment
- Seamless integration into existing customer systems
- Optimum use of the available production space due to vertical structure
- Can be combined with convection oven
- Increase of production speed

Production all-rounders.

Flexible vötschoven Continuous Systems.

Every vötschoven Continuous Oven is a reliable component in your production line and is individually adapted to the requirements of continuous heat treatment processes. It can also be used for tempering plastics or curing adhesives on electrical components. And it is particularly suitable as a component in automation lines.

Modular



Turn your continuous oven into a unique one.

Our Continuous Ovens can be equipped with various conveyor systems. Flexible heating zones, air guiding and cooling zones are also available. In close coordination with our partners, we offer everything from a single source, from conception to implementation, all for your optimally designed system.

Conveying as it fits.

- Chains
- Strap hinges
- Wire link belts
- Roller conveyors
- Overhead tracks
- Fabric and plastic belts

Pretty hot.

- Recirculating air/fresh air system
- Vertical or horizontal air guiding
- Infrared
- Microwave

Cool selection for all situations.

- Fresh air cooling
- Recirculating air water cooling
- Spray-water cooling
- Recirculating air refrigerant cooling

Our highlights:

- Optimal adaptation for every application
- Modular design with different useful widths and lengths
- Special solutions for many industries



Continuous System VDU/VDL

Just let it run.

Our solutions for continuous processes and one-piece flow.

ISO 8



Curing Oven VDL 130/15/400-200 °C for medical products

- Double conveyor belt for high-bulk densities
- Short process times due to fresh air cooling zone
- Clean room compatible design (ISO 8)
- Designs according to EN 1539

ISO 7



Tempering Oven VDU 85/20/100-150 °C with cooling zones for expansion joints

- Feed and outlet line for workpiece carriers in front of the furnace enables integration into the production process
- Electronics production clean room class ISO 7, according to EN ISO 14644-1 for particle-free end products



Continuous Oven VDU 150/60/375-250 °C for air suspension elements

- Automated loading for continuous process
- High product quality due to product-specific air guiding



Continuous Oven VDU 150/100/400-100 °C for melting of plastic in barrels

- Chaotic loading/unloading offers maximum flexibility
- Short feed times due to fast lifting doors



Tempering Oven VDU 120/20/240-200 °C for pressure sensors

- Energy-saving conveyor system with rotating workpiece carriers in the hot area (return transport of empties)
- Positioning accuracy +0.5 mm for robot loading
- Fast process times due to independently controllable heating and cooling zones



Curing Oven VDL 160/50/300-150 °C for flapped discs

- Design according to EN 1539 for the use of solvent-based adhesive systems
- 2 conveyor levels for optimised product flow
- Integration into customer's production line



Thermofixing System VDU 100/100/900-220 °C for PA components

- Independent chain conveyors with heating and cooling zones for maximum throughput
- Cycle time variably adjustable to 48-360 sec, for optimum adaptation to the production quantity



Thermofixing System VDU 100/80/500-250 °C for automotive fluid lines

- Independently controllable heating zones for short preheating times
- Rapid cooling thanks to cooling chamber with spray-water cooling



Stainless steel
2.4633



Drying Oven VDU 60/60-200 °C K for coatings on wire mesh catalysts

- Controlled extraction of nitrous oxide gases for maximum personnel protection
- Easy handling of the products thanks to automatic transport basket conveyor carriage
- Corrosion-resistant interior made of stainless steel 2.4633 (Alloy 602 CA)



Continuous Oven VTU 75/100-200 °C for heating stator sheet packages

- Integration into customer's automatic production line
- Space-saving meander-shaped chain conveyor
- Positioning unit for product transfer by robot



Drying and Tempering Oven VDU 100/10/650-350 °C for sinter metals as bulk material

- Fast, homogeneous heating and cooling with a vertical flow of the bulk material at high air velocities



Continuous Oven VDU 40/25/400-150 °C for curing of coatings on plastic glasses

- Heating zones with spatial temperature distribution of ± 2 K at 150 °C for highest product quality
- Maximum flexibility thanks to 2 independently operating curing lines



**Curing Oven VDL 150/50/310-200 °C
for e-mobility**

- Space-saving conveyor technology as swing conveyor/ paternoster
- Short process times thanks to integrated cooling zone with refrigerator unit
- Product temperature monitoring with IR radiation pyrometer for safety and time reduction in the process



**Continuous Oven VDU 100/150-150 °C
for sealing compounds in sensors**

- Economical solution based on a standard batch oven
- Integrated space-saving cooling zone
- Double-stranded chain conveyor system for workpiece carrier transport



**"Hedgehog" Oven VDL 75/50/350-200 °C
for sheet material**

- Short installation length with high number of components due to vertical transport of the products
- Feed and discharge with horizontal plate position
- Oven design according to EN 1539



Everything from one source.

Head into the future with us.

Everything at a glance. Everything under control. Everything perfect.



The digital measuring and control system SIMPAC.

All heating technology systems are equipped with **SIMPAC** as standard: for simple operation, monitoring and documentation. Up to 100 programs can be saved and conveniently controlled. Remaining program running times are reliably displayed. Individual alarm levels for product protection and a potential-free alarm contact increase safety. Networking and recording with **SIMPATI** are possible at any time with an Ethernet interface.



© bluebay2014 | Adobe Stock

Future-proof control at all times.



SIMPATI makes it possible!

Our control software for environmental simulation, heat and air-conditioning technology is ready to rise to the challenges of industry 4.0. Maximum flexibility and connectivity, simple operation and highest reliability guarantee a trouble-free integration into automated processes at all times. The **SIMPATI** range is rounded off by additional modules such as **SIMPATI web**, **SIMPATI e-sign**, **SIMPATI barcode scan** and **SIMPATI monitor**.



Pictures say more than 1,000 readings.



The visual documentation system SIMPATI time labs.

In addition to, and correlating with, the acquisition of conventional measurement data, special software generates digital camera images at fixed intervals and saves them in a shared archive folder. A combined evaluation of measurement data and imagery data brings new and valuable findings to light. Especially when a special event has taken place.



© REDPIXEL | Adobe Stock

Simply always in full control.



More comfort thanks to WEBSeason.

With the innovative user interface **WEBSeason** you can program, control and monitor your test any time and anywhere. In this way, **WEBSeason** provides a new dimension of flexibility and efficiency.



We measure ourselves by our service.

There for you, 365 days a year, 24 hours a day.

Service always guides our thoughts and actions. Our customers see us as partners. With our specialised service teams, we offer them sustainable solutions for long-term successful cooperation.

Nobody is faster.

Our area-wide service network is ready for you: in Germany alone, there is a service organisation with over 280 service employees available for you in indoor service, operations management and on the helpline. A specialist is never far away! In this way, we can reduce reaction times to a minimum and thus maximise your systems' availability. Your benefit: long-term plannable service reliability.

Competence and know-how.

Speed and availability are one pillar of our service, competence and know-how the other. Our service technicians are excellently trained specialists in the fields of electrical engineering/electronics, refrigeration technology, control engineering, mechanics and software. With our expert service team, available around the clock, we offer you reliable support on a partnership basis.



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

Our Service Experts are always near you.

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



weisstechnik also takes comprehensive care of your after-sales inspections. With our service products, we offer individual maintenance packages tailored to your needs.

We are happy to advise you on these topics:

- Factory and DAkkS calibrations
- Preventive maintenance
- Operator obligations
- Legally required repeat tests

At **weisstechnik**, you get the all-round carefree package for your testing units and systems. For your safety and to the satisfaction of your customers.

Further information is available through our service helpline:
+49 1805 666 556.

Or on our homepage:
www.weiss-technik.com/de/service

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.



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.



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.



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.

Weiss Technik GmbH

Heat Technology

Greizer Straße 41-49

35447 Reiskirchen/Germany

T +49 6408 84-0

info.ovens@weiss-technik.com

www.weiss-technik.com



Test it. Heat it. Cool it.



HT-Übers-01.2E/Print/11 2021

Illustrations may contain options.
Subject to technical changes.