

# **Experts in Thermostatics**

www.memmert.com



The first Memmert hot air steriliser, named after Aeolus, the Greek god of the wind. A sensation at the time, it was one of the very first ovens to have not a circular but a rectangular working chamber.

#### **Experts in Thermostatics**

It was in 1947 that Willi Memmert founded the company and built his first Aeolus hot air steriliser. Innovation, user orientation and quality were not yet current slogans but were already living elements of the company culture. A tireless inventor and pragmatic entrepreneur, he discovered in those lean and economically difficult times the perfect material: recycled aluminium from aircraft parts.

Aeolus was the beginning of a wide range of models, made by professionals for professionals and protected by pioneering patents. Today, universal ovens as well as water and oil baths for the most diverse applications are being supplied from the factory in South Germany, for testing of industrial materials and components, for biological, chemical and food research, and also for wide-ranging quality tests in advanced manufacturing processes – to mention only a few applications.

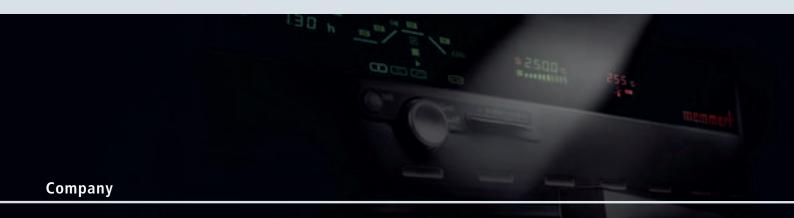
#### Our aim: technological leadership

More than 50 years later, entrepreneurial values continue to define people and products at Memmert. Product design and electronic development have always represented essential elements of in-house capabilities and will remain so, ensuring that the product range employs the latest technology and is directed towards maximum reliability and ease of operation.

The modular system of the Memmert product range permits rapid and highly variable industrial production. With responsibility devolved to the individual employee, a comprehensive testing scheme combined with extensive automation guarantees zero-fault quality at all times.



"Made in Germany" on the 15,000 m<sup>2</sup> production floor. Photo: automatic door manufacture.





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# **50 YEARS AID TO RESEARCH AND DEVELOPMENT**



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TO YOUR TASTE

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## Variety in application

Memmert products are widely used for analysis, testing, examination and research. There are rumours that some users magically produce tasty snacks with the aid of the ovens. Exceptions are the rule and any attempt at describing all professional applications would fill a thick volume. The electronic industry ages computer chips, the construction industry tests special mixes, model builders warm plasticine, microbiologists incubate cell cultures, hospitals sterilise instruments and warm infusion solutions, make-up artists carry out gentle heat treatment to restore wigs and masks and freshen up the performers.

Individual features such as size, temperature range, controller type, natural or forced air circulation can be assembled within the Memmert modular system to give more than 60 different standard ovens. And there is also the series of water and oil baths with their different sizes and controller classes and a comprehensive choice of accessories which have wide-ranging applications.



High-grade anti-corrosion stainless steel, easy to clean.

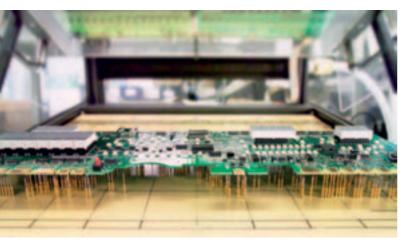
## Considered down to the last detail

Special customer requirements are always welcome and can nearly always be accommodated. Memmert products for the specialist among the professionals, such as cooled incubators with energy-saving Peltier technology or high-power refrigerating systems, CO<sub>2</sub> incubators and vacuum ovens.

Even small-size units incorporate all the essential Memmert quality features. High-grade recyclable stainless steel is used for casing, frame and chamber. The unmistakable design with structured surfaces and underglass function display is not only a visual highlight but offers also any number of practical advantages: sturdy surfaces easy to clean, good hygienic properties, reliable stability under tropical and on-site conditions. The innovative push-turn function selector offers unique operating convenience.



Basic to the efficiency of the Memmert modular system: fully-automated metal processing.



Every control system is tested for perfect operation before it is released for installation.

#### **Innovation is perfection**

With many years experience behind them, even older Memmert units ensure fault-free operation during long and intensive use. No reason to rest on one's laurels; with different and increasingly complex applications, strict regulatory requirements, and ever-higher demands on product quality, there is a need for perfected product generations which guarantee a maximum of safety and largely exclude operating errors.

The uniform chamber temperatures and precise temperature diagrams of today are the result of regular test series and fine-tuning of controller, heaters and ventilation. With increasing demands on the control, the electronics become more and more the centre for innovation. High-sensitivity electronic components require comprehensive quality control which at Memmert takes place entirely in-house: from electronic development through programming and assembly up to careful individual testing.

#### The latest technology in control

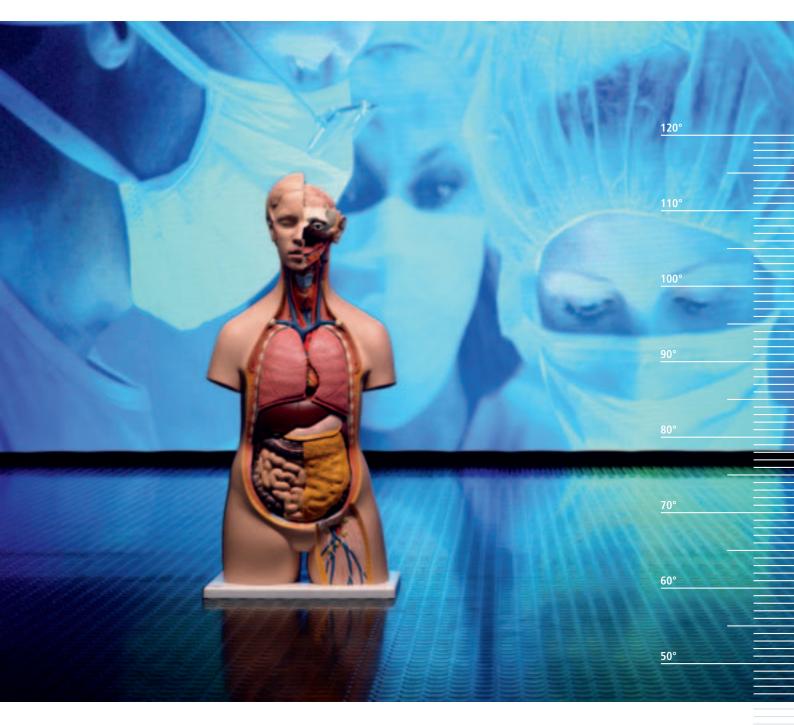
For Memmert development engineers, the professional importance of innovative temperature control rests not only on concepts such as fuzzy-supported, PID or multi-functional, but intrinsically in the guarantee of completely orderly, reliable, application-oriented and exactly definable process sequences.

On all Memmert units, the push-turn control (patent applied for) forms the simple central element for menu navigation and operation. On the most advanced controller classes it is possible to preset temperature setpoints, fan speed, air flap position, over- and undertemperature protection, on and off times, weekdays, multiweek running times and up to 40 temperature ramps, among others. The underglass function display shows the entire programme: temperature, operating mode, heater, fan and air flap status, time and alarm signals are at all times clearly visible.



Simply good design: underglass display of all functions and operating states, also the user-friendly push-turn control.

Innovation



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# PRECISION IN THE LAB SAVES LIVES

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OUR MOST IMPORTANT MEASURE: SECURITY

## Quality assurance included

Memmert quality can be seen, sensed and measured. It is specially with high utilisation, high humidity or in salt-bearing atmospheres that the high-grade stainless steel shows its superiority over enamelled steel where scratches or damage quickly lead to corrosion. Maximum thermal security for the load is ensured by the long-term stability of platinum sensors in independent protection systems for overtemperature and undertemperature monitoring as well as the unique ASF (auto-safety function) monitor system which automatically and continuously follows the setpoint.

Specially important for applications in medicine, pharmacy and the food industry are however the readily identifiable hard facts: GMP and GLP conformity, internal long-term report memory for uninterrupted documentation fully protected against alteration, "Celsius" remote control and documentation software (FDA version as optional extra). Interfaces for programming, storage and printing of temperature processes and a memory card for programming and documentation are included on the models with the most advanced control class, while ring memory, software and RS232 interface are already standard on Excellent class units.

#### Fit for TQM and user audits

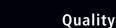
Product qualification as part of quality management or validation processes are for many companies the essential prerequisite in any supplier selection. Every Memmert control system is tested individually for its functionality, every unit passes through a standardised security and measurement test process and is re-calibrated if required. Apart from the works calibration certificate which is supplied as standard on Excellent and Perfect class units, Memmert prepares IQ and OQ certificates on request and offers IQ/OQ documentation to support IQ/OQ certification by the user.

It is obvious that Memmert are certified for EN ISO 9001, EN ISO 13485 (for medical products) as well as to Directive 83/42/EEC Appendix II.

A feast for the eyes with maximum functionality: stainless steel does not corrode, is strong and can readily be recycled.



The test area at the works: here, every product is tested and accurately calibrated before it is shipped.



## Well looked after

Memmert products are operating on all continents of the world. But wherever they are and however old they are, there is a dense network of long-established and well-qualified representatives and service partners who stand always ready to rapidly carry out maintenance, temperature tests and repairs. Within Germany, service agreements can be provided for all Memmert products. Spares packs are available worldwide for immediate despatch.

At Memmert's head office, customers find personal contacts in both the sales and service departments who can sort out applicationrelated problems and deal with quality assurance, documentation and operation. Highly motivated and experienced advisers organise and progress spares orders, user training, repair and maintenance all over the world.

## All-round quality

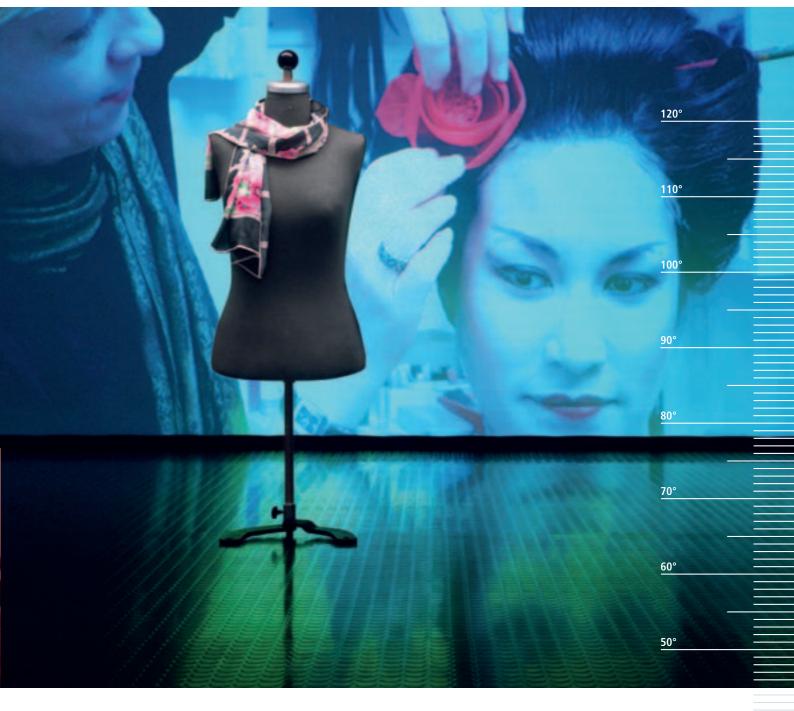
Environmental protection at Memmert was never only a passing fashion but has at all times been part of life. By largely avoiding compound materials and fabricating in pure stainless steel, it has become possible for Memmert products to be recycled to a large extent. Long before the relevant Europe-wide regulations came into force, Memmert have been taking back old units and arranging for appropriate disposal.

All Memmert products and manufacturing processes conform to the EU Directives 2002/95/EEC (RoHS) as well as 2002/96/EEC (WEEE). During manufacture, all waste and residue is collected separately and recycled as far as possible. Technical processes are directed towards the maximum use of environment-friendly materials; with lead-free soldering processes only one among many others.

Globally directed, continuously driving innovation, while at the same time conscious of the responsibility towards customers, employees and the environment – this enterprise philosophy forms the secret for Memmert's success.



Pleasant surroundings for concentrated work: the ultramodern training centre at Memmert's head office.



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IT IS OUR PLEASURE

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# **OUR PROGRAMME**

Universal ovens Incubators Hot air sterilisers **Ovens** 



#### Vacuum ovens

Peltier-cooled incubators Compressor-cooled incubators **Cooled incubators** 



CO<sub>2</sub> incubators

Humidity chambers

Water and oil baths

#### Your Memmert Partner

Upon your request we are pleased to send you detailed brochures

#### www.memmert.com

Some of the illustrations in this publication include special accessories. We reserve the right of technical modifications. Dimensions are subject to confirmation.

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