

Heating



memmert
Experts in Thermostatics

**dijkstra
vereenigde**

Cooling

Humidity

CO₂ and O₂

Light

Vacuum

Memmert Product Range

QUALITY - RELIABILITY - PRECISION.



HEATING AND DRYING OVENS

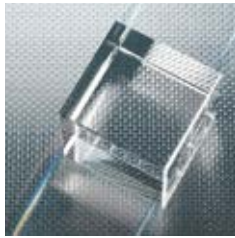
INCUBATORS

CLIMATE CHAMBERS

WATERBATHS AND OILBATHS

100% ATMOSAFE. MADE IN GERMANY.

www.memmert.com | www.atmosafe.net



Worldwide Leader in Technology

Since its founding days in 1947 strong relations with customers around the globe has been one of the reasons for the success story of the Memmert brand and for becoming one of the leading suppliers of temperature controlled appliances for the lab.

Memmert's most important objective in research and development has been controlled atmosphere, which means all parameters are controlled with the utmost precision. Inseparably linked to this are reliability, optimum temperature homogeneity and stability, user friendliness and an outstanding price/performance ratio. This promise to customers and users is called: 100% AtmoSAFE.

The best Memmert appliance for each application

There is a huge number of application possibilities. Memmert appliances are widely used for analysis, testing, examination and research in the 4 core branches industry, medicine, pharma and food.

Heating and Drying Ovens

TYPICAL APPLICATIONS

Drying, burning-in, ageing, vulcanising, degassing, curing, burn-in testing, conditioning, heated storage

EXEMPLARY SPECIAL APPLICATIONS

UNpa	Tempering of embedding media like paraffin and wax
S	Sterilising of instruments and laboratory glass
VO/VOcool	Oxygen-free storing, vacuum testing

Incubators

TYPICAL APPLICATIONS

Microbiological tests, colony counts, virology, toxicology

EXEMPLARY SPECIAL APPLICATIONS

ICO	Cultivation of cells or tissue, in-vitro fertilisation, gene expression
ICP, IPP, IPS	Cultivation above and below room-temperature, alternate stability tests

Climate Chambers

TYPICAL APPLICATIONS

Conditioning and climate testing of plastic material/metal/composite material, storage of electronic components/lacquers/coatings in controlled environment, stability testing (HPP/ICH according to ICH Q1A)

EXEMPLARY SPECIAL APPLICATIONS

HPP	Long-term storage, growing plants
ICH	Photostability testing (according to ICH Q1B) in the pharmaceutical industry, long-term storage
CTC/TTC	Accelerated and intermediate tests
HCP	Gravimetric determination water absorption

Baths

- | | |
|---|--|
| W | Temperature control of samples, plates, breeding media and emulsions in the laboratory, long-term exposure to heat of plastics to determine dimensional stability and post-shrinkage, softening temperature testing of plastic, warming of baby food |
| O | Testing of overtemperature protection devices, sensor calibration, industrial processings |

Heating and Drying Ovens

Drying, heating, ageing, testing, sterilising, burning-in, curing, storing.

In 1947 the first ever Memmert oven, a hot air steriliser, was built for the Red Cross. Ever since then, the Memmert range of heating and drying ovens has grown into a versatile line-up of extremely precise and reliable high quality temperature controlled appliances.

Designed to make the lab staff's day-to-day work easier and more efficient, Memmert heating and drying ovens offer the utmost level of user friendliness. From material testing labs to electronic production, from fire brigades to opera houses, from pharmaceutical research to hospitals, these state-of-the-art ovens connect to the world.

Universal Ovens U

- 9 model sizes from 32 litres to 1060 litres
- 2 model variants: SingleDISPLAY or TwinDISPLAY
- Temperature range up to +300 °C
- All-round heating on all 4 sides for excellent temperature homogeneity
- Natural convection (N) or forced air circulation (F)
- Available as medical device class I
- Paraffin Oven UNpa: temperature range up to +80 °C; interior chamber almost gas tight for avoiding oily residues in tiny cavities

→ Further details: www.memmert.com/universal-oven



Sterilisers S

- 8 model sizes from 32 litres to 749 litres
- 2 model variants: SingleDISPLAY or TwinDISPLAY
- Temperature range up to +250 °C
- All-round heating on all 4 sides for excellent temperature homogeneity
- Natural convection (N) or forced air circulation (F)
- Medical device class IIb as per Directive 93/42/EEC

→ Further details: www.memmert.com/steriliser



STERILISING TESTING AGEING
 BURNING-IN
 DRYING HEATING

Pass-through Ovens UF TS



- 4 model sizes: 161, 256, 449 and 749 litres
- TwinDISPLAY
- Temperature range up to +250 °C
- All-round heating on all 4 sides for excellent temperature homogeneity
- For 2-sided loading (door front and back)
- Forced air circulation



→ Further details: www.memmert.com/pass-through-oven

Vacuum Ovens VO



- 3 model sizes: 29, 49 and 101 litres
- Temperature range up to +200 °C
- Pressure range: 5 to 1100 mbar
- Digital electronic pressure control
- Thermoshelves can be controlled separately (Multi-Level-Heating)
- Multifunctional fuzzy-supported control
- VOcool with cooling unit: temperature range +5 °C up to +90 °C



→ Further details: www.memmert.com/vacuum-oven

Incubators

Memmert microbiological incubators: Energy efficient and precise.

Microbial and especially cell cultures are extremely sensitive to fluctuations in their surrounding microclimate. The slightest swing of environmental parameters can jeopardise the results of an experiment. Therefore each Memmert incubator was designed for long-term stability of temperature, humidity and carbon dioxide.

Like a well-tuned engine the control systems in a Memmert incubator are perfectly balanced between swift and smooth operation. Each incubator precisely keeps the desired parameters in the entire working chamber within the smallest tolerance limits.

Incubators I

- 8 model sizes from 32 litres to 749 litres
- 2 model variants: SingleDISPLAY or TwinDISPLAY
- Temperature range up to +80 °C
- All-round heating on all 4 sides for excellent temperature homogeneity
- Natural convection (N) or forced air circulation (F)
- Double doors (inside glass, outside stainless steel)
- Available as medical device class I

→ Further details: www.memmert.com/incubator



Peltier-cooled Incubators IPP

- 5 model sizes: 32, 53, 108, 256 and 749 litres
- 2 model variants: SingleDISPLAY or TwinDISPLAY
- Temperature range 0 °C up to +70 °C
- Heating and cooling based on unique Peltier technology
- Reduced power consumption – no compressor
- Hardly any vibration and noise
- Double doors (inside glass, outside stainless steel)
- Optional with LED light

→ Further details: www.memmert.com/peltier-cooled-incubator



Cooled Storage Incubators IPS



- 2 model sizes: 256 and 749 litres
- SingleDISPLAY
- Temperature range +14 °C up to +45 °C
- Heating and cooling based on unique Peltier technology
- Reduced power consumption – no compressor
- Hardly any vibration and noise
- Double doors (inside glass, outside stainless steel)



→ Further details: www.memmert.com/cooled-storage-incubator

Compressor-cooled Incubators ICP



- 5 model sizes: 53, 108, 256, 449 and 749 litres
- TwinDISPLAY
- Temperature range -12 °C up to +60 °C
- Air jacketed temperature control system
- Double doors (inside glass, outside stainless steel)



→ Further details: www.memmert.com/compressor-cooled-incubator

CO₂ Incubators ICO



- 4 model sizes: 56, 107, 156 and 241 litres
- TwinDISPLAY
- Temperature range up to +50 °C
- Humidity range 40 to 97 % rh (active and passive control available)
- Standard sterilisation programme: 60 minutes at 180 °C (without removing sensors)
- 6 side heating incl. heated inner glass door: short recovery times, avoiding condensation



→ Further details: www.memmert.com/co2-incubator

Climate Chambers

Perfect simulation of reality. Reproducible, standard compliant, economic.

100% AtmoSAFE has long been Memmert's credo when it comes to developing appliances which are unparalleled in terms of precision and reliability. So of course, each Memmert climate chamber delivers a crucial point in stability and climate tests, conditioning or ageing: homogenous as well as stable temperature and humidity distribution over the entire chamber.

All Memmert climate chambers offer digitally controlled active humidification and dehumidification, thus providing a perfect environment for stability testing in pharmaceuticals, cosmetics or food industry as well as climate and temperature testing in the electronics, chemical or automotive production.

Constant Climate Chambers HPP

- 6 model sizes: 108, 256, 384, 749, 1060 and 1360 litres
- TwinDISPLAY
- Temperature range 0 °C up to +70 °C
- Digitally controlled active humidification and dehumidification 10 to 90 % rh
- Heating and cooling based on unique Peltier technology
- Reduced power consumption – no compressor
- Hardly any vibration and noise
- Double doors (inside glass, outside stainless steel)
- Optional with LED light

→ Further details: www.memmert.com/constant-climate-chamber



Humidity Chambers HCP

- 3 model sizes: 108, 153 and 246 litres
- Temperature range up to +90 °C with humidity, up to +160 °C without humidity
- Digitally controlled active humidification and dehumidification 20 to 95 % rh
- 6 side heating – nearly condensation-free
- Double doors (inside glass, outside stainless steel)

→ Further details: www.memmert.com/humidity-chamber



PHOTOSTABILITY CONDITIONING STORAGE ENVIRONMENTAL TESTING STABILITY TESTING

Climate Chambers ICH / ICH L / ICH C



- 3 model sizes: 108, 256 and 749 litres
- TwinDISPLAY
- Temperature range +10 °C up to +60 °C with humidity, -10 °C up to +60 °C without humidity
- Digitally controlled active humidification and dehumidification 10 to 80 % rh
- Double doors (inside glass, outside stainless steel)
- Models ICH L with illumination unit
- Models ICH C with CO₂ control



→ Further details: www.memmert.com/climate-chamber

Environmental Test Chambers CTC / TTC



- Model size: 256 litres
- Temperature range +10 °C up to +95 °C with humidity, -42 °C up to +190 °C without humidity
- Digitally controlled active humidification and dehumidification 10 to 98 % rh (only CTC)
- Average cooling down speed (acc. to IEC 60068-3-5) 3 K/min (+180 °C to -40 °C)
- Average heating up speed (acc. to IEC 60068-3-5) 10 K/min (-40 °C to +180 °C)
- Automatic defrosting system provided for the evaporator



→ Further details: www.memmert.com/environmental-test-chamber

Waterbaths and Oilbaths

Memmert's evergreens: uniquely precise and reliable.

Ever since Memmert started its waterbath production in the 1960's, the continuous development of modern control technology as well as various safety features have made waterbaths and oilbaths pillars of the Memmert product range. Due to their unparalleled precision, they are perfectly suited for demanding applications in quality management and science.

Working with below ambient temperatures is easy with the space-saving Peltier cooling unit CDP115. It fits on all Memmert waterbath sizes, is environmentally friendly and precisely controllable down to ± 0.1 K.

Waterbaths W

- 6 model sizes: 7, 10, 14, 22, 29 and 45 litres
- 2 controller classes: Basic (B) or Excellent (E)
- Temperature range up to $+95$ °C and boiling stage
- Heating on 3 sides for excellent temperature homogeneity
- Model WPE45 with circulating pump
- Flat and gable cover, bottom shelf reversible, shaking device available as accessory
- Peltier-cooling device available

→ Further details: www.memmert.com/waterbath



Oilbaths O

- 6 model sizes: 7, 10, 14, 22, 29 and 45 litres
- 1 controller class: Excellent (E)
- Temperature range up to $+200$ °C
- Heating on 3 sides for excellent temperature homogeneity

→ Further details: www.memmert.com/oilbath



Customisation department

Memmert myAtmoSAFE meets any specific customer demand.

The customisation department adapts standard appliances to special needs. Their solutions are economic as well as technologically advanced and customers profit from the full guarantee period. Some customer-specific development projects, like the cooled vacuum oven VOcool or the climate chamber for keeping mice HPPlife even made their way into the standard product range.

If users want to make sure they chose the right appliance offering the right suit of parameters and functions, they can have their application tested in advance in the Memmert MPTC Test Centre.

Customer-specific adjustment of standard models:

-
- Feed-throughs and ducts
-
- Special fittings for special applications (e.g. weighing equipment)
-
- Limiting temperatures in the heating and cooling range
-
- Air exchange rates
-
- Relative humidity
-
- Light intensity and spectrum
-
- (Wall) Frames
-
- Telescopic trays
-
- Heavy duty appliances, heavy duty bottom grids
-
- Special bases, stacking frame
-
- Central or integrated water supply
-
- Special model sizes
-
- Appliances for integration in the production lines
-



What can we do for you? If you have questions concerning applications and appliances, our customer relations team will be pleased to help you. For further information please contact directly sales@memmert.com or use our product selector to find the right Memmert product for your application within seconds. Our customisation department will be at your disposal for tailor-made solutions: myAtmoSAFE@memmert.com.



10

good reasons for a Memmert

- 1 Leader in technology:** Experienced and continuously innovative for more than 6 decades.
- 2 ControlCOCKPIT:** Touch, turn & go! Easy and intuitive operation. Clear view of all parameters.
- 3 Performance:** Unparalleled precision and temperature stability, brilliant all-round surface heating.
- 4 GreenLab:** Pioneer of energy-efficient, environmentally friendly products with Peltier technology.
- 5 Convenience:** Interfaces for connecting and programming, easy opening/closing of the door and transport.
- 6 Safety** of users and chamber loads. Electronic temp. monitoring system, overtemp. protection, alarm notifications and MobileALERT.
- 7 AtmoCONTROL software:** Drag, drop & go! Simple to operate, user-friendly, multiple possibilities for programming and documentation.
- 8 Stainless steel:** Beautiful and functional. Particularly corrosion-resistant, hygienic, robust, can be recycled without any problems.
- 9 Service:** Technical support – whenever, wherever. Spares, maintenance, repair, commissioning, IQ/OQ/PQ qualification, customer training.
- 10 myAtmoSAFE:** Tailor-made solutions and customised appliances for complex applications.

YOUR MEMMERT PARTNER



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