

memmert

Memmert Product Range

CLIMATE CHAMBERS

HEATING AND DRYING OVENS

INCUBATORS

WATERBATHS

MEDICAL DEVICES

QUALITY - RELIABILITY - PRECISION.



90
YEARS
OF BEING AHEAD

MADE IN GERMANY

www.memmert.com

ABOUT MEMMERT

MEMMERT is one of the world's leading manufacturers of climate chambers and temperature control units for laboratories and industrial applications. Our product range comprises climate chambers, heating and drying ovens, incubators, medical devices and water baths.

In our role as innovation leader, our philosophy is to align new product developments with customer requirements whilst simultaneously striving for a maximum level of quality, reliability and sustainability. Standardised manufacturing processes in our ultra-modern production facilities implemented by a 550-strong workforce of skilled and experienced employees guarantee consistent high-quality standards.

With over 90 years of experience and an international network spanning the globe, Memmert is synonymous with top Made in Germany quality.

TOUCH, TURN and GO

Simple and intuitive operation with the innovative ControlCOCKPIT.
This gives you a clear and quick overview of all parameters.



SingleDISPLAY



Twin DISPLAY

The best Memmert appliance for each application

The number of possible applications is almost unlimited.
Mettmert appliances are used in a wide variety of areas:

- in the pharmaceutical industry and medicine,
- in biological, chemical and food research,
- for industrial material and component testing and
- for various quality tests in demanding manufacturing processes.

Climate Chambers

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TYPICAL APPLICATIONS	<ul style="list-style-type: none">■ Conditioning and climate testing of plastic material/metal, composite material■ Storage of electronic components, lacquers, coatings in controlled environment■ Stability testing (HPPeco/ICH according to ICH Q1A)
PRODUCT SERIES	HPPeco HCP ICH CTC TTC

Heating and Drying Ovens

07

TYPICAL APPLICATIONS	<ul style="list-style-type: none">■ Drying, burning-in, ageing■ Vulcanising, degassing, curing■ Burn-in testing, conditioning, heated storage
PRODUCT SERIES	U UNpa UFTS VO

Incubators

09

TYPICAL APPLICATIONS	<ul style="list-style-type: none">■ Microbiological tests, colony counts■ Virology and toxicology
PRODUCT SERIES	I IPPeco ICP ICO

Baths

11

TYPICAL APPLICATIONS	<ul style="list-style-type: none">■ 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
PRODUCT SERIES	WTB

Medical devices

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TYPICAL APPLICATIONS	<ul style="list-style-type: none">■ Sterilising of instruments and laboratory glass■ Warming of non-sterile cloths and blankets■ Cultivation of cells or tissue, in-vitro fertilisation, gene expression
PRODUCT SERIES	Um Im S ICOmed IFbw

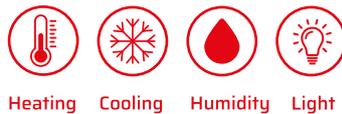
Climate Chambers

Storing, climate testing, conditioning, stability testing, photostability testing.

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 HPPeco



Heating Cooling Humidity Light



- Interior and Exterior both made of Stainless Steel
- Heating and cooling based on unique **PELTIER technology**
- 7 different model size: 108, 256, 384, 749, 1060, 1360, 2140 litres
- 1 model variant: TwinDISPLAY
- **Temperature range: ambient -20 °C up to +70 °C (up to model 1060)**
- **Temperature range: ambient -10 °C up to +60 °C (for model 1400 and 2200)**
- **Digitally controlled active humidification & dehumidification 10% to 90% rh**
- Double Door (inside glass, outside stainless steel)
- Vibration free as unique PELTIER technology is used
- **Option with LED light available for specific models**
- Capacitive type humidity sensor
- **Internal data logger with capacity to store upto 10 years of data.**
- AtmoCONTROL software for programming and documenting
- Various accessories available as option on request
- Reduced power consumption -No compressor

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

Humidity Chambers HCP

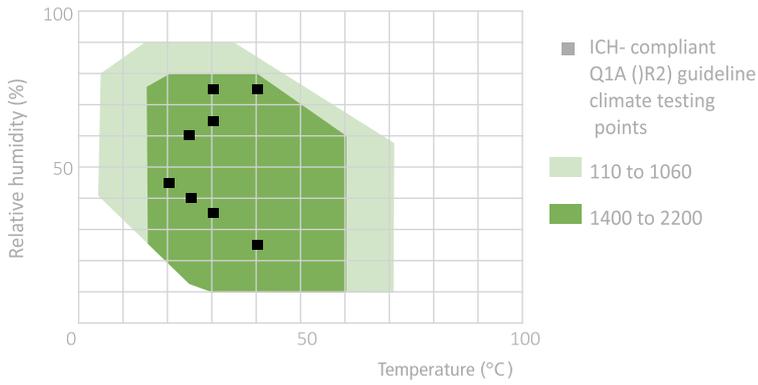


Heating Humidity

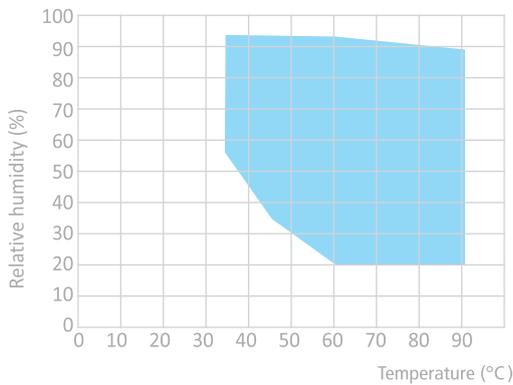


- Interior and Exterior both made of Stainless Steel
- 4 different model sizes: 56,107,156, 241 litres
- 1 model variant: TwinDISPLAY
- **Temp range ambient temp up to +90 °C**
- **Digitally controlled active humidification & dehumidification 20% to 95% rh**
- 6 side heating incl. heated inner glass door, short recovery times, avoiding condensation
- Double door (inside glass, outside stainless steel)
- State of the art control technology
- Humidity limit control 'as standard
- **Internal data logger with capacity to store upto 10 years of data.**
- AtmoCONTROL software on USB stick for programming
- Visual and acoustic alarm
- Various accessories available as option on request

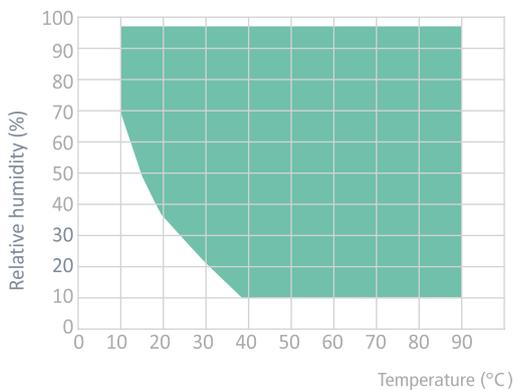
→ Further details : www.memmert.com/humidity-chamber



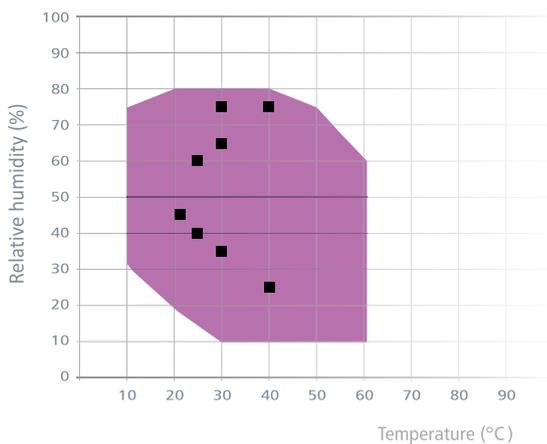
Temperature-Humidity working range for HPPeco



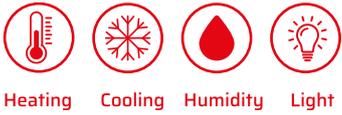
Temperature-Humidity working range for HCP



Temperature-Humidity working range for CTC



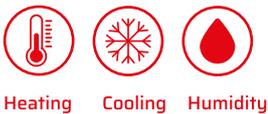
Temperature-Humidity working range for ICH



Climate Chambers ICH / ICHeco

- Interior and Exterior both made of Stainless Steel
- 3 different model sizes: 108, 256 & 749 litres
- 1 model variant -TwinDISPLAY
- **Digitally controlled active humidification and dehumidification 10 to 80 % rh**
- Double door (inside glass, outside stainless steel)
- **Models ICH L with illumination unit to carry photo stability test in accordance with ICH Q1B 1.2 million Lux/h for visible light & 200 wh/m² for UV light.**
- **Temperature range: -10 °C up to +60 °C (without humidity)**
- **Temperature range: +10 °C up to +60 °C (with humidity)**
- Air jacket thermostating system
- Capacitive type humidity sensor
- Validatable software according to FDA 21 CFR Part 11 available as option
- Various accessories available as option on request
- ICHeco: with natural and climate-friendly refrigerant CO₂ (R744), improved cooling capacity, nearly maintenance free
- Refrigerant R134a

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



Environmental Test Chambers CTC / TTC

- 1 model of 256 litres capacity
- **Temperature range -42 °C to + 190 °C without humidity**
- **Humidity range 10 % to 98 % in temp range of +10 °C to + 95 °C**
- Average cooling speed 3 K/min (+180 °Cto -40 °C)
- Average heating speed 10 K/min (-40 °Cto +180 °C)
- Automatic defrosting system provided for the evaporator
- Interior and Exterior both made of Stainless Steel
- State of the art perfect class control technology
- Electronically controlled active humidification and dehumidification from 10-98 % rh
- Capacitive type humidity sensor
- Adjustable high performance air fan
- Various accessories available as option on request

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



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, Memmert range of heating and drying ovens has grown into a versatile line-up of extremely precise and reliable high quality temperature control 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
- 34 different models
- 2 model variants: SingleDISPLAY and 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)
- Prewarming of fresh air
- **Internal data logger with capacity to store upto 10 years of data.**
- Various accessories available as option on request

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

Sterilisers S



- Interior and Exterior both made of Stainless Steel
- **Medical devices class IIb as per Directive 93/42/EEC**
- 32 different models
- 8 model sizes from 32 litres to 749 litres
- 2 model variants: SingleDISPLAY and 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)
- Prewarming of fresh air
- **Internal data logger with capacity to store upto 10 years of data.**
- AtmoCONTROL software
- Various accessories available as option on request

→ Further details: www.memmert.com/steriliser



Heating

- 4 model sizes 161, 256, 449 & 749 litres
- 1 model variant-TwinDisplay
- **Temperature range up to 250 °C**
- All round heating on all 4 sides for excellent temperature homogeneity
- Two doors provided one on front and one at the back
- Can be equipped with lateral feed through accommodating deflection rollers for a quick throughput when manufacturing electronic components
- Adjustable Forced Air Circulation
- **Internal data logger with capacity to store up to 10 years of data.**

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

Pass-through Ovens UF TS



Heating



Vacuum



Vacuum Ovens VO

- 3 different model sizes: 29, 49 & 101 litres
- 1 model variant-TwinDisplay
- **Temperature range up to +200 °C**
- **Pressure range: 5 to 1100 mbar**
- Digital electronic pressure control
- Thermo shelves can be controlled separately (Multi-Level-Heating)
- Multifunctional fuzzy-supported control
- Control and logging software AtmoCONTROL

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



Heating

- 4 model sizes: 108, 256, 449 and 749 litres
- 1 model variant-SingleDisplay
- **Temperature range up to +80 °C**
- All-round heating on all 4 sides for excellent temperature homogeneity
- Forced air circulation
- Door-open-recognition
- Medical devices class I as per Directive 93/42/EEC

→ Further details: www.memmert.com/blanket-warmer

Blanket Warmer IFbw



Incubators

Microbiological testing, incubating, cultivating, in-vitro fertilising.

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



Heating



- Interior and Exterior both made of Stainless Steel
- 8 model sizes from 32 litres to 749 litres
- 32 different models
- 2 model variants: SingleDISPLAY and 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 Door (inside glass, outside stainless steel)
- **Internal data logger with capacity to store upto 10 years of data.**
- Prewarming of fresh air

→ Further details: www.memmert.com/incubator

Peltier-cooled Incubators IPPeco



Heating



Cooling

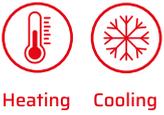


Light



- Interior and Exterior both made of Stainless Steel
- Heating and cooling based on unique **PELTIER technology**
- 9 model sizes 32, 53,108, 256, 384,749,1060,1360, 2140
- 2 model variants: SingleDISPLAY and TwinDISPLAY
- **Temperature range: ambient -20 °C up to +70 °C**
- **Reduced power consumption - No Compressor**
- Hardly any vibration & noise
- No condensation inside chamber
- Ideal for processes and tests close to ambient temperature
- Calibration certificate at +10 °C and +37 °C
- **Internal data logger with capacity to store upto 10 years of data.**
- AtmoCONTROL software for programming and documenting
- Double Door (inside glass, outside stainless steel)
- Optional with LED light
- Various accessories available as option on request

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



Compressor-cooled Incubators ICP / ICPEco



- 5 different model sizes: 108, 256, 449 & 749 litres
- 1 model variant: TwinDISPLAY
- **Temperature range -12 °C up to +60 °C**
- Sophisticated ventilation technology ensuring good air circulation
- Double door (Inside glass, outside stainless steel)
- Air jacketed temperature control system
- Intelligent defrosting system
- Calibration certificate at +10 °C and +37 °C
- **Internal data logger with capacity to store upto 10 years of data.**
- Various accessories available as option on request
- ICPEco: with natural and climate-friendly refrigerant CO₂ (R744), improved cooling capacity, nearly maintenance free |

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



CO₂ Incubator ICO



- 4 different model sizes: 56, 107, 156 & 241 litres
- 1 model variant: 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 any sensor:**
- 6 side heating incl. heated inner glass door short recovery times, avoiding condensation.
- Precise control of temperature, humidity, CO₂ & optional O₂ content
- Additional optional modules for feature expansion
- **Internal data logger with capacity to store upto 10 years of data.**
- Calibration facility for temperature, CO₂ and humidity on the controller
- Various accessories available as option on request

→ Further details : www.memmert.com/CO2-incubator

Waterbaths

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 pillars of the Memmert product range. Due to their unparalleled precision, they are perfectly suited for demanding applications in quality management and science.

Waterbath WTB



Heating



- 6 different model sizes 7.5,10,17.1,23.1,37.5 & 51 litres.
- **Temperature range at least 5°C above ambient up to +100°C (with cover depending on ambient pressure)**
- Flat and gable cover, bottom shelf reversible, shaking device available as accessory
- Heating on bottom side
- High-quality rust-resistant and easy-to-clean stainless steel for the interior and exterior housing

→ Further details : www.memmert.com/waterbath

Imporant Conversion Chart

Pressure Conversion Chart			
mbar	mm/Hg	Torr	kPa
1	0.75	0.75	0.10
5	3.75	3.75	0.5
7.5	5.63	5.63	0.75
10	7.50	7.50	1.00
50	37.50	37.50	5.00
100	75.01	75.01	10.00
300	225.02	225.02	30.00
500	375.03	375.03	50.00
700	525.04	525.04	70.00
900	675.06	675.06	90.00
1000	750.06	750.06	100.00
1100	825.07	825.07	110.00
Length / Volume Conversion Chart			
1m = 100 cm = 1000 mm = 3.28 ft			
1ft= 12 Inches = 304.8 mm			
1 cu.m = 1000 Litres			
1 cu.ft = 28.316 Litres			

MEDICAL DEVICES

Heating, tempering, sterilising, cultivating, in-vitro fertilising.

The products on the following two pages are classified as medical device (class I, IIa and IIb). Memmert medical devices can be found in clinics, doctors' practices and pharmacies. Especially in emergency trauma rooms, the blanket warmers are used to preheat blankets and cloths. In the incubators you can be certain that bacteria cultures and cell cultures are incubated most gently and without any temperature overshoots.

It is the hard-lined commitment to quality that has made Memmert a reliable partner in the medical sector and medical research industry. Of course Memmert is DIN EN ISO 13485 certified since many years.



Heating

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)
- Medical device class I¹

Incubators Im



Heating Humidity O₂ CO₂



4 model sizes: 56, 107, 156 and 241 litres

- Model variant 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
- Medical device class IIa²

CO₂ Incubator ICOMed



Universal Oven Um series, Steriliser S series, Blanket Warmer IFbw series also available as Medical devices.



10 good reasons for a Memmert

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

Individual design meets strategic partnership

The range of services of m360 includes both small modifications and complex high-tech innovations.

Since the 1980s, m 360 has been developing and implementing customer-specific, premium solution in the field of temperature and climate control technology based on Memmert series products. At Memmert's central production site in Schwabach, Middle Franconia (southern Germany), the m360 team of experts design and produce tailor-made solutions in close cooperation with customers and business partners in order to create the perfect atmosphere for every application.

In doing so, m360 focuses on the creative and innovative development of the established Memmert technology according to the individual wishes of the customers. This can be a simple modification of a series product from Memmert or an extensive project in the construction of special machines and systems.

What we can do for you

Our brand is aimed at international customers who are looking for solutions to special challenges in the field of temperature and climate control technology. We offer an extremely high customer-first focus to create products that do not exist in the market. We collaborate closely with the customer to understand and meet the specific challenges and requirements down to the very last detail. At the same time, our experts work intensively on innovative ideas which they identify as highly topical, e.g., automatic solutions for the laboratory. With our experienced insight into the market, our team can precisely estimate trends and special solutions that will be in demand in the future.

The UF600plus in detail



Ergonomic telescopic rails
and special trays
make it easier to load the device.



The reinforced handle enables
the particularly tall door
to be opened easily.



Modifications

With m360 modifications and special accessories, you can unleash the full potential of your Memmert product. In our m360 list of services, you will find a selection of frequently requested extensions of a Memmert basic device. This includes additions such as entry ports and traffic light circuits, as well as individual programming of the AtmoCONTROL software.



Mechanics

- Customised interior fittings
- Individual entry ports in all sizes and shapes
- Telescopic slide pull-outs for ergonomic loading



Electronics

- Extended parameter monitoring e.g. by means of additional measuring sensors
- Optical and acoustic process monitoring e.g. by means of a traffic light system



Accessories

- Tailor-made subframe and stacking options
- Modified grids and shelves
- Individual air filters



Software

- Additional interfaces for data evaluation
- Individual temperature, humidity and CO2 parameters

Select Series

Our m360 Select Series comprise of highly developed devices that are based on frequently expressed customer requests and have proven successful in practice. Customers value these high-quality custom-made products for their outstanding quality and reliability. The portfolio includes both frequently requested special sizes and appliances for highly specific requirements, such as meeting a standard for drying food residues on crockery. Each appliance in the m360 Select Series is the result of meticulous development work by m360 experts and is based on customer feedback, achieving perfect balance between innovation and practicality.

Innovations

With m360 Innovations, we offer you complete, customised solutions that are precisely tailored to your individual needs. Our team of experts is at your side from the initial technical consultation to the final implementation. Based on proven Memmert technology, we develop and build appliances that are specifically designed for your application. No matter how complex your requirements are, we deliver innovative solutions that are tailored to your specific needs and harness the full power of our technology.



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