



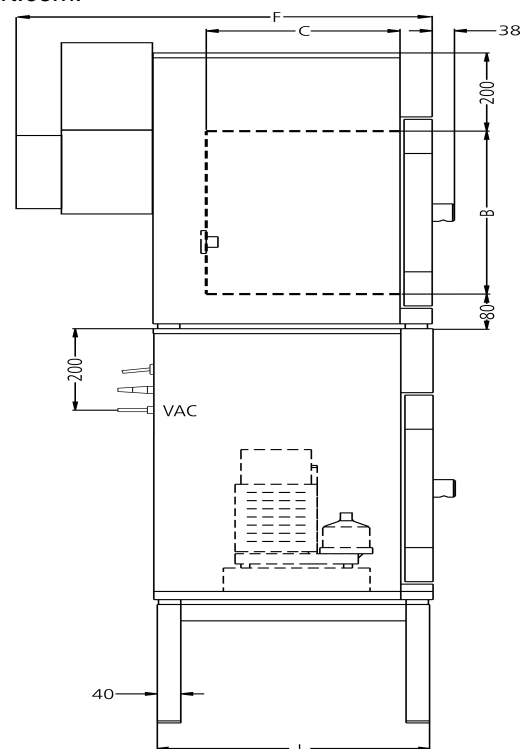
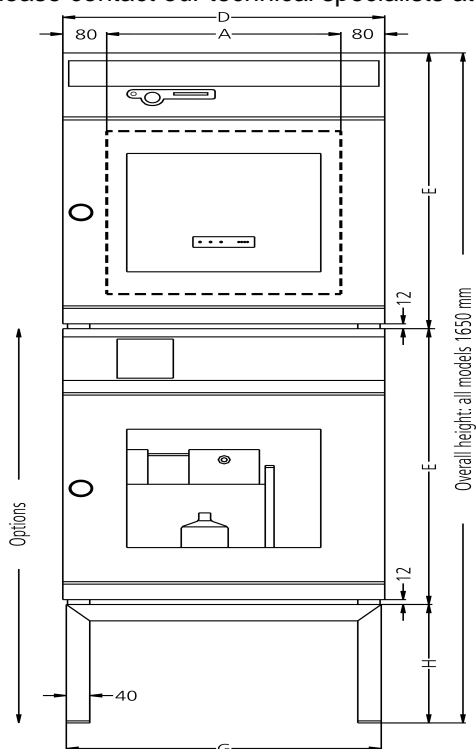
## Cooled vacuum oven VO400cool

For gentle drying of bacteria and starter cultures or simulation of intercontinental flights.



The direct contact between the load and the heatable thermoshelves in the chamber of the vacuum oven ensures rapid and uniform temperature control of food, cosmetics, watches, books, PCBs or injection moulds, without the loss of heat.

On this page, you can find all the essential technical data on our vacuum drying oven. Our customer relations team will be pleased to help if you want further information. If you should require a customised special solution, please contact our technical specialists at [myAtmoSAFE@memmert.com](mailto:myAtmoSAFE@memmert.com).



## Temperature

	from +5°C up to +90°C
<b>resolution of display for actual values</b>	0.1°C
<b>resolution of display for setpoint values</b>	0,1°C
<b>resolution of display/setting accuracy</b>	0.5°C

## Control of standard components

<b>Temperature</b>	temperature measured through 4-wire Pt100 sensor
<b>Vacuum</b>	digital electronic pressure control through solenoid valves
<b>Vacuum</b>	setting accuracy 1 mbar
<b>Vacuum</b>	adjustment range from 5 mbar to 1100 mbar - digital (LED)
<b>Vacuum</b>	rapid air intake for door opening (door is blocked under vacuum ) - programme reactivation at stored values
<b>Vacuum</b>	vacuum drying process (vacuum cycles) is continued after power failure
<b>Vacuum</b>	one programmable, digitally controlled inlet for air
<b>Controller</b>	digital display of all set parameters, such as temperature, weekdays, time, pressure, programme status and set-up values
<b>Controller</b>	LED-symbol for thermoshelf in operation
<b>Controller</b>	digital display of actual temperature
<b>Timer</b>	digital 7-day programme timer with real time clock, precise minute setting, for one set value or start of ramp operation
<b>Timer</b>	integrated timer for tempering and pressure (vacum) profiles of up to 40 ramps, parameters time, pressure and temperature (setpoint dependent) individually adjustable for each segment from 1 min. up to 99 hrs

## Control technology

<b>Calibration</b>	three freely selectable temperature and pressure values
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## Communication

<b>Interface</b>	USB-interface incl. Memmert software "Celsius" for programming and documentation of temperature and pressure
<b>Documentation</b>	integrated ring memory as data logger for GLP-conforming long-term documentation of all relevant parameters - 1024 kB
<b>Documentation</b>	programme stored in case of power failure
<b>Programming</b>	chip-card control incl. 1 MEMoryCard XL with 32 kB storage capacity (max. 40 ramps)
<b>Programming</b>	multifunctional programming via menu on 8-digit alphanumeric digital display (language to be chosen via set-up)

## Safety

<b>Temperature control</b>	automatic overtemperature protection following the setpoint-value and switching the heating off at about 3°C above setpoint value in case of failure
<b>Temperature control</b>	additional digitally adjustable, electronic micro-processor overtemperature monitor TWW, protection class 3.3 - (max-value for overtemperature, min-value for undertemperature)
<b>Temperature control</b>	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 20°C above nominal temperature
<b>AutoSAFETY</b>	additionally integrated over- and undertemperature protection "ASF", automatically following the setpoint value at a preset tolerance range, alarm in case of over- or undertemperature, heating is switched off in case of overtemperature
<b>Autodiagnostic system</b>	for fault analysis

## Heating concept

fuzzy-supported MLC (Multi-Level-Controlling) microprocessor controller adapting its performance to the volume (local temperature sensing)

## Standard equipment

<b>Scope of delivery</b>	incl. works calibration certificate for +50°C/20 mbar
<b>Door</b>	full-sight glass door, inside spring-loaded, 15 mm thick glazed panel in safety glass, outside with anti-splitter screen
<b>Interior</b>	hermetically welded stainless steel interior of extremely corrosion-resistant stainless steel, material 1.4404
<b>Interior</b>	additional interior mountings of stainless steel, material 1.4404. consisting of mounting at the sides with guide bars for thermoshelves and on top (diffuser) to avoid turbulences when aerating
<b>Interior</b>	all tubings made of stainless steel, material no. 1.4571
<b>Internals</b>	1 thermoshelf of aluminum, material 3.3547 (ASTM B209) with integrated large-area heating and cooling, in lowest position (cannot be removed)

## Stainless steel interior

<b>Volume</b>	49 l
<b>Dimensions W x H x D in mm</b>	$w_{(A)} \times h_{(B)} \times d_{(C)}$ : 385 x 385 x 330 mm
<b>Max. loading of chamber</b>	20 kg

## Textured stainless steel casing

<b>Dimensions</b>	$w_{(D)} \times h_{(E)} \times d_{(F)}$ : 550 x 680 x 730 mm
<b>Housing</b>	rear zinc-plated steel

## Electrical data

Voltage	230 V, 50/60 Hz
Electrical load	approx. 500 W

## Packing/shipping data

the appliances must be transported upright

Customs tariff number	8419 8998
Country of origin	Federal Republic of Germany
WEEE-Reg.-No.	DE 66812464
Dimensions approx incl. carton	B x H x T: 660 x 870 x 590 mm
Net weight	approx. 92 kg
Gross weight carton	approx. 113 kg

Standard units are safety-approved and bear the test marks

