# Universal Oven UN450plus

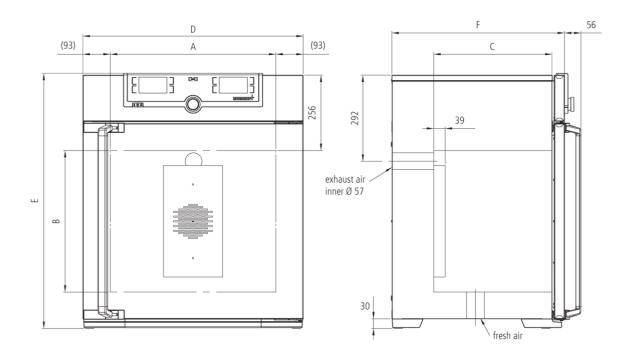
Precise drying, heating, ageing, burn-in and hardening in research, science, industry and quality assurance.



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Experts in Thermostatics

The universally applicable lab oven U is Memmert's classic appliance for temperature control in science, research and material tests in industry. The technologically perfected masterpiece made of high-quality, hygienic, easy-to-clean stainless steel leaves nothing to be desired in terms of ventilation and control technology, overtemperature protection and precisely tuned heating technology. On this page, you can find all the essential technical data on the universal Memmert lab oven. Our customer relations team will be pleased to help if you want further information.



ControlCOCKPIT	adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-color displays
Temperature	2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value
Timer	Digital backwards counter with target time setting, adjustable from 1 minute to 99 days
Temperature	
Set temperature range in °C	min. 5°C above ambient up to +300°C
	resolution of display for setpoint values 0.1°C up to 99.9°C, 0.5°C from 100°C and for actual values 0.1°C (LED)
Control technology	
adjustable parameters	temperature (Celsius or Fahrenheit), air flap position, program time, time zones, daylight savings time
Function HeatBALANCE	adapting the distribution of the heating performance of the upper and lower heating circuit from -50 $\%$ to +50 $\%$
Function SetpointWAIT	the process time does not start until the set temperature is reached
Language setting	German/English/Spanish/French
Calibration	three freely selectable temperature values
Ventilation	
natural convection	
Fresh air admixture	adjustment of pre-heated fresh air admixture by air flap control in 10 % steps for each segment individually
Vent	vent connection with restrictor flap

### Control of standard components

## Communication

Programming	AtmoCONTROL software on a USB stick for programming, managing and transferring programs via Ethernet interface or USB port
Documentation	program stored in case of power failure

Safety

Alarm	audible and visual
Temperature control	overtemperature monitor TWW, protection class 3.1 or adjustable temperature limiter TWB, protection class 2, selectable on display
AutoSAFETY	additionally integrated over- and undertemperature monitor "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
Temperature control	mechanical temperature limiter TB, protection class 1 according to DIN 12880 to switch off the heating approx. 20°C above nominal temperature
Autodiagnostic system	for fault analysis

Door	fully insulated stainless steel doors with 2-point locking (compression door lock)
Installation	on lockable castors
Internals	2 stainless steel grids
Scope of delivery	incl. works calibration certificate for +160°C
Housing	rear zinc-plated steel
Interior	easy-to-clean interior, made of stainless steel, reinforced by deep drawn ribbing with integrated and protected large-area heating on four sides

#### Standard equipment

#### **Stainless steel interior**

 $w_{(A)} x h_{(B)} x d_{(C)}$ : 40.9" x 28.4" x 23.6"
Volume 449 I
Max. loading of chamber: 661 lbs

#### Textured stainless steel casing

w<sub>(D)</sub> x h<sub>(E)</sub> x d<sub>(F)</sub>: 48.2" x 49.1" x 30.9"

#### **Electrical data**

208 V (+ / - 10%), 3 phases w/o neutral, 50/60 Hz / 14.6 amps

#### Packing/shipping data

the appliances must be transported upright	
Customs tariff number	8419 8998
Country of origin	Federal Republic of Germany
WEEE-RegNo.	DE 66812464
	Dimensions approx incl. carton W x H x D: 52.4" x 57.1" x 41.3"
	Net weight approx. 375 lbs
	Gross weight carton approx. 521 lbs

#### Standard units are safety-approved and bear the test marks

