

# LABOKLAV 25



Space-saving

and powerful



## Technical specifications - Overview

Chamber volume	25 l
Chamber dimensions (Ø x D)	265 x 465 mm
Outer dimensions (W x H x D)	440 x 540 x 660 mm
Space required on worktop (W x D)	440 x 540 mm (plus 110 mm door overhang)
Weight	approx. 65 kg
Max. allowable pressure (PS)	2,8 bars
Max. allowable temperature (TS)	143 °C
Heating power	2 KW
Electrical connection	230V ~, 50 Hz, 16 A, alternating current
Sterilization temperature	98 – 135 °C, adjustable



# LABOKLAV 25

The extremely compact and space-saving tabletop autoclaves in the LABOKLAV 25 series provide you with many options available from a large tabletop unit:

- ◆ Sterilization of liquids in open or slightly closed bottles, also available with an air recooling system
- ◆ Instrument sterilization, also with pre-vacuum and drying vacuum
- ◆ Waste sterilization at 134 °C (thermal inactivation)
- ◆ Optional exhaust air filtration

A unique design meets innovative technical solutions with optimal utilisation of the chamber volume. Our autoclave provides you with space for up to five 1 l standard laboratory flasks including caps. The chamber lid made of temperature-proof safety glass and the front cover made of safety glass allow you to visualize the processes in the chamber. LEDs illuminate the interior of the chamber and coloured LED operating lights indicate the unit's current status.

Laboklav 25 series autoclaves stand for easy operation and handling. Once the chamber door is pressed slightly after loading, it can be locked by a motor at a press of a button. A tank built into the unit, separated into 2 areas with level sensors, acts as a reservoir for the feed water as well as a collection point for the condensate. Both can be emptied separately. In all liquid programmes, the temperature in the liquid is controlled by an integrated flexible PT100 reference sensor which prevents the chamber door from being opened at an excessive media temperature (thermo locking device in accordance with IEC 61010-2-43).

## Configurations

LABOKLAV 25 B	Basic unit
LABOKLAV 25 M	with rapid recooling
LABOKLAV 25 V	with vacuum system
LABOKLAV 25 MV	with rapid recooling and vacuum system

Each expansion stage is optionally available with an exhaust air filtration (FA).

All processes are fully automatic and controlled by a microprocessor. A clear and logically structured control panel facilitates unit operation. The internal 4 MB memory chip allows you to archive your cycle data quickly and easily. A dot-matrix printer is available as an option for automatic cycle documentation.

## Loading capacity for standard laboratory bottles

Volume	Quantity
250 ml	12
500 ml	9
1.000 ml	5



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## Product features

### **Sterilization chamber**

Direct steam heating by integrated steam generator, indirectly steam heated via double jacket during preheating and drying

### **Lid and Closure**

Hinged lid with motorized closure, safety locking

### **Lid seal**

T-profile seal, silicone

### **Temperature measurement technology**

Independent PT100 sensors with compensation time  $T_{0,9} = 3$  s, 2-wire technology, internal resolution 0.01K, display resolution 0.1K, calibratable  
Monitoring of sensor breakage and sensor short circuit

### **Reference sensor for liquids**

Temperature sensor as described in temperature measurement technology with flexible measuring line, provided as standard in all models

### **Calibration certificate according to ISO**

inclusive across all devices

### **Pressure measurement technology**

Electronic pressure sensor 0 to 6 bar, absolute pressure measurement or relative pressure measurement, programmable, monitoring of sensor breakage, resolution/display 0.1 kPa

### **Calibration certificate according to ISO**

inclusive across all devices

### **Feed water supply**

Integrated tank, integrated degassing, manual filling and refilling of the tank

### **Feed water pump**

35 l/h, automatic feed from integrated storage tank

### **Water level control**

Level sensors for low level and max level

### **Overtemperature protection for heating**

2 independent systems: Temperature control of the heating via PT100, overtemperature protection by two separate overtemperature protection switches, one with autoreset and one without autoreset (unlockable only by a technician)

### **Sterilization ventilation**

Membrane filter,  $\mu \leq 0,2 \mu\text{m}$ , included as standard

### **Display of service intervals**

Automatic notification via display

### **Microprocessor control**

Control of all functions, status indication via graphical display

### **Safety circuit**

For heating and chamber pressure monitoring

### **Timer**

Program start programmable by date and time

### **Audible signal**

Can be activated

### **Interfaces**

Internal RS232 for printer

External RS485 for printer, network, computer connection

### **Sterilization programs**

5 predefined programs P1 to P5, freely accessible: Program assignment depends on the configuration level. **The programs can be modified individually.**

4 additional programs P6 to P9 (pre-configured like P1)

2 test programs (P11: Bowie & Dick test, P12: Vacuum test, only in vacuum versions)

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## Technical Specifications - Details

### Dimensions and Weight:

External dimensions  
(floor-standing unit) (W x H x D) 435 x 560 x 680 mm  
Required space on the work surface  
(tabletop unit) (W x D) 440 x 550 mm

Material for chamber and  
double jacket 1.4404 (SS 316 L)  
Surface roughness  $\leq 0,8 \mu\text{m}$   
Pressure Equipment Directive  
2014/68/EU CE0036, Kat. II, Modul B+C2

### Colour Variations:

red

The device is delivered in the color red. The front panel is made of brushed stainless steel. The curved safety glass lid and the color-contrasting control panel complete the successful design.

Weight (nett) approx. 65 kg  
Volume of feed water tank approx. 3 l  
Volume of condensate tank approx. 3 l  
Maximum load:  
Instruments 5 kg  
Textiles 2 kg  
Liquids 5 Liter total volume

### Power supply:

Supply voltage 1N 230V~ ( $\pm 10\%$ ), 50 Hz, 16A  
Mains plug CEE plug 16 A  
Rated power 2,5 kW  
Average energy consumption per cycle 0,75 kW  
Protection class I  
Degree of protection IP24  
Electromagnetic compatibility According to DIN EN 61326 / A1

### Sterilization chamber:

Total volume approx. 25 l  
Chamber dimensions  
(diameter x depth)  $\varnothing 265 \times 450$  (+50-round.) mm  
Usable volume approx. 25 l  
Maximum allowable pressure (PS) 2.8 bar  
Maximum allowable temperature (TS) 138°C  
Rated pressure safety relief valve 2.8 bar

### Water supply:

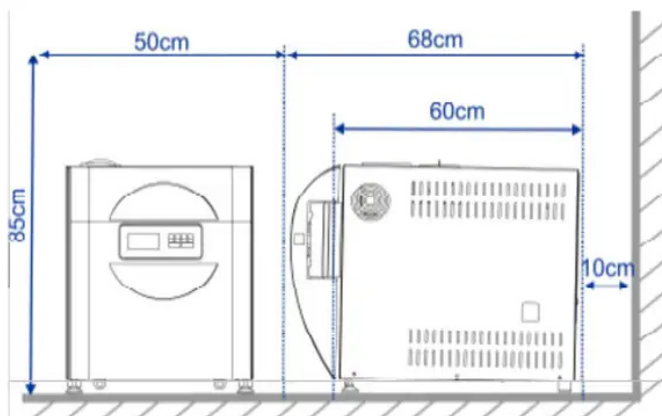
Distilled or demineralized water  
(according to Annex C EN 13060:2004)  
Average water consumption  
per cycle approx. 0,7 l

### Operating and storage

#### environmental conditions:

Temperature  $5 \div 40^\circ\text{C}$   
Humidity max. 85%  
Heat dissipation to the surroundings approx. 12%  
of the nominal power

## Installation dimensions



All dimensions are minimum measurements and should not be undershot in order to avoid obstructing the discharge of the heat generated. Please maintain a minimum distance of 100 mm on both sides and at the back during installation.



# LABOKLAV 25

## Article Overview

<b>LABOKLAV 25</b>	<b>Article Number</b>
<b>Basic unit</b>	21.0025.001.000
<b>Option M</b> - Fast re-cooling by air	21.0000.001.001
<b>Option V</b> - Vacuum system	21.0000.001.004
<b>Option FA</b> - Exhaust air filtration	21.0000.001.005
<b>Printer</b>	20.0000.000.300
<b>Documentation software „SegoSoft“</b>	30.0000.600.000

<b>LABOKLAV 25 - ACCESSORIES</b>	<b>Article Number</b>
<b>Insert with 4 trays</b>	30.4220.004.025
<b>Wire tray</b>	30.4220.001.025
<b>Tray, closed</b>	30.0000.200.100
<b>Stand</b>	30.0000.100.025

<b>LABOKLAV 25 - SPECIAL PROGRAMMS</b>	<b>Article Number</b>
<b>Automatic cycle repeating and endless programm</b>	30.0000.000.110
<b>Other special programmes on request</b>	