

Manual

Laboratory autoclave

Autoclave using steam for the treatment of material and laboratory processes e.g. sterilization, as an aid in research and development

CertoClav Classic 125°C/140°C

CertoClav Classic 115°C/121°C

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Introduction

Thank you for choosing CertoClav! Since 50 years we stand for quality made in Austria. Should the product not fulfil your expectations please contact your retailer or CertoClav directly under support@certoclav.com.

The CertoClav Classic lab autoclave regulates heat through a combination of a thermostat and a precision valve. The regulation is calibrated to pure steam, required proper evacuation of air. Time can be conveniently regulated via the built in timer.

Please obey the safety remarks.

Please register your unit via an e-mail to support@certoclav.com. Please send name, contact data and serial number of the unit.

Your

CertoClav team

CertoClav Classic

Safety remarks

- ⚠ Surfaces are hot while in operation (metal and plastic parts). During operation touch only the dials for time and temperature on the base of the units. Wear protective gloves if touching anything else.
- ⚠ Use only in accordance with this manual. Store the manual in a space accessible to all users.
- ⚠ Must not be installed in a space that is subject to the danger of explosions
- ⚠ Use only with rated voltage
- ⚠ Only for use in laboratories. Operate only by trained personnel. Do not use in domestic settings.
- ⚠ This autoclave must only be maintained by CertoClav or authorised retailers. Always use original spare parts.
- ⚠ Disconnect from electricity supply before opening the base.
- ⚠ Never operate without water. Target water amount: 1 litre (min. 0,7, max 2,5)
- ⚠ Do not autoclave tightly sealed containers (especially glass bottles) since there is no pressure compensation.
- ⚠ Do not transport when filled. Do not open with force.
- ⚠ Do not autoclave corrosive or salty solutions.
- ⚠ Do not release steam in the direction of a person – danger of burning. Connect a hose (inner diameter 10mm) to release hot steam into a suitable container or sink.
- ⚠ When loading contains glass containers let the unit cool down to 80°C before opening, with liquids the temperature should be at least 70°C, danger of boiling over of fluid or explosions of glass bottles.

Technical data




Overview

Technical data			
Material	Stainless steel	Certificates	CE
Dimensions			
Volume	18 litre	Height	60 cm
Chamber diameter	26cm	Width	44 cm
Chamber height	35cm	Depth	40 cm
Useable height chamber	30 cm	Weight	10 kg
Working data			
Max. working temp	140°C	Current	230V, 50/60 Hz
Max. working pressure	2,7 Bar	Power	1300 Watt
Rated pressure	4,1 Bar		

CE certified according to:

Low voltage directive 2006/95/EC EN 61010-1:2001. EN 61010-2-40:2005 (IEC 1010-1:2001. IEC 1010-2-040:2005) ZEK 01.4-08/11.11

Stickers

	Directive 2002/96/EC (WEEE): The supplier will take the supplied commodity back on the expense of customer after use completion and ensure best available treatment, recovery and recycling according to the laws duly.
	ATTENTION: Consult manual before use
	ATTENTION: Hot surface

LIST OF ITEMS

The following parts are delivered with the autoclave, please check:

- Autoclave CertoClav Classic with lid
- Instrument tray with water level indicator
- Manometer with gasket and nut, Thermometer with gasket, steam release valve with gasket
- Mains cable

Should one of these parts be missing, please contact your dealer or call us directly.

Additionally we recommend the following accessories:

- Wire basket diam. 25, stainless steel. Art. Nr. 13.001.49

For further information about our product range please visit: www.certoclav.com/shop

Setup

- Set up is easy. Either put the autoclave on a table or the floor, so that you get a convenient work height.
- Unpack the manometer, the thermometer and the steam release valve. Mount them according to the instructions packed with the items. These appliances have been packed separately to avoid damage in transportation.
- Mount a tube/hose on the steam release valve, inner diameter 10 mm.
- Plug in the mains cable to the socket on the back side.
- The units is switched on using the white timer knob

Operation

 READ INSTRUCTIONS BEFORE FIRST USE!

 The first run should be without load; only with water.

Loading the autoclave

- Fill in 1.0 – 1.5 litres of distilled water. ATTENTION: Not demineralised water, not from an ion exchanger, it causes corrosion: If only this is available add approx. 1/3 tape water!
- Put in instrument tray and basket and place loading. It is important that steam can circulate freely.

Close and Locking


- Take the lid and make sure that the red knob is turned to open.

- Open the steam release cock (turn black knob anticlockwise).
- Connect tube to avoid burning from hot steam.
- Lid is put on 30° turned counter clockwise. Then turn the lid clockwise until the handles are in line with each other.
- Turn the red knob to closed = locked.
- Turn the maximum indicator of the manometer (pressure gauge) to "0".
- Pressure control valves with two temperatures have to be set to the desired temperature by rotating cup until it comes to a stop. Anticlockwise to 125°C / 115°C – and clockwise to 140°C / 121°C.
- Do NOT open the small screw on the regulating valve.
- Set the thermostat knob to the same temperature as valve.
- Switch on power via the white knob on the side of the unit.
 - Clockwise it is set to the desired time
 - Counter – clockwise it is permanently on

Autoclaving

Heating up

15-20 minutes after switched on steam starts to escape through the steam release cock. Allow 3 minutes venting to assure air removal then close the cock (turn black knob clockwise).


 **ATTENTION:** Connect tube to avoid burning from hot steam!

The rise in pressure (approx. 10 minutes) brings the unit up to working temperature. Pressure regulation is done by the pressure control valve, steam escapes in regular intervals. On CertoClav Classic autoclaves energy is controlled by the thermostat. Therefore always set the same temperature on valve and knob for thermostat on the base, they work together.

Sterilization / Holding time


The first escape of steam at the pressure control valve indicates that adjusted temperature has been reached and sterilization time starts. The indicator on the manometer should stay within the specified limits (red or blue marking). You can now use the timer for the holding time.

After the end of sterilization time switch off via the timer knob. If you have used the timer function, the unit switches off automatically.

 **ATTENTION:** Avoid cooking dry and overheating (could damage the autoclave),

Cooling down

Check that the manometer is reading Zero. Check temperature at thermometer.

 **SAFETY HINT:** If loading contains glass bottles wait until chamber temperature is below 80°C, for liquids wait until temperature has reached 70°C = approx. 40 min. Danger of boiling over of fluids.

Opening

Open the steam release cock (turn anticlockwise). Turn red knob to open = unlock. Steam release valve will be opened. Steam escapes. Turn lid anticlockwise and remove.

To get better drying of the loading remove the basket from the chamber and let it cool down to room temperature before taking goods out.

⚠ SAFETY HINT: INCOMPLETE CYCLES

Should the cycle interrupted caused by switch off or electrical failure or other reason – the sterilization is not completed correct and has to be repeated. For opening please follow the safety hint for cooling down.

Cleaning and maintenance

For CLEANING the appliance wipe inside and outside with a damp cloth. Never immerse the lid and chamber of the unit in water. Before start of cleaning or disinfection plug off mains cable and make sure that appliance has cooled down.

Discolouration and stains occur when not using distilled water. These stains may block the pressure control valve. Therefore always use distilled water or demineralised water with tap water added. To remove discolouration add some citric acid to the aqua dest. and boil for about 10 minutes, do not close the CertoClav. Empty the chamber immediately.

The steam release valve should be cleaned regularly with a needle.

For DISINFECTION of surface disinfection liquids with following substances are suitable:
Ethanol, Propyl alcohol, Isopropyl alcohol, Glutaraldehyde, quaternary ammonium compounds.
Please follow the application notes of the manufacturer for the cleaning and disinfection detergents.

Never manipulate on safety devices. Operate only lid and chamber of the same series (Classic or MultiControl). Do not mix.

Repairs on valves, safety features and electric must only be carried out by an appointed CertoClav partner or by the manufacturer. Use original CertoClav spare parts only.

Every two years the unit should be checked by an appointed retailer or CertoClav.

WE RECOMMEND THE CERTOCLAV SERVICE SET ART. No.: 1310186. It contains all spares which are under wear and tear and have to be replaced.

Warranty

The unit has been checked from our quality control by 100 %. We give guarantee for 2 years on all parts which are not consumables from the date of purchase.

An extension of the warranty period to 5 years is available for purchase.

No warranty will be given in case of inappropriate use e.g. corrosive loads.