

**>> OUR CONVENIENT
AUTOCLAVE, RIGHT ON
THE LABORATORY
BENCH. <<**



18 LITER VOLUME

STERILISATION

MATERIALS TESTING

MEDIA PREPARATION



Applications

THE WIDE RANGE OF USING CERTOCLAV AUTOCLAVES



MICROBIOLOGY / BIO-CHEMISTRY

- Autoclave culture mediums
- Refuse sterilisation
- Efficiently processes small amounts – just in time



FOOD INDUSTRY

- The complete autoclave solution for laboratories in the food processing industry
- Sterilisation of utensils and refuse
- Culture medium preparation



MATERIAL TESTING

- Testing for vapour resistance and material quality
- Long running cycles, ICP-TM 650, HAST test, pressure vessel test, hydrolysis, GLB-AL 631
- Special fabrications available upon request
- CertoClav MultiControl with a freely programmable electronic control



SCHOOLS AND UNIVERSITIES

- Robust autoclave, ideal for daily training operation
- Special deals for schools – please inquire



PHARMACY

Sterilisation of instruments and packaging (i.e. eyedrop bottles and liquids)

Overview

THE MAIN FEATURES OF OUR PRODUCTS



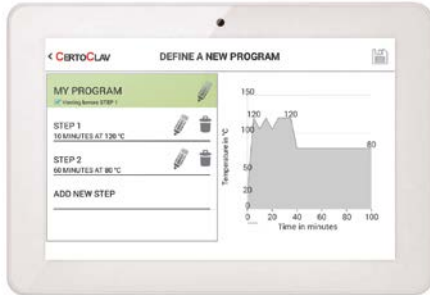
		Max. Temperature	Electronic Control	Programmable	Touch Screen + WLAN	USB Port	Printer Port	Volume	Chamber material	
ESSENTIAL	121	✓					✓	12/18	Alu	<ul style="list-style-type: none"> Affordable solution Printer for documentation Automatic
CLASSIC	140							18	SS	<ul style="list-style-type: none"> Very low maintenance (no electronics) Time tested for 50 years
MULTICONTROL 2	140	✓	✓		✓	✓	✓	18	SS	<ul style="list-style-type: none"> Programmable autoclave Multi-step time/temperature
MULTICONTROL 2 TOUCH	140	✓	✓	✓	✓	✓	✓	18	SS	<ul style="list-style-type: none"> Same as MultiControl 2 Touch Screen Controller Cloud access
CONNECT	140	✓	✓	✓			✓*	18	SS	<ul style="list-style-type: none"> Fully automatic (electric valves) Media sensor optional
CULTURE MEDIA	140	✓	✓	✓			✓*	18**	SS	<ul style="list-style-type: none"> Media preparator Internal stirrer Port for pumping, sterile Medien

* via Tablet Controller ** 10 liter Media Container



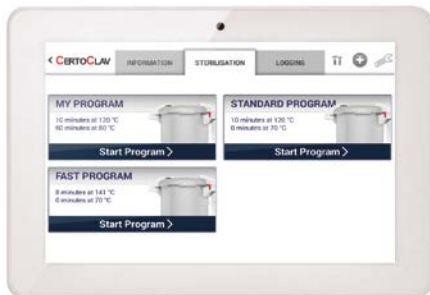
CertoControl

THE USER INTERFACE WITH ON-SCREEN TRAINING.



Define custom programs

- With a simple interface you can program multi-step processes of temperature and time. E.g. 20 minutes at 110° C, then 3 hours at 120° C and then 1 hour at 80° C.
- Long term cycles possible. Programming can be done in minutes, hours and days.
- Program is graphically displayed.
- Programs can be named.
- One-click solution to program a fractioned venting process.



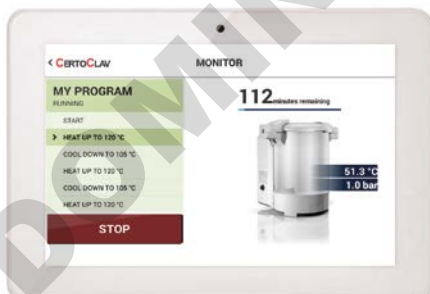
Choose program

- All programs are displayed as icons with name and key data.
- Programs can be added and deleted.
- Full list of steps of each program can be displayed.



Watch step-by-step video instructions

- All usage steps are explained in videos, e.g. when used as an autoclave the steps to load the unit are explained.
- No more need to train staff – the unit explains everything itself.
- Videos can be skipped once staff is proficient in using the equipment.



Show status of running programs

- Current step of program is displayed.
- Current data displayed.
- Time passed and remaining is displayed.



Scroll through protocol history

- Protocols are stored on the device.
- Target temperature and actual temperature are graphically displayed and accessible in numerical format.
- Error messages are displayed in detailed with explanation.

CertoCloud

EASY DATA ACCESS AND STORAGE.
ONLINE DEVICE MANAGEMENT.



Secure Connection

- SSL encryption
- Secure server
- 100 % data privacy



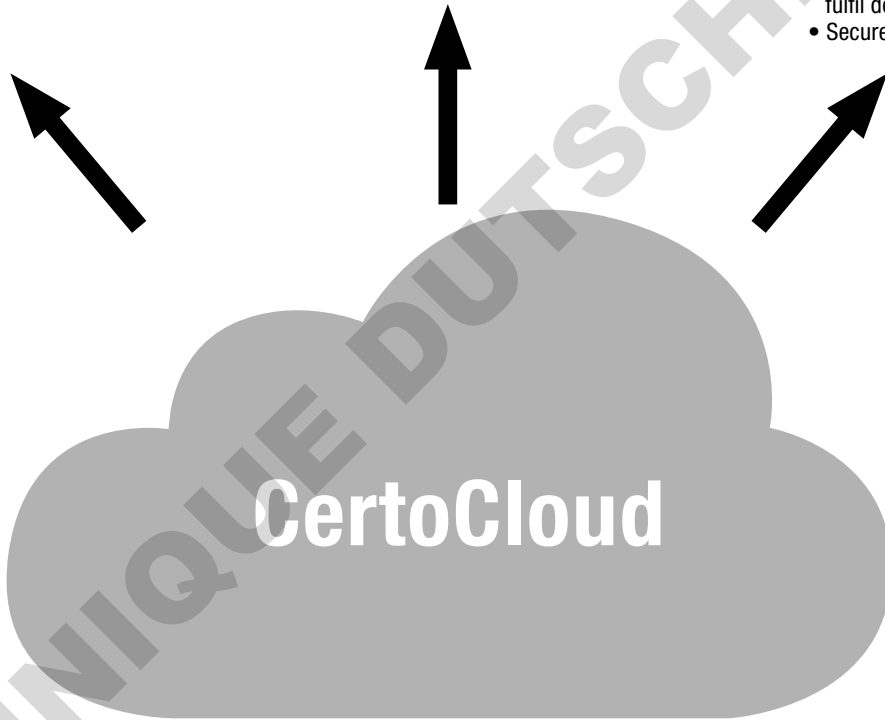
Multi Device Management

- Combine all devices in one account
- Create programs
- Disseminate programs to all devices



Long Term Data Storage

- All data stored for 10 years to fulfil documentation requirements
- Secure backup



Customization

- Custom reports
- Direct printing
- Freely definable data formats



Email Notifications

- Alarms
- Cycle complete
- Process data



User Management

- Individual accounts
- Accounts linked to devices

CertoClav Essential

THE ECONOMIC BASIC AUTOCLAVE

LOW COST
SINGLE BUTTON
CONTROL
FRACTIONED
VENTING



Art.-No. 8510173 (12 litres) / 8510183 (18 litres)

FEATURES

- Autoclave with one button controller. Just push „Start“ and the sterilisation process automatically runs.
- Sterilisation process consists of:
 - 3 x reaching 115° C and cooling for fractioned venting
 - Reaching 121° C and holding for 15 Minutes
 - Cool down to 80° C
- Printer port for printing protocols.

INCLUDED

- Control unit with single button control
- Printer port

ACCESSORY

Wire basket

Art.-No. 8583010
Diam. 23, stainless steel
For easy filling with
sterilisation goods.



Printer

Art.-No. 1300187
For easy print out of
your documentation.



CertoClav Classic

AUTOCLAVING UP TO 140°C
WITH TIME TESTED TECHNOLOGY

THERMOSTAT
PRECISION VALVE
TIMER



Art.-No. 8510174 (for valve with 125 / 140° C), 8510184 (for valve with 115 / 121° C). Both 18 litres.

FEATURES

- One of the lowest cost solutions for reliable sterilisation and materials testing up to 140° C / 2,7 bar.
- Ultra-low maintenance autoclave with time tested technology.
- Precision valves guarantee that the required pressure and temperature for sterilisation are reached.
- Two levels selectable:
125° C (1.4 bar / 20 psi) or 140° C (2.7 bar / 39 psi),
alternative valve for 115° C / 121° C available

INCLUDED

- Precision valve for 125 / 140° C (intermediate values possible)
- Thermostat for heat regulation
- Timer switch (5 - 60 minutes, permanent on)

ACCESSORY

Wire basket

Art.-No. 8583010
Diam. 23, stainless steel

For easy filling with
sterilisation goods.



CertoClav MultiControl 2

THE FREELY PROGRAMMABLE AUTOCLAVE

PRINTER PORT
MULTI-LANGUAGE
PC PORT



Art.-No. 8510175 (18 litres)

FEATURES

- Set programs for all sterilisation tasks
- Logging of processes with PC Software (basic version included) or via printer.
- Simple program programmable on the controller (1 time / temperature step)
- Complex programs (multiple time / temperature steps) can be entered with PC Software (Professional version required).
- Automatic venting process for reliable sterilisation.
- Programmable from room temperature to 140° C
- Suitable for materials testing (ICP-TM610, HAST, GLB-AL 631)

INCLUDED

- Controller with with printer port and USB port
- Large LCD screen with temperature display

ACCESSORY

Wire basket

Art.-No. 8583010
Diam. 23, stainless steel
For easy filling with
sterilisation goods.



Printer

Art.-No. 1300187
For easy print out of
your documentation.



PC Software Professional Version

Art.-No. 8200210 (Art.-No. 8200211
when purchased in bundle with autoclave)
For programming of multi step
programs.

CertoClav MultiControl 2 Touch

THE AUTOCLAVE WITH TOUCH SCREEN
AND WIFI CONNECTION

PROGRAMMABLE

TOUCH SCREEN
CONTROLLER

WLAN/CLOUD
CONNECTION



Art.-No. 8510298 (18 litres)

FEATURES

- Automatic long term documentation in the cloud. Digitally signed protocols according to 21 CFR Part/GMP guidelines.
- Freely programmable autoclave (by time and temperature, 6 program slots, each 14 steps).
- All features of CertoControl and CertoCloud.
- Printer port for printing of local.

INCLUDED

- 7 inch HD touch screen controller with WiFi and Bluetooth.
- Software with key features:
 - User Management
 - On-Screen video training and instructions for use
 - Live update of software
 - Video connection to support
 - One-touch ordering of spareparts
 - Programming of autoclave
 - Multiple languages
- Additional stand-alone power electronics that can be operated without touch screen controller.

ACCESSORY

Wire basket

Art.-No. 8583010
Diam. 23, stainless steel
For easy filling with
sterilisation goods.



Printer

Art.-No. 1300187
For easy print out of
your documentation.



Tablet controller holder

Art.-No. 1300463
Wall and table mountable
holding arm.

CertoClav Connect

THE AUTOCLAVE FOR EASY VALIDATION AND DOCUMENTATION

WEB CONNECTED
EN 13060 CONFORMING
GLP / GMP READY



Art.-No. 8510176 (18 litres)

FEATURES

- HD touch screen controller for intuitive operation
- Connected to CertoCloud for online documentation
- Latest online security technology
- Usage instructions come as videos on the tablet controller
- Electromechanical lock opens when units has reached 80° C for safe sterilisation of liquids
- Useable as water bath with open lid
- Media sensor optionally available

INCLUDED

- HD Touch Screen controller with WiFi and Bluetooth
- All required Software is on the controller
- Exhaust steam condensator
- Validation port
- Temperature measurement in water and in steam

ACCESSORY

Wire basket

Art.-No. 8583010
Diam. 23, stainless steel
For easy filling with
sterilisation goods.



Media sensor

Art.-No. 1300185
For precise sterilisation of liquids.

Tablet controller holder

Art.-No. 1300463
Wall and table mountable
holding arm.

CertoClav Culture Media

THE AUTOCLAVE FOR EASY MEDIA PREPARATION

MEDIA
PREPARATOR

CFR 21 PART 11
COMPLIANT CLOUD
DOCUMENTATION

PROCESS PORTS



Art.-No. 8510177 (18 litres)

FEATURES

- Media preparator for up to 10 litres of culture media. Sterilisation up to 140° C.
- Ports for pumping out liquid and inserting additives.
- In waterbath mode, temperatures under 100° C can be operated with open lid.

INCLUDED

- 10 litre culture media stainless steel bucket.
- Media sensor for process guidance based on media temperature.
- Magnetic Stirrer for homogeneity.
- Process ports for additives and for pumping out sterile media.
- Touch screen controller with cloud connection for GMP/21 CFR Part 11 compliant documentation (3 month cloud usage included).

ACCESSORY

Wire basket

Art.-No. 8583010
Diam. 23, stainless steel
For easy filling with
sterilisation goods.



Tablet controller holder

Art.-No. 1300463
Wall and table mountable
holding arm.

TECHNICAL DETAILS

	ESSENTIAL	CLASSIC	MULTICONTROL 2
Key benefit	Low cost professional autoclave	Low cost autoclave for sterilisation up to 140° C with low maintenance	Electronic autoclave with PC/ printer documentation. Freely programmable (with Pro Software)
Core use case	Automatic sterilisation of solids and waste	Sterilisation with low requirement concerning documentation	Sterilisation up to 140° C with documentation on printer or PC, Materials testing
Temperature control	Electronic	Mechanical thermostat	Electronic
Pressure control	Via temperature	Mechanical precision valve	Via temperature
Interface	Single button and 5 LEDs	Temperature selection knob	LCD display
Steam release	Automatic Steam release cock	Manual steam release cock	Automatic Steam release cock
Other key components	Printer port	Mechanical timer	
Optional equipment	Wire basket, printer	Wire basket	Wire basket, printer, pro licence of PC software (for multi step programs)
Temperature range	121° C	125° C / 140° C selectable. Altern. model: 115° C / 121° C	Room temp. to 140° C, water bath mode with open lid
Max working pressure	1,2 bar	2,7 bar	
Chamber material	Aluminium	Stainless steel 304L	
Volume	12 or 18	18	
Diameter	24	26	
Rated voltage, Output	230V AC, 50-60 Hz, 1900W	230 V AC, 50-60 Hz, 1300W	
Safety	4 fold safety system		
Compliance	CE marked, EU pressure directive 27/93/EG, Low voltage directive 2006/95/EG, Laboratory safety directive EN 61010-1 and -4, Electro magnetic compatibility EN 61326, Workplace safety directive 2004/40/EG and 2008/46/EG		

TECHNICAL DETAILS

	MULTICONTROL 2 TOUCH	CONNECT	CULTURE MEDIA
Key benefit	Freely programmable autoclave with documentation in the cloud	Freely programmable autoclave, with electrical lock and documentation in the cloud	Culture Media preparator with internal stirrer and process ports
Core use case	Sterilisation und materials testing in environments with high documentation requirements	Fully automatic autoclave for liquids sterilisation and documentation in the cloud	Preparation of up to 10 litres of culture media
Temperature control	Electronic		
Interface	HD touch screen controller		
Pressure control	Via temperature	Electronic pressure sensor	Electronic pressure sensor
Steam release	Automatic Steam release cock	Electrical valve	Electrical valve
Other key components	WiFi, Printer port, PC Port (USB)	WiFi, Bluetooth	Stirrer, 10 l media bucket, media sensor, process ports, WiFi, Bluetooth
Optional equipment	wire basket, printer, holder for for tablet controller	wire basket, media sensor, holder for tablet controller	wire basket, holder for tablet controller, port for additives, extraction port
Temperature range	Room temp. to 140° C, water bath mode with open lid		
Max working pressure	2,7 bar		
Chamber material	Stainless steel 304L		
Volume	18		
Diameter	18		
Rated voltage, Output	230 V AC, 50-60 Hz, 1300 W		
Safety	4 fold safety system		
Compliance	CE marked, EU pressure directive 27 / 93 / EG, Low voltage directive 2006 / 95 / EG, Laboratory safety directive EN 61010-1 and -4, Electro magnetic compatibilty EN 61326, Workplace safety directive 2004 / 40 / EG and 2008 / 46 / EG		

CERTOCLAV

>> FOR ALL
STERILIZATION
APPLICATIONS <<



VACUUM PRO SERIES

STERILIZATION OF LIQUIDS,
SOLIDS AND WASTE

VACUUM TECHNOLOGY

Due to the intelligent combination of vacuum, pressure and steam, the autoclaves of the CertoClav Vacuum Professional series are suitable for liquids and solids of all kinds. The additional media sensor guarantees complete sterilization of liquids like for example culture media. The vacuum pump (Made in Germany) optimally sterilizes solids of all materials as well as hollow bodies. Thanks to the preheatable chamber, air cooling system and vacuum pump, a fast sterilization cycle including drying of around 20 minutes is guaranteed.



VERSATILE IN USE



Microbiology & Biochemistry

Reliable sterilization of culture media using the integrated media sensor



Food industry

Food preservation, sterilization of liquids



Material testing

Dimensional stability, corrosion resistance, ageing behavior, pressure resistance, long-term behavior, service life, coating quality



Waste management

Sterilization of solids and waste in bags



Pharmacy

Reliable sterilization of instruments, hollow bodies, porous materials, packaging, synthetic materials, rubber, textiles and liquids



Universities and colleges

Ideal for any application in education and research



THE ALL-IN-ONE AUTOCLAVES



VAC PRO 12 - 18 - 22



Opt. external protocol printer for documentation



Opt. external label printer for easy tracing



Opt. barcode reader for easy tracing

Scope of delivery: incl. tray set, power cable, 7" touch screen

- Ideal for material testing & quality control
- 12 customizable programs
- flexible media sensor
- 7" touch screen
- Vacuum pump - Made in Germany
- fully automated microprocessor controlled
- preheatable chamber
- air cooling system
- automatic monitoring of water quality

- integrated steam generator, separated from the chamber
- Performing hundreds of sterilization cycles
- Automatic documentation
- RS232, RS485, USB, SD card
- Ethernet, LAN, Wi-Fi
- Cloud Connection



VAC PRO 45



Opt. external protocol printer for documentation



Opt. external label printer for easy tracing



Opt. barcode reader for easy tracing

Scope of delivery: incl. tray set, power cable, 7" touch screen

- Ideal for sterilization of culture media in bottles
- 8 customizable programs (only time)
- flexible media sensor (PT1000)
- 7" touch screen
- Vacuum pump - Made in Germany
- fully automated microprocessor controlled
- preheatable chamber
- air cooling system
- automatic monitoring of water quality

- Integrated steam generator, separated from the chamber
- Performing hundreds of sterilization cycles
- Automatic documentation
- RS232, RS485, USB, SD card
- Ethernet, LAN, Wi-Fi
- Cloud Connection

CUSTOM PROGRAMS

PROGRAMS

	Vacuum steps	Temperature [°C]	Holding time [min]	Drying time [min]	Total time [min]
Solids	1	121	20	3	32
Solids fast*	1	134	4	3	20
Porous	3	121	20	7	50
Porous fast*	3	134	4	7	27
hollow bodies	3	121	20	10	47
hollow bodies fast*	3	134	4	10	34
Liquids	0	105 to 134	1 to 60	0	45 to 180
Prions*	3	134	20	10	50
B-D test	3	134	4	7	31
Vacuum test	1	-	15	-	15
Cleaning*	-	-	-	-	29
Custom*	1 to 10	105 to 134	1 to 60	1 to 40	

* Standard programs only available for Vacuum Pro 12 - 22. However, all programs are individually customizable by the user.

AUTOMATED MATERIAL TESTS

- Activation of repeat function for material checks
- Each sterilization program can be executed fully automatically in sequence as often as required.
- Receive notification via e-mail when material testing is complete
- Receive notification via SMS when material testing is complete*
- View real-time data on www.certocloud.com*

22:32:31
2017.05.12

MATERIAL TEST

134°C Standard
▼

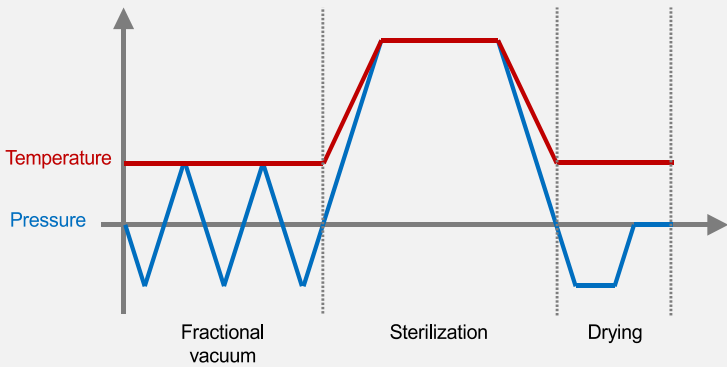
100 Zyklen in Folge
▼

START

*CertoCloud Premium license necessary

STERILIZATION EXAMPLES

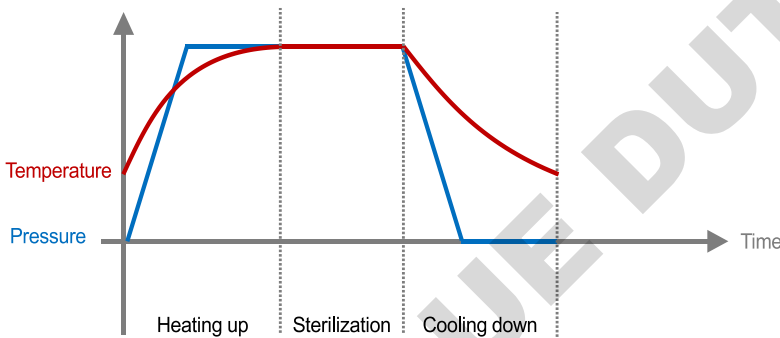
STERILIZATION OF SOLIDS



- All solid sterilization programs follow a typical Class-B cycle.
- The combination of vacuum, pressure and temperature guarantees the fast, optimal sterilization of instruments, hollow bodies, porous materials, packaging, synthetics, rubber and textiles.
- The fractionated vacuum presses the saturated steam through the sterilization package and into each microscopic gap.

STERILIZATION OF LIQUIDS*

WITH THE MEDIA SENSOR



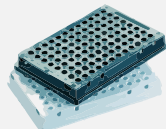
- All sterilization programs for liquids follow a heating phase with combined venting, followed by a sterilization phase and a final cooling phase.
- Reliable sterilization of liquids takes place at a sterilization temperature of 121°C and a sterilization holding time of 20 minutes.
- The integrated media sensor measures the actual temperature of the liquid and guarantees an optimal sterilization result.

*Manufacturer's recommendation: only use a drip tray to prevent contamination of the chamber from overboiling.

STERILIZABLE GOODS



Instruments



Synthetics, rubber



Textiles



Liquids with Media sensor



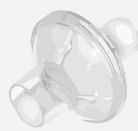
Porous materials, sand



Liquids in open bottles



Food products in open containers



Filters, waste



Instruments with cavities

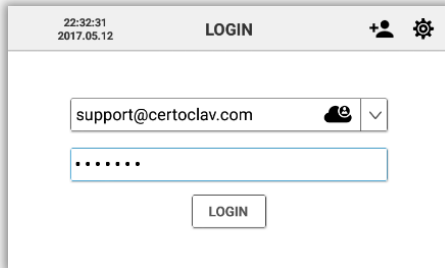


Unwrapped instruments single and double packaged instruments

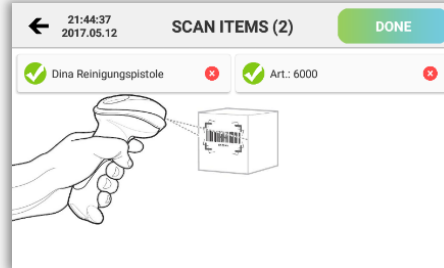
7" TOUCH SCREEN

INTUITIVE USER INTERFACE

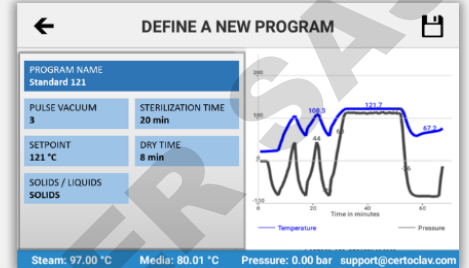
User account management



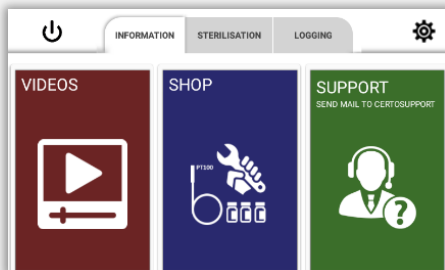
Traceability



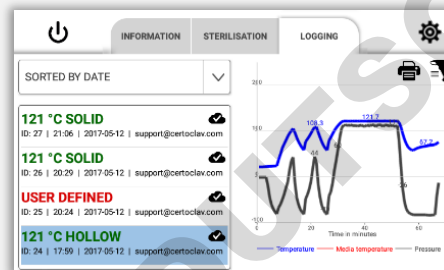
Program editor



On-screen help and support



Protocol observation



Step-by-Step Video Assistant



AUTOMATIC DOCUMENTATION



The CertoCloud is a browser-based management software for our autoclaves. At www.certocloud.com you can access it with a PC, smartphone or tablet via a browser window or with the CertoServer as a lab-internal private cloud without Internet connection. For this purpose, the CertoServer only needs to be integrated into the laboratory network.

Remote user management

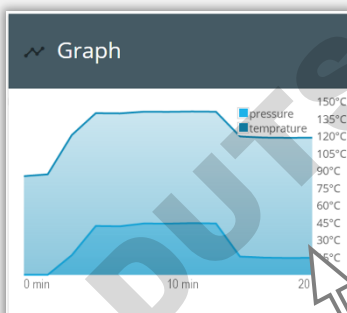
Real-time data

SMS and e-mail notification

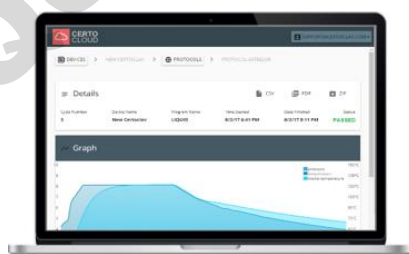
PDF, Excel, CSV-Export

Cycle	Program Name	Start
76	cloud generated	7/22/ PM
75	121°C SOLID	7/22/ PM
74	Neues Programm	7/22/ PM
74	121°C SOLID	7/22/ PM

Graphical protocol display



Signed PDFs



CertoCloud Basic license

Included in the scope of delivery of the autoclave. Includes:

- E-mail notification
- protocol view
- protocol export
- Signed PDFs
- Limited online storage (100 latest protocols)

CertoCloud Premium license

Unlocks the premium functions of the autoclave:

- activates SMS notification
- Online storage for protocols directly at the autoclave
- unrestricted real-time monitoring of the autoclave via CertoCloud
- Unlimited online storage

Article number: 8500212

CertoServer

- with pre-installed autoclave management software
- local server for the administration of autoclaves
- Creation of automatic backups

Dimensions (D*W*H): 11,2*11,6*4,447 cm
Weight: 0,465 kg

Article number: 8500508

WATER TREATMENT SYSTEM



High-quality, clean and purified water is required for autoclaving. Poor water quality leads to deposits in the autoclave chamber.

All autoclaves of the CertoClav Vacuum Pro series can therefore be combined with an external distillation unit for water treatment. The autoclaves have integrated freshwater and wastewater tanks with a volume of 2 liters or more. You simply fill the distilled water into this freshwater tank. The water tanks are easy to clean and disinfect.

With our distillation unit for water you remain location-independent. Only a power supply is required. The installation effort is minimal. It distills 1.5 liters of water fully automatically within one hour.

Power supply: 230 VAC, 50 Hz

Power output: 750 W

Dimensions (WxDxH): 29*29*39 cm

Weight: 3,5 kg

Article number: 8500482

SPARE & WEAR PARTS

Service Set 3

Includes door seal, safety valve and bacteria filter. Seals and safety valve should be replaced annually. The bacteria filter should be changed every 300 cycles and is also available separately.
Article number: 8500495



bacteria filter

The bacteria filter should be changed every 300 cycles.
Article number: 1300705



Tray set with 3 drawers

Material: stainless steel
For culture media, instruments, material testing, etc.

Vac Pro 12 article number: 8500479
Vac Pro 18 article number: 8500480
Vac Pro 22 article number: 8500481
Vac Pro 45 article number: 8500404



Wire basket

Material: stainless steel
For solids, waste in bags, instruments, bottles, liquids, material testing, etc.

Vac Pro 12 article number: 8500401
Vac Pro 18 article number: 8500402
Vac Pro 22 article number: 8500403
Vac Pro 45 article number: 8500406



Drip tray

Material: stainless steel
To prevent chamber contamination due to overboiling of liquids
For bottles, material testing etc.

Vac Pro 12 article number: 1300765
Vac Pro 18 article number: 1300766
Vac Pro 22 article number: 1300767
Vac Pro 45 article number: 1300768

ACCESSORIES



External protocol printer

For documentation during sterilization on thermal paper.
Article number: 1300187



Thermal paper

10 rolls à 40 m
Article number: 8500496



External label printer

Prints expiration date and log information on a self-adhesive label.
Article number: 8500502



Thermo direct labels

10 rolls, detachable
Article number: 8500507



External barcode reader

Allows quick access to the sterilization protocols by scanning the barcode on the sterilization goods.
Article number: 8500503



IQ/OQ qualification

Factory validation including documentation
Article number: 8500515

Template for IQ/OQ documentation

On USB drive
Article number: 8500513

TECHNICAL DATA

Only available until 31.12.2019



Vac Pro 12

Vac Pro 18

Vac Pro 22

Vac Pro 45

	Vac Pro 12	Vac Pro 18	Vac Pro 22	Vac Pro 45
Article number	8500487	8500488	8500489	8500610
Product category	Table-top autoclave			
Chamber volume	12 Liter	18 Liter	22 Liter	45 Liter
Freshwater tank volume	2,3 Liter	2,3 Liter	4,5 Liter	3 Liter
Wastewater tank volume	2,1 Liter	2,1 Liter	4 Liter	3 Liter
Chamber material	Stainless steel 304l			
Chamber diameter	20 cm	25 cm	25 cm	31,9 cm
Chamber depth	36 cm	35 cm	45 cm	61,7 cm
Net weight	51 kg	53 kg	55 kg	120 kg
Product dimensions (L*W*H)	61 * 50 * 43 cm	61 * 50 * 43 cm	65 * 50 * 43 cm	84 * 64 * 56 cm
Gross weight	59 kg	61 kg	63 kg	131 kg
Packaging dimensions (L*W*H)	73 * 57 * 51 cm	73 * 57 * 51 cm	77 * 57 * 51 cm	90 cm * 75 cm * 70 cm
Locking mechanism	Electric door lock			
Display	7" touch screen			
Sterilization temperature	105 ° C to 134 ° C, adjustable		Temperature are not variable	
Max. operating pressure	230 kPa			
Power supply	220V, 50 / 60Hz, 2400W			
Number of sterilization programs	12 customizable		8 customizable	
End-user language	English, German			
Flexible temperature sensor	✓	✓	✓	✓
User account management	✓	✓	✓	✓
Interfaces for documentation	protocol printer, USB, RS232, RS485 und SD card			
Interfaces for traceability	barcode reader, label printer			
Network compatible with Ethernet and WLAN	✓	✓	✓	✓
CertoTrace	✓	✓	✓	✓
Certo Cloud basic license	✓	✓	✓	✓
Certification	CE			
Warranty	2 years			
Scope of delivery	1 autoclave, 1 tray set with 3 drawers, 1 handle, 1 power cable, 1 Quick-Connect wastewater hose			