Getinge K-series
Tabletop Sterilizer
Product Specification

Getinge Infection Control is the world leading provider of solutions for sterile processing in the healthcare sector. We aim to ensure the highest quality and safety at the lowest total cost. We offer complete solutions for a seamless work-flow, reducing the risk of contamination while helping healthcare to increase efficiency.

The Getinge K-series is a range of fully automatic tabletop steam sterilizers for general dental, hospital and small clinic use. They have preset programs for the most common sterilization goods. Depending on the program selected, the mechanical air removal is either with gravity pulses or a series of vacuum pulses. The chamber dimensions are adapted to sterilization, using trays, baskets or other accessories specially made for the chamber size.

Application

A sterilizer for general-purpose steam sterilization of instruments, textiles and hospital utensils at dental clinics, TSSU departments, central sterilization departments, operation departments, veterinaries, tattoo and piercing studios and laboratories. The temperature range is 105-135 °C with heating by steam from a unique, integrated, electrically heated steam generator.

Quality Statement

Confidence in the Getinge Group is the most important quality criteria. This is the hallmark of all our external and internal commitments, activities and products. Products and services supplied by Getinge conform to the agreed terms and expectations. The achievement of these quality goals is the basis for continued competitive and successful enterprise.

Standards and Codes

The Getinge K-series sterilizers comply with relevant standards, codes and directives in the country or region of installation. The equipment is manufactured in accordance with industry requirements and standards.
A Declaration of Conformity, stating the relevant standards, codes and machine directives with which the equipment complies, is available on request.

Customer

Reference

Key Features

- High-speed Sterilization™
  - B-cycle in 25 minutes – including drying!
  - Flash cycle in less than 9 minutes!
  - S-cycle for dental handpieces in 15 minutes!
- Rectangular stainless steel chamber for maximum load capacity. More or less 100% usable chamber volume.
- Sliding door
  - Safety for the user: No risk of bursting doors. No exposure to the hot inner side of the door
  - Space-saving
- Three models:
  - K3+ 10-liter rectangular chamber with a loading capacity equal to most 18-liter round-chamber sterilizers – 3 trays (tray size 287 x 186 x 39 mm)
  - K5+ 15-liter rectangular chamber with a loading capacity superior to most other tabletop sterilizers – 5 trays (tray size 287 x 186 x 39 mm)
  - K7+ 20-liter rectangular chamber with a loading depth of 445 mm. Perfect for long instruments or when extremely high capacity is needed!
- Water reservoir made of easy-to-clean stainless steel – prevents biofilm formation.
- Fully prepared for connecting the sterilizer to the main water supply.
- Built-in water quality control as standard.
- Control system PACS 350, the same as the large Getinge hospital sterilizer system and in Getinge disinfector products.
- Stainless steel construction – chamber in 316Ti, booster tank and cover in 304.
- Wide range of accessories, e.g. loading system, trays, baskets etc.

Warranty

Getinge warrants that each sterilizer is carefully tested, inspected and leaves the factory in proper working condition, free from visible defects. The sterilizers have a general one-year product warranty: 12-month after installation qualification completion or 18-month from delivery from manufacturer to the market company. The warranty is only valid when maintenance and operations are performed in accordance with Getinge's instructions and recommendations. Furthermore, Getinge guarantees that the lifetime of the sterilizers is at least 10 years. During this period of time, the availability of spare parts is guaranteed.

Check the appropriate box.

☐ Standard choice

○ Optional

Commercial specifications only. Pictures and drawings are non-contractual.

Subject to change without notice.

Principle of Operation

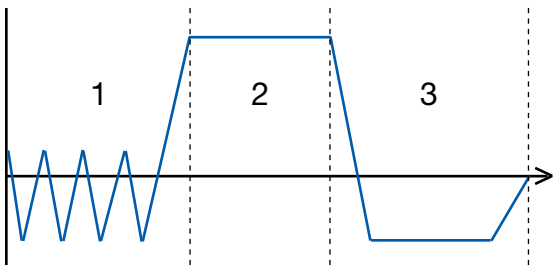
The Getinge K-series sterilizer is designed to consistently sterilize all type of heat-resistant goods, such as wrapped, unwrapped, porous, hollow and solid. The equipment is fully automatic in operation and follows a general sequence. The total process time of the standard B-cycle can be as short as 25 minutes, including drying!

No.	Type	Standard programs	Load
P01	B-cycle	134 °C Wrapped	Instruments: wrapped, unwrapped, hollow
P02	B-cycle	121 °C Wrapped	Sensitive instruments: wrapped, unwrapped, hollow
P03	B-cycle	134 °C Textiles	Porous load: wrapped, unwrapped
P04	N-cycle	134 °C Flash	Instruments: single solid unwrapped
P05	Test	Bowie & Dick	Steam penetration test (also Helix)
P06	Test	Leakage test	Leak test
P07	B-cycle	134 °C 18 minutes	Instruments: wrapped, unwrapped, hollow
P08	S-cycle	134 °C Dental Special	Dental handpieces: wrapped, max. 10 pcs

In the beginning of the day, the sterilizer is switched on and starts to heat up (if switched off during the night). After heating up, which takes approximately 45 minutes, a flash cycle is launched to heat up the chamber and piping system. To save time, Getinge recommends not switching off the power for the night. Alternatively, a timer can be mounted on the sterilizer to start the heat-up some hours before the clinic/department opens. In order to protect the door gasket and to save energy, the chamber door should be closed but not locked between the cycles.

The standard program can be divided into three phases:

1. Pre-treatment
   During pre-treatment the air is removed from the chamber and the load through a number of pre-vacuum pulses.
2. Sterilization “Holding time”
   During sterilization, the micro-organisms are inactivated or killed. The sterilization phase lasts for a preset number of minutes at the preset temperature and pressure.
3. Post-treatment
   During post-treatment the load is dried. Depending on the program, the sterilizer generates a vacuum defined in terms of pressure and duration. At the end of the phase, air is forced through an air filter until the chamber returns to atmospheric pressure.



The sterilization and drying times are adjustable from the minimum time according to the type test, up to 30 minutes (see page 10, “Range”).

Basic Design Features

The Getinge K-series sterilizers are designed and constructed to meet the rigorous requirements of the MDD.

Chamber construction
The square sterilizer chamber is constructed from solid stainless steel, EN 1.4571 (corresponding to AISI 316 Ti). Internal surfaces are glass-blast-polished to facilitate cleaning. A stainless steel mesh strainer protects the drain from blockage by debris. The sterilizer chamber is completely insulated with 50 mm mineral wool covered with aluminum foil. The chamber is mounted on the steel framework of the sterilizer.
The design pressure for the chamber is 2.7 bar overpressure and vacuum. The safety valve is preset to 2.7 bar overpressure (depending on local requirements). The design pressure for K5 in Japan is 2.5 bar.

Chamber pre-heating
The chamber is pre-heated by a 400 W electrical jacket.

Manometer (pressure gauge)
As an option, the sterilizer can be equipped with a manometer for monitoring the steam pressure in the chamber. The manometer is mounted in the door. Consider the manometer as an indication only. The integrated, accurate automatic pressure control system will assure that the correct process conditions are maintained.

☐ No manometer
○ Manometer

Panels
There are two versions of housing: stainless steel 304 or white powder-coated stainless steel. The color code for the white version is NCS S1002B. The rear panel is made of aluminum.

Service access
The front cover is easily removed by undoing two screws under the panel. The panel is then lifted off its upper hinges. An advantage of this solution is that the door gasket is easy accessible for replacement. The sterilizer housing that covers the top and the sides is fastened by two screws. The back has a separate cover, fastened with four screws.

Validation connections
The chamber is equipped with one 1/4″ female threaded connection for optional vacuum/ pressure gauge (VT) and a 1/4″ female connection for test sensor (TT). These connections are located on the top of the chamber.

Horizontally sliding door
The horizontally sliding door is manually opened by sliding to the left and closed by sliding to the right. It is locked by turning the handle 90° clockwise and unlocked by turning the handle 90 degrees counter-clockwise. The door is made of solid aluminum, with a stainless steel front. A silicone rubber gasket seals tightly against the chamber.
The handle position is controlled by a micro-switch. Removing the front panel enables simple removal of the door. Just move the door to the left and lift slightly to take out the door and replace the door gasket mounted on the door blade.

Basic Design Features (continued)

Air filter
A disposable air filter is provided for filtering the atmospheric air entering the chamber. The air is used to equalize the chamber pressure at the end of the sterilization cycle. The filter separation efficiency is higher than 99.998 % for particle size 0.2 µm.

Steam supply
The sterilizer has a built-in electrical steam generator, 1.8 kW, mounted under the sterilizer chamber. The unique design has an integrated energy-storing system that builds up power for sterilization of large loads in a short time. The steam generator is powered by two heating elements, 900 W each, which are never in contact with the water. This design gives the elements an extremely long lifetime.

Vacuum system
The sterilizer is equipped with a highly efficient vacuum system based on the Venturi principle: A circulation pump circulates the water through a nozzle system to produce the vacuum. The system is fast, silent and efficient, with few moving parts, thus giving high reliability.

Water quality
The water quality for steam production shall be max. 30 µS (see below).

Installation Versions

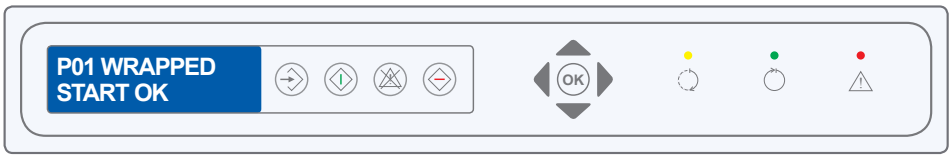
The unit is designed for tabletop installation only. It shall not be built in, except in a Getinge Steristack™ system or in similar installation with sufficient ventilation.
Getinge K-series sterilizers are designed for different installations:

Stand-alone (no water connection)
Just plug in the power supply, fill sufficient water in the reservoir and start to sterilize. After 30 cycles or when the water alarm indicates, drain the water, clean the reservoir and fill with new water.

Main water connected
In the event that the supply water exceeds 30 µS, Getinge offers the DI3G water deionizer as an accessory. Connect the sterilizer to drain. Fill water in the reservoir to supply the vacuum system. Start to sterilize. The water from the external supply feeds the steam generator. During the cycle, the reservoir water is used for vacuum production and is constantly changed. Water consumption is reduced to a minimum. Change the water filter when the water alarm indicates. Clean the reservoir once a month or on a regular basis based on experience.

Second water reservoir
Just like main water supply but instead of a piping connection there is a second water reservoir feeding the steam-generating system.

Operator Panel



The PACS 350 control system is operated via an easy-to-use display. Processes are selected via the preset scrolling system. To start the process, press the start button. For emergency stop, press the stop button. Access to other functions, such as running test cycles, setting parameters, calibration, service and maintenance is controlled using pre-defined access levels to prevent unauthorized access.

Operator panel location
Above the chamber door (see picture on page 1).

Personal Safety Features

Getinge K-series sterilizers are equipped with an electrical door lock that prevents the door from being unlocked during the sterilization process. In the event of failure, the door cannot be unlocked until the error has been acknowledged and reset. An interruption service routine resets the sterilizer to its standby mode before it is possible to safely open the door.

Control System

The PACS 350 modular PLC system is the dedicated system for controlling Getinge sterilizers, including:

- CPU processor with battery backup
- Digital in- and outputs for sterilizer control
- Analog measuring inputs
- COM ports for printer and PC communication

PACS 350 controls all system functions, monitors system operations, both visually and audibly alerts the operator of cycle malfunctions and, on demand, provides visual indication of the chamber temperature and pressure.

Temperature and Pressure Sensors

The PACS 350 control system has built-in linearization to correct the individual characteristics of each type of sensor connected to the system. Each sensor is calibrated with individual constants to correct the deviation in manufacturing and aging.
The following sensors are provided and are used in the automatic control of the sterilizer:

- Chamber temperature sensor
- Steam temperature sensor
- Chamber pressure sensor
- Steam generator temperature

The temperature sensors are of Pt100 type. The pressure sensor is an absolute pressure transducer, range 0-4 bar, output 4-20 mA.

Alarms

Automatic process check-up and failure corrections are provided with the PACS 350 control system. In case of a disturbance during the sterilization process, the process enters an alarm phase which safely ends the process automatically.
The range of alarms include:

- Temperature and pressure sensor failure
- Time-outs
- Door not properly closed
- Power failure (a power cut-off of less than 10 seconds will be ignored, i.e. there will be no alarm and the process will continue when the power comes back)
- Continuous self-check of all safety devices

Self-diagnostic Program

PACS 350 features a comprehensive alarm/alert system, with automatic triggering of pre-programmable information alerts (service intervals, maintenance etc). The self-diagnostic program that monitors the sterilizer performance is pre-programmed to alert the operator for:

- Time for service
- Error codes
- Water alarm (control of water quality for all installation versions)
- Level indicator for water reservoir
- Level indicator for separate water tank in the two-tank kit (indicates when the water level is too low for a process).

Self-diagnostics – Water level control
Level indicators indicate when the water level is too low for a process.

Self-diagnostics – Water quality sensor
The steam supply system has a built-in safety device, securing the water quality for steam production. At levels above 30 µS/cm, an alarm indicates that it is time to change the water or water filter, depending on the installation version. If the alarm is repeated 8 times, the sterilizer will be locked. Once the water or filter is changed, the sensor will accept the water and the unit can be used again.

- Check water quality
- Change water filter

Process Evaluation System

All Getinge K-series models are equipped with a process evaluation system, according to EN 13060, which triggers an alarm if deviations from preset values occur. The temperature and pressure parameters are individually controlled.

Process Documentation

The sterilizer is equipped with an RS232 COM port for connection of a printer or cycle documentation system. The port is situated on the back of the sterilizer. Cycle performance data is printed during and on completion of the cycle. The logging interval is adjustable (minimum once per second). Default is each transition point in pre- and post-treatment and every 30 seconds during holding time.

☐ No printer

○ Thermal printer
Receipt registration covering: date, process start time, machine name, start signal, transition points, phases, pressure, temperature, process time, finish.

Getinge Log System
With the Getinge Log system, the process data is transferred electronically to a PC. The software undertakes the encrypted storage after importing the data. A tamper-proof PDF protocol can be created and passed on to third parties for review or verification.

○ Getinge Log LAN
Via the practice network, the process data is transferred to a PC, where it is filed in a database in encrypted form.

○ Getinge Log USB
If there is no network connection available, the data on the device can be stored on the USB stick and transferred to the PC. The transfer can take place after each machine operation or at the end of a work day.

Mechanical Features

Valves and components
All standard components are non-proprietary and commonly available. Valves and major components are arranged to be easily accessible for service and replacement.

Steam-generating pump
The steam generator is fed with deionized water by a piston pump. The pump gives a flow of 300 ml/minute.

Sterilization Prozesses

The sterilizer is equipped with a set of pre-programmed processes. The process time mentioned in all documentation is approximate with factory-set values and depends on the load. The heavier the load, the longer the process. The material in the load also affects the process time. All weight indications of the load include the goods to be sterilized as well as the weight of racks, trays, containers etc. The lighter the trays etc, the more goods/weight can be sterilized.

The process times refer to Getinge K5+. The time varies only slightly from K3+ and K7+. Note that K7+ can handle a greater load than K5+ and K3+ less than K5+.

Adjustable parameters
The drying time is adjustable, from the minimum (as per the type test) up to 99 h. Adjustments are easily done by the operator on the display and require a password (558).

P01 Wrapped instruments (134 °C)
MDD type-tested B-process. For sterilization of medical devices, e.g. wrapped instruments, porous loads, hollow loads etc.

Total process time incl. drying (according to type test):

Empty chamber	~22 min
Solid load ~3.5 kg (“average load”)	~25 min
Full solid load 5 kg	~43 min

P02 Wrapped instruments (121 °C)
MDD type-tested B-process. For sterilization of medical devices, e.g. wrapped instruments, porous loads, hollow loads etc.

Total process time incl. drying (according to type test):

Empty chamber	~32 min
Solid load ~3.5 kg (“average load”)	~35 min
Full solid load 5 kg	~49 min

P03 Textile (134 °C)
MDD type-tested B-process. For sterilization of medical devices, e.g. wrapped instruments, porous loads, hollow loads etc.

Total process time incl. drying (according to type test):

Empty chamber	~27 min
Textile load 1.2 kg	~45 min

P04 Flash (134 °C)
A rapid N-process for single, non-wrapped solid instruments. The cycle is also used to warm up the sterilizer before daily use or leak tests.

Total process time:

Empty chamber	~9 min
Single solid instruments	~11 min

P07 18 minutes (134 °C)
MDD type-tested B-process (wrapped instruments, porous loads, hollow loads etc) for the decontamination/sterilization of CJD-related goods.
Please note that this process is a general-purpose process, to be configured in accordance with local requirements and regulations.
Getinge assumes no responsibility for the sterilization results of CJD-related goods.

Total process time incl. drying (according to type test):

Empty chamber	~35 min
Solid load ~3.5 kg (“average load”)	~40 min
Full solid load 5 kg	~58 min

P08 Dental special (134 °C)
MDD type-tested S-process. For sterilization of wrapped or unwrapped dental handpieces, max. 10 pieces.

Total process time incl. drying (according to type test:

Empty chamber	~13 min
10 wrapped handpieces	~16 min

Sterilization Prozesses (continued)

Test cycles included
The two (2) included test cycles are:

P05 Bowie & Dick test
A test cycle (usage required by EN 554) to control the air removal and steam penetration of the sterilizer cycle.

Sterilization temperature	134 °C
Holding time	3.5 min
Total process time with test pack	~22 min

P06 Leak test
Password-required (558). The sterilization process is sensitive to residual air in the chamber. If the chamber is not leak-tight, sterilization efficacy may be impaired. Getinge vacuum sterilizers are equipped with a fully automatic leak test process to confirm leak-tightness of the chamber.

Total process time	~10 min

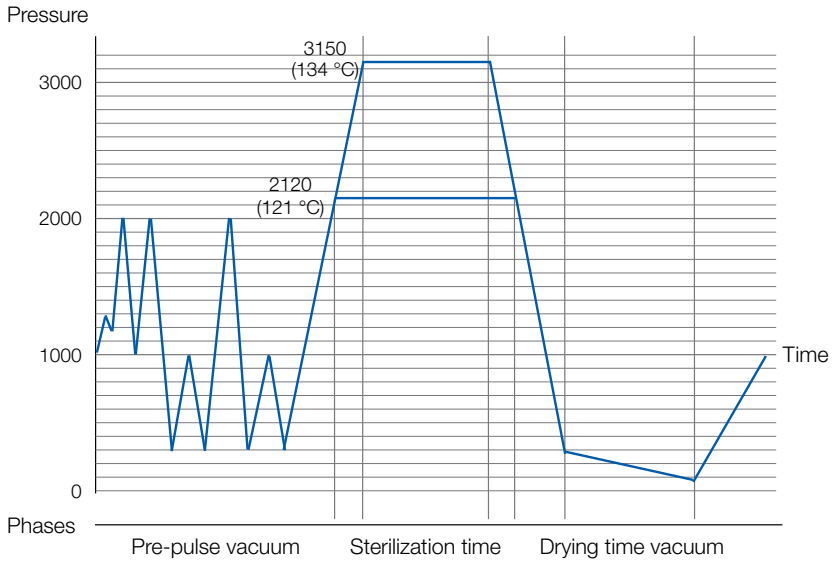
Detailed cycle descriptions on the following pages in this specification.

Standard Processes

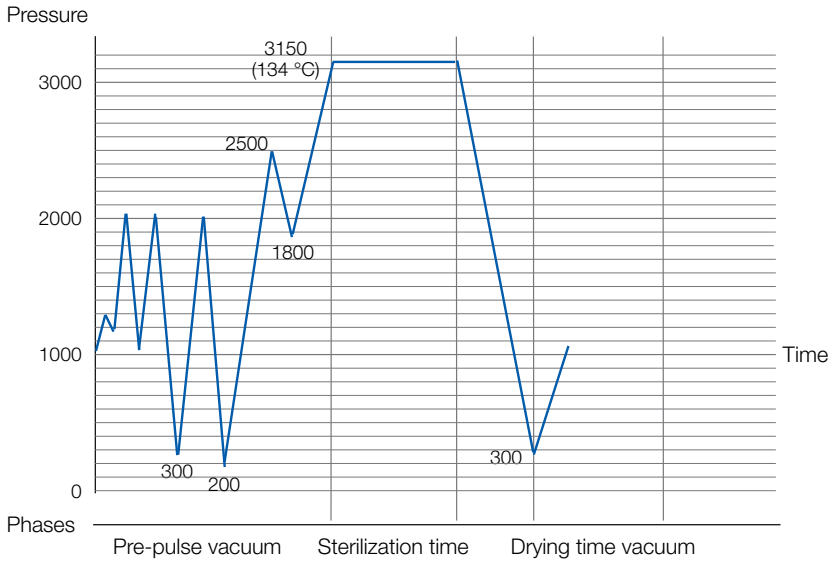
Description	Parameters	Range	Default
P01 Wrapped 134 °C (B-process, EN 13060)	Pre-pulse vacuum Pre-pulse positive Sterilization temperature Sterilization time Drying time, vacuum	 4-30 min 3-30 min	4 2 134 °C 4 min 3 min
P02 Wrapped 121 °C (B-process, EN 13060)	Pre-pulse vacuum Pre-pulse positive Sterilization temperature Sterilization time Drying time, vacuum	 20-30 min 3-30 min	4 2 121 °C 20 min 3 min
P03 Textiles 134 °C (B-process, EN 13060)	Pre-pulse vacuum Pre-pulse positive Sterilization temperature Sterilization time Drying time, vacuum	 4-30 min 8-30 min	4 2 134 °C 4 min 8 min
P04 Flash 134 °C (N-process, EN 13060)	Pre-pulse vacuum Pre-pulse positive Sterilization temperature Sterilization time	None 3.5-30 min	0 2 134 °C 3.5 min
P05 Bowie & Dick test	Pre-pulse vacuum Pre-pulse positive Sterilization temperature Sterilization time Drying time, vacuum		4 2 134 °C 3.5 min 3 min
P06 Leak test	Leak rate		
P07 18 minutes 134 °C (B-process, EN 13060)	Pre-pulse vacuum Pre-pulse positive Sterilization temperature Sterilization time Drying time, vacuum	 18-30 min 3-30 min	4 2 134 °C 18 min 3 min
P08 Dental Special 134 °C (S-process, EN 13060)	Pre-pulse vacuum Pre-pulse positive Sterilization temperature Sterilization time Drying time, vacuum	 3.5-30 min 1-30 min	2 2 134 °C 3.5 min 1 min

Standard Processes (continued)

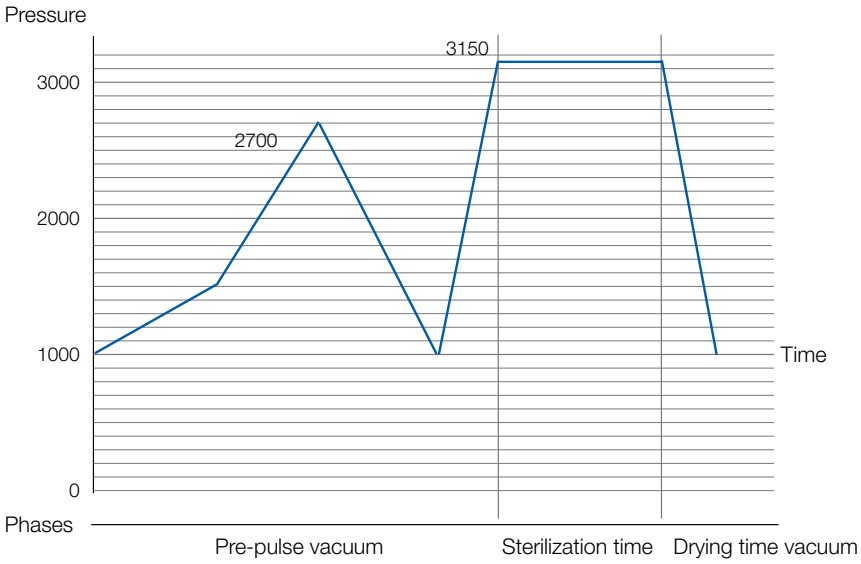
Standard B-process



Dental Special S-process



Flash N-process



Ordering Information

Use the detailed information from previous pages in combination with your capacity requirements to select the appropriate model.

A list of available options and accessories is provided on the following pages.

Chamber volume and size (page 3)

Getinge HS11 K3+

10-liter rectangular chamber (0.37 cu.ft.), internal dimensions 140 x 200 x 345 mm

Loading capacity:

- 3 trays with lid (287 x 186 x 39 mm) or
- 6 trays without lid (284 x 183 x 20 mm) or
- 3 instrument trays (330 x 190 x 38 mm)

☐ Stainless steel, art. no 978044503

☐ White (painted), art. no 978044504

Getinge HS22 K5+

15-liter rectangular chamber (0.6 cu.ft.), internal dimensions 220 x 200 x 345 mm

Loading capacity:

- 5 trays with lid (287 x 186 x 39 mm) or
- 10 trays without lid (284 x 183 x 20 mm) or
- 5 instrument trays (330 x 190 x 38 mm)

☐ Stainless steel, art. no 978046303

☐ White (painted), art. no 978046304

Getinge HS22 K7+

20-liter rectangular chamber (0.75 cu.ft.), internal dimensions 220 x 200 x 445 mm

Loading capacity:

- 5 trays with lid (287 x 186 x 39 mm) + 5 trays with lid (145 x 186 x 39 mm) or
- 10 trays without lid (284 x 183 x 20 mm) + 10 trays without lid (140 x 184 x 17 mm) or
- 5 instrument trays (330 x 190 x 38 mm) + 5 instrument trays (100 x 190 x 38 mm)

☐ Stainless steel, art. no 978047503

☐ White (painted), art. no 978047504

Manometer (pressure gauge) (page 4)

☐ No manometer

○ Manometer. Art. no K5+/K7+: 48320424, K3+: 48320425

Voltage supply

☐ 230 V 1-phase

○ 200 V 1-phase (transformer to be mounted on the outside/back of the sterilizer)

☐ 50 Hz

○ 60 Hz

Installation versions (page 5)

☐ Stand-alone (circulating system)

○ Main water connection
Water connection kit (including deionizer, pressure reducer, pressure gauge, overflow pipe, hoses and connectors), art. no 6011000298

○ Second water reservoir
Two-tank kit (including overflow pipe, level control, suction system, can), art. no 48320187

○ Connection to existing deionized water source
(including overflow pipe and reducer), art. no 48320215

Ordering Information (continued)

Process documentation (page 7)

☐ No process documentation

○ Thermal printer, art. no 4836100

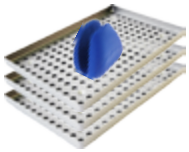
○ Getinge Log LAN. The process data is transferred to a PC via the practice network and can be stored as PDF file, art. no 6011000327

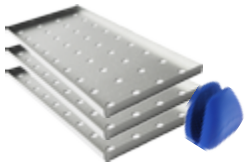
○ Getinge Log USB. If no network connection available, data can be stored on the USB stick and transferred to a PC, art. no 6011000326

Start kits for Getinge K3+, K5+ and K7+

○ Recommended start kit for sterilizer K3+ and K5+ including three perforated aluminum trays (art. no 4835576) and one silicone grabber (art. no 4836409), art. no 6034000008

○ Recommended start kit for sterilizer K7+ including three perforated aluminum trays (art. no 48320089) and one silicone grabber (art. no 4836409), art. no 6034000009





Conformity

Getinge is certified to develop, design and manufacture CE-marked (MDD) products for the healthcare sector, in countries covered by the EES treaty. CE conformity is required within the EU countries.

☐ CE and MDD conformity, e.g. for hospitals, dental and medical clinics or commercial re-use sterilization

Languages

Operator displays and user manuals are available in a selection of languages (multi-lingual manual). Service manual is available in English.

Operator displays are available in:

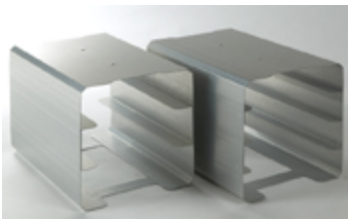
Czech	Finnish	Icelandic	Norwegian	Slovak
Danish	French	Italian	Polish	Spanish
Dutch	German	Japanese	Portuguese	Swedish
English	Greek	Latvian	Romanian	
Estonian	Hungarian	Lithuanian	Russian	

Chosen language: _____

Ordering Information (continued)

Tray holders

The sterilizer chamber is equipped as standard with an aluminum rack on which the trays, baskets etc. are positioned. The sterilizer shall not be used without rack. There is a number of tray holders for different needs.



Tray holders for Getinge K3+

- ☐ K3+ aluminum rack with 3 supporting levels, 44 mm min. space between levels. Art. no 48320078
- ○ K3+ aluminum rack without supporting levels. Art. no 48320177
- ○ K3+ aluminum rack with 2 supporting levels, 66/68 mm min. space between levels. Art. no 48320279
- ○ K3+ aluminum rack with 5 supporting levels, 26 mm min. space between levels. Art. no 48320300
- ○ K3+ aluminum rack with 6 supporting levels, 21.5 mm min. space between levels. Art. no 48320436

Tray holders for Getinge K5+

- ☐ K5+ aluminum rack with 5 supporting levels, 42 mm min. space between levels. Art. no 48320042
- ○ K5+ aluminum rack without supporting levels. Art. no 48320178
- ○ K5+ aluminum rack with 3 supporting levels, 70 mm min. space between levels. Art. no 48320116
- ○ K5+ aluminum rack with 4 supporting levels, 52 mm min. space between levels. Art. no 48320080
- ○ K5+ aluminum rack with 10 supporting levels, 20.5 mm min. space between levels. Art. no 48320395

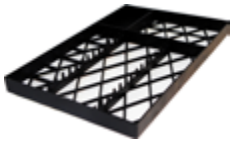
Tray holders for Getinge K7+

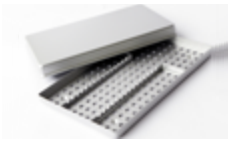
- ☐ K7+ aluminum rack with 5 supporting levels, 42 mm min. space between levels. Art. no 48320043
- ○ K7+ aluminum rack without supporting levels. Art. no 48320179
- ○ K7+ aluminum rack with 2 supporting levels, 111/104 mm min. space between levels. Art. no 48320252
- ○ K7+ aluminum rack with 3 supporting levels, 70 mm min. space between levels. Art. no 48320117
- ○ K7+ aluminum rack with 4 supporting levels, 52 mm min. space between levels. Art. no 48320126
- ○ K7+ aluminum rack with 10 supporting levels, 20.5 mm min. space between levels. Art. no 48320440

Ordering Information (continued)

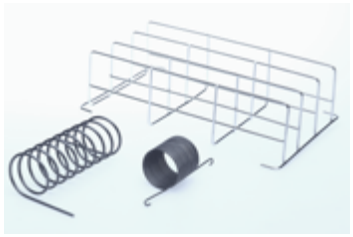
Option loading trays, handles etc.

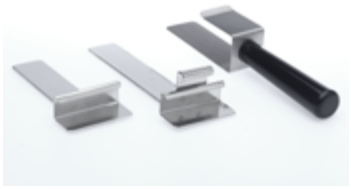
- ○ LK-tray of temperature resistant plastic material, 284 x 186 x 20 mm.
  Art. no 4835364
- ○ Dental tray, “mini”, with lid and instrument holder, aluminum, 145 x 186 x 39 mm.
  Art. no 4835981
- ○ Dental tray, with lid and instrument holder, aluminum, 287 x 186 x 39 mm.
  Art. no 4835362



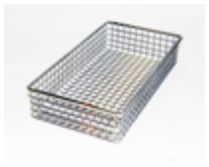
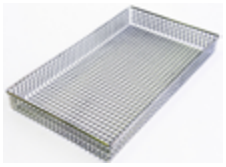
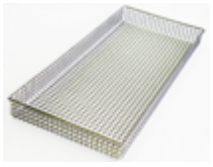


- ○ K5+ K7+ holder for standing pouches, stainless.
  Art. no 4839982
- ○ “Spring” for standing pouches, “hook” version, stainless.
  Art. no 483937271
- ○ “Spring” for standing pouches, free standing version, stainless.
  Art. no 483937270
- ○ Silicone grabber.
  Art. no 4836409
- ○ Handle for aluminum trays and LK-trays.
  Art. no 4839057
- ○ Handle for aluminium trays and instrument trays with H = 38 mm.
  Art. no 483759370
- ○ Handle for dental trays with lid.
  Art. no 48320022

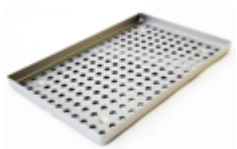




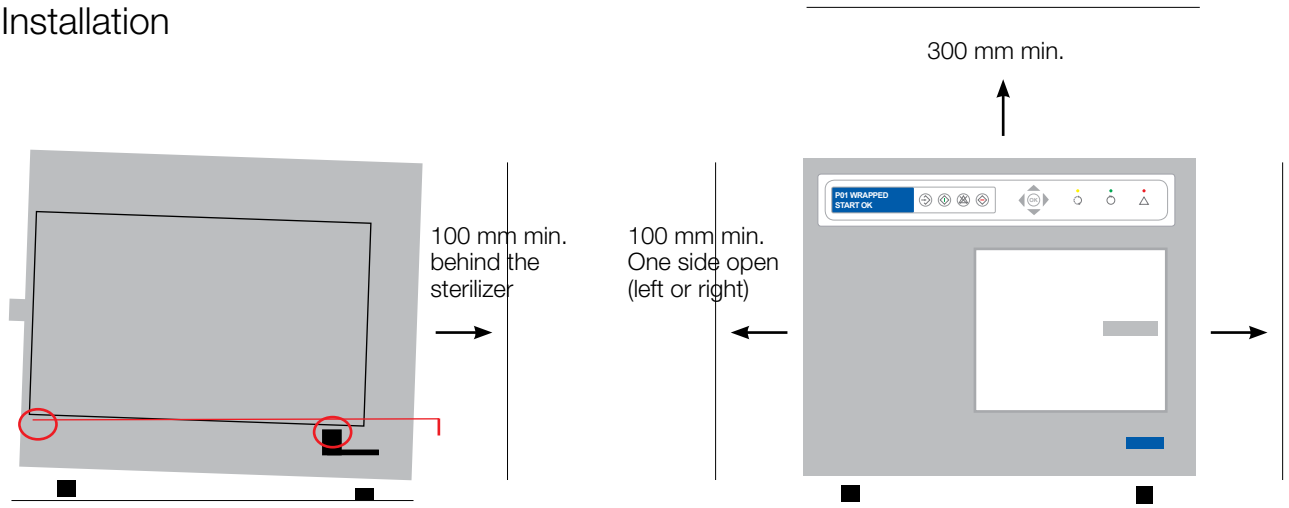
- ○ Instrument tray, stainless, 100 x 190 x 38 mm.
  Art. no 4839975
- ○ K3+ K5+ instrument tray, stainless, 330 x 190 x 38 mm.
  Art. no 4839962
- ○ K7+ instrument tray, stainless, 425 x 190 x 38 mm.
  Art. no 48320121

- ○ K3+ K5+ tray, perforated, aluminum, 285 x 185 x 19 mm. Art. no 4835576
- ○ K7+ tray, perforated, aluminum, 425 x 189 x 15 mm. Art. no 48320089

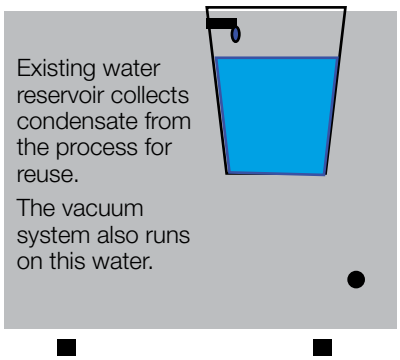



Installation

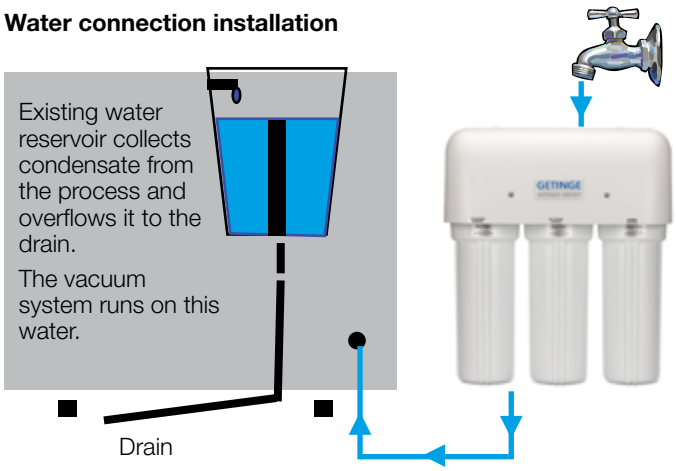


Chamber should be installed with a slope of
5 mm towards the rear to allow for full drainage.

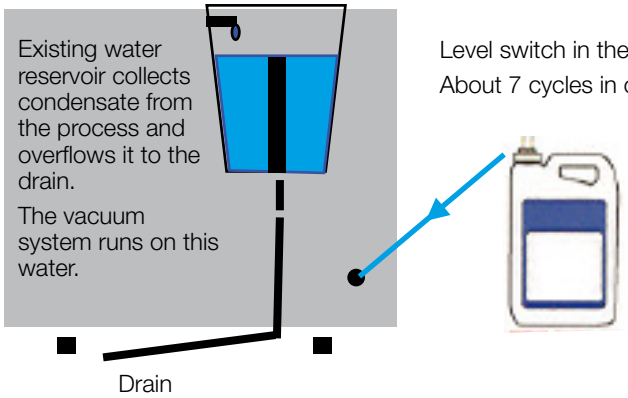
Stand-alone installation



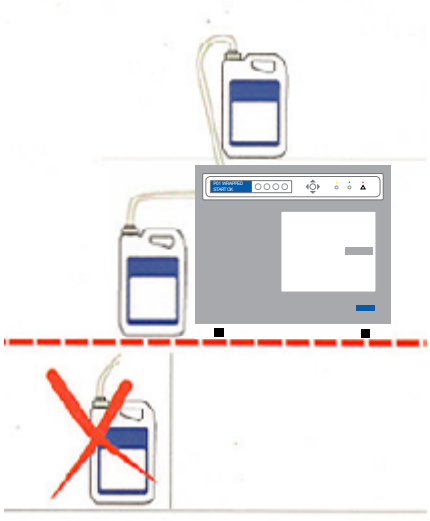
Water connection installation



Two-tank kit Art. no 48320187



Level switch in the separate can
About 7 cycles in one can



Installation Stand-alone

Sterilizer stand-alone data

Water	Particle-free cold water, max. room temperature
Water quality	max. 30 µS/cm
Water reservoir	5.0 liters
Cycles / filling	30 cycles (20 cycles when running dental handpieces)
Drain	12 mm silicone hose. Placed under the front of the sterilizer. Folds out for drainage.

Installation Water Connection

Sterilizer water connection data

Water	Cold water, max. 30 µS/cm particle-free
Water reservoir	5.0 liters
Water pressure to sterilizer	max. 0.5 bar
Drain	12 mm silicone hose. Fixed connection to drain through existing reservoir drainage. Overflow pipe in sterilizer water reservoir - see separate documentation
Wastewater temperature	< 50 °C
Water connection kit	Art. no 6011000298
Feedwater quality	7.3-14 dH (conductivity 260-500 µS/cm gives approximately 126 liters of deionized water). Recommended value max. 10 dH.
Feedwater connection	1/2″ or 3/4″
Water inlet pressure	0.3-7.0 bar
Water outlet pressure	Adjustable through reducer (included in kit).
Temperature range	4.0-38.0 °C

Documentation

One (1) copy of the user manual is delivered together with the sterilizer in a multi-lingual version (EU languages).
Service manual available (on request) in English. The service manual includes electrical, piping diagram, spare parts list and all service instructions.

Packing for Shipment

The sterilizer is shipped in a robust cardboard case with integrated pallet.

Technical Data

External measurements (w x d x h)	526 x 570 (K7+: 620)* x 485 mm (incl. feet)
Chamber size (w x d x h)	K3+: 200 x 345 x 140 mm K5+: 200 x 345 x 220 mm K7+: 200 x 445 x 220 mm
Chamber volume	K3+: 10 liters (0.37 cu.ft) K5+: 15 liters (0.58 cu.ft) K7+: 20 liters (0.75 cu.ft)
Chamber design pressure	2.7 bar (Japan K3+: 2.7, K5+: 2.5 bar, K7+: 2.7)
Chamber regulations	AFS 1999:6 (ÅKN 71), Isbest, PED 2014/68/EU, EN13445, ASME VIII, JBA/MHLW
Chamber material	EN 1.4571, AISI 316Ti
Door material	Aluminum, PED EN 5754 (JBA/ASME EN 2014T6)
Max. load: instruments/textiles	K3+: 3 kg / 1.5 kg K5+: 5 kg / 2.5 kg K7+: 7 kg / 3.5 kg
Feedwater for steam production	Pressure: max. 0.5 bar Quality: max. 30 µS/cm (demineralized water) Temperature: 5-40 °C
Volume of water reservoir	5 liters demineralized water
Water consumption	Per process: approximately 0.2-0.4 liters (depending on load and process type) During steam production: 10-100 ml
Water flow to waste connection	Approximately 0.2-0.4 liters/process
Electrical supply/Operating voltage	As stated on rating plate
Total wattage	2 200 W
Wattage of steam generator element	2 x 900 W
Wattage of electrically heated jacket	400 W
Electrical connection (max. variation)	1N 230 V AC, 1N 200 VAC
Frequency	50/60 Hz
Rating	10 Amp
Heat emission	Closed door: approximately 100 W Open door: approximately 400 W
Noise level	≤53 dB
Air filter	EN 143 / P3, 0.2 µm
Weight	K3+: 60 kg, K5+: 74 kg, K7+: 80 kg

* Add 100 mm on the back for sufficient ventilation

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Getinge Group is a leading global provider of innovative solutions for operating rooms, intensive-care units, hospital wards, sterilization departments, elderly care and for life science companies and institutions. With a genuine passion for life we build quality and safety into every system. Our unique value proposition mirrors the continuum of care, enhancing efficiency throughout the clinical pathway. Based on our first-hand experience and close partnerships, we are able to exceed expectations from customers – improving the every-day life for people, today and tomorrow.

Appendix

Document history, Product Specification Getinge K-series

Date	Edition	Change	Updated by
2010-08-27	1008	First edition	Jesper Wahlin
2011-06-29	1106	Text adjustments (standards and codes)	Louise Wicksell
2011-10-20	1110	Text adjustments (water quality)	Louise Wicksell
2012-01-23	1201	Text adjustments (load sensor)	Louise Wicksell
2014-10-10	Rev A 141010	New design, new deionizer	Louise Wicksell
2015-09-01	Rev A 150901	Water pressure, water quality	Louise Wicksell
2015-10-01	Rev B 151001	Liquid program removed, unperforated trays removed, USB process documentation removed, customer-defined process removed, Log Lan and Log USB added	Louise Wicksell
2016-01-22	Rev B 160122	Start kits added	Louise Wicksell
2016-03-22	Rev B 160322	Text adjustments (warranty)	Louise Wicksell
2017-02-13	Rev C	New PED number	Wojciech Dziedzic