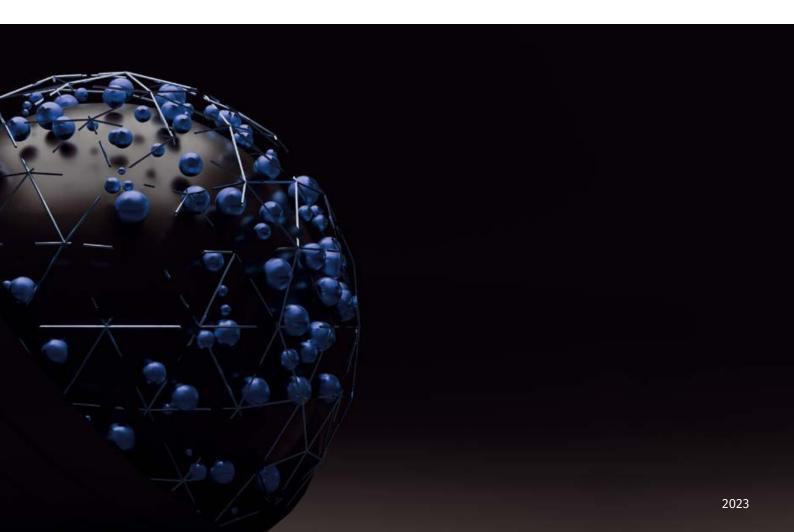


STERILISATION DESINFECTION PROTECTION





## Dear customers and business partners,

I am pleased to present our new general catalogue for laboratory equipment. Our product range includes a wide selection of high-quality equipment and systems that meet the highest standards of reliability, precision and safety. Whether you run a small laboratory or are part of a large research team, you will find the right solutions to meet your requirements.

We are specialists in steam sterilisers, which we have been developing and producing ourselves for over 40 years under the brand name VARIOKLAV®. These devices meet the highest requirements for the sterilisation of laboratory materials and are available in various sizes and designs.

In addition, we also offer BioVanguard® brand safety cabinets and DCX® disinfection devices for aerogenic room air and surface disinfection. Our products are characterised by the highest quality and effectiveness and help to ensure that your laboratory can work safely and hygienically.

Of course, we also offer comprehensive maintenance and service for all types of equipment to ensure that your equipment is always in perfect condition and is available to you reliably and for the long term. A comprehensive range of accessories and consumables completes our offering.

We are proud to offer you top products and services for laboratory hygiene, safety, sterilisation and disinfection.

Our team of experienced professionals is available to assist you in choosing the right equipment and to help you with any questions or problems you may have.

We thank you for your interest in our products and look forward to providing you with high quality solutions for your laboratory needs.

Axel Haschkamp Managing Director



#### HP TECHNOLOGY GROUP

The companies of the HP TECHNOLOGY GROUP develop and produce medical devices and laboratory technology for microbiological laboratories, food manufacturers, pharmaceutical companies, research institutes and educational institutions or military organisations.

The group of companies bundles experience and competence and offers complete solutions at the highest quality level. Thanks to knowledge exchange and technology transfer, VARIOKLAV sterilisers are among the best-selling sterilisers in Germany and the AEMP systems are unique worldwide.

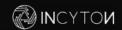














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**Experience since 1979** 





3

Sustainable

Long durability

by DIN EN ISO 9001 / 14001



## BASICS OF STEAM STERILISATION

### GENERAL TERMS

#### CONTAMINATION:

Products or items that are not sterile

#### **DISINFECT:**

Killing pathogens

#### STERILISATION:

Complete sterilisation, killing of micro-organisms including their dormant state

#### INACTIVATION:

Complete destruction of the biological activities of microorganisms (microbiological entity capable of reproducing or transferring genetic material).

#### STEAM STERILISATION:

Steam sterilisation is a very effective, environmentally friendly method that can be used for almost all goods to kill microorganisms using steam above atmospheric pressure.

Usually, a temperature of 121 °C is used with an exposure time of 20 minutes.

Very dangerous or thermoresistant germs are killed at 134 °C and an exposure time of 15 minutes.



## **PROCEEDINGS**

#### **AUTOCLAVE:**

Apparatus in which materials, utensils and equipment are exposed to steam above atmospheric pressure and thereby sterilised.

#### **GRAVITY PROCESS:**

The air in the sterilisation chamber is displaced by the incoming steam downwards out of the chamber via a valve, generally in the liquid programme.

#### PRESSURE CHANGE METHOD:

The sterilisation chamber is filled with steam several times until the specified operating pressure is reached, on standard models in the instruments / waste programme.

#### VACUUM METHOD:

The sterilisation chamber is evacuated and filled with steam until the working pressure is reached.

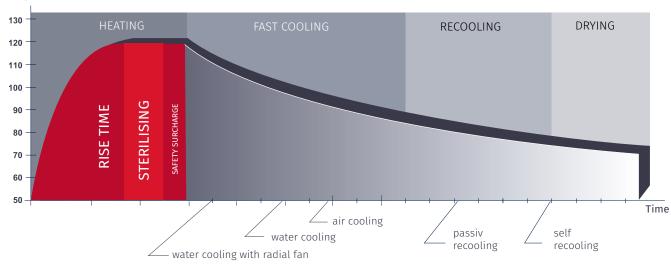
#### VACUUM WITH DRYING:

The sterilisation chamber is evacuated and heat is supplied via the chamber jacket at the same time.





#### Media temperature in C°



## **PROGRAMMES**

#### LIQUIDS I

For liquid laboratory waste, forced cooling

#### LIQUIDS I

Low-loss, for larger liquid volumes

#### **INSTRUMENTS**

For instruments, glass, devices

#### WASTE

For mixed loads, laboratory waste with low liquid content

#### EMPTYING PROGRAMME

For cleaning the steam generator (BlueLine only)

#### PREHEATING PROGRAMME

for constant operational readiness (BlueLine only)





## AREAS OF APPLICATION

#### MICROBIOLOGY LABORATORY:

Sterilisation of liquids Production of culture media Sterilisation of infectious laboratory waste Sterilisation of genetically modified substances

#### **PRODUCTION**

Production of sterile medical and pharmaceutical products

#### INDUSTRY

Pressurised climate chamber for long-term tests

## **VARIOKLAV®** BlueLine.

## Powerful autoclaves for laboratories, medical practices and clinics

The VARIOKLAV® BlueLine offers high-quality steam sterilisers that are ideally equipped for all routine tasks in a microbiology laboratory: Autoclaving liquids, solids or culture media safely, precisely, validatably and reproducibly. Our steam sterilisers work quickly and reliably and offer plenty of space for instruments and bulky sterilisation items.

## Free-standing units

Our solid VARIOKLAV® floor-standing units offer the largest possible usable volume with the smallest footprint. The low working height allows the user to load and unload the autoclave comfortably from above.

The separate steam generator prevents contamination of the feed water by condensate, waste or media. The sterilisation chamber is therefore free of heating elements and feed water.

The compressed air supply for the seal control circuit, safety interlock and pneumatic control valves is completely self-sufficient.

## BlueLine

### All advantages at a glance

- Separate steam generation
- Thermal barrier for liquids
- Self-sufficient compressed air supply
- · Low feed water consumption despite high flow rate
- Easy-to-clean sterilisation chamber without internal heating elements and feed water
- Slim design
- Can optionally be equipped with lift, vacuum, cooling, drying, filtration, documentation and media temperature control modules
- All components of our sterilisers are optimised for the longest possible durability

## Table-top devices

VARIOKLAV® table-top autoclaves impress with their outstanding capacity on a very small footprint: Our compact table-top autoclaves are equipped with space-saving swing doors. Thanks to the particularly space-saving design, there are neither heating elements nor feed water inside the chamber, which makes cleaning the chamber particularly easy.

The table-top autoclave can be installed at almost any height allowing comfortable loading and unloading of the chamber at any height, and unloading of the chamber is possible at any height.



Floor-standing units with capacities from 75 to 175 litres

Table-top units with capacities from 25 to 195 litres







## Touch-display control unit

Operation via the new touch display is intuitive and convenient. Clear and simple icons, pre-configured sterilisation programmes or individually adapted programme sequences enable a validated sterilisation process.

- 10-inch multi-touch display
- 16 programmes incl. F0 value calculation
- Remote maintenance
- User administration
- Internal device memory (1 GB)

## Module options

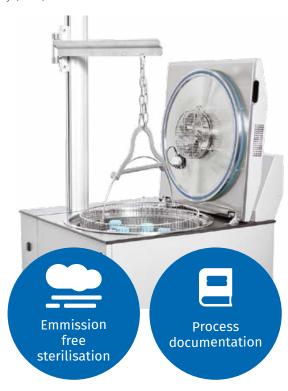
The BlueLine autoclaves can be equipped with numerous module options. Choose between modules for recooling and rapid recooling, vacuum and vacuum drying, emission-free sterilisation, process documentation and media temperature and media temperature control to adapt your autoclave optimally to your routine work.

#### VARIOKLAV MODULES













### Media temperature control

No overheating, higher media quality, exact sterilisation.

The media temperature is controlled via a flexible temperature sensor, directly in the reference vessel. This module option thus guarantees efficient and precise autoclaving by automatically triggering the sterilisation time via the media temperature.

#### Media temperature control MT

Temperature-controlled high-precision sterilisation

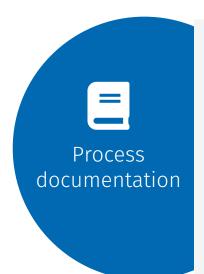
- Flexible temperature sensor directly in reference vessel ensures precise, temperature-controlled sterilisation
- Set temperature is reliably reached
- Rapid cooling integrated in the RM and RG cooling module



#### Documentation

## Traceability of the sterilisation process

Integrated printers and the SegoSoft® software log the compliant documentation the sterilisation process parameters of the autoclaves.



#### **GLP Batch Printer**

#### Conformity through data recording of process data

- Documents batch no. with date, process steps, starting from start to stop, e.g. chamber temperature, chamber pressure and possible alarm messages, filter count
- Recommended for safety level 2

#### IMS GMP batch printer

#### For complete documentation of release information

- Like GLP printer with documentation of batch number, date and process steps
- In addition, temperature and pressure data from control-independent reference sensors calibrated to ISO 9000 are recorded and shown on the display
- Suitable for protection class 3

#### Emission-free sterilisation

#### With condensate sterilisation, for safe sterilisation of hazardous substances

Exhaust air filtration with condensate sterilisation enables safe, emission-free sterilisation of hazardous biological materials and media, including pathogens, infectious material and genetically modified samples. The environment and the wastewater system are protected from contamination.



## Emission-free sterilisation

#### FA Module exhaust air filtration

#### For safe sterilisation of hazardous substances

- Aerosols in the exhaust air are already retained by a filter during the heating phase
- Simultaneous sterilisation of chamber contents, condensate and filter housing including filter
- Sterilisation chamber and floor or rear wall are heated with steam from the outside on all sides
- Dead space-free drain valve in the chamber floor ensures contamination-free disposal of the condensate





## Modules

The modular design of our steam sterilisers also offers you the option of equipping your unit individually for a wide range of requirements.



## Fast cooling

#### Sterilisation of liquids and culture media with high throughput

The cooling modules significantly reduce the cooling time of the autoclaves. This enables a higher throughput in batch processing. Depending on the process and loading of the autoclave, cooling times between 5 and 80 minutes are achieved.

#### RM cooling module for fast cooling

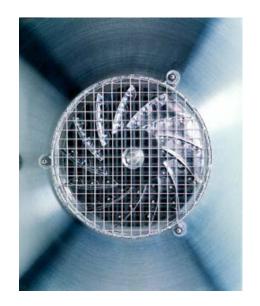
For sterilisation of liquids in open vessels

- Stainless steel water cooling jacket integrated in sterilisation chamber without limiting the loading capacity of the autoclave
- Media temperature control MT incl. media temperature sensor
- Up to 40% shorter cooling time
- Advantageous for thermolabile culture media, adjustable removal temperature, sterile ventilation

#### RG cooling module for rapid cooling

For liquids in open and pressure-tight sealed vessels

- RM cooling module extended by a powerful radial blower and support pressure system with sterile compressed air
- Ideal for temperature-sensitive media



## Pre-vacuum and vacuum drying

Sterilisation of waste, solids and porous materials

A pre-vacuum module for VARIOKLAV autoclaves ensures the safe sterilisation of porous materials and items that are difficult to vent. An additional vacuum drying module enables the removal of dry, sterile-ventilated materials.





#### VF module fractionated pre-vacuum

For thorough air removal before sterilisation

- Single pre-vacuum or fractionated pre-vacuum cycle for complete air removal.Improves steam penetration into porous materials and thus the quality of sterilisation
- Adjustable vacuum depth and number of pressure cycles allow economical processes for complete steam penetration

#### VT module vacuum drying

Prevents contamination of the sterile material after the drying phase

• VF module extended by drying in pulsed deep vacuum with powerful steam heating integrated in the double jacket, eliminates residual moisture



| Art.No.  | VARIOKLAV BlueLine 75 S   100 S |  |
|----------|---------------------------------|--|
| 51024301 | BlueLine 75 S                   | Steam steriliser, floor standing - basic version, usable space 75 litres, (ØxL) 400x600 mm, 4,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding |
| 51902900 | BlueLine 100 S                  | Steam steriliser, stand-alone basic version, usable space 100 litres, (ØxL) 400x800 mm, 4,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding     |

|          | DEVICE OPTIONS                    |   |
|----------|-----------------------------------|---|
| 51900825 | Enclosure made of stainless steel | Autoclave enclosure made of stainless steel, finely polished, instead of powder coating       |
| 51900826 | Validation port 6-fold            | For up to 6 temperature sensors PT 100, conforming to standards                               |
| 51900851 | Set of castors with parking brake | Castors with parking brake, for portable installation of freestanding units, 1 kit = 4 pieces |

|          | MODULE OPTIONS                           |  |
|----------|--|--|
| 51900818 | MT module - media<br>temperature control | Control via temperature of liquids or media, for retrofitting  |
| 51900801 | RM module - fast cooling                 | Fast cooling for liquids in open vessels, direct jacket cooling with demineralised water, including MT module - media temperature control and sterile ventilation  |
| 51900803 | RG module - fast cooling                 | Fast cooling for liquids in open vessels, including RM cooling module, additionally with sterile support pressure and radial fan for steam circulation, external compressed air connection required  |
| 51900805 | VF module - fractionated pre-vacuum      | For hard-to-vent solid and porous materials in particular hollow bodies and trash in bags, including program for simple pre-vacuum   |
| 51900807 | VT module - vacuum drying                | Including VF module, post-drying with vacuum, double jacket steam-heated, for all solid and porous materials, including sterile ventilation, recommended drying time 15 to 60 min  |
| 51900809 | FA module - exhaust<br>air filtration    | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority   |
| 51900810 | GLP batch printer                        | Integrated, for direct documentation of chamber and media temperature as well as chamber pressure  |
| 51900811 | GMP batch printer                        | Integrated, for independent documentation of chamber temperature, media temperature and chamber pressure as well as separate process documentation via double sensors, including calibration certificates according to ISO 9000, GMP compliant |
| 51900827 | Sterile air ventilation                  | Sterile ventilation of the chamber at the end of the sterilization process   |
|          |  |  |





## Art.No. VARIOKLAV BlueLine 75 S | 100 S

|          | SPECIAL PROGRAMS                   |  |
|----------|------------------------------------|--|
| 51900812 | Steam pot program                  | Including media temperature control  |
| 51900813 | Durham tube program                | Bouillon program, possible from RM module  |
| 51900815 | Sterilization temperature increase | Sterilization temperature increase to 140°C In saturated steam, for all programs, to 140°C adjustable setpoint |

|          | ACCESSORIES                              |   |
|----------|--|---|
| 50095875 | Lifting hoist                            | For easy loading and unloading, powder-coated, stroke 900 mm, load capacity 40 kg   |
| 50097753 | Lifting hoist                            | For easy loading and unloading, stainless steel, stroke 900 mm, load capacity 40 kg   |
| 50091747 | Wire basket round                        | (ØxH) 385x260 mm, stackable, max. 2 baskets per device possible   |
| 50110034 | Wire basket round                        | (ØxH) 385x248 mm, stackable, max. 2 baskets per device possible, special size   |
| 50091196 | Wire basket round,<br>with drip tray     | (ØxH) 385x260 mm, stackable, tray height 50 mm, max. 2 baskets per device possible  |
| 50092106 | Metal bucket round                       | (ØxH) 390x280 mm, stackable, max. 2 buckets per device  |
| 50095759 | Metal bucket round,<br>with rotating lid | (ØxH) 390x280 mm, not stackable, max. 1 bucket per device   |
| 50094348 | Desalination cartridge                   | For water desalination, type 2800, with conductivity meter and hose set   |
| 50094349 | Desalination cartridge                   | For water desalination, type 2800, replacement cartridge for alternating operation  |
| 50085029 | Aquastop                                 | Aquastop, for up to 3 water supply lines leading, completely ready, continuous operation  |
| 50107364 | Magnetic stirrer                         | Magnetic stirrer with one stirring point, including stirring bar and external control unit, pressure-tight encapsulated, integrated in the sterilizer, max. 40 litres stirring volume |
| 607430   | SegoSoft, SegoSerial module              | Digital cycle and process documentation, software and SegoSerial module,<br>RS-232/USB-interface, digital signature according to signature law, incl. cable 3m                        |
| 609496   | SegoSoft, SegoConnect module             | Digital cycle and process documentation, software and SegoConnect module,<br>RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m                  |
| 609592   | SegoSoft, FDA - CFR Part 11              | Digital cycle and process documentation FDA conform, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m         |



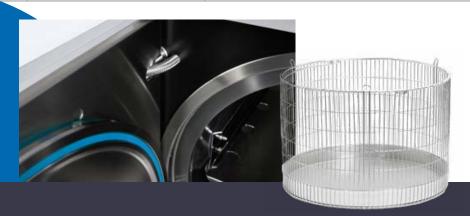




| Art.No.  | VARIOKLAV BlueLine 135 S   155 S   175 S |   |
|----------|--|---|
| 51024302 | BlueLine 135 S                           | Steam steriliser, floor standing - basic version, usable space 135 litres, (ØxL) 500x700 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding |
| 51902901 | BlueLine 155 S                           | Steam steriliser, floor standing - basic version, usable space 155 litres, (ØxL) 500x800 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding |
| 51902902 | BlueLine 175 S                           | Steam steriliser, floor standing - basic version, usable space 175 litres, (ØxL) 500x900 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding |

|          | DEVICE OPTIONS                    |   |
|----------|-----------------------------------|---|
| 51900825 | Enclosure made of stainless steel | Autoclave enclosure made of stainless steel, finely polished, instead of powder coating       |
| 51900826 | Validation port 6-fold            | For up to 6 temperature sensors PT 100, conforming to standards                               |
| 51900851 | Set of castors with parking brake | Castors with parking brake, for portable installation of freestanding units, 1 kit = 4 pieces |

|          | MODULE OPTIONS                           |  |
|----------|--|--|
| 51900818 | MT module - media<br>temperature control | Control via temperature of liquids or media, for retrofitting  |
| 51900801 | RM module - fast cooling                 | Fast cooling for liquids in open vessels, direct jacket cooling with demineralised water, including MT module - media temperature control and sterile ventilation  |
| 51900803 | RG module - fast cooling                 | Fast cooling for liquids in open vessels, including RM cooling module, additionally with sterile support pressure and radial fan for steam circulation, external compressed air connection required  |
| 51900805 | VF module - fractionated pre-vacuum      | For hard-to-vent solid and porous materials in particular hollow bodies and trash in bags, including program for simple pre-vacuum   |
| 51900807 | VT module - vacuum drying                | Including VF module, post-drying with vacuum, double jacket steam-heated, for all solid and porous materials, including sterile ventilation, recommended drying time 15 to 60 min  |
| 51900809 | FA module - exhaust air filtration       | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority   |
| 51900810 | GLP batch printer                        | Integrated, for direct documentation of chamber and media temperature as well as chamber pressure  |
| 51900811 | GMP batch printer                        | Integrated, for independent documentation of chamber temperature, media temperature and chamber pressure as well as separate process documentation via double sensors, including calibration certificates according to ISO 9000, GMP compliant |
| 51900827 | Sterile air ventilation                  | Sterile ventilation of the chamber at the end of the sterilization process   |







## Art.No. VARIOKLAV BlueLine 135 S | 155 S | 175 S

|          | SPECIAL PROGRAMS                   |  |
|----------|------------------------------------|--|
| 51900812 | Steam pot program                  | Including media temperature control  |
| 51900813 | Durham tube program                | Bouillon program, possible from RM module  |
| 51900815 | Sterilization temperature increase | Sterilization temperature increase to 140°C In saturated steam, for all programs, to 140°C adjustable setpoint           |
| 606985   | C-waste disinfection               | certified procedure (RKI), required module options:<br>VF + RG + FA + GMP, programs for c-waste solid and C-waste liquid |

|          | ACCESSORIES                                |   |
|----------|--|---|
| 50095876 | Lifting hoist                              | For easy loading and unloading, powder-coated, stroke 900 mm, load capacity 40 kg   |
| 50097752 | Lifting hoist                              | For easy loading and unloading, stainless steel, stroke 900 mm, load capacity 40 kg   |
| 50091748 | Wire basket round                          | (ØxH) 485x200 mm, stackable, max. 3 baskets per device  |
| 50099633 | Wire basket round                          | (ØxH) 485x240 mm, stackable, max. 2 baskets per device possible, special size   |
| 50092114 | Wire basket round                          | (ØxH) 485x320 mm, stackable, max. 2 baskets per device possible   |
| 50092112 | Wire basket round,<br>with drip tray round | (ØxH) 485x320 mm, stackable, tray height 50 mm, max. 2 baskets per device possible  |
| 50090683 | Hanging tray<br>for sterilization baskets  | $\phi$ 470 mm, including 4 mounting brackets for further loading level in the basket  |
| 50099824 | Metal bucket round                         | (ØxH) 470x310 mm, stackable, max. 2 buckets per device  |
| 50095753 | Metal bucket round, with rotating lid      | (ØxH) 490x345 mm, not stackable, max. 1 bucket per device   |
| 50094348 | Desalination cartridge                     | For water desalination, type 2800, with conductivity meter and hose set   |
| 50094349 | Desalination cartridge                     | For water desalination, type 2800, replacement cartridge for alternating operation  |
| 50085029 | Aquastop                                   | Aquastop, for up to 3 water supply lines leading, completely ready, continuous operation  |
| 50107364 | Magnetic stirrer                           | Magnetic stirrer with one stirring point, including stirring bar and external control unit, pressure-tight encapsulated, integrated in the sterilizer, max. 40 litres stirring volume |
| 607430   | SegoSoft, SegoSerial module                | Digital cycle and process documentation, software and SegoSerial module, RS-232/USB-interface, digital signature according to signature law, incl. cable 3m                           |
| 609496   | SegoSoft, SegoConnect module               | Digital cycle and process documentation, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m                     |
| 609592   | SegoSoft, FDA - CFR Part 11                | Digital cycle and process documentation FDA conform, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m         |







| Art.No.  | VARIOKLAV BlueLine 75 T   100 T |  |
|----------|---------------------------------|--|
| 51024303 | BlueLine 75 T                   | Steam steriliser, table-top unit - basic version, usable space 75 litres, (ØxL) 400x600 mm, 4,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding |
| 51902903 | BlueLine 100 T                  | Steam steriliser, tabletop unit - basic version, usable space 100 litres, (ØxL) 400x800 mm, 4,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding |

|          | DEVICE OPTIONS                    |   |
|----------|-----------------------------------|---|
| 51900825 | Enclosure made of stainless steel | Autoclave enclosure made of stainless steel, finely polished, instead of powder coating |
| 51900826 | Validation port 6-fold            | For up to 6 temperature sensors PT 100, conforming to standards                         |

|          | MODULE OPTIONS                           |  |
|----------|--|--|
| 51900818 | MT module - media<br>temperature control | Control via temperature of liquids or media, for retrofitting  |
| 51900801 | RM module - fast cooling                 | Fast cooling for liquids in open vessels, direct jacket cooling with demineralised water, including MT module - media temperature control and sterile ventilation  |
| 51900803 | RG module - fast cooling                 | Fast cooling for liquids in open vessels, including RM cooling module, additionally with sterile support pressure and radial fan for steam circulation, external compressed air connection required  |
| 51900805 | VF module - fractionated pre-vacuum      | For hard-to-vent solid and porous materials in particular hollow bodies and trash in bags, including program for simple pre-vacuum   |
| 51900807 | VT module - vacuum drying                | Including VF module, post-drying with vacuum, double jacket steam-heated, for all solid and porous materials, including sterile ventilation, recommended drying time 15 to 60 min  |
| 51900809 | FA module - exhaust air filtration       | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority   |
| 51900810 | GLP batch printer                        | Integrated, for direct documentation of chamber and media temperature as well as chamber pressure  |
| 51900811 | GMP batch printer                        | Integrated, for independent documentation of chamber temperature, media temperature and chamber pressure as well as separate process documentation via double sensors, including calibration certificates according to ISO 9000, GMP compliant |
| 51900827 | Sterile air ventilation                  | Sterile ventilation of the chamber at the end of the sterilization process   |





| Art.No. | VARIOKLAV BlueLine 75 T   100 T |
|---------|---------------------------------|

|          | SPECIAL PROGRAMS                   |  |
|----------|------------------------------------|--|
| 51900813 | Durham tube program                | Bouillon program, possible from RM module  |
| 51900815 | Sterilization temperature increase | Sterilization temperature increase to 140°C In saturated steam, for all programs, to 140°C adjustable setpoint |

|          | ACCESSORIES                  |   |
|----------|------------------------------|---|
| 50098202 | Undercarriage for 75 T       | (WxHxD) 532x805x708 mm, with additional shelf, extensible, 2 casters on the back, stainless steel, max. load capacity 300 kg  |
| 604791   | Undercarriage for 100 T      | (WxHxD) 532x805x908 mm, with additional shelf, extensible, 2 casters on the back, stainless steel, max. load capacity 300 kg  |
| 51900834 | Center shelf                 | (WxHxD) 360x15x580 mm   (WxHxD) 360x15x580 mm, stainless steel, loading level height adjustable in four positions   |
| 50101326 | Wire basket cubic            | (WxHxD) 300x120x535 mm, stackable, max. 2 buckets per device  |
| 50101323 | Metal tub cubic              | (WxHxD) 350x80x335 mm, stackable, 2 tubs per device   |
| 50094348 | Desalination cartridge       | For water desalination, type 2800, with conductivity meter and hose set   |
| 50094349 | Desalination cartridge       | For water desalination, type 2800, replacement cartridge for alternating operation  |
| 50085029 | Aquastop                     | Aquastop, for up to 3 water supply lines leading, completely ready, continuous operation  |
| 50107364 | Magnetic stirrer             | Magnetic stirrer with one stirring point, including stirring bar and external control unit, pressure-tight encapsulated, integrated in the sterilizer, max. 40 litres stirring volume |
| 607430   | SegoSoft, SegoSerial module  | Digital cycle and process documentation, software and SegoSerial module, RS-232/USB-interface, digital signature according to signature law, incl. cable 3m                           |
| 609496   | SegoSoft, SegoConnect module | Digital cycle and process documentation, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m                     |
| 609592   | SegoSoft, FDA - CFR Part 11  | Digital cycle and process documentation FDA conform, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m         |





| Art.No.  | VARIOKLAV BlueLine 135 T   155 T   175 T   195 T |   |
|----------|--|---|
| 51024304 | BlueLine 135 T                                   | Steam steriliser, tabletop unit - basic version, usable space 135 litres, (ØxL) 500x700 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding    |
| 51902904 | BlueLine 155 T                                   | Steam steriliser, tabletop unit - basic version, usable space 155 litres, (ØxL) 500x800 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding    |
| 51902905 | BlueLine 175 T                                   | Steam steriliser, tabletop unit - basic version, usable space 175 litres, (ØxL) 500x900 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding    |
| 51902906 | BlueLine 195 T                                   | Steam steriliser, table-top unit - basic version, usable space 195 litres, (ØxL) 500x1,000 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, integrated ADI exhaust steam condenser, hot-dip galvanised and powder-coated cladding |

|          | DEVICE OPTIONS                    |   |
|----------|-----------------------------------|---|
| 51900825 | Enclosure made of stainless steel | Autoclave enclosure made of stainless steel, finely polished, instead of powder coating |
| 51900826 | Validation port 6-fold            | For up to 6 temperature sensors PT 100, conforming to standards                         |

|          | MODULE OPTIONS                           |  |
|----------|--|--|
| 51900818 | MT module - media<br>temperature control | Control via temperature of liquids or media, for retrofitting  |
| 51900801 | RM module - fast cooling                 | Fast cooling for liquids in open vessels, direct jacket cooling with demineralised water, including MT module - media temperature control and sterile ventilation  |
| 51900803 | RG module - fast cooling                 | Fast cooling for liquids in open vessels, including RM cooling module, additionally with sterile support pressure and radial fan for steam circulation, external compressed air connection required  |
| 51900805 | VF module - fractionated pre-vacuum      | For hard-to-vent solid and porous materials in particular hollow bodies and trash in bags, including program for simple pre-vacuum   |
| 51900807 | VT module - vacuum drying                | Including VF module, post-drying with vacuum, double jacket steam-heated, for all solid and porous materials, including sterile ventilation, recommended drying time 15 to 60 min  |
| 51900809 | FA module - exhaust air filtration       | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority   |
| 51900810 | GLP batch printer                        | Integrated, for direct documentation of chamber and media temperature as well as chamber pressure  |
| 51900811 | GMP batch printer                        | Integrated, for independent documentation of chamber temperature, media temperature and chamber pressure as well as separate process documentation via double sensors, including calibration certificates according to ISO 9000, GMP compliant |
| 51900827 | Sterile air ventilation                  | Sterile ventilation of the chamber at the end of the sterilization process   |





## Art.No. VARIOKLAV BlueLine 135 T | 155 T | 175 T | 195 T

|          | SPECIAL PROGRAMS                   |  |
|----------|------------------------------------|--|
| 51900813 | Durham tube program                | Bouillon program, possible from RM module  |
| 51900815 | Sterilization temperature increase | Sterilization temperature increase to 140°C In saturated steam, for all programs, to 140°C adjustable setpoint |

|          | ACCESSORIES                  |   |
|----------|------------------------------|---|
| 50098207 | Undercarriage for 135 T      | Stainless steel, (WxHxD) 632x800x788 mm, with additional shelf,<br>2 casters on the back, max. load capacity 300 kg   |
| 50101130 | Undercarriage for 155 T      | Stainless steel, (WxHxD) 632x800x888 mm, with additional shelf,<br>2 casters on the back, max. load capacity 300 kg   |
| 607134   | Undercarriage for 175 T      | Stainless steel, (WxHxD) 632x800x988 mm, with additional shelf,<br>2 casters on the back, max. load capacity 300 kg   |
| 607131   | Undercarriage for 195 T      | Stainless steel, (WxHxD) 632x800x1088 mm, with additional shelf,<br>2 casters on the back, max. load capacity 300 kg  |
| 51900835 | Center shelf                 | (WxHxD) 460x15x645 mm   160x15x745 mm   460x15x845 mm   460x15x945 mm, loading level height adjustable in four positions, stainless steel   |
| 50101327 | Wire basket cubic            | (WxHxD) 345x170x335 mm, stackable, max. 4 baskets per device  |
| 50101325 | Metal tub cubic              | (WxHxD) 350x80x335 mm, stackable, 4 tubs per device   |
| 50094348 | Desalination cartridge       | For water desalination, type 2800, with conductivity meter and hose set   |
| 50094349 | Desalination cartridge       | For water desalination, type 2800, replacement cartridge for alternating operation  |
| 50085029 | Aquastop                     | Aquastop, for up to 3 water supply lines leading, completely ready, continuous operation  |
| 50107364 | Magnetic stirrer             | Magnetic stirrer with one stirring point, including stirring bar and external control unit, pressure-tight encapsulated, integrated in the sterilizer, max. 40 litres stirring volume |
| 607430   | SegoSoft, SegoSerial module  | Digital cycle and process documentation, software and SegoSerial module,<br>RS-232/USB-interface, digital signature according to signature law, incl. cable 3m                        |
| 609496   | SegoSoft, SegoConnect module | Digital cycle and process documentation, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m                     |
| 609592   | SegoSoft, FDA - CFR Part 11  | Digital cycle and process documentation FDA conform, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m         |









| Art.No.  | VARIOKLAV BlueLine 65 T |   |
|----------|-------------------------|---|
| 51024307 | BlueLine 65 T           | Steam steriliser, tabletop unit - basic version, usable space 65 litres, (WxHxD) 330x330x630 mm, 9,3 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, hot-dip galvanised and powder-coated cladding, integrated ADI exhaust steam condenser |

|          | MODULE OPTIONS                           |  |
|----------|--|--|
| 51900818 | MT module - media<br>temperature control | Control via temperature of liquids or media, for retrofitting  |
| 51900801 | RM module - fast cooling                 | Fast cooling for liquids in open vessels, direct jacket cooling with demineralised water, including MT module - media temperature control and sterile ventilation  |
| 51900803 | RG module - fast cooling                 | Fast cooling for liquids in open vessels, including RM cooling module, additionally with sterile support pressure and radial fan for steam circulation, external compressed air connection required  |
| 51900805 | VF module - fractionated pre-vacuum      | For hard-to-vent solid and porous materials in particular hollow bodies and trash in bags, including program for simple pre-vacuum   |
| 51900807 | VT module - vacuum drying                | Including VF module, post-drying with vacuum, double jacket steam-heated, for all solid and porous materials, including sterile ventilation, recommended drying time 15 to 60 min  |
| 51900809 | FA module - exhaust air filtration       | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority   |
| 51900810 | GLP batch printer                        | Integrated, for direct documentation of chamber and media temperature as well as chamber pressure  |
| 51900811 | GMP batch printer                        | Integrated, for independent documentation of chamber temperature, media temperature and chamber pressure as well as separate process documentation via double sensors, including calibration certificates according to ISO 9000, GMP compliant |
| 51900827 | Sterile air ventilation                  | Sterile ventilation of the chamber at the end of the sterilization process   |
| 51900826 | Validation port 6-fold                   | Port for up to 6 temperature sensors PT 100, conforming to standards   |

|          | ACCESSORIES                  |  |                                 |
|----------|------------------------------|--|---------------------------------|
| 50085023 | Undercarriage 65 T           | With additional shelf, 2 castors on the rear side, sta   | ainless steel, max. load 300 kg |
| 50085024 | Center shelf                 | (WxHxD) 320x20x600 mm, loading level height adju   | stable in four positions        |
| 50101326 | Wire basket cubic            | (WxHxD) 300x120x535 mm, stackable, max. 2 basket   | s per device                    |
| 50101323 | Metal tub cubic              | (WxHxD) 290x80x535 mm, stackable,<br>max. 2 tubs per device  |                                 |
| 607430   | SegoSoft, SegoSerial module  | Digital cycle and process documentation,<br>software and SegoSerial module,<br>RS-232/USB-interface, digital signature<br>according to signature law, incl. cable 3m                   |                                 |
| 609496   | SegoSoft, SegoConnect module | Digital cycle and process documentation, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m                      | VADO.                           |
| 609592   | SegoSoft FDA - CFR Part 11   | Digital cycle and process documentation<br>FDA conform, software and SegoConnect module,<br>RS-232/ethernet-interface, digital signature<br>according to signature law, incl. cable 3m |                                 |



| Art.No.  | VARIOKLAV BlueLine           | VARIOKLAV BlueLine 25 TV   |  |
|----------|------------------------------|--|--|
| 609469   | BlueLine 25 TV               | Steam steriliser, table-top unit, usable volume 25 litres, certified pre-owned, (ØxL) 255x490 mm, 3.3 kW, 230V/16A, powerful pre- and post-vacuum, GLP printer, flexible temperature sensor, incl. condensate collection container and trays   |  |
| 609776   | BlueLine 25 TV FA            | Steam steriliser, table-top unit, usable volume 25 litres, certified pre-owned, (ØxL) 255x490 mm, 3.3 kW, 230V/16A, powerful pre- and post-vacuum, GLP printer, air filtration, flexible temperature sensor, incl. condensate collection container and trays, Safety level 2 capable |  |
|          |                              |  |  |
|          | ACCESSORIES                  |  |  |
| 51900825 | Chamber insert tray          | Including 1 metal tub, for up to 4 metal tubs  |  |
| 51900826 | Metal tub cubic              | (WxHxD) 190x30x425 mm, suitable for insert tray order no. 50091319, 3 pieces   |  |
| 50103083 | Condensate collector         | For waste steam and condensate, 20 litres, made of PE plastic, with stainless steel immersion tube and quick coupling as well as hose set  |  |
| 607430   | SegoSoft, SegoSerial module  | Digital cycle and process documentation, software and SegoSerial module, RS-232/USB-interface, digital signature according to signature law, incl. cable 3m  |  |
| 609496   | SegoSoft, SegoConnect module | Digital cycle and process documentation, software and SegoConnect module, RS-232/ethernet-interface, digital signature according to signature law, incl. cable 3m  |  |



# VARIOKLAV® MedLine

| Art.No.  | VARIOKLAV MedLi         | VARIOKLAV MedLine 65 TC  |  |  |
|----------|-------------------------|--|--|--|
| 51024308 | VARIOKLAV MedLine 65 TC | Medical device 65 TC, tabletop model, 1 StE, complete, according to EN 285:2009, 65 litres chamber, (WxHxD) 330x330x630 mm, 9.3 kW, 3Nx400Vx16A, stainless steel cladding for instruments, textiles, hollow bodies and pharmaceutical products, GMP batch printer, VT modul, sterile air ventilation |  |  |



## BlueLine - Lite Complete.

## All the advantages of the BlueLine in a new complete package!

The new, flexible Lite Complete product line offers flexible application options, it is location-independent and immediately ready for use thanks to the integrated supply of operating materials. Compact, space-saving steam sterilizers of 75, 135 or 155 liters, for fast and reliable sterilization of instruments, liquids and waste.

- completely ready for connection
- · short delivery times
- low loading height
- space-saving design
- · fast loading/unloading

## All advantages at a glance

- free-standing units with 75, 135 and 155 liters capacity
- Sterilization chamber with steam generation in separate raised floor
- · hot galvanized and powder coated cladding
- · completely equipped and ready for operation with:
  - feed water tank
  - condensate collector
  - wire basket
  - wire basket with collecting tray
- · standard programs for liquids, waste and instruments
- · no on-site water connection required
- · connection to VE water line possible
- · exhaust air filtration available for the S2 laboratory





| Art.No.  | VARIOKLAV BlueLine 75 S LC   135 S LC   155 S LC |   |
|----------|--|---|
| 51024305 | BlueLine 75 S LC                                 | Steam sterilizer, free-standing unit - basic version, usable volume 75 liters, (ØxL) 400x600 mm, 4,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, hot-dip galvanized and powder-coated cladding.  Completely ready for connection with feed water tank, condensate collector, wire basket and wire basket with drip tray. |
| 51902904 | BlueLine 135 S LC                                | Steam sterilizer, free-standing unit - basic version, usable volume 135 Liter, (ØxL) 500x700 mm, 7,8 kW, 3N/400V/16A, separate steam generator, media temperature control with flexible temperature sensor, hot-dip galvanized and powder-coated cladding.  Completely ready for connection with feed water tank, condensate collector, wire basket and wire basket with drip tray. |
| 51902905 | BlueLine 175 S LC                                | Steam sterilizer, free-standing unit - basic version, usable volume 155 Liter, (ØxL) 500x800 mm, 7,8 kW, 3N/400V/16A,separate steam generator, media temperature control with flexible temperature sensor, hot-dip galvanized and powder-coated cladding.  Completely ready for connection with feed water tank, condensate collector, wire basket and wire basket with drip tray.  |

Completely ready for connection with feed water tank, condensate collector, wire basket and wire basket with drip tray.



## **VARIOKLAV**® GreenLine.

### Advantages

- Long service life due to low-wear fittings
- A large usable volume on a small footprint and a low overall height
- No on-site connections except for power
- Problem-free installation and fast commissioning
- Simplest handling and operation
- Available module options such as cooling and exhaust air filtration with condensate sterilization

### Safety

- All fittings are found inside the stainless steel cladding
- End plate made of heat-insulating plastic, no risk of injury from hot components
- Central lock with 6 massive locking levers, opening under pressure is completely impossible
- Lid can be opened laterally, no risk of scalding due to rising steam
- Floor-standing units heated from the outside.
- TÜV-approved overheating protection prevents overloading of the heating

## Data recording

• As proof of a successfully completed sterilization process within the scope of quality assurance, the data of the sterilization process can be read out via a separate USB stick.

## GreenLine

## High quality technology

- 100% safety in the elimination of germs
- Pressure vessels are TÜV-tested and manufactured according to the pressure vessel regulation and other European regulations
- CE mark according to the Low Voltage Directive
- Back rotation lock as mechanically acting safety against opening under pressure
- · Additional pressure monitoring







## Flexible control unit

- Optimized deaeration process
- Exact set temperature control
- Separate control and safety circuit
- Temperature evaluation in three-wire technology
- Configuring, blocking and enabling sterilization programs
- Data recording via standard USB interface
- Media temperature controlled processes

#### Exhaust air filtration

- For safe and emission-free sterilization of contaminated, highly infectious or pathogenic materials and media, the exhaust air can be passed through a filter system.
- Any condensate is fed back into the sterilizer.
- The condensate and the filter system are autoclaved.

### Air jacket cooling

- Simple, inexpensive and effective recooling through air flow channels on the outside of the tank
- Cooling time shortened compared to self cooling: even with large vessels by at least 40%
- No additional on-site connections
- No cooling water required

## Sustainability

- Pressure vessel made of high-quality electropolished stainless steel, also long-lasting when handling aggressive media
- 5 years warranty on the pressure vessel
- Durable heating elements (3 years warranty)
- Very easy exchange of components
- Simple and cost-effective maintenance
- Low resource consumption
- Cardanic locking suspension, thus long durability of the seal
- Long service life due to low-wear fittings

## VARIOKLAV MODULE









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|--------|------|-----|------------|
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| Art.No. | VARIOKLAV GreenLine 80 S |   |
|---------|--------------------------|---|
| 608379  | GreenLine 80 S           | Steam sterilizer, floor model, basic unit, usable volume 80 litres, (ØxL) 400x600 mm, feed water volume 5 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding |

|          | MODULE OPTIONS                     |  |
|----------|------------------------------------|--|
| 51900802 | RL module - fast cooling           | Fast cooling for liquids in open vessels, effective recooling through air flow ducts on the outside of the vessel, no additional on-site connections, no cooling water required          |
| 604790   | FA module - exhaust air filtration | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority |
| 608787   | ADI - Steam spent condenser        | Condensate cooling with tap water, on-site water connection required   |
| 50103738 | Set of castors with parking brake  | For portable installation of freestanding units, 1 kit = 4 pieces  |

|          | ACCESSORIES                                |   |
|----------|--|---|
| 609520   | Lifting hoist                              | For easy loading and unloading, stainless steel, stroke 900 mm, load capacity 40 kg   |
| 50091747 | Wire basket round                          | (ØxH) 385x260 mm, stackable, max. 2 baskets per device  |
| 50110034 | Wire basket round                          | (ØxH) 385x248 mm, stackable, max. 2 baskets per device, special size  |
| 50091196 | Wire basket round,<br>with drip tray round | (ØxH) 385x260 mm, stackable, tray height 50 mm, max. 2 baskets per device   |
| 50092106 | Metal bucket round                         | (ØxH) 390x280 mm, stackable, max. 2 baskets per device  |
| 50095759 | Metal bucket round, with rotating lid      | (ØxH) 390x280 mm, not stackable, max. 1 bucket per device   |
| 50089353 | Condensate collector                       | For waste steam and condensate, 20 litres, made of PE plastic, with stainless steel timmersion tube and quick coupling as well as hose set                      |
| 50107364 | Magnetic stirrer                           | One stirring point, including stirring bar and external control unit, pressure-tight encapsulated, integrated in the sterilizer, max. 40 litres stirring volume |







| Art.No. | VARIOKLAV GreenLine 140 S   160 S   180 S |   |
|---------|---|---|
| 608931  | GreenLine 140 S                           | Steam Sterilizer floor model, basic unit, usable volume 140 litres, ( $\emptyset$ xL) 500x700 mm, feed water volume 7 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar hot galvanized and powder coated cladding  |
| 608943  | GreenLine 160 S                           | Steam Sterilizer floor model, basic unit, usable volume 160 litres, ( $\emptyset$ xL) 500x800 mm, feed water volume 7 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding |
| 608944  | GreenLine 180 S                           | Steam Sterilizer floor model, basic unit, usable volume 180 litres, ( $\phi$ xL) 500x900 mm, feed water volume 7 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding      |

|          | MODULE OPTIONS                     |  |
|----------|------------------------------------|--|
| 51900802 | RL module - fast cooling           | Fast cooling for liquids in open vessels, effective recooling through air flow ducts on the outside of the vessel, no additional on-site connections, no cooling water required          |
| 604790   | FA module - exhaust air filtration | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority |
| 608787   | ADI - Steam spent condenser        | Condensate cooling with tap water, on-site water connection required   |
| 50103739 | Set of castors with parking brake  | For portable installation of freestanding units, 1 kit = 4 pieces  |

|          | ACCESSORIES                                |   |
|----------|--|---|
| 609367   | Lifting hoist                              | For easy loading and unloading, stainless steel, stroke 900 mm, load capacity 40 kg   |
| 50091748 | Wire basket round                          | (ØxH) 485x200 mm, stackable, max. 3 baskets per device  |
| 50099633 | Wire basket round                          | (ØxH) 485x240 mm, stackable, max. 2 baskets per device, special size  |
| 50092114 | Wire basket round                          | (ØxH) 485x320 mm, stackable, max. 2 baskets per device  |
| 50092112 | Wire basket round,<br>with drip tray round | (ØxH) 485x320 mm, stackable, tray height 50 mm, max. 2 baskets per device   |
| 50090683 | Hanging tray<br>for sterilization baskets  | (Ø) 470 mm, including 4 mounting brackets for further loading level in the basket   |
| 50099824 | Metal bucket round                         | (ØxH) 470x310 mm, stackable, max. 2 buckets per device  |
| 50095753 | Metal bucket round,<br>with rotating lid   | (ØxH) 490x345 mm, not stackable, max. 1 bucket per device   |
| 50089353 | Condensate collector                       | For waste steam and condensate, 20 litres, made of PE plastic, with stainless steel immersion tube and quick coupling as well as hose set                       |
| 50107364 | Magnetic stirrer                           | One stirring point, including stirring bar and external control unit, pressure-tight encapsulated, integrated in the sterilizer, max. 40 litres stirring volume |



## GreenLine.

| Art.No. | VARIOKLAV GreenLine 80 T |   |
|---------|--------------------------|---|
| 608930  | GreenLine 80 T           | Steam Sterilizer tabletop model, basic unit, usable volume 80 litres, (ØxL) 400x625 mm, feed water volume 5 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding |

|          | MODULE OPTIONS                     |  |
|----------|------------------------------------|--|
| 51900802 | RL module - fast cooling           | Fast cooling for liquids in open vessels, effective recooling through air flow ducts on the outside of the vessel, no additional on-site connections, no cooling water required          |
| 604790   | FA module - exhaust air filtration | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority |
| 608787   | ADI - Steam spent condenser        | Condensate cooling with tap water, on-site water connection required   |

|          | ACCESSORIES          |   |
|----------|----------------------|---|
| 609328   | Undercarriage 80 T   | (BxHxT) 60x80x73 mm, with additional shelf, 2 casters on the back, stainless steel, max. load capacity 300 kg                             |
| 50101326 | Wire basket cubic    | (WxHxD) 300x120x535 mm, stackable, max. 2 baskets per device  |
| 50085013 | Metal tub cubic      | (WxHxD) 290x80x535 mm, stackable, max. 2 tubs per device  |
| 50085020 | Center shelf         | (WxHxD) 360x15x580 mm, loading level height adjustable in four positions, stainless steel   |
| 50089353 | Condensate collector | For waste steam and condensate, 20 litres, made of PE plastic, with stainless steel immersion tube and quick coupling as well as hose set |





| Art.No. | VARIOKLAV GreenLine 140 T   160 T   180 T   200 T |  |  |  |  |  |
|---------|---|--|--|--|--|--|
| 608932  | GreenLine 140 T                                   | Steam Sterilizer tabletop model, basic unit, usable volume 140 litres, (ØxL) 500x725 mm, feed water volume 8 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding         |  |  |  |  |
| 608946  | GreenLine 160 T                                   | Steam Sterilizer tabletop model, basic unit, usable volume 160 litres, ( $\phi$ xL) 500x825 mm, feed water volume 10 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding |  |  |  |  |
| 608947  | GreenLine 180 T                                   | Steam Sterilizer tabletop model, basic unit, usable volume 180 litres, (ØxL) 500x925 mm, feed water volume 12 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding        |  |  |  |  |
| 608948  | GreenLine 200 T                                   | Steam Sterilizer tabletop model, basic unit, usable volume 200 litres, (ØxL) 500x1025 mm, feed water volume 14 litres, MT module - media temperature control with flexible temperature probe, max. operating pressure -1 (vakuum fixed) up to 2.5 bar, hot galvanized and powder coated cladding       |  |  |  |  |

|          | MODULE OPTIONS                     |  |
|----------|------------------------------------|--|
| 51900802 | RL module - fast cooling           | Fast cooling for liquids in open vessels, effective recooling through air flow ducts on the outside of the vessel, no additional on-site connections, no cooling water required          |
| 604790   | FA module - exhaust air filtration | Air filtration with condensate sterilization, for all contaminated sterile goods, recommended for security level L1 (S1), required from security level L2 (S2) by surveillance authority |
| 608787   | ADI - Steam spent condenser        | Condensate cooling with tap water, on-site water connection required   |

| ACCESSORIES          |   |
|----------------------|---|
| Undercarriage 140 T  | (WxHxD) 632x800x790 mm, with additional shelf, 2 casters on the back, stainless steel, max. load capacity 300 kg                          |
| Undercarriage 160 T  | (WxHxD) 632x800x890 mm, with additional shelf, 2 casters on the back, stainless steel, max. load capacity 300 kg                          |
| Undercarriage 180 T  | (WxHxD) 632x800x990 mm, with additional shelf, 2 casters on the back, stainless steel, max. load capacity 300 kg                          |
| Undercarriage 200 T  | (WxHxD) 632x800x1090 mm, with additional shelf, 2 casters on the back, stainless steel, max. load capacity 300 kg                         |
| Wire basket cubic    | (WxHxD) 350x170x335 mm, stackable, 4 baskets per device   |
| Metal tub cubic      | (WxHxD) 350x80x335 mm, stackable,<br>4 tubs per device  |
| Center shelf         | (WxHxD) 360x15x580 mm, loading level height adjustable in four positions, stainless steel   |
| Condensate collector | For waste steam and condensate, 20 litres, made of PE plastic, with stainless steel immersion tube and quick coupling as well as hose set |
|                      | Undercarriage 140 T  Undercarriage 160 T  Undercarriage 180 T  Undercarriage 200 T  Wire basket cubic  Metal tub cubic  Center shelf      |

# VARIOKLAV® OrangeLine.

# OrangeLine

### **Applications**

In the fields of medicine and biology, reliable steamers are considered basic equipment for every laboratory.

They are used for heating, keeping warm and pressureless steaming of all kinds of growth media and are used for testing components, rubber goods and ceramics.

## Control unit

The OrangeLine steamer can be operated unattended with no problems and will signal when the programme has been successfully completed by emitting a removal signal. For unattended operation up to the withdrawal signal with continuously adjustable holding temperatures from 40° to 98 °C or fixed temperature at 98 °C.

#### Structure

- Steam chamber: square usable space, with stainless steel floor support, low loading height, very narrow design, space-saving dimensions.
- Lid: lateral impact prevents scalding by steam, lid inclination to the front allows condensate to drain to the lower edge of the lid.
- Stainless steel lid made of 1.4301 stainless steel





VARIOKLAV steam pots are available in two sizes - 95 or 175 litres usable volume

## All advantages at a glance

- Robust and rustproof square steam chamber made of 1.4301 stainless steel
- Chamber volumes of 95 and 175 litres
- Relative humidity of between 10 and 100%
- Infinitely variable temperature setting between 40 and 98 degrees Celsius
- Low working heights starting at 750 millimetres for comfortable loading and unloading of the steam chamber
- Narrow and space-saving design also suitable for smaller laboratories and practices
- Drainage of the condensate towards the edge of the cover
- No cooling water required for cooling the periphery
- Strategic ventilation in the lowest part of the chamber prevents the formation of air pockets
- In case of insufficient water, the steamer emits visual and audible malfunction signals
- Thermal lock in accordance with TRB 402 for fully automatic switching off of the heating system if there is a lack of water thus preventing the base from overheating



| Art.No.  | VARIOKLAV OrangeLine 95 S und 175 S |  |  |  |  |  |
|----------|-------------------------------------|--|--|--|--|--|
| 51024987 | OrangeLine 95 S                     | Steam pot, floor model, for warming, heating and pressureless steaming of nutrient media, usable volume 95 litres, 3,4 kW, heat holding temperature from 40 °C - 98 °C, incl. radial fan, media temperature control, condensate discharge program  |  |  |  |  |
| 51024989 | OrangeLine 175 S                    | Steam pot, floor model, for warming, heating and pressureless steaming of nutrient media, usable volume 175 litres, 6,2 kW, heat holding temperature from 40 °C - 98 °C, incl. radial fan, media temperature control, condensate discharge program |  |  |  |  |

|          | MODULE OPTIONS         |                       |
|----------|------------------------|-----------------------|
| 51901845 | Automatic water supply | With level monitoring |

|          | ACCESSORIES       |   |
|----------|-------------------|---|
| 50091747 | Wire basket round | (ØxH) 385x260 mm, stackable, max. 2 baskets per device  |
| 50107364 | Magnetic stirrer  | Magnetic stirrer with one stirring point, including stirring bar and external control unit, pressure-tight encapsulated, max. 40 litres stirring volume |

### Feed water and energy supply

Due to the special design of the radiators, only a feed water supply of less than 0.5 liters is required for each 1 kW of heating capacity. The filling quantity is approx. 8 liters.

This means that work can be carried out over a working day without refilling. Energy consumption for steaming is minimal, as only a small amount of heating power is switched on after the heating phase.

## Heating and cooling

The chamber is heated electrically from the outside by means of contact heating elements. Rising steam heats the articles to be decontaminated. The floor is flat and easy to clean. Heating elements no longer come into contact with aggressive feed water.

The feed water needed to cover the heating surface is kept to a minimum. No cooling water needed for boundary cooling. Deaeration in the lowest part of the chamber prevents the forming of air pockets.

#### Radial fan inside the chamber

In the heating phase and during tempering, the steam-air mixture is swirled. This avoids different temperatures (hot at the top, cooler at the bottom). The heat transfer into the medium is improved, and the heating time is significantly reduced.

### Dry run protection

The heated surface is equipped with a TÜV approved temperature monitor. In case of water shortage or before overheating of the floor the heating switches off automatically.

Overtemperature protection on each radiator prevents overloading of the heating system. With visual and acoustic malfunction indicator in case of water shortage.

#### VARIOKLAV MODULE











| BlueLine free-standing units       |     | 75 S          | 100 S        | 135 S                 | 155 S        | 175 S        |
|------------------------------------|-----|---------------|--------------|-----------------------|--------------|--------------|
| Usable volume                      | ι   | 75            | 100          | 135                   | 155          | 175          |
| Usable dimensions (Ø/L)            | mm  | 400/600       | 400/800      | 500/700               | 500/800      | 500/900      |
| Outer dimensions (W/D/H)           | mm  | 500/650/1000  | 500/650/1200 | 600/750/1050          | 600/750/1150 | 600/750/1250 |
| Weight of basic unit               | kg  | 140           | 160          | 170                   | 190          | 210          |
| Operating temperature              | °C  |               | 98           | 3° - 135° optional 14 | 0°           |              |
| Max. Operating overpressure/vacuum | bar |               |              | 4,0/-1                |              |              |
| Steam generator volume             | ι   | 6             | 5,0          |                       | 8,0          |              |
| Housing                            |     | powder-coated |              |                       |              |              |
| Heating capacity                   | kW  | 4,5 7,5       |              |                       |              |              |
| Article number                     |     | 51024301      | 51902900     | 51024302 51902901 519 |              | 51902902     |

| BlueLine table-top units               |     | 65 T        | 75 T        | 100 T         | 135 T         | 155 T        | 175 T         | 195 T         |
|--|-----|-------------|-------------|---------------|---------------|--------------|---------------|---------------|
| Usable volume                          | l   | 65          | 75          | 100           | 135           | 155          | 175           | 195           |
| Usable dimensions (Ø/L)                | mm  | 330/630     | 400/600     | 400/800       | 500/700       | 500/800      | 500/900       | 500/1.000     |
| Outer dimensions (W/D/H)               | mm  | 520/700/850 | 540/810/780 | 540/1.010/780 | 640/890/880   | 640/990/880  | 640/1.090/880 | 640/1.190/880 |
| Weight of basic unit                   | kg  | 150         | 150         | 170           | 180           | 205          | 210           | 220           |
| Operating temperature                  | °C  | 134°        |             |               | 98° - 135° o  | ptional 140° |               |               |
| Max. Operating overpressure/<br>vacuum | bar | -1/3        |             |               | 4,0           | )/-1         |               |               |
| Steam generator volume                 | l   | 6,4         | 6,4         | 6,4           | 8,2           | 8,2          | 8,2           | 8,2           |
| Housing                                |     |             |             |               | powder-coated |              |               |               |
| Heating capacity                       | kW  | 6,4         | 4,5         | 4,5           | 7,5           | 7,5          | 7,5           | 7,5           |
| Article number                         |     | 51024307    | 51024303    | 51902903      | 51024304      | 51902904     | 51902905      | 51902906      |

| OrangeLine free-standing units |       | 95 S        | 175 S         |  |
|--------------------------------|-------|-------------|---------------|--|
| Temperature                    | °C    | 40° - 98°   | 40° - 98°     |  |
| External dimensions (W/H/D)    | mm    | 500/800/620 | 600/900/720   |  |
| Loading height                 | mm    | 750         | 850           |  |
| Usable space dimensions        | mm    | 400 x 400   | 500 x 500     |  |
| Usable depth                   | mm    | 600         | 700           |  |
| usable volume                  | Liter | 95          | 175           |  |
| Connected load                 | kW    | 3,4         | 6,2           |  |
| Voltage / Frequency V/Hz       |       | 230 / 50    | 3N ~ 400 / 50 |  |
| Article number                 |       | 51024987    | 51024989      |  |



| GreenLine free-standing uni     | ts  | 80 S                      | 100 S          | 160 S          | 180 S        |  |
|---------------------------------|-----|---------------------------|----------------|----------------|--------------|--|
| Usabe volume                    | l   | 75 140 160 18             |                |                |              |  |
| Feed water volume               | ι   | 5                         | 7 7 7          |                |              |  |
| Usable dimensions (Ø/L)         | mm  | 400/600                   | 500/700        | 500/800        | 500/900      |  |
| External dimensions (W/D/H)     | mm  | 600/500/1030              | 700/600/1130   | 700/600/1230   | 700/600/1330 |  |
| Weight of basic unit            | kg  | 120                       | 160            | 170            | 180          |  |
| Operating temperature           | °C  |                           | 98° -          | - 134°         |              |  |
| Operating overpressure          | bar | 2,5                       |                |                |              |  |
| Heat output                     | kW  | 3,0                       |                | 6,0            |              |  |
| Power consumption               | kW  | 3,2                       |                | 6,2            |              |  |
| Heat dissipation to environment | %   |                           | 8 - 15 % (% of | f heat output) |              |  |
| Design                          |     |                           | DIN EN         | 58951-2        |              |  |
| Protection class                |     |                           |                | 1              |              |  |
| Mains connection                |     | ~ 230 V 3N~400 V          |                |                |              |  |
| Frequency                       |     | 50 Hz                     |                |                |              |  |
| Standards                       |     | IP 22                     |                |                |              |  |
| Article number                  |     | 608379 608931 608943 6089 |                |                |              |  |

| GreenLine table-top units       |     | 80 T                        | 140 T       | 160 T          | 180 T        | 200 T        |
|---------------------------------|-----|-----------------------------|-------------|----------------|--------------|--------------|
| Usabe volume                    | l   | 72                          | 136         | 154            | 172          | 190          |
| Feed water volume               | l   | 5                           | 8           | 10             | 12           | 14           |
| Usable dimensions (Ø/L)         | mm  | 400/625                     | 500/725     | 500/825        | 500/925      | 500/1025     |
| External dimensions (W/D/H)     | mm  | 600/800/580                 | 700/900/680 | 700/1000/680   | 700/1100/680 | 700/1180/680 |
| Weight of basic unit            | kg  | 120                         | 160         | 170            | 180          | 190          |
| Operating temperature           | °C  | 98° - 134°                  |             |                |              |              |
| Operating overpressure          | bar | 2,5                         |             |                |              |              |
| Heat output                     | kW  | 5,0 6,0                     |             |                |              |              |
| Power consumption               | kW  | 5,2 6,2                     |             |                |              |              |
| Heat dissipation to environment | %   | 8 - 15 % (% of heat output) |             |                |              |              |
| Design                          |     |                             |             | DIN EN 58951-2 |              |              |
| Protection class                |     |                             |             | 1              |              |              |
| Mains connection                |     | 3N~400 V                    |             |                |              |              |
| Frequency                       |     | 50 Hz                       |             |                |              |              |
| Standards                       |     | IP 22                       |             |                |              |              |
| Article number                  |     | 608930                      | 608932      | 608946         | 608947       | 608948       |

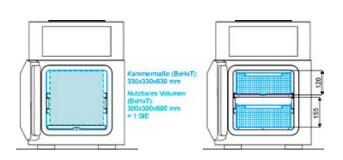
## **VARIOKLAV**®

## LOADING CAPACITIES

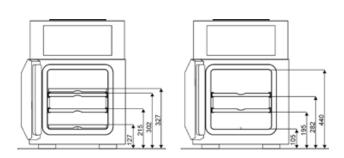
|                   | Useful volume |                   | Laboratory flsks    |                     |                    | Erlenmeyer-        | Waste               |                |
|-------------------|---------------|-------------------|---------------------|---------------------|--------------------|--------------------|---------------------|----------------|
| Туре              | (l)           | Round<br>(500 ml) | Round<br>(1.000 ml) | Round<br>(2.000 ml) | Square<br>(250 ml) | Square<br>(500 ml) | flask<br>(1.000 ml) | Solids<br>(kg) |
| BlueLine free-sta | anding unit   |                   |                     |                     |                    |                    |                     |                |
| BlueLine 75 S     | 75            | 45                | 18                  | 10                  | 80                 | 28                 | 10                  | ≥ 25           |
| BlueLine 100 S    | 100           | 60                | 27                  | 10                  | 100                | 36                 | 15                  | ≥ 30           |
| BlueLine 135 S    | 135           | 66                | 45                  | 16                  | 140                | 66                 | 24                  | ≥ 30           |
| BlueLine 155 S    | 155           | 66                | 45                  | 16                  | 140                | 66                 | 24                  | ≥ 30           |
| BlueLine 175 S    | 175           | ≥ 66              | ≥ 45                | ≥ 16                | ≥ 140              | ≥ 66               | ≥ 24                | ≥ 30           |
| BlueLine table-to | op unit       |                   |                     |                     |                    |                    |                     |                |
| BlueLine 25 T     | 25            | 6                 | 4                   | -                   | 14                 | 12                 | 3                   | ≥ 5            |
| BlueLine 65 T     | 65            | 21                | 18                  | 8                   | 90                 | 24                 | 8 - 10              | ≥ 30           |
| BlueLine 75 T     | 75            | 28                | 15                  | 8                   | 72                 | 28                 | 8 - 12              | ≥ 25           |
| BlueLine 100 T    | 100           | 28                | 15                  | 8                   | 72                 | 28                 |                     | ≥ 30           |
| BlueLine 135 T    | 135           | 64                | 27                  | 10                  | 100                | 64                 | 15                  | ≥ 30           |
| BlueLine 155 T    | 155           | 64                | 27                  | 10                  | 100                | 64                 | 18                  | ≥ 30           |
| BlueLine 175 T    | 175           | ≥ 64              | ≥ 27                | ≥ 10                | ≥ 100              | ≥ 64               | 21                  | ≥ 30           |
| BlueLine 195 T    | 195           | ≥ 64              | ≥ 27                | ≥ 10                | ≥ 100              | ≥ 64               | 24                  | ≥ 30           |



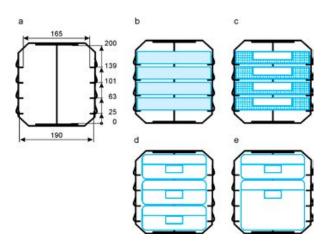




BlueLine 65 T: Use of mesh insert baskets, cubic [mm]

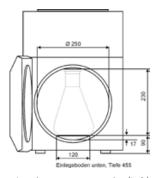


BlueLine 65 T: Loading heights [mm], various insertion options for the shelves



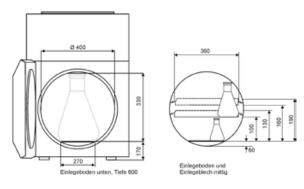
BlueLine 25 TV: Chamber insertion system a: rail heights [mm],

- b: with up to 4 insert trays (190 x 425 x 30 mm)
- c: with up to 4 wire mesh trays (186 x 425 x 30 mm)
- d: with up to 3 flat sterilisation containers (162 x 425 x 60 mm)
- e: with one medium-height (162 x 425 x 120 mm) and one shallow and one flat sterilisation load container (162 x 425 x 60 mm).

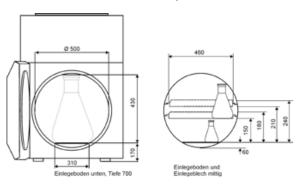




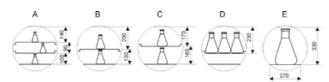
BlueLine 25 T: Capacity (left) and chamber insertion system (right)



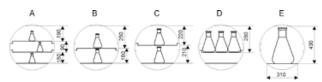
BlueLine 75 T: Loading heights [mm], four insertion options for central insert tray



BlueLine 135 T: Loading heights [mm], four insertion options for central shelf



BlueLine 75 T: Loading heights [mm], various loading schemes



BueLine type 135 T: Loading heights [mm], various loading schemes



| Art.No.  | Baskets and insert trays for table-top devices |   |  |
|----------|--|---|--|
| 50101326 | Wire basket cubic                              | (BxHxT) 300x120x535 mm, stackable, max. 2 baskets per unit possible |  |
| 50101323 | Metal tub cubic                                | (BxHxT) 290x80x535 mm, stackable, max. 2 tubs per unit possible     |  |
| 50101327 | Wire basket cubic                              | (BxHxT) 345x170x335 mm, stackable, max. 4 baskets per unit possible |  |
| 50101325 | Metal tub cubic                                | (BxHxT) 350x80x335 mm, stackable, max. 4 tubs per unit possible     |  |

| Art.No.  | Baskets and insert t                       | rays for floor-standing units                   |  |
|----------|--|---|--|
| 50091747 | Wire basket round                          | (ØxH) 385x260 mm, stackable                     |  |
| 50110034 | Wire basket round                          | (ØxH) 385x248 mm, stackable, special size       |  |
| 50091196 | Wire basket round,<br>with drip tray       | (ØxH) 385x260 mm, stackable, shell height 50 mm |  |
| 50092106 | Metal bucket round                         | (ØxH) 390x280 mm, stackable                     |  |
| 50095759 | Metal bucket round,<br>with rotating lid   | (ØxH) 390x280 mm, not stackable                 |  |
| 50091748 | Wire basket round,                         | (ØxH) 485x200 mm, stackable                     |  |
| 50099633 | Wire basket round                          | (ØxH) 485x240 mm, stackable, special size       |  |
| 50092112 | Wire basket round,<br>with drip tray round | (ØxH) 485x320 mm, stackable, shell height 50 mm |  |
| 50092114 | Wire basket round                          | (ØxH) 485x320 mm, stackable                     |  |
| 50099824 | Metal bucket round                         | (ØxH) 470x310 mm, stackable                     |  |
| 50095753 | Metal bucket round,<br>with rotating lid   | (ØxH) 490x345 mm, not stackable                 |  |





| Art.No.  | Insert systems and s | shelves   |
|----------|----------------------|---|
| 50085024 | Center shelf         | For 65 T, stainless steel, electropolished, loading level adjustable in four positions                          |
| 51900834 | Center shelf         | For 75 T   100 T , stainless steel, electropolished, loading level adjustable in four positions                 |
| 51900835 | Center shelf         | For 135 T   155 T   175 T   195 T, stainless steel, electropolished, loading level adjustable in four positions |
| 50085020 | Center shelf         | For 80 T, stainless steel, electropolished, loading level adjustable in four positions                          |
| 50085021 | Center shelf         | For 140 T   160 T   180 T   200 T, stainless steel, electropolished, loading level adjustable in four positions |
| 50090683 | Suspension device    | For mesh insert baskets (Ø) 470 mm, four fastening brackets for additional level in the basket                  |

| Art.No.  | Loading trolley |                     |
|----------|-----------------|---------------------|
| 50095735 | Loading trolley | for table-top units |



| Art.No. | Compressor |
|---------|------------|
|---------|------------|

50095723 Air compressor 240V/50Hz, oil-free, for BlueLine module RG without on-site compressed air connection

| Art.No.  | Lifts          |
|----------|----------------|
| 50095875 | Lift BlueLine  |
| 50095876 | Lift BlueLine  |
| 609520   | Lift Granting  |
| 609367   | Lift GreenLine |
|          |                |

for 75 S, for easy loading and unloading. powder coated, stroke 900 mm, max. load capacity 40 kg

for 150 S | 155 S | 175 S, for easy loading and unloading, powder coated, stroke 900 mm, max. load capacity 40 kg

for 80 S, for easy loading and unloading, powder coated, stroke 900 mm, max. load capacity 40 kg  $\,$ 

for 140 S | 160 S | 180 S, for easy loading and unloading, powder coated, stroke 900 mm, max. load capacity 40 kg  $\,$ 





| Art.No. | Flasks                |  |
|---------|-----------------------|--|
| 609761  | DURAN YOUTILITY Flask | GL45, clear, screw cap, pouring ring and bottle tag, 1000 ml |

| Art.No. | Autoclave Deodorar         | it  |
|---------|----------------------------|---|
| 6318004 | Autoclave Deodorant Anabac | Natural Coconut, PU = 50                        |
| 6318005 | Autoclave Deodorant Anabac | Natural Vanilla, PU = 50                        |
| 6318006 | Autoclave Deodorant Anabac | Natural Mimosa, PU = 50                         |
| 6228599 | Autoclave Deodorant Anabac | Classic, based on eucalyptus extracts, PU = 100 |
| 6231161 | Autoclave Deodorant Anabac | Poma, based on apple extract, PU = 100          |
| 6231720 | Autoclave Deodorant Anabac | Citrus, based on lemon extract, PU = 100        |
| 7626766 | Autoclave Deodorant Anabac | Peach, based on peach extract, PU = 100         |
| 6313709 | Autoclave Deodorant Anabac | Classic Berry, based on berry fruit, PU = 100   |

| Art.No. | Disposal bag     |  |
|---------|------------------|--|
| 6285813 | LLG-Disposal bag | 500x600 mm, PP, red, 50μm, with Biohazard imprint and sterile indicator, PU = 200  |
| 6285814 | LLG-Disposal bag | 630x890 mm, PP, red, 50μm, with Biohazard imprint and sterile indicator, PU = 200  |
| 6285815 | LLG-Disposal bag | 910x1150 mm, PP, red, 50μm, with Biohazard imprint and sterile indicator, PU = 200 |

| Art.No. | Destruction bag     |   |
|---------|---------------------|---|
| 9404099 | LLG-Destruction bag | 200x300mm, standard, PP, 50 μm, PU = 100                  |
| 9404221 | LLG-Destruction bag | 400x780mm, standard, PP, 50 μm, PU = 250                  |
| 9404222 | LLG-Destruction bag | 500x780mm, standard, PP, 50 μm, PU = 250                  |
| 9404224 | LLG-Destruction bag | 700x1100mm, standard, PP, 50 μm, PU = 250                 |
| 9404020 | LLG-Destruction bag | 200x300mm, highly transparent, PP, 50 μm, PU = 100        |
| 9404100 | LLG-Destruction bag | 300x500mm, 6 l, highly transparent, PP, 50 μm, PU = 500   |
| 9404101 | LLG-Destruction bag | 400x780mm, 22 l, highly transparent, PP, 50 μm, PU = 500  |
| 9404102 | LLG-Destruction bag | 600x800mm, 32 l, highly transparent, PP, 50 μm, PU = 500  |
| 9404104 | LLG-Destruction bag | 700x1100mm, 72 l, highly transparent, PP, 50 μm, PU = 350 |



| Art.No. | Sterilization tape        |   |
|---------|---------------------------|---|
| 9140783 | Comply sterilization tape | For dry sterilization (hot air) 19 mmx55 m              |
| 9140786 | Comply indicator tape     | For steam, lead-free indicator tape (steam), 18 mmx55 m |

| Art.No. | Indicators and indic         | cator tape   |
|---------|------------------------------|--|
| 6089578 | Attest biological indicators | For steam, PU = 100  |
| 6272290 | Bowie-Dick-Test,             | 4 kg, PU = 48  |
| 6272291 | Bowie-Dick-Test,             | 7 kg, PU = 24  |
| 9140788 | Indicator adhesive tape      | With lead-free steam indicator self-adhesive, for steam sterilization, 24 mm wide, 50 m per roll   |
| 9140784 | Indicator adhesive tape      | With steam indicator self-adhesive, for steam sterilization, 19 mm wide, 50 m per roll             |
| 9140789 | Indicator adhesive tape      | With steam indicator self-adhesive, for hot air sterilization 25 mm wide, 50 m per roll            |
| 9140790 | Indicator adhesive tape      | With steam indicator strongly adhesive, well suited for non-woven, blue, 19 mm wide, 50 m per roll |
| 9140791 | Indicator adhesive tape      | With steam indicator strongly adhesive, well suited for non-woven, blue, 25 mm wide, 50 m per roll |
| 9140792 | Indicator adhesive tape      | With ethylene oxide indica self-adhesive, 19 mm wide, 50 m per roll                                |

| Art.No. | Gloves                 |  |
|---------|------------------------|--|
| 9414660 | Protective glove       | K-Basic Extra 6658 ca.22-27 cm, Gr. 8, type 60179, Kevlar, yellow, pair  |
| 9414661 | Protective glove       | K-Basic Extra 6658 ca.22-27 cm, Gr. 10, type 60179, Kevlar, yellow, pair |
| 9414662 | Protective glove       | K-Basic Extra 6658 ca.22-27 cm, Gr. 12, type 60179, Kevlar, yellow, pair |
| 9005260 | Heat protection gloves | Nomex without closure, knitted, with forearm cuff, pair                  |
| 9005250 | Heat protection gloves | Nomex without closure, knitted, normal, size 9/10, pair                  |







#### Biological safety cabinets Class II

The BioVanguard is a new high quality Class II biological safety cabinet that provides the highest possible protection for people, product and environment by minimising risks when working with biological safety level 1, 2 and 3 material.

The workbench has been designed to the highest standards of quality, biosafety, reliability, ergonomics and usability, and meets current customer requirements such as low power consumption and quiet operation.

# For microbiological research with biological substances (e.g. bacteria, viruses, etc.) and allergens

BioVanguard protects in three ways: the user is protected by the air inlet, the product is protected by a constant vertical flow of HEPA-filtered air in the work area (30% exhaust; 70% recirculated) and the environment is protected by HEPA-filtered exhaust.

#### International safety standards

The BioVanguard series has been developed and manufactured according to the specifications of the international standards EN12469 (Class II), NSF49 (Class II type A2) and the PIC regulations. The work area is certified according to ISO 14644-1 (Class 5) and GMP Annex 1 (Class A). The BioVanguard 4 is TÜV certified.

#### Advantages

- · Low energy consumption
- · Low noise operation
- Excellent quality, high performance
- Ergonomic design
- Easy to operate, easy cleaning
- · Easy decontamination
- Low maintenance, easy to install
- Meets the most stringent standards
- Safety control via microprocessor
- · Compliant with GMP and PIC
- Improved safety functions





| Art.No. | CleanAir BioVanguard   |   |  |  |  |  |
|---------|------------------------|---|--|--|--|--|
| 609753  | CleanAir BioVanguard 4 | Microbiological safety cabinet according to DIN 12469, manual front window, 2 filter systems, work surface and interior made of stainless steel V2A, 2 sockets, external dimensions: 1374/794/1602 mm (W/D/H), height with underframe: 2267/2367 mm depending on the version of the underframe, working area: 1180/550/744 mm (W/D/H), front screen opening: min: 175 mm/max: 330 mm, weight: 215 kg, air speed 0.36 m/s, power consumption 250 W, light intensity 1150 lux, noise emission: <59 dB(A). |  |  |  |  |
| 609764  | CleanAir BioVanguard 5 | Microbiological safety cabinet according to DIN 12469, manual front window, 2 filter systems, work surface and interior made of stainless steel V2A, sockets, external dimensions: 1679/794/1602 mm (W/D/H), height with underframe: 2267/2367 mm depending on underframe version, working area: 1485/550/744 mm (W/D/H), front screen opening: min: 175 mm/max: 330 mm, weight: 275 kg, air speed 0.36 m/s, power consumption 275 W, light intensity 850 lux, noise emission <59 dB(A)                 |  |  |  |  |
| 609765  | CleanAir BioVanguard 6 | Microbiological safety cabinet according to DIN 12469, manual front screen, 2 filter systems, surface and interior made of stainless steel V2A, 2 sockets, external dimensions: 1984/794/1 (W/D/H), height with base frame: 2267/2367 mm depending on base frame version, work are 550 x 744 mm (W/D/H), front screen opening: min: 175 mm/max: 330 mm, weight: 300 kg, air 0.36 m/s, power consumption 375 W, light intensity 1350 lux, noise emission: <59 dB(A)                                      |  |  |  |  |

|        | ACCESSORIES               |   |
|--------|---------------------------|---|
| 609754 | CleanAir underframe       | Underframe, BVG 3/4/5/6, height 800mm               |
| 609755 | CleanAir UV lamp          | UV UV lamp, for decontamination of the work surface |
| 609766 | CleanAir media connection | Gas tap and gas valve                               |



# DCXplus AIRBORNE DESINFECTION

#### Airborne room air and surface disinfection

DCXplus is a simple, safe and mobile evaporation system for routine system for routine disinfection even in confined spaces. DCXplus neutralises and inactivates harmful fungi, viruses, spores and bacteria on surfaces and in the air (aerogenic) within 15 to 30 minutes. Parasites such as bed bugs, cockroaches and lice are effectively killed and prevented from multiplying. and thus prevented from reproducing.

# The patented low concentrated h<sub>2</sub>o<sub>2</sub> evaporation system for highest standards

#### Advantages

- Safe, simple and mobile
- · Validatable disinfection in all rooms
- Tested according to EN17272
- · Universally applicable
- Effective against multi-resistant germs, viruses, bacteria, spores
- · Effective against parasites
- · Effective against bad odours
- 99.9999 % germ-free in 30 minutes



Routine disinfection couldn't be easier.
Up to 16 DCXplus can be controlled and operated from anywhere with a single tablet or smartphone. At any time view the status of the processes or stop them.

The DCX technology of dry fogging is tested according to the standard of the European norm EN 17272.





| Art.No.                            | DCXplus                    |   |  |  |  |  |
|------------------------------------|----------------------------|---|--|--|--|--|
| 609634 DCXplus disinfection system |                            | Mobile airborne disinfection system, mobile and fast aerogenic room-air and surface disinfection, dimensions in mm (W/L/H): 410/610/915, weight approx. 22 kg, voltage 80-240 V/50 Hz, max. power 300 watts, room-volume up to 500 sqm, protection class IP 20, insulation class class I  |  |  |  |  |
|                                    |                            |   |  |  |  |  |
|                                    | ACCESSORIES                |   |  |  |  |  |
| 609635                             | H₂O₂ disinfectant solution | DCXF H <sub>2</sub> O <sub>2</sub> disinfectant solution for use as surface disinfectant, DCXF peroxide solution for surface disinfection, stabilised, H <sub>2</sub> O <sub>2</sub> concentration 7%, H <sub>2</sub> O <sub>2</sub> canister volume 10 litres, storage up to max. 30°C, storage time max. 18 after filling, store protected from light |  |  |  |  |
| 609636                             | Cleaning canister          | DCXplus cleaning canister, especially for use in the DCXplus, empty,  |  |  |  |  |





for self-filling with H<sub>2</sub>O (water)



The 7.9% H<sub>2</sub>O<sub>2</sub>-concentration is safe to use, easy to store, residue-free and biodegradable.









Remote control via a device of up to 0 15 DCXplus systems



## FACTORY SERVICE.

Malfunctions are annoying. That's why it's important to us that problems with your autoclaves are repaired reliably and sustainably. Our repair service is fast, uncomplicated and conscientious. Regardless of whether the repair is carried out on site or at the HP plant, we keep the costs as low as possible for you.

#### Your advantages:

- · Original: Repair only with original HP spare parts
- · Like new: Optical reconditioning
- · Tested: Electrothermal test run
- · Transparent: Repair and test documented in service report



### Fast help. Guaranteed.

### Our promise

- · Original spare parts for all units built up to 1981
- · Certified for laboratory and medical use
- · Many years of experience in the industry
- · Prompt response times

- · Delivery reliability and adherence to delivery dates
- · Security and profitability
- · Guarantee on new and replacement parts



# HP LAB ACADEMY.

- · Product training for laboratory autoclaves
- Technical safety training for users of laboratory autoclaves
- Technical training for our laboratory autoclaves (not freely bookable)
- We offer all training modules in German and English

The trainings are conducted by our product experts at your site or in our training rooms in Oberschleissheim (Greater Munich area) and Rotgau (Greater Frankfurt area).

Our courses each consist of a theory and a practical part. Practical learning is important, for example, possible error scenarios are simulated on the machine and are to be corrected by the course participants with the help of the trainer.









## **OUR TRAINING MODULES**

Individual customer or group courses on request



# Quality and environmental policy

- We develop and produce products and services that always meet the needs and expectations of our customers.
- We ensure that we constantly develop our products, services and processes further.
- The motivation, enthusiasm and satisfaction of our employees is important to us.
- The continuous improvement of environmental protection is an important concern for us.
- We always keep in mind the fulfilment of the relevant legal requirements and binding obligations.







#### Warranty

1 year on material and manufacturing defects 3 years on heaters 5 years on pressure vessels

#### Customer satisfaction survey

In September 2020, the satisfaction with our factory customer service was determined within the scope of a survey of approx. 100 maintenance contract customers. with our factory customer service.





#### Delivery and commissioning

Delivery, incl. packaging, transport, installation, commissioning, instruction and installation inspection in accordance with the German Ordinance on Industrial Safety and Health by a competent person.

For installation and commissioning, the supply and disposal connections required on site must be available in accordance with our technical data sheets.

The German Ordinance on Industrial Safety and Health (Betriebssicherheitsverordnung) requires an installation inspection by a competent person prior to commissioning. The prices do not include the German statutory value-added tax. Subject to technical and price changes.

| Article no. | Device types   |
|-------------|--|
| DL320       | VARIOKLAV OrangeLine 95 S, 175 S   |
| DL321       | VARIOKLAV BlueLine 25 TV   |
| DL322       | <b>VARIOKLAV GreenLine</b> 80 S, 140 S, 160 S, 180 S, 80 T, 140 T, 160 T, 180 T, 200 T |
| DL323       | <b>VARIOKLAV BlueLine</b> 75 S, 100 S, 135 S, 155 S, 65 T, 75 T, 100 T, 135 T          |

Service readiness and service quality define us:

- Original spare parts for all appliances built up to 1981, optionally new or in exchange
- Certified for the laboratory and medical sector
- Years of experience in the industry
- Factory service
- Intensively trained and authorised and authorised service technicians
- Prompt response times
- Delivery reliability and adherence to schedules
- Customer satisfaction after every technical assignment
- Security and profitability
- · Warranty on new and replacement parts



#### Standards and laws

VARIOKLAV steam sterilisers are equipped and tested in accordance with the requirements of the Pressure Equipment Directive DGRL 2014/68/EU for stationary and mobile operation.

Monitoring is carried out in cooperation with a notified body. The safety equipment of VARIOKLAV steam sterilisers is already tested at the factory. This simplifies installation and commissioning on site.

Our service technicians are qualified persons in the sense of the Ordinance on Industrial Safety and Health (BetrSichV). When commissioning is ordered by HP, the requirements of the Ordinance on Industrial Safety and Health (BetrSichV) and the trade supervisory authorities are fulfilled.





#### How can we help you? We will be happy to advise you!

#### Select base unit

Floor-standing or table-top unit?

In floor-standing appliances, the chamber volume is utilised to the maximum with basket heights that are matched to the bottle size.

Table-top units are easier to load and unload, can also be loaded without a basket and require a solid table or base frame as a support.

#### Select chamber volume

Which chamber volume is required? Which setting range is available?

The models are manufactured in different sizes. There are chamber volumes from 25 to 200 litres. On request, we can supply identically constructed units with extended usable chambers.

#### Define field of application

Our basic units are already equipped for the usual laboratory tasks. Liquids and culture media are usually autoclaved at 121 °C and solids at 134 °C. This meets the requirements of most fields of work.

If production processes need to be monitored, the sterilisation data is recorded in a traceable manner via a built-in batch printer or by means of software.

For biological and genetically modified agents or infectious germs from the clinical area, classifications are defined according to the existing risks. If necessary, clarify the classification of your laboratory and the requirements with the responsible supervisory authority.

#### Determine specific processes

How often and what, with what quality requirements do you sterilise?

With a few exceptions, the two modules for rapid cooling and the two vacuum processes, pre-vacuum for air removal and post-vacuum for drying, can cover all standard laboratory applications. Sterilisation processes for liquids in open and pressure-tight sealed vessels as well as for solids and porous materials (consumables) are thus carried out quickly and with high quality.

If potentially risky substances are to be handled, the respective normative requirements or regulations must be met. The module for exhaust air filtration with condensate sterilisation in combination with the module for data recording (traceability of the sterilisation process) ensures validatable, safe operation in such cases.

#### Select module options

The VARIOKLAV steam sterilisers can be equipped with numerous module options:

Choose between modules for cooling and fast recooling, pre-vacuum and vacuum drying, emission-free sterilisation, process documentation and media temperature control to optimally adapt your autoclave to your routine work.

#### Extend expansion stages

On request

In the highest protection class 4 or safety level 4, additional measures are to be provided for particularly risky sterilised goods.

Additional processes are available for special sterilisation tasks, e.g. for Durham tubes. Sterilisation temperatures above 134 °C are also available. Processes without a preceding deaeration phase are particularly suitable for steam/air mixtures.

Stirring in large volumes of liquid.

For culture media in vessels of 5 litres or more, stirring is recommended throughout the sterilisation process. Continuous circulation of the liquid with a stirring system prevents the build-up of a temperature gradient - hot at the top and cold at the bottom - in the medium and minimises the high thermal load in the upper layers.

#### Book special services

Transport, installation, commissioning, instruction and installation testing in accordance with the "Ordinance on Industrial Safety and Health" by a competent person, operational qualification and validation of defined processes, all these services can be offered in-house.



### Please offer us the following unit configuration::

| Areas of application::  |                             |                     |   |                       |                                      |                   |
|---|-----------------------------|---------------------|---|-----------------------|--------------------------------------|-------------------|
| • Microbiology laboratory   | /nutrient media             | O Biological agents |   | O Gene                | <b>O</b> Genetically modified agents |                   |
| O Clinical laboratory opera   | O Pharmaceutical products   |                     | O Steri   | lisability testing    | 5                                    |                   |
| O Pressure chamber  |                             | O Other (p          | lease specify)                                      |                       |                                      |                   |
| We sterilise liquids:   |                             |                     |   |                       |                                      |                   |
| O Liquids in open vessels   |                             |                     | O Liquids Solut                                     | tions, nutrient me    | edia, lightly seale                  | ed                |
| O Liquids/creams in plast   | ic bags                     |                     | O Liquids in sealed vessels (blood bags or similar) |                       |                                      | ar)               |
| O Liquids in pressure-tigh  | t sealed vessels            |                     | O Sensitive media                                   |                       |                                      |                   |
| O Other (please specify)  |                             |                     | ○ Vessel size ml                                    |                       |                                      |                   |
| We sterilise waste:   |                             |                     |   |                       |                                      |                   |
| O Filters   | O Pipette tips              |                     | O Instruments                                       |                       | <b>O</b> Glasv                       | vare              |
| O Infusion bottles  | O Waste in open ba          | ags                 | • Waste in clos                                     | sed bags              | O Ampo                               | oules             |
| O Other (please specify)  |                             |                     |   |                       |                                      |                   |
| We sterilise textiles and co  | onsumables:                 |                     |   |                       |                                      |                   |
| O Laundry, textiles   | O Highly infectious         | materials           | O Destruction s                                     | sterilisation of co   | nsumables                            |                   |
| O Other (please specify)  |                             | ·····               |   |                       |                                      |                   |
| The usable space:   |                             |                     |   |                       |                                      |                   |
| • 25 Litres • 75 Litres   | s • O 100 Litres            | <b>O</b> 140        | Litres O 155  | Litres                | <b>2</b> 180 Litres                  | • 200 Litres      |
| The installation takes pla  | ce:                         |                     |   |                       |                                      |                   |
| <b>O</b> in the laboratory  | <b>O</b> in the safety labo | oratory             | <b>O</b> in the sculle                              | ry                    |                                      |                   |
| O on the floor  | $oldsymbol{O}$ on the table |                     |   |                       |                                      |                   |
| The unit is expected to ru  | n:                          |                     |   |                       |                                      |                   |
| O once a week   | <b>Q</b> 1 to 2 times daily | <b>O</b> 3 1        | to 5 times a day                                    | <b>O</b> additionally | / overnight/befo                     | ore work          |
| We want our batches:  |                             |                     |   |                       |                                      |                   |
| O documented  | O Printer/recorder          |                     | O according to                                      | DIN 58950, FDA, e     | etc. O Softw                         | are documentation |
| Heating takes place:  |                             |                     |   |                       |                                      |                   |
| O electrically  | O Sterile steam             |                     | • House steam                                       | 1                     |                                      |                   |
| Modules and extensions:   |                             |                     |   |                       |                                      |                   |
| O Media temperature control O Cooling and rapid cooling O Pre-vacuum and drying |                             |                     |   |                       |                                      |                   |
| O Emission-free sterilisation O Process documentation                           |                             |                     |   |                       |                                      |                   |
| If our application changes, our unit should be retrofittable in any case:       |                             |                     |   |                       |                                      |                   |
| O be retrofittable and future-proof   |                             |                     |   |                       |                                      |                   |
| What is the cost of:  |                             |                     |   |                       |                                      |                   |
| O Maintenance contract  | $\mathbf{O}$                | VARIOKI AV CARE E   | 21119   |                       |                                      |                   |









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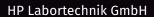
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