SHP Steriltechnik AG

LABOKLAV

Laboratory autoclaves for highest demands

www.shp-steriltechnik.de/en

SHP Steriltechnik AG

Michael Sporys

The SHP Group consists of a total of eight companies, with SHP Steriltechnik AG serving as the parent company. It includes SHP Wassertechnik GmbH, SHP Services GmbH, SHP Electronics GmbH, SHP Scientifique SAS, SHP Scientific Ltd., SHP Steriltechnik Polska Sp. z o.o., and SHP Umwelt und Energie GmbH. We provide a comprehensive service around the clock, 365 days a year, in the fields of sterilisation technology, water technology, electrical engineering, as well as environmental and energy solutions.

SHP Steriltechnik AG has been a well-established and successful company in the field of steam sterilisation equipment for many years, particularly with our LABOKLAV series autoclaves. Our guiding principle, „Affordable – yet of high quality“, reflects our commitment to both quality and cost-effectiveness. Through extensive investment in research and development, we have expanded our product range and now also offer the Labomag series magnetic stirrers as an additional component of essential laboratory infrastructure.

As a manufacturer, we provide state-of-the-art, durable sterilisation systems and autoclaves, including laboratory autoclaves specifically developed for microbiological laboratories in universities, research institutes, the food industry, and the pharmaceutical sector. Our solutions ensure the safe and efficient elimination of microorganisms, preventing contamination risks. For scientific institutions and laboratories, the LABOKLAV series steam sterilisers enable reproducible sterilisation processes. Our solutions are flexible and adaptable, making a crucial contribution to safety, efficiency, and product quality – both in research and industrial applications.

The LABOKLAV series autoclaves are distinguished by their reliability and quality. Our equipment is TÜV-certified, has series approval, and bears the CE mark.

They comply with, among others, the following standards:

- Pressure Equipment Directive 2014/68/EU
- DIN 58950: Sterilisation – Steam sterilisers for pharmaceutical sterilisation goods
- DIN 58951: Sterilisation – Steam sterilisers for laboratory sterilisation goods

As your competent partner in steam sterilisation, we are always at your side with expert advice and offer:

- Comprehensive consultation
- User training, including on-site at your facility
- IQ / OQ / PQ / DQ validation
- Technical support from trained and authorised service technicians

Michael Sporys
Board of Directors

Made in Germany.

Laboratory autoclaves with a round chamber.

Autoclaves with round chambers offer even heat distribution and efficient sterilisation through optimised steam circulation. Their rounded design allows for optimal space utilisation. Additionally, they are easy to clean and ensure uniform pressure distribution, enhancing safety while reducing material costs – making them ideal for consistent sterilisation and easy maintenance.
A wide range of chamber sizes from 25 litres to 195 litres, flexible installation options as both benchtop and freestanding units, and various configuration choices allow for customised solutions tailored to your specific requirements.

Our cylindrical-chamber sterilisers are manufactured exclusively in Germany under strict and continuously monitored quality standards.

Typical applications for our equipment include all microbiological laboratories in research institutes, universities, and quality control facilities in the pharmaceutical and food industries, as well as waste sterilisation in areas such as medical diagnostics.

LABOKLAV 25

Technical specifications

Chamber volume	25 l
Chamber dimensions (Ø x D)	265 x 465 mm
Outer dimensions (W x H x D)	440 x 540 x 660 mm
Space required on worktop (W x D)	440 x 550 mm (plus 110 mm door overhang)
Weight	approx. 65 kg
Max. allowable pressure (PS)	2,8 bar
Max. allowable temperature (TS)	143 °C
Heating Power	2 kW
Electrical connection	230V ~, 50 Hz, 16 A, alternating current
Sterilization temperature	98 - 135 °C, adjustable

The Extremely Compact and Space-Saving Benchtop Autoclaves of the LABOKLAV 25 Series Offer Many of the Capabilities of a Larger Benchtop Unit:

- Sterilisation of liquids in open and lightly sealed containers, including with an air recooling system
- Instrument sterilisation, with pre-vacuum and drying vacuum options
- Waste sterilisation at 134 °C (thermal inactivation)
- Optional exhaust air filtration

A unique design meets innovative technical solutions, ensuring optimal use of chamber volume. Our autoclave provides space for up to five 1-litre standard laboratory bottles, including lids.
The chamber lid, made of temperature-resistant safety glass, and the front cover, also made of safety glass, allow observation of the processes inside the chamber. LED lighting illuminates the chamber interior, while coloured LED status indicators display the current operating status of the device.

The Laboklav 25 series autoclaves are designed for easy operation and handling. After loading, the chamber door is gently pressed shut and motorised locking is activated at the push of a button.
An integrated tank, divided into two sections with level sensors, serves as a reservoir for feed water and a collection point for condensate, both of which can be emptied separately. In all liquid sterilisation programmes, the temperature within the liquid is monitored by an integrated flexible PT100 reference sensor, which prevents the chamber door from opening if the medium temperature is too high (thermal lock in accordance with IEC 61010-2-43).

Configurations

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

Each configuration is optionally available with an exhaust air filtration **(FA)** system.

All processes run fully automatically and are microprocessor-controlled. The system features a 32-bit platform with a multi-colour touchscreen, at least 16 GB of internal storage, and an additional membrane keypad with clear symbols.
All process data, error messages, and programmes are displayed clearly, can be customised, and are automatically saved as PDFs. Data transfer is carried out via USB, with automatic copying to a USB stick. Additionally, an optional needle printer is available for further automatic cycle documentation.

Loading capacity for standard laboratory bottles

Volume	Quantity
250 ml	12
500 ml	9
1.000 ml	5

LABOKLAV ECO 80 AND 135

SCAN QR-CODE FOR MORE INFORMATION

Designed for difficult conditions and poor water quality.

Technical specifications

Chamber volume	80 l	135 l
Chamber dimensions (Ø x D)	410 x 610 mm	500 x 660 mm
Outer dimensions (W x H x D)	740 x 915 x 600 mm	840 x 965 x 700 mm
Weight	approx. 155 kg	approx. 195 kg
Max. allowable pressure (PS)	2,8 bar	2,8 bar
Max. allowable temperature (TS)	143 °C	143 °C
Heating power	3 kW	6 kW
Electrical connection	230 V ~, 50 Hz, 16 A, alternating current	3N 400 V ~, 50 Hz, 16 A
Sterilization temperature	98 - 135 °C, adjustable	98 - 135 °C, adjustable

Maximum Comfort at a Fair Price – This Is What the LABOKLAV ECO Series Stands For.

They enable simple laboratory applications, such as:

- Sterilisation of liquids in open and lightly sealed containers, including with an air recooling system
- Instrument sterilisation
- Waste sterilisation at 134 °C (thermal inactivation)
- Optional exhaust air filtration

The units are available in chamber sizes of 80 litres and 135 litres and are always configured as floor-standing models. A low loading height makes filling the autoclave easier, while optional baskets allow optimal capacity utilisation. The lid is motorised and closes effortlessly at the push of a button in two steps. The chamber can only be opened once the sterilisation process has safely completed.

Steam generation is achieved by directly adding fully demineralised water into the chamber. The heating elements are positioned underneath the chamber, heating it from the outside. This extends the lifespan of the heating elements and makes cleaning the interior easier.

An integrated flexible PT100 reference sensor monitors the temperature within the liquid in all liquid sterilisation programmes, preventing the chamber door from opening if the medium temperature is too high (thermal lock in accordance with IEC 61010-2-43). To reduce cycle times in liquid sterilisation, the unit can be equipped with an air recooling system.

Configurations

LABOKLAV ECO B	basic unit
LABOKLAV ECO M	with rapid recooling

Each configuration is optionally available with an exhaust air filtration (FA) system.

All processes are microprocessor-controlled and run fully automatically. The system features a 32-bit platform, a multi-colour touchscreen, at least 16 GB of internal storage, and an additional membrane keypad with intuitive symbols.
Process data, error messages, and programmes are clearly displayed, can be individually customised and saved, and are automatically documented as PDFs. Data transfer is carried out via USB, with automatic storage on a USB stick. Additionally, an optional needle printer is available for automatic cycle documentation.

Loading capacity for standard laboratory bottles

Volume	Quantity for ECO 80	Quantity for ECO 135
250 ml	84	124
500 ml	28	42
1.000 ml	18	30
2.000 ml	10	16

LABOKLAV
ECO WASTEWATER

SCAN QR-CODE
FOR MORE
INFORMATION

Rapid sterilisation of large volumes of liquid.

The Waste Sterilisation of Large Liquid Volumes Always Results in Very Long Cycle Times.

The **LABOKLAV ECO Wastewater** has been specifically developed for this application. It can sterilise up to 100 litres of liquid media directly in the chamber within approximately 4 hours.

Once the chamber is filled exclusively with liquid media, the lid is motorised and securely closed.
The liquid is then heated to the sterilisation temperature and maintained at this level for a defined period of time.
After the sterilisation phase is complete, the chamber is automatically emptied using compressed air.
To prevent excessive temperatures in your disposal pipelines, a temperature-dependent mixing process with tap water is used.

As standard, all LABOKLAV ECO Wastewater autoclaves are delivered with an integrated needle printer, exhaust air filtration, and are manufactured in red, symbolising waste sterilisation.

Technical specifications

Chamber volume	135 l
Max. load (aqueous solution)	100 l
Chamber dimensions (Ø x D)	500 x 660 mm
Outer dimensions (W x H x D)	840 x 965 x 700 mm
Weight	approx. 205 kg
Max. allowable pressure (PS)	2,8 bar
Max. allowable temperature (TS)	143 °C
Heating power	6 kW
Electrical connection	3N 400 V ~, 50 Hz, 16 A
Sterilization temperature	98 - 135 °C, adjustable

LABOKLAV 55-195

SCAN QR-CODE FOR MORE INFORMATION

Flexible solutions for high demands.

Configurations

LABOKLAV B	basic unit
LABOKLAV M	with integrated rapid recooling
LABOKLAV MS	with integrated rapid recooling and counter pressure
LABOKLAV MSL	with integrated rapid recooling, counter pressure and fan
LABOKLAV V	with vacuum system
LABOKLAV MV	with integrated rapid recooling and vacuum system
LABOKLAV MSV	with integrated rapid recooling, counter pressure and vacuum system
LABOKLAV MSLV	with integrated rapid recooling, counter pressure, fan and vacuum system

Each configuration is optionally available with an exhaust air filtration (FA) system.

Flexible Solutions for High-End Requirements – LABOKLAV 55–195 Series

The well-thought-out design of our autoclaves, featuring a low loading height, allows for easy loading. Custom-fit baskets, tailored to the chamber size, ensure optimal utilisation of the chamber volume. Optional loading systems and lifting devices make loading and unloading effortless, even for heavy sterilisation goods.

Even the basic model is suitable for the sterilisation of:

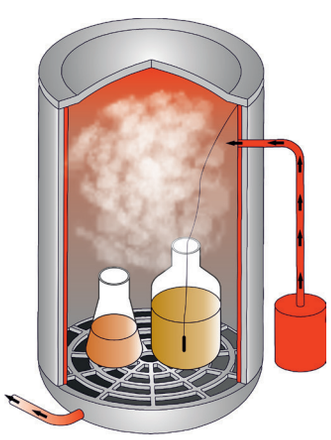
- Liquids
- Solids
- Waste

With chamber sizes ranging from 55 to 195 litres, our solutions are precisely tailored to your specific applications. The flexible installation options as both benchtop and freestanding units, combined with a wide range of features, make this series ideal for demanding laboratory applications. Our focus is always on safe, validated processes, user safety, and intuitive operation.

Flexible Installation Options

A unique installation concept allows you to set up the autoclave as either a benchtop or freestanding unit – at no extra cost. A retrofit conversion from benchtop to freestanding (or vice versa) can be done on-site at any time.For freestanding models, the chamber lid can be configured to swing open to the right, left, or back, ensuring optimal adaptation to your laboratory's spatial requirements. Additionally, the autoclaves are available in three colours – blue, red, and green – offering further customisation options.

All necessary components are integrated within the housing, so no valuable lab space is wasted. A built-in deionised water tank can be automatically or manually filled, depending on local conditions, and supplies the high-performance, separately integrated steam generator, which comes as standard.



Steam generation through
an integrated steam generator

LABOKLAV 55–195

Technical specifications

LABOKLAV	55	80	100
Chamber volume	55 l	80 l	100 l
Chamber dimensions (Ø x D)	410 x 460 mm	410 x 610 mm	410 x 760 mm
Outer dimensions of free-standing unit (W x H x D)	740 x 765 x 600 mm	740 x 915 x 600 mm	740 x 1065 x 600 mm
Outer dimensions of tabletop unit (W x H x D)	740 x 600 x 765 mm	740 x 600 x 915 mm	740 x 600 x 1065 mm
Weight	115 kg	155 kg	185 kg
Max. allowable pressure (PS)	2,8 bar	2,8 bar	2,8 bar
Max. allowable temperature (TS)	143 °C	143 °C	143 °C
Heating power of steam generator	6,6 kW	6,6 kW	6,6 kW
Electrical connection	3N 400 V ~, 50 Hz, 16 A	3N 400 V ~, 50 Hz, 16 A	3N 400 V ~, 50 Hz, 16 A
Sterilization temperature	98 – 135 °C, adjustable	98 – 135 °C, adjustable	98 – 135 °C, adjustable

LABOKLAV	135	160	195
Chamber volume	135 l	160 l	195 l
Chamber dimensions (Ø x D)	500 x 660 mm	500 x 760 mm	500 x 990 mm
Outer dimensions of free-standing unit (W x H x D)	840 x 965 x 700 mm	840 x 1065 x 700 mm	840 x 1215 x 700 mm
Outer dimensions of tabletop unit (W x H x D)	840 x 700 x 965 mm	840 x 700 x 1065 mm	840 x 700 x 1215 mm
Weight	195 kg	210 kg	245 kg
Max. allowable pressure (PS)	2,8 bar	2,8 bar	2,8 bar
Max. allowable temperature (TS)	143 °C	143 °C	143 °C
Heating power of steam generator	10 kW	10 kW	10 kW
Electrical connection	3N 400 V ~, 50 Hz, 16 A	3N 400 V ~, 50 Hz, 16 A	3N 400 V ~, 50 Hz, 16 A
Sterilization temperature	98 – 135 °C, adjustable	98 – 135 °C, adjustable	98 – 135 °C, adjustable

Tabletop unit loading capacity, standard laboratory bottles

LABOKLAV	55	80	100	135	160	195
250 ml	44	60	72	80	80	120
500 ml	15	20	24	25	26	39
1.000 ml	11	14	16	18	18	27
2.000 ml	6	8	8	9	10	15

Free-standing unit loading capacity, standard laboratory bottles

LABOKLAV	55	80	100	135	160	195
250 ml	63	84	105	124	155	186
500 ml	14	28	42	42	63	63
1.000 ml	9	18	27	30	45	45
2.000 ml	5	10	10	16	16	24

Modular solutions:
Flexible configuration options for
the series Laboklav 55–195

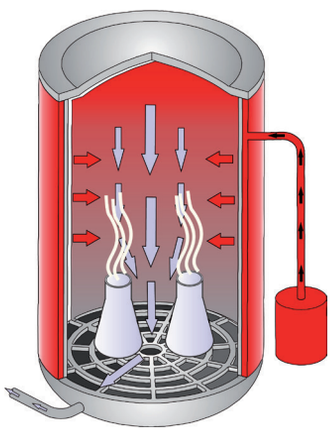
CONFIGURATIONS

Complete and efficient ventilation as well as exhaust air filtration using a pressure-resistant stainless steel filter.

Air Removal via Pre-Vacuum and Drying Vacuum

Successful sterilisation is only possible under saturated steam conditions, which requires complete and efficient air removal from the chamber. This is especially crucial for hard-to-ventilate materials, such as tubing or textiles, where only a vacuum system can ensure effective air extraction. A single or fractionated pre-vacuum rapidly and reliably removes air from the chamber.

A drying vacuum offers a key advantage, particularly for the sterilisation of pipette tips and filters, as it eliminates the need for separate drying in an oven. In all LABOKLAV series autoclaves, the drying vacuum, including jacket heating for effective drying of sterilised goods, is included as standard in the vacuum option.



Vacuum drying with double-jacket heating, option V

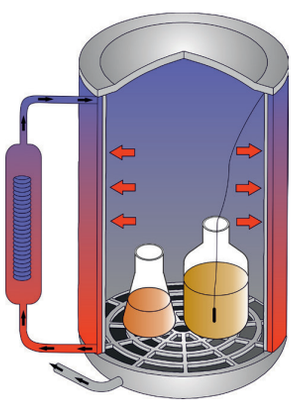
Exhaust Air Filtration – Protecting Users and the Environment

The sterilisation of infectious or genetically modified materials places special demands on an autoclave. An exhaust air filtration system safeguards both the user and the environment from harmful microorganisms that might otherwise be released during the chamber‘s venting process. This enables the safe operation of the autoclave in biosafety level 2 (BSL-2) laboratories and higher.
The exhaust air filtration process includes sterilisation of condensate and temperature-controlled inline sterilisation of the filter cartridge. A pressure-resistant stainless steel housing encloses the filter element, preventing filter expansion and ensuring durability. We exclusively use manufacturer-certified filter elements. Additionally, an integrated batch counter monitors the filter‘s lifespan and signals timely replacement in accordance with the manufacturer’s recommendations.

SCAN QR-CODE FOR MORE INFORMATION

Options for Demanding Applications: Efficient Rapid Cooling with Double Jacket

An effective and fast cooling system for liquid sterilisation significantly reduces cycle times, allowing multiple cycles to be performed within a single working day.



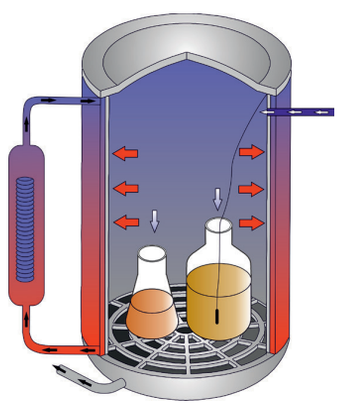
The LABOKLAV 55–195 series cooling system operates on the heat exchanger principle. Deionised water from the storage tank circulates through the double jacket, cooling the entire chamber before returning to the storage tank. There, it is cooled via a coil supplied with tap water.

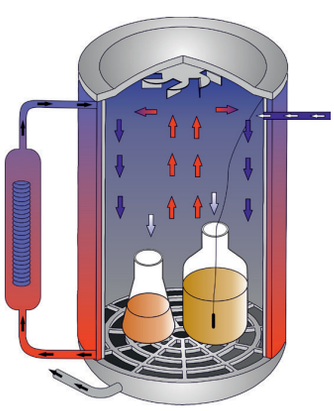
Since the deionised water remains in a closed loop, it is not consumed during the cooling process. This feature significantly lowers operating costs by eliminating unnecessary water consumption in liquid sterilisation programs.

Cooling with double jacket – option M

When the cooling system is enhanced with counter pressure, liquids in open vessels can be sterilised without fluid loss. Additionally, this option further reduces cycle times.

Recooling with double jacket and counter pressure – option MS





This configuration offers efficient cooling with minimal operational costs, making it a cost-effective solution for laboratories with high sterilisation demands. The combination of a water cooling system with support pressure and an integrated fan is the fastest and most effective cooling method. The powerful fan mixes temperature layers inside the chamber during cooling, ensuring even and accelerated cooling. Additionally, this configuration allows for the sterilisation of pressure-resistant, sealed containers without the risk of unintentional bursting during the process.

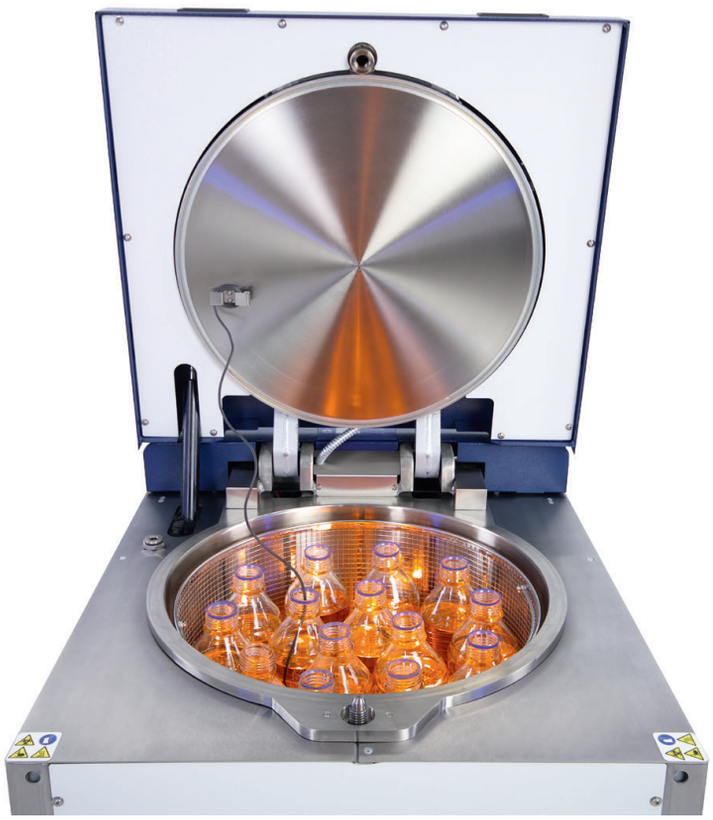
Recooling with double jacket, counter pressure and fan – option MSL

LABOKLAV STEAM STERILIZERS

These 4 reasons speak in favour of a Laboklav.

01 Safe and Easy Locking System

The chamber lid can be easily and effortlessly closed and opened by a motor at a press of a button. Here too, particular attention has been given to your safety. Once you have gently pressed the chamber lid, a motor closes it in two steps. Opening the autoclave while the process is in operation is out of the question. It can only be opened in safe conditions.



02 Maximum safety: Thermal Lock

The units are equipped as standard with a flexible reference temperature sensor for creating a thermo lock in accordance with IEC 61010-2-43. For the sterilization of liquids, the flexible reference temperature sensor controls the temperature in the liquid to be sterilized and thus guarantees a safe process. The sterilization time only starts when the required sterilization temperature has been reached. The flexible reference sensor also plays an important role during the cooling phase. The chamber lid can only be opened once the temperature of the liquid has fallen below boiling point.

03 Standard Evaporation Condensation

Evaporation condensation for the protection of disposal lines is integrated as standard in all devices. The condensate formed is cooled at the outlet by the addition of tap water, thus protecting your disposal lines from damage caused by steam and hot condensate. A PT100 temperature sensor monitors the temperature at the outlet of the device and regulates the addition of tap water. The temperature at the outlet can be adjusted continuously.

04 Operation and Documentation

All autoclaves in the Laboklav series feature a simple and easy-to-understand control panel with a large LCD touch display. All important program parameters such as temperature, pressure, and time can be read throughout the entire cycle.

Depending on the equipment variant, the device offers up to 20 different programs. It is possible to assign program slots with individual programs and program names.

As standard, all autoclaves are equipped with an integrated storage chip of at least 16 GB, allowing the archiving of up to 100,000 cycles. The multiprocessor system, with four independent and high-performance cores, ensures short initialisation times. A PDF file is automatically generated for each cycle, which can be conveniently and easily accessed via the USB interface. A network connection enables the transfer of all relevant process data to your PC. Upon request, remote diagnostics of the device can also be performed in this way. Optionally, cycles can be documented using an integrated needle printer.

Optional: Integrated needle printer (retrofit is also possible)

LCD touch display with a clear keyboard

ACCESSORIES

Perfect additions for autoclaves in the Laboklav series.

Efficient Accessories for Optimal Autoclave Use and Reduced Cycle Times

The right accessories make working with the autoclave easier and optimise the loading capacity as well as the cycle times. Baskets in various designs maximise the load according to the chamber size of the respective device. The loading of the autoclave with heavy sterilisation items is significantly facilitated by lifting devices or loading systems.

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Lifting Device

Also mountable between two Laboklav units.

Accessories for LABOKLAV Standing Units

- Baskets in various heights
- Baskets with a closed bottom
- Buckets, also with lids, for destruction sterilisation
- Lifting device for heavy loads

Accessories for LABOKLAV Tabletop Units

- Baskets in various heights
- Trays for destruction sterilisation
- Inserts with three levels
- Stands
- Loading system

Insert with three levels

Loading System

Accessories for LABOKLAVES with Round Chambers

- Condensate collection containers
- Compressors
- Cartridges for producing fully demineralised water
- Integrated measurement of the quality of the fully demineralised water, conductivity measurement (partly standard)

SHP Steriltechnik AG

Best consulting.

First-class service.

Family-run company

20 years of innovation in sterilisation technology

Nationwide service network in Germany

Worldwide distribution

Over 80 motivated employees

8 companys in 4 countries

Successful partnerships with over 4.000 clients and more than 30 distributors across approximately 70 countries.

SHP Steriltechnik AG

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Online-Configurator for Autoclaves

Customer service hotline

+49 39058 97 62 11

Competent and close!

An international service network ensures fast response times.

All our certified service technicians are “qualified staff in accordance with the pressure equipment directive” and regularly attend training courses in order to guarantee a high quality of service.

We take care of your equipment!

SHP Steriltechnik AG
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www.shp-steriltechnik.de/en

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