

OPTIMIZE LABORATORY PROCESSES

PRECISE TECHNOLOGIES

Systemec – Your solution for media preparation



MADE IN
GERMANY

systemec-lab.com

Systemec
the autoclave company

WELCOME TO SYSTEC

Your partner for high-quality sterilization solutions

For **over 30 years**, Systec has been the leading supplier of laboratory autoclaves and equipment for the preparation and sterilization of culture media. Precise results are essential in research, and complex laboratory processes often cost valuable time and resources. For this reason, our mission is to increase efficiency and safety in laboratories worldwide through innovative technologies.

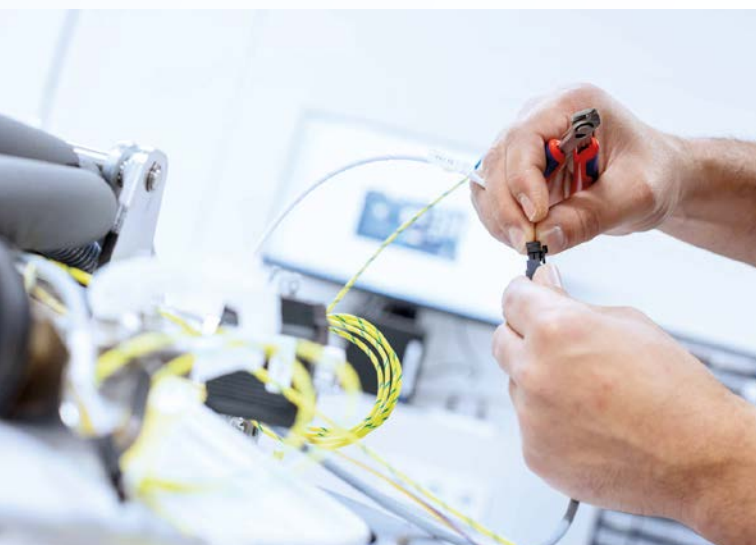
Our autoclaves stand for maximum safety and quality. We attach great importance to comprehensive safety standards in the development and manufacture of our devices. Strict quality criteria are applied right from the selection and processing of the individual components, which are continuously monitored throughout the entire production process. Each component is carefully checked before it is installed in the device. In addition, all devices undergo comprehensive functional tests at a specially equipped test site to ensure that they meet the high requirements of practical use at all times. These measures are supplemented by long-term tests of components under realistic load conditions, ensuring a consistently high level of quality and maximum operational safety.

**We have the know-
ledge to achieve
better results!**

With specialized
local partners,
our services are
available to you
worldwide.

**ISO 9001
ISO 14001**

**MADE IN
GERMANY**



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DISCOVER OUR PRODUCT LINES!

Precise media preparation –
your solution for sterilizing and dosing
culture media

In today's laboratory environment, efficiency and safety are of utmost importance. Systec offers a wide range of products specifically designed to meet these requirements. Here are our main product lines:



SYSTEC MEDIAPREP media preparers

- ▶ 7 models
- ▶ 10 to 120 liters of usable space
- ▶ Optimized automation
- ▶ High quality sterile media



SYSTEC MEDIAFILL Dispensing and dosing systems

- ▶ Capacity of 220, 440, or 660 Petri dishes
- ▶ Petri dish diameters of 35, 60, 70, and 90 mm
- ▶ Automatic filling



SYSTEC MEDIAPUMP multifunctional pump

- ▶ Solid precision roller mechanism
- ▶ High accuracy
- ▶ Flow rate: 3000 ml/min
- ▶ Power: 100 W



SYSTEC MEDIAPREP MEDIA PREPARERS

Precise media preparation made easy

The **Systec Mediaprep series** automates the entire preparation of liquid media – from preparation and sterilization to sterile filling. Available in seven sizes from 10 to 120 liters, it offers an efficient solution for research laboratories, clinics, and the pharmaceutical industry.

An integrated magnetic stirrer ensures homogeneous mixing throughout the entire process. With the intuitive touch display control, up to 100 programs can be created and saved.

Thanks to rapid recooling and additive addition, reproducible, high-quality media are produced – safely, validatably, and in a resource-saving manner.



MORE
INFORMATION



TECHNICAL SPECIFICATIONS

- ▶ **Models:** Available in 7 sizes (10 to 120 liters)
- ▶ **Control:** 5.7" touch display
- ▶ **Heating capacity:** Varies from 3.6 to 18.7 kW depending on model to enable fast heating times.
- ▶ **Compressor:** Integrated compressor provides sterile-filtered support pressure.

ADVANTAGES

- ▶ **High efficiency:** Fast heating and cooling times.
- ▶ **Safety:** Safety valves and low water level protection for safe operation.
- ▶ **Automatic gap filling** and automatic drainage of deionized water

EXAMPLES OF USE

- ▶ Production of culture media for microbiological testing.
- ▶ Use in research and clinical laboratories.
- ▶ Preparation of culture media for automatic plate casting with the Systec Mediafill.



ALL MODELS



STANDARD FEATURES



Systec Mediaprep offers the following standard features:

- ▶ **Intuitive 5.7" color touch display** for easy navigation and optimal overview during operation.
- ▶ **Adjustable stirrer speed**, Stirrer with adjustable stirrer speed. Mixing speed selectable between 0–275 rpm
- ▶ **Removable inner container**, the inner container can be removed quickly and without tools for easy cleaning and maintenance.
- ▶ **Flexible Pt-100 temperature sensor**, enables precise temperature measurement directly in the product – for reproducible and safe processes.
- ▶ **Automatic support pressure build-up**, the integrated compressor maintains the necessary pressure during the sterilization process, preventing the liquids from boiling.
- ▶ **Stable storage surface in the sterilizer**, a robust base plate allows vessels and baskets to be placed securely when used as an autoclave.
- ▶ **Automatic deionized water supply and drainage**, the system automatically feeds deionized water for steam generation and drains the water automatically at the end of the process.
- ▶ **Minimal residual volume after filling**, the system is designed so that only a very small residual volume remains after dispensing sterilized media.
- ▶ **Secure additive port**, the additive port allows liquids to be added sterilely and precisely after sterilization – from bottles or syringes.
- ▶ **Precise measuring rod** for accurate dosing of water in the inner container.
- ▶ **User management with 5 access levels**, the system has five individually customizable, password-protected user levels.
- ▶ **Temperature maintenance function for agar media** keeps agar-containing solutions constantly warm to prevent solidification and enable immediate further processing.

TOP-FEATURES



In addition to the standard features, Systec Mediaprep offers the following optional top features:

- ▶ Integrated printer
- ▶ SADS documentation software (including AuditTrail, FDA 21 CFR Part 11)
- ▶ SD card storage (up to 10,000 cycles)
- ▶ Network-compatible documentation



SYSTEC MEDIAFILL

DISPENSING AND DOSING SYSTEMS

Automation of media filling

The **Systec Mediafill system** fills Petri dishes, bi-/tri-plates, and tubes fully automatically. With a capacity of up to **900 Petri dishes per hour**, it significantly reduces manual labor and minimizes contamination risks.

A closed system, precise peristaltic pumps, and optional additive addition ensure reproducible results. Thanks to its modular design, Mediafill can be used flexibly for a wide range of applications – from routine laboratories to industrial production environments.



MORE
INFORMATION



TECHNICAL SPECIFICATIONS

- ▶ **Models:** Stacker for 220, 440, or 660 Petri dishes
- ▶ **Control:** 5.7" color touchscreen display, one-touch selection
- ▶ **Performance:** Up to 900 Petri dishes/hour
- ▶ **Options:** Additive pump, tube filler, Peltier cooling – can be configured for various applications

ADVANTAGES

- ▶ Fully automatic and unattended
- ▶ Reduces the need for manual work.
- ▶ Precise, reproducible results
- ▶ Reduced contamination risks
- ▶ Significant time savings in everyday laboratory work
- ▶ Versatility

EXAMPLES OF USE

- ▶ Filling Petri dishes with agar media
- ▶ Filling tubes (various diameters)
- ▶ Pharmaceutical and biotechnological research



STANDARD FEATURES



The Systec Mediafill offers the following standard features:

- ▶ **Maximum flexibility thanks to 100 programs** for individual parameters – perfectly tailored to different media and vessel sizes.
- ▶ **DropStop™** function reliably prevents dripping from the filling nozzle after the dosing process, ensuring clean, precise work.
- ▶ **Automatic return of the medium**, the pump-back function returns residual medium to the source container, preventing it from hardening in the tubing system.
- ▶ **Compatible with Petri dishes from many manufacturers**, numerous Petri dishes from different manufacturers are already preconfigured.
- ▶ **Manual filling function for flexible applications**, if necessary, all types of containers can be filled manually.
- ▶ **Three carousel sizes for every application**, choose between carousels for 220, 440, or 660 Petri dishes.
- ▶ **Smooth surfaces for easy cleaning**, thanks to smooth aluminum surfaces, the system is easy to clean.
- ▶ **UV irradiation to protect against contamination**, the filling area is irradiated with UV light to reliably prevent microbiological contamination.
- ▶ **Modern 5.7" color touch display** for intuitive operation and clear, concise presentation.

TOP-FEATURES



In addition to the standard features, the Systec Mediafill offers the following optional top features:

- ▶ Additive pump for additives
- ▶ Tube filler for tubes
- ▶ Peltier cooling for rapid agar solidification
- ▶ Integrated printer for batch documentation
- ▶ Option for filling bi-plates and tri-plates
- ▶ Inkjet printer for side labeling of Petri dishes



SYSTEC MEDIAPUMP

MULTIFUNCTIONAL PUMP

Dosing, diluting, and dispensing liquid media.
Fully automatic, fast, and precise

For greater efficiency, flexibility, and safety.

Programmable multifunction pump for manual or **automated dosing of liquid media**. The electronically controlled peristaltic pump impresses with its practical functionality and high user-friendliness.

A **solid precision roller mechanism** ensures maximum dosing accuracy even at high flow rates of 3000 ml/min. The special roller head ensures a continuous flow of liquid with minimal pulsation. The Systec Mediapump is particularly suitable for filling Petri dishes with hot and viscous media.

Dosing, diluting, and dispensing – fully automatic, fast, and precise.

With its well-thought-out design, the Systec Mediapump multifunction pump can also be used as part of automated processes. A high degree of flexibility is achieved by the ability to program different hose sets and use them reproducibly. A new type of tubing bed mechanism makes it easier to change the tubing sets.

All functions are clearly displayed on the Systec Mediapump touchscreen, together with a permanent display of the various parameters. The touchscreen offers a choice of different languages and color displays. Can be combined with Systec Mediaprep media preparers.



**MORE
INFORMATION**

TECHNICAL DATA

- ▶ **Pump mechanism:** 2-channel roller head with high-performance DC motor
- ▶ **Dosing volume:** 0.1 - 99999.9 ml
- ▶ **Accuracy:** +/- 0.5%
- ▶ **Delivery rate:** 3000 ml/min
- ▶ **Data memory:** 45 memory locations, freely selectable
- ▶ **Input voltage:** 85 - 264 VAC (47 - 63 Hz)
- ▶ **Power:** 100 W
- ▶ **Fuses:** Mains 2 x 2.5 A
- ▶ **Dimensions:** 240 (W) x 290 (H) x 230 (D)
- ▶ **Tubing sets:** ID 3-8 mm



TOP-FEATURES



- ▶ **Innovative hose bed mechanism** enables quick replacement of hose assemblies
- ▶ **Automatic calibration** ensures reproducible results
- ▶ **Clear control panel** offers optimal handling
- ▶ **High-quality industrial touchscreen** and smooth stainless steel housing surfaces allow for effective wipe disinfection
- ▶ **Double roller pump head in combination with optimized hose bed** guarantees maximum precision (+/- 0.5%) and long service life of the hoses
- ▶ **Backflow function** prevents media from gelling in the hose set during longer breaks
- ▶ **Function for filling** the hose at the start of the filling process
- ▶ **Optional operation** of the start and stop function via hand and foot switch
- ▶ **Fully flexible stand** with plug-in holder for the outlet nozzle
- ▶ **Service-friendly modular design** and compact construction



Can be combined with Systec mediaprep media preparators



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