

THE POWER OF INNOVATION

STERILIZING IN THE LABORATORY

Easier, faster and safer with Systec

PRODUCT BROCHURE



PERFORMANCE & RELIABILITY

For your sterilization tasks.
Easier, precise, more reproducible & validatable.

Made-to-measure for any laboratory application.
Modular designed autoclaves.



Our aim is always to make steam sterilization in the laboratory safer, easier and more precise, reproducible and validatable. With over 30 years experience and constant cooperation with experts in practice, we know how to tackle and provide optimal solutions for even the most complex sterilization tasks. We have the knowledge and experience to produce the results! Our expertise and know-how are available for you worldwide through specialized partners.

Product expertise:

- Development
- Design
- Production of serial products
- Production of specialty products
- Application and technical advice

Additional services:

- Installation and start-up
- Special technical developments
- Tests and process development
- Individual service on-call
- Contract service
- Qualification and validation
- GMP-compliant documentation

We manufacture our horizontal bench-top autoclaves, horizontal floor-standing autoclaves and vertical floor-standing autoclaves in different performance categories as sterilization tasks in laboratories are highly variable.

VE DE

For basic laboratory applications and media sterilization. With limited possibilities to add additional options for process optimization.

VX DX

HX

For all laboratory applications even those with sophisticated sterilization tasks and availability of all options for process optimization to achieve validatable sterilization processes.

Sterilization made easier, precise, more reproducible and validatable with Systec laboratory autoclaves.



FOR BETTER STERILIZATION.

Vertical floor-standing autoclaves
Systec VX-Series

- Highest requirements with regard to safe, accurate, reproducible and validatable sterilization processes
- Sterilization temperatures up to 140 °C, steam pressure up to 4 bar absolute pressure (optional up to 150 °C/5 bar absolute pressure)
- Fully automatic, micro-processor controlled
- Internal memory capacity for storing for at least 10 years of data backups
- Up to 100 sterilization programs for different sterilization applications, self-programmable

VX Systec VX-Series
8 sizes, 40 to 150 liters chamber capacity



NEW
GENERATION

8 models
40 to 150 l
chamber
capacity

ALL INFORMATION
ABOUT YOUR
SYSTEC AUTOCLAVES
AT A GLANCE!

SYSTEC CONNECT*



*optional

FOR BETTER STERILIZATION.



8 models
45 to 150 l
chamber
capacity

Vertical floor-standing autoclaves Systec VE-Series

- Highest requirements with regard to safe, accurate, reproducible and validatable sterilization processes
- Sterilization temperatures up to 140 °C, steam pressure up to 4 bar absolute pressure (optional up to 150 °C/5 bar absolute pressure for 65 to 150 liters)
- Fully automatic, micro-processor controlled
- Up to 25 sterilization programs for different sterilization applications

VE Systec VE-Series
8 sizes, 40 to 150 liters chamber capacity

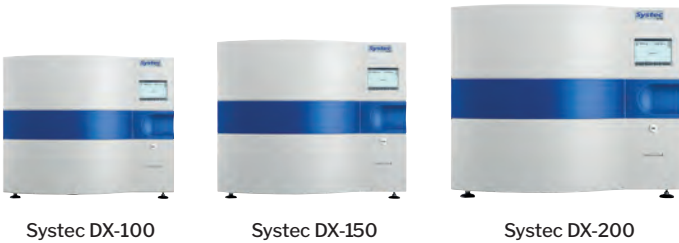
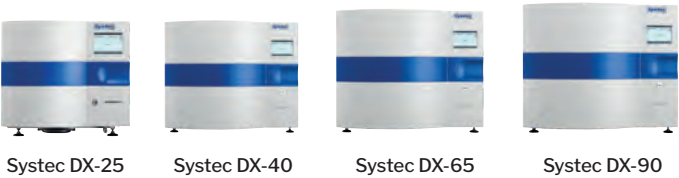


FOR BETTER STERILIZATION.

Horizontal bench-top autoclaves Systec DX-Series

- Highest requirements with regard to safe, accurate, reproducible and validatable sterilization processes
- Sterilization temperatures up to 140 °C, steam pressure up to 4 bar absolute pressure (optional up to 150 °C/5 bar absolute pressure)
- Fully automatic, micro-processor controlled
- Internal memory capacity for storing for at least 10 years of data backups
- Up to 100 sterilization programs for different sterilization applications, self-programmable

DX Systec DX-Series
7 sizes, 25 to 200 liters chamber capacity



NEW
GENERATION

7 models
25 to 200 l
chamber
capacity

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SYSTEC AUTOCLAVES
AT A GLANCE!

SYSTEC CONNECT*



*optional

FOR BETTER STERILIZATION.



6 models
45 to 200 l
chamber
capacity

Horizontal bench-top autoclaves Systec DE-Series

- Highest requirements with regard to safe, accurate, reproducible and validatable sterilization processes
- Sterilization temperatures up to 140 °C, steam pressure up to 4 bar absolute pressure (optional up to 150 °C/5 bar absolute pressure for 65 to 200 liters)
- Fully automatic, micro-processor controlled
- Internal memory capacity for storing up to 10 years of data backups
- Up to 25 sterilization programs for different sterilization applications, self-programmable

DE Systec DE-Series
6 sizes, 25 to 200 liters chamber capacity



Systec DE-45



Systec DE-65



Systec DE-90



Systec DE-100



Systec DE-150



Systec DE-200

FOR BETTER STERILIZATION.



Shorter and more efficient process times
by the combination of new features.

NEW
GENERATION



16 models
65 to 1580 l
chamber
capacity

SYSTEC CONNECT*



ALL INFORMATION
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SYSTEC AUTOCLAVES
AT A GLANCE!

Horizontal floor-standing autoclaves
Systec HX-Series

- Highest requirements with regard to safe, accurate, reproducible and validatable sterilization processes
- Sterilization temperatures up to 140 °C, steam pressure up to 4 bar absolute pressure (optional up to 150 °C/5 bar absolute pressure)
- Fully automatic, micro-processor controlled
- Internal memory capacity for storing for at least 10 years of data backups
- Up to 100 sterilization programs for different sterilization applications, self-programmable

Systec HX-Series
16 sizes, 65 to 1580 liters
chamber capacity



OPTIONAL:
Stainless steel casing

HX



*optional

FOR BETTER STERILIZATION.



Shorter and more efficient process times
by the combination of new features.

NEW
GENERATION



13 models
90 to 1580 l
chamber
capacity

SYSTEC CONNECT*



ALL INFORMATION
ABOUT YOUR
SYSTEC AUTOCLAVES
AT A GLANCE!

Horizontal pass-through autoclaves
Systec HX-Series 2D

- Highest requirements with regard to safe, accurate, reproducible and validatable sterilization processes
- For gas-tight installation in partition walls of biological safety laboratories or clean rooms
- Sterilization temperatures up to 140 °C, steam pressure up to 4 bar absolute pressure (optional up to 150 °C/5 bar absolute pressure)
- Fully automatic, micro-processor controlled
- Internal memory capacity for storing for at least 10 years of data backups
- Up to 100 sterilization programs for different sterilization applications, self-programmable

Systec HX-Series 2D
13 sizes, 90 to 1580 liters
chamber capacity

HX



OPTIONAL:
Stainless steel casing

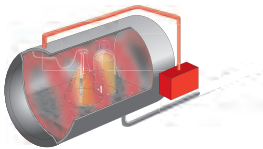


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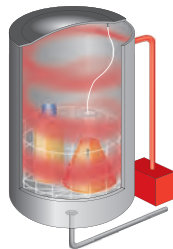
STERILIZATION OF LIQUIDS.

Heating up

- The actual sterilization time of e.g. 15 to 20 minutes at 121 °C is only a fraction of the total time involved for an autoclave procedure. Especially in the case of sterilizing liquids, the heating up and cooling down phases are considerably longer.
- **The conventional procedure**
In previously used conventional systems, even if the intended sterilization temperature has been reached within the autoclave, the liquids to be sterilized are often only at about 100 °C; the temperature equilibrium time between chamber and liquids normally takes much longer.
- **Up to 50 % shorter heat-up times as standard**
Due to the combined temperature and pressure regulation, the chamber pressure is increased during the heat-up phase. The result: more rapid temperature equilibrium in the liquids and a shorter heat-up time.



Systec DX-Series/DE-Series/HX-Series



Systec VX-Series/VE-Series

Cooling

- The cooling process for liquids is also very slow; this is because, without active rapid cooling, the heat can only be reduced to below 100 °C by dissipating the heat via the chamber insulation by radiation.
- New system and process technology now make it possible to substantially reduce the overall time required for the sterilization process. This means that several hours of time can be saved! It also means that the media is not exposed to heat unnecessarily long time.
- Systec offers many functions for its autoclaves guaranteeing safe liquid sterilization processes at higher productivity. Many of these functions are standard or available as options depending on the model range selected.

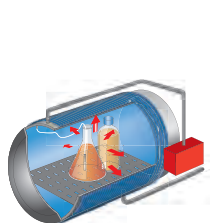
Standard functions in all models:

- Temperature- and pressure-dependent door locking in line with international standards and regulations.
- Redundant process control; temperature and pressure are continuously monitored and controlled during the entire sterilization cycle.
- Rapid heat-up via optimized heat transfer to the liquid media.
- Flexible PT-100 temperature sensor for temperature measurement in a reference vessel:
- Guarantees attainment of the desired sterilization temperature in the liquid media.
- Guarantees cooling of the liquid media to a temperature that is safe for removal.

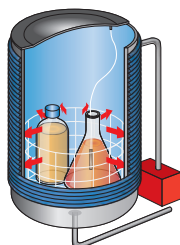
QUICK-COOLING OPTIONS FOR STERILIZATION OF LIQUIDS.



- **Water Cooling** with support pressure provide a coil wrapped around the outside of the sterilization vessel. During the cooling phase, cool water circulates through the coils, reducing cool down time. Support pressure prevents liquids from boiling over during the cooling process, eliminating evaporative loss of sterilized liquids. Reduction of cooling time up to 60 %.

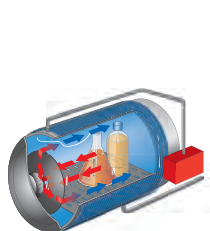


Systec DX-Series/DE-Series/HX-Series

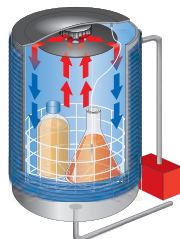


Systec VX-Series/VE-Series

- **Radial ventilator:** for air circulation and accelerated heat removal from the sterilizer chamber. Combined with cooling coils and support pressure, the radial ventilator creates a more rapid exchange of heat from the chamber by utilizing an internal fan to circulate air. Reduction of cooling time up to 70 %.



Systec DX-Series/DE-Series/HX-Series



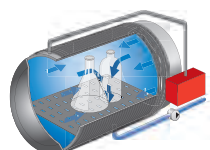
Systec VX-Series/VE-Series

- **Ultracooler** is an additional heat exchanger behind the radial ventilator. Reduction of cooling time up to 90 %.

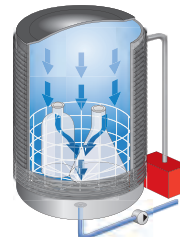
STERILIZATION OF SOLIDS AND WASTE IN DISPOSAL BAGS.



- **Vacuum system:** removes the air highly effectively from solids, tubing, porous materials, fabrics and disposal bags; in this way, the steam is able to penetrate completely. The process includes a fractionated pre-vacuum phase in combination with the standard steam generator.



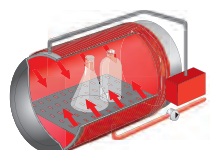
Systec DX-Series/HX-Series



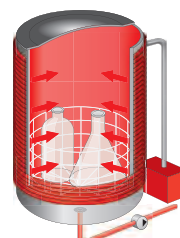
Systec VX-Series

For porous materials, solids and waste bags

- **Superdry** increases the drying efficiency for solids and porous materials such as filters and fabrics. Heat energy from the standard steam generator is transferred to the heating coils around the body of the sterilization chamber and is used for drying. Deep-vacuum drying using the optional vacuum device in conjunction with Superdry avoids the necessity for subsequent drying in a separate drying cabinet.



Systec DX-Series/HX-Series



Systec VX-Series

For solids and fabrics

- **Exhaust air filtration system** for the sterilization of hazardous biological substances. The filter is automatically sterilized during each sterilization process, monitored by a PT-100 temperature sensor. Through air exhaust filtration and condensate inactivation, it is ensured that no microorganisms can escape.

For waste bags

FOR BETTER MEDIA PRE- PARATION AND STERILIZATION.

Systec Mediaprep media preparators

- Gentle preparation, rapid cooling
- Continuous mixing
- Sterilization temperature up to 136 °C
- Steam pressure up to 3,5 bar absolute pressure

Systec Mediaprep

7 sizes, 10 to 120 liters chamber capacity



7 models
10 to 120 l
chamber
capacity



Systec
Mediaprep-10



Systec
Mediaprep-20



Systec
Mediaprep-30



Systec
Mediaprep-45



Systec
Mediaprep-65



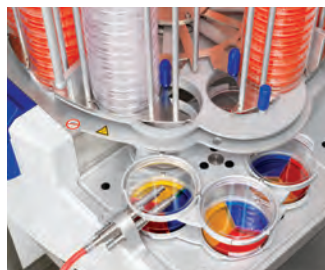
Systec
Mediaprep-90



Systec
Mediaprep-120

FOR AUTOMATED POURING AND STACKING OF CULTURE MEDIA.

Systec Mediafill plate pourer and tube filler



- For precise, automated and unattended pouring of culture media into
- Petri dishes, bi-plates, tri-plates and test tubes
- Touch display for easy and intuitive programming
- Even surfaces, no holes or gaps, easy to clean
- Three stacker carousel heights for up to 220, 440 and 660 Petri dishes





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