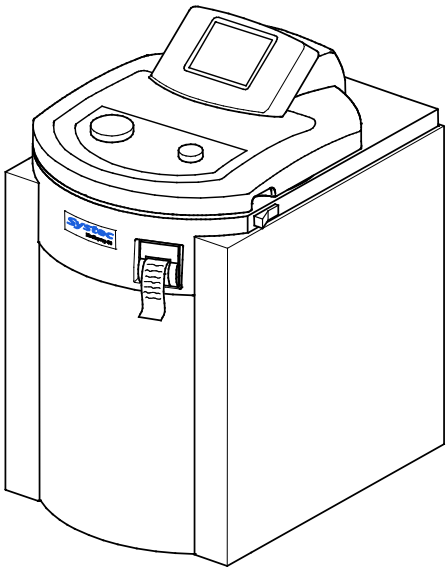
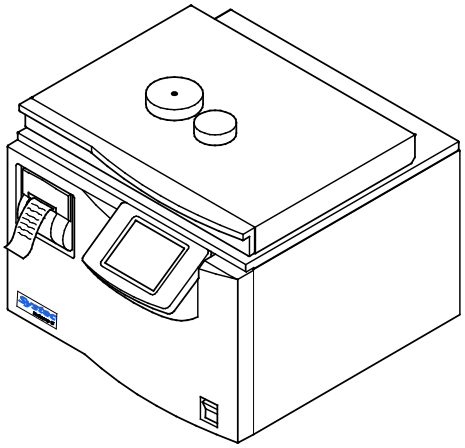
TRANSLATION OF THE ORIGINAL OPERATING MANUAL SYSTEC MEDIAPREP-SERIES





Model: Systec

Serial number:

Built-in options: described on back

Revision: 1.3 SA

06.12.2019

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- ☐ Printer with ASCII character set
- ☐ Printer with Cyrillic character set
- ☐ PC software
- ☐ Systec MediaFill
- ☐ Connecting cable: Systec MediaPrep – Systec MediaFill
- ☐ Systec dispensing adapter: 6 mm
- ☐ Systec dispensing adapter: 8 mm
- ☐ Aquastop
- ☐ Magnetic stirrer with ball bearing
- ☐ Dosierfix

Important

These autoclaves are not intended to be used for medical applications; also the liquid cycles are not intended for the sterilization of liquids used for direct patient contact.

Contents

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1. NOTES ON THIS MANUAL

This manual describes all operations when handling the device. It is:

- Used to inform the user of this product
- Aimed specifically at qualified technical personnel with many years of experience.

The manual should be passed on together with the device.

For technical personnel instructed in its use, brief instructions describe the operational steps involved in everyday use of the device.

1.1 Associated documents

Additional documents are applicable in conjunction with this operating manual:

- Refer to Chapter 14 "Appendix".

1.2 Diagrams

All diagrams in this operating manual are only examples. Deviations from the diagrams are possible, depending on the model and size. The original diagrams included in the text must always be used for all work.

1.3 Copyright declaration

2. DEVICE DESCRIPTION

Aim of this section

This section gives you an overview of the functions and design of the device.

Contents

2.1 Description of functions

The devices described in this operating manual are used for sterilisation and preparation of nutrient media in steam or steam-air mixtures. They are state-of-the-art and built according to standard safety regulations.

Due to its innovative design features, the process operations are simpler, safer and more precise. The processes can be reproduced and validated:

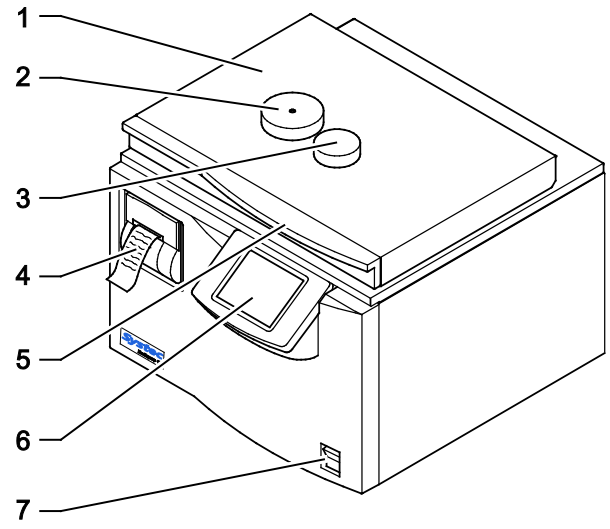
Design features:

- Control of microprocessor using plain text menu navigation via touchscreen
- Individual setting of parameters for the nutrient media and sterilisation processes
- Thermostatically controlled exhaust steam condenser
- Complete sterilisation, even in the dispensing port
- Keep-warm function

A wide range of options allows this device to be optimized for the particular daily requirements of individual labs.

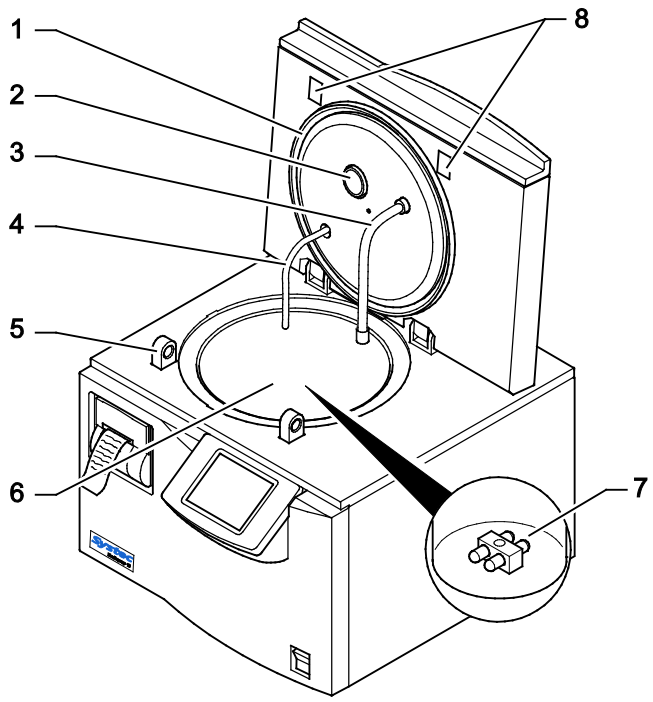
2.2 Design

2.2.1 Controls and ports for the MediaPrep -10, -20, -30



1 Door
2 Additive port with cap
3 Dispensing port with cap
4 Printer (optional)
5 Grip bar
6 Touchscreen
7 Main switch

Fig. 1: Door closed



1 Door gasket

2 Opening for the additive port

3 Dispensing hose at the dispensing port

4 Temperature sensor

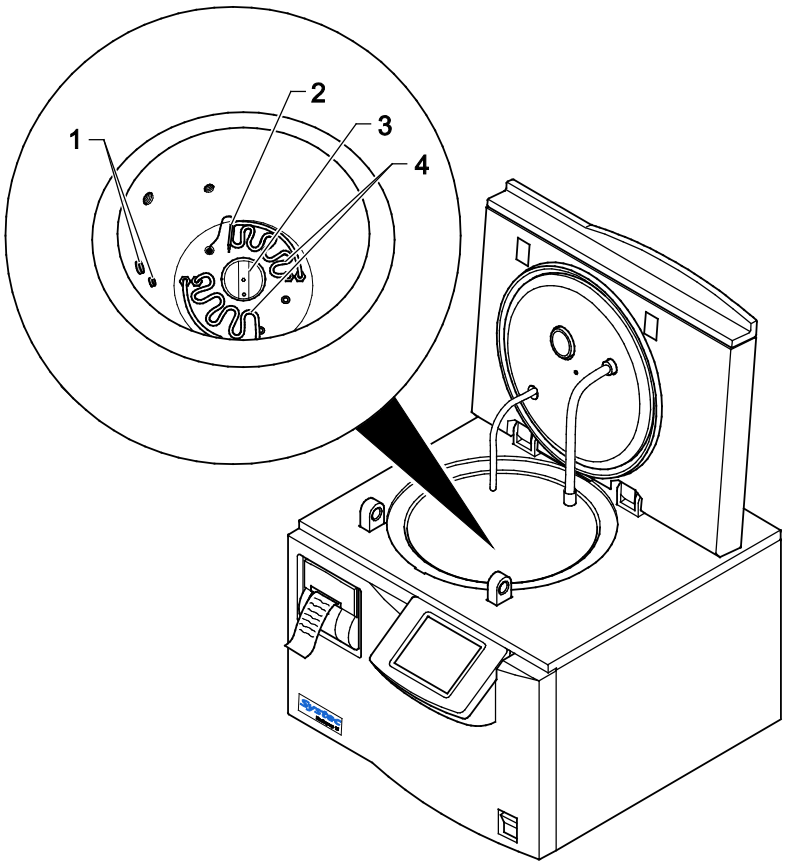
5 Catches for locking pins on the door

6 Sterilisation chamber with cuvette

7 Magnetic stirrer

8 Locking pins for the door

Fig. 2: Door open



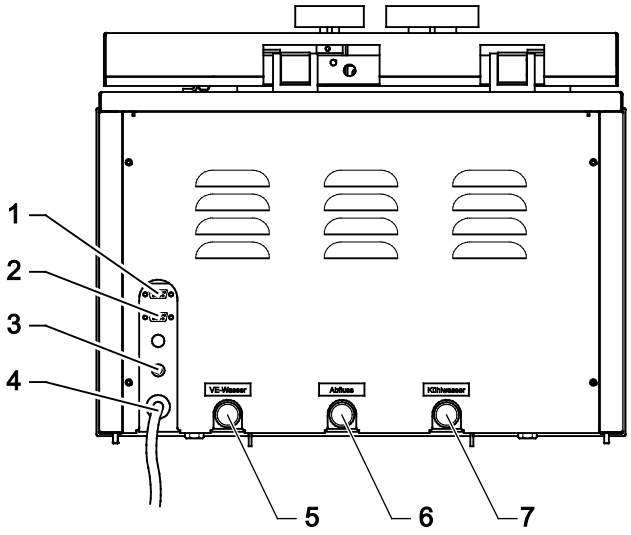
1 Upper and lower water level electrodes

2 Safety temperature limiter (Cut Off)

3 Support for cuvette or base plate

4 Heating elements

Fig. 3: Sterilisation chamber



1 PC serial interface

2 MediaFill connection kit

3 Safety temperature limiter (Cut Off)

4 Mains power connection

5 Demin water

6 Drain

7 Tap water

For specifications, refer to Chapter 10, "Technical data".

Fig. 4: Rear view

Included in scope of delivery for item (as shown in rear view):

1 5 m interface cable (only with PC software option)
5 2 m water tube, DN10, including quick-release coupling
6 3 m drain tube, DN13.5, including quick-release coupling
7 2 m water tube, DN10, including quick-release coupling

The scope of delivery also contains:

- Systec dispensing adapter for dispensing port and tube (inner diameter: 6 mm)
- Cuvette with magnetic stirrer
- Base plate
- This operating manual

2.2.2 Controls and ports for the MediaPrep -45, -65, -90, -120

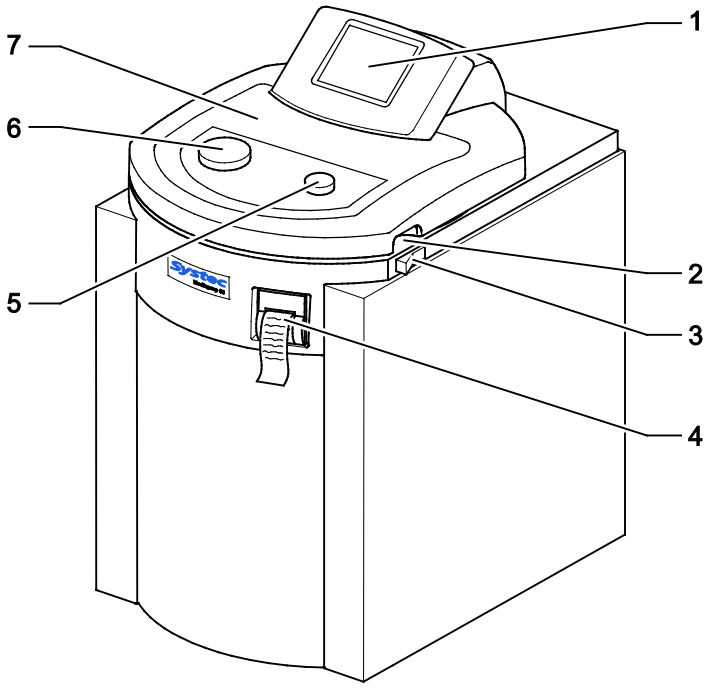


Fig. 5: Door closed

1	Touchscreen	5	Dispensing port with cap
2	Grip handles	6	Additive port with cap
3	Main switch	7	Door
4	Printer (optional)		

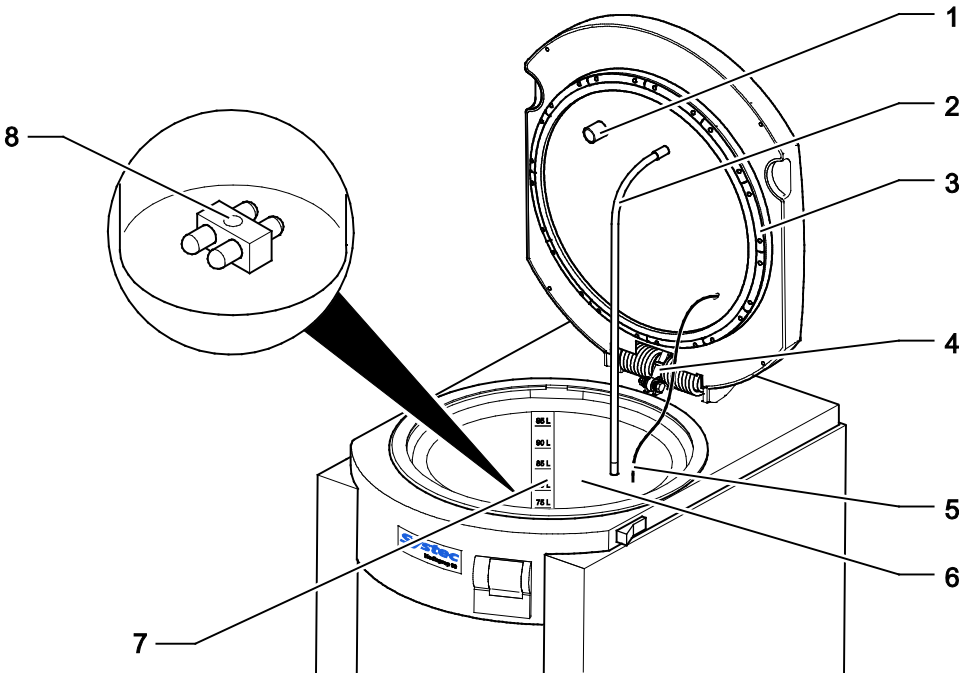


Fig. 6: Door open

1	Opening for the additive port	5	Temperature sensor
2	Dispensing hose at the dispensing port	6	Sterilisation chamber with cuvette
3	Door gasket	7	Measuring bar
4	Door hinge	8	Magnetic stirrer

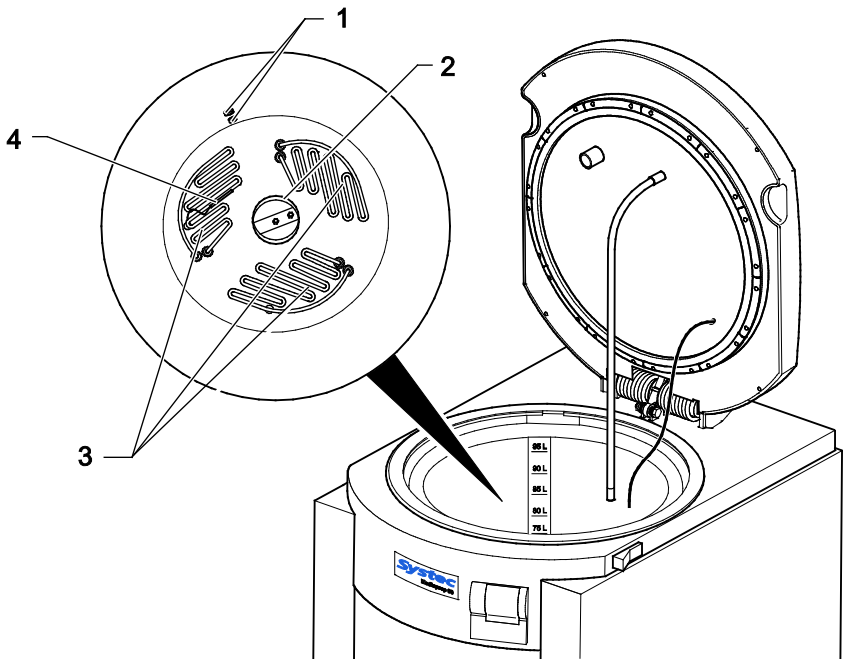
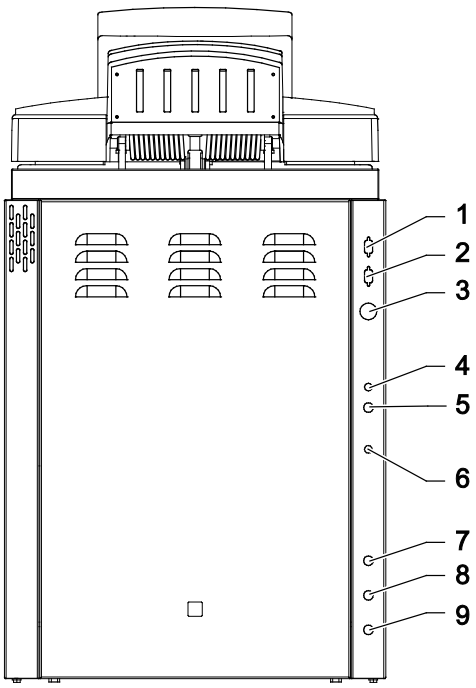


Fig. 7: Door open

1 Upper and lower water level electrodes
2 Support for cuvette or base plate
3 Heating elements
4 Safety temperature limiter (Cut Off)



1 PC serial interface

2 MediaFill connection kit

3 Mains power connection

4 Circulation pump fuse

5 Vacuum pump fuse

6 Safety temperature limiter (Cut Off)

7 Demin water

8 Tap water

9 Drain

For specifications, refer to
Chapter 10, "Technical data".

Fig. 8: Rear view

Included in scope of delivery for item (as shown in rear view):

1 5 m interface cable (only with PC software option)
7 2 m water tube, DN10, including quick-release coupling
8 2 m water tube, DN10, including quick-release coupling
9 3 m drain tube, DN13.5, including quick-release coupling

The scope of delivery also contains:

- Systec dispensing adapter for dispensing port and tube (inner diameter: 6 mm)
- Cuvette with magnetic stirrer
- Base plate
- Tool (pliers) for changing the exhaust filter (only with the exhaust filtration option).
- This operating manual

2.2.3 Operation via touchscreen

The device is operated solely using the touchscreen (see Chapter 4, "Operation").

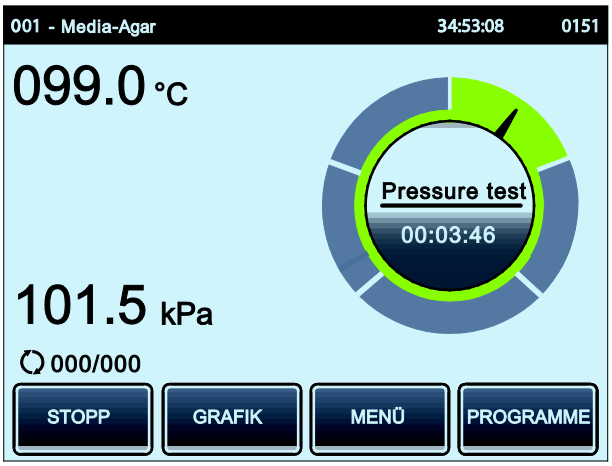


Fig. 9: Touchscreen

2.3 Proper use

The device is used for preparation and sterilisation of nutrient media. These media can be put into the cuvette directly and then sterilised. An additional option is to use the device without the cuvette as an autoclave for sterilising/dissolving liquids. The base plate supplied is used for this purpose.

CAUTION

Because the autoclave is not equipped with a vacuum device, there is no guarantee that hollow objects or porous materials will be sterilised.

Systec GmbH is not responsible for any damage resulting from improper use.

Proper use also includes the following:

- Observation of all the instructions in the operating manual
- Adherence to inspection and maintenance work
- Operation of the device by persons instructed by trained personnel
- Adherence to the operator's working and safety regulations.

We accept no responsibility for damages resulting from improper use.

The device is not approved according to the Medical Devices Law (see EN 285).

An inadmissible use of the device is:

- Sterilisation of surgical instruments
- Sterilisation of hollow or porous materials
- Sterilisation of explosive or flammable materials
- Heating of liquids with a lower boiling point than that of water.

2.4 Structural alterations to the device

No alterations, extensions or modifications may be made to the device without the manufacturer's authorisation. This also applies to welding performed on supporting parts or parts relevant to safety, such as pressure boilers and all attachment parts.

All modification measures require written authorisation from Systec GmbH.

- Device parts that are not in perfect condition should be immediately replaced.
- Only use original replacement parts.

In the case of parts from other manufacturers, there is no guarantee that they are designed and produced to meet the stress and safety requirements.

2.5 Technical thresholds

- The permitted pressure and temperature must not exceed the pressure-temperature values detailed in this operating manual (refer to Chapter 10 "Technical data"). The specifications on the type plate / label must be observed.
- Permissible sterilised items and containers are those that possess the biological, chemical and physical characteristics required for safety in everyday laboratory use, and are suitable for steam sterilisation in the device with the options installed. This must be ensured by their state-of-the-art condition or from operator experience.

2.6 Warranty and liability

Our "General sale and delivery conditions" apply at all times. These are available to the operator from the signing of the contract, at the latest. Warranty and liability claims in the event of personal injury or material damage are rendered ineffective if caused by one or more of the following reasons:

- Improper use of the device.
- Improper mounting, commissioning, operation or maintenance of the device, or non-adherence to the German Ordinance on Industrial Safety and Health.
- Operation of the device with defective safety equipment. The use of safety and protective devices that have not been installed correctly or are not functioning correctly.
- Non-observance of the instructions in the operating manual.
- Transportation, storage, assembly, installation, commissioning or decommissioning made by a service technician who is not authorised by Systec.
- Unauthorised structural alterations to the device.
- Insufficient monitoring of components exposed to wear.
- Incorrectly performed repairs.
- Disasters caused by foreign bodies or force majeure.

2.7 Warranty and service

Your Systec device is a high-quality product. We hereby declare that this device is free from material and processing defects, and provide a one-year guarantee against defects in the device components or their processing. We are only obliged to repair or replace devices or their components after we have examined them, and only if the damage can be demonstrated to have occurred within two years of the delivery date.

If you experience handling difficulties and find no solution in this operating manual, please contact Systec GmbH (see Chapter 8.3 "Service address").

- Do not attempt to repair the device yourself under any circumstances!

3. SAFETY

Aim of this section

This section gives you an overview of the fundamental safety aspects when handling the device.

Contents

3.1 Observing the instructions in the operating manual

This operating manual:

- Informs you about safe handling and trouble-free operation
- Informs you about fundamental safety instructions and safety regulations
- Contains important instructions on how to operate the device safely
- Must be observed by all persons working on the device

In addition, the valid on-site rules and regulations regarding accident prevention must be observed, particularly the pressure device guidelines.

3.2 Obligations of the operator

The operator is obliged to:

- Register the device with the relevant authorities according to its use and the applicable local regulations
- Operate the device with the required technical safety measures
- Use trained and authorized personnel for all jobs (such as electrical installation, putting the device in operation and maintenance)
- Only allow persons to work with the autoclave who are familiar with the fundamental regulations on work safety and accident prevention, who have been familiarized with how to handle the autoclave and who have read the operating manual carefully, understood it and confirmed this with their signature.

- Check regularly that personnel are working safely.

3.3 Obligations of personnel

All persons who work with the autoclave are obliged to

- Observe the fundamental regulations regarding work safety and accident prevention
- Use the prescribed personal protective equipment
- Perform only the assigned tasks
- Read this operating manual carefully and confirm with their signature that they have understood it.

3.4 Residual risks when handling the device

The devices are state-of-the-art and built according to standard safety regulations. Nevertheless, the danger of death or injury to the user or a third party, or damage to the device or other material assets can arise when using the device.

For this reason, the device is only to be used:

- As intended
- In a faultless condition with regard to safety.

Faults that could negatively affect safety must be resolved immediately.

The following residual risks result from the device function, and must always be taken into account:

3.4.1 Crushing, amputation

There is a danger of crushing or amputation of body parts between the edge of the door and the edge of the container whenever the door movement is not damped by springs or hydraulics.

3.4.2 Burns

After sterilisation:

- Hot clouds of steam can escape and lead to burns
- Surfaces inside the container or near the sterilised item can be hot and can lead to burns if touched

If applicable, use suitable tools when using containers or the magnetic stirrer.

3.4.3 Heavy loads

Fully loaded baskets or fillers can be too heavy to lift manually when loading or unloading. If this is the case, the baskets or fillers should be partially unloaded beforehand.

3.4.4 Hazardous substances

When sterilising solids or liquids which have been contaminated with hazardous substances, always use the personal protective equipment prescribed for the particular hazardous substance.

3.4.5 Danger of fire or explosion

When sterilising flammable or explosive solids or liquids, always use the personal protective equipment prescribed for the particular hazardous substance.

3.4.6 Maintenance

The service doors must be removed for maintenance and repair work (e.g. replacing defective fuses).

Always disconnect the device from the power supply before removing the service doors.

3.4.7 Operation

After using the device, make sure that the device is properly switched off by means of the main switch and that all supply sources, such as the tap water, have been closed.

To avoid water damage, we recommend the "Aquastop" option as an additional safety measure.

3.4.8 Risks due to wear

The device must be serviced at regular intervals set by the operator, as specified in the maintenance guidelines. The manufacturer recommends regular maintenance every 500 cycles, or at least once a year.

3.5 Specific risks during the preparation of nutrient media and during sterilisation procedures

There are other specific risks involved in preparing the nutrient media and using certain programs. Specific instructions on these risks and on avoiding risks can be found in the corresponding sections of this operating manual.

3.6 Warning instructions and safety signs

In addition to the basic and specific safety instructions, risks can arise through dangerous working procedures.

These procedures are indicated as follows:

WARNING

These indications warn of the danger of serious or even fatal injuries. An appropriate safety symbol also warns of the nature of the hazard.

- Follow the instructions for preventing the hazard.

CAUTION

These instructions warn of damage to the device or to the medium.

- Follow these instructions carefully to prevent malfunctions or damage to the device.

3.7 Supplementary instructions

Any operating variations or additional notes on the basic working procedures are indicated as follows:

These indications give information about, for example, additional or alternative procedures which are possible under certain circumstances.

4. OPERATION

Aim of this section

This section gives you an overview of the device requirements with regards to location, basic operation and loading of various sterilised items.

Contents

4.1 Commissioning

4.1.1 Set up location

Note the following when selecting an installation site for the device:

- Refer to Chapter 10, "Technical data" for the permitted floor load and environmental conditions.
- The installation site must be selected so that all sides of the device are accessible.
- Fire or smoke detectors should not be installed near the autoclave since emitted steam clouds could trigger such detectors.

Connections:

The supply and disposal connections should be located in the immediate vicinity of the device. Hoses and cables must be laid so that kinking is avoided. The necessary supply connections are described in Chapter 2 "Device description".

CAUTION

Leaky connections will cause damages!

- Connect the hoses tightly to their on-site connections.
- Use only the original hoses provided by the manufacturer.

Contact the manufacturer if you have queries about the connections. Contact details are found in Chapter 8.3 "Service Address" this manual.

4.1.2 Installation and training

Installation must be carried out by an authorised service technician!
The service technician ensures that the device is connected correctly, performs a function test, and enters the device-specific data in the logbook (refer to Chapter 12).

Following the installation, the technician gives the users a briefing on the device. The technician enters the names of the trained persons together with

the date of training into the logbook (refer to Chapter 12) and confirms the work with a signature.

4.1.3 User guide and brief instructions

The operator creates a user guide on how to operate the device and positions it in the immediate vicinity of the device in a place where it can be clearly seen, together with the brief instructions.

The user guide must meet the applicable regulations of the country in question.

4.2 Controls

Familiarise yourself with the operation of the device and the control elements before using it for the first time (see Chapter 2, "Device description").

4.2.1 Main switch

The main switch switches the power supply to the device on and off. Always switch off the device at the main switch after use, or if danger has been detected in the device.

When the power supply is switched off during operation, the current process is interrupted.
When switched on again, the device continues the process from the point of interruption. Any relevant error messages remain on the touchscreen. The pressure and temperature values displayed reflect the current state.

4.2.2 Door

WARNING

There is a danger that you could be crushed or caught when the door is opened incompletely!
The door may fall closed if it is not fully open. There is a danger of crushing and shearing injuries between the door and the edge of the sterilisation chamber.

- Always open the door completely before adding or removing anything.

WARNING

Danger of burns when opening the door!
After sterilisation, the surfaces of the door and the container are hot. Hot steam can escape when opened.

- Always use the recessed grip and grip bar to move the door.
- Wear the prescribed personal protective equipment and clothing.

CAUTION

There is a risk of damage to the temperature sensor and dispensing tube!

- Make sure that the temperature sensor and dispensing tube are submerged in the cuvette when the door is closed.

CAUTION

You could be injured if foreign objects become stuck in the closed door.
If there is a foreign object between the door seal and the device housing when the door is closed, then hot steam can escape during operations! This leads to a risk of burn injuries and contamination.

- When closing the door, make sure that there is no foreign object between the door seal and the housing (for example, a loop of cable from the flexible temperature sensor or a bag).
- Load the device so that the sensor cable and any flexible material (e.g. a bag) is not placed in the immediate vicinity of the door seal.

- Check that additive port and dispensing port are tightly closed.
  Otherwise, the program will be interrupted during the leak test and an error message will appear on the touchscreen.

Automatic door lock!
These devices are equipped with an automatic door lock that locks the door securely.

Closing the door:

- Press the door in and hold it briefly until the locking mechanism has clearly locked.

Opening the door:

- Press OPEN. The door is unlocked and automatically opens by 3 to 4 cm. Pull on the recessed grip/grip bar to open the door completely.

A locking device prevents the door from being opened accidentally. The door lock can only be unlocked if the temperature is below the unloading temperature and the sterilisation chamber is depressurized.

4.2.3 Magnetic stirrer

The magnetic stirrer makes it easier for you to use homogeneous mixtures in the cuvette. To achieve this, the magnetic stirrer is simply put on the shaft at the bottom of the cuvette.

CAUTION

A special version for media with a high particle content is available!
The slide bearing of the magnetic stirrer can be damaged during the preparation of media that contain particles. A magnetic stirrer with ball bearing is available for this application. The stirrer is resistant to wear when stirring media which contains particles.

Three different rotational speeds for each program have been pre-configured at the factory for the magnetic stirrer. They can be customized (see "Changing program parameters" in Chapter 4.11):

– Heating and sterilisation: Parameter "StirrerHeat"

– Cooling: Parameter "StirrerCool"

– Dispensing: Parameter "StirrerDisp"

Press  or  to manually adjust the rotational speed for preparing or dispensing the nutrient media.

4.2.4 Dispensing adapter

With the Systec dispensing adapter, sterilised nutrient media can be dispensed from the cuvette. The dispensing connector is screwed onto the dispensing port.

4.3 Touchscreen

The device is controlled by a microprocessor. All operations are carried out on the touchscreen.

The current program parameters and all device states are displayed on the touchscreen.

Touchscreen in standby mode

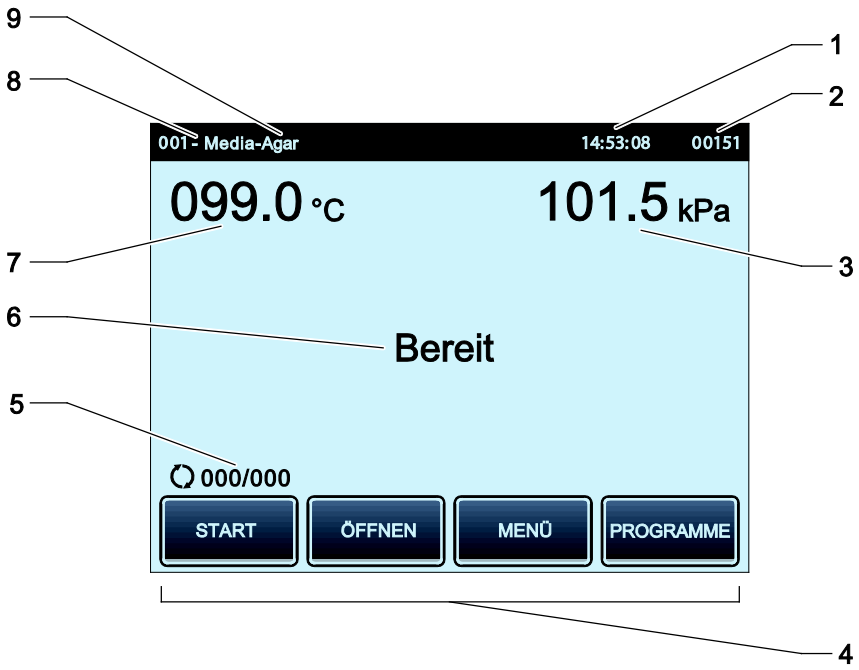


Fig. 10: Touchscreen in standby mode

1 Time (does not automatically adjust from summer to winter time)
2 Cycle counter (increases by 1 after every sterilisation cycle)
3 Current pressure in the sterilisation chamber
4 Function keys
5 Actual/set speed of the magnetic stirrer
6 Text box with instructions, any error messages and status information
7 Current medium temperature
8 Selected program number and name
9 Additional name (optional)

Touchscreen during a program cycle

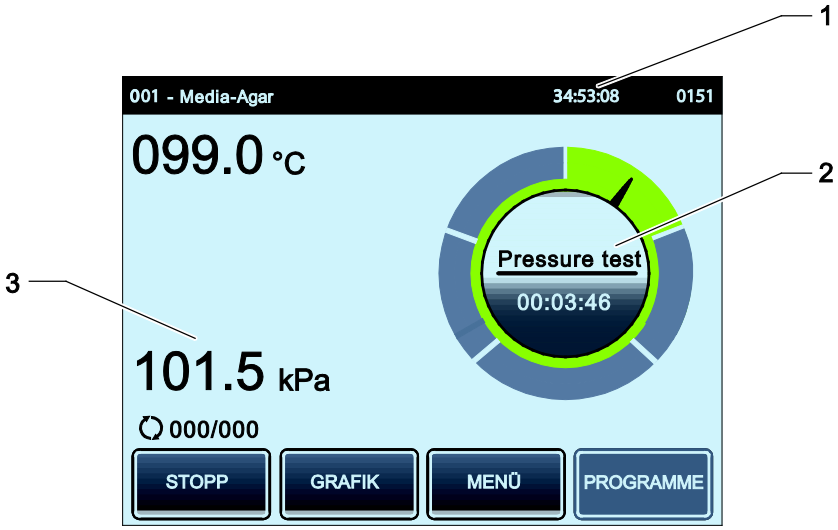


Fig. 11: Touchscreen during a program cycle

1 Operating time

2 Progress bar for program cycle

3 Current pressure in the sterilisation chamber

You can choose the language displayed. The displays shown in these operating instructions correspond with the condition of the device upon delivery. The display text may therefore differ from the examples reproduced here depending on the language setting chosen. If you would like to adapt the language setting to your needs, the "Languages table" in Chapter 13 provides you with a comparison of the available display texts in the respective language.

4.4 Using the menu

All device functions can be accessed via the touchscreen menus. However, the basic operation always remains the same.

4.4.1 Menu structure

The following menu items are available in the basic mode.

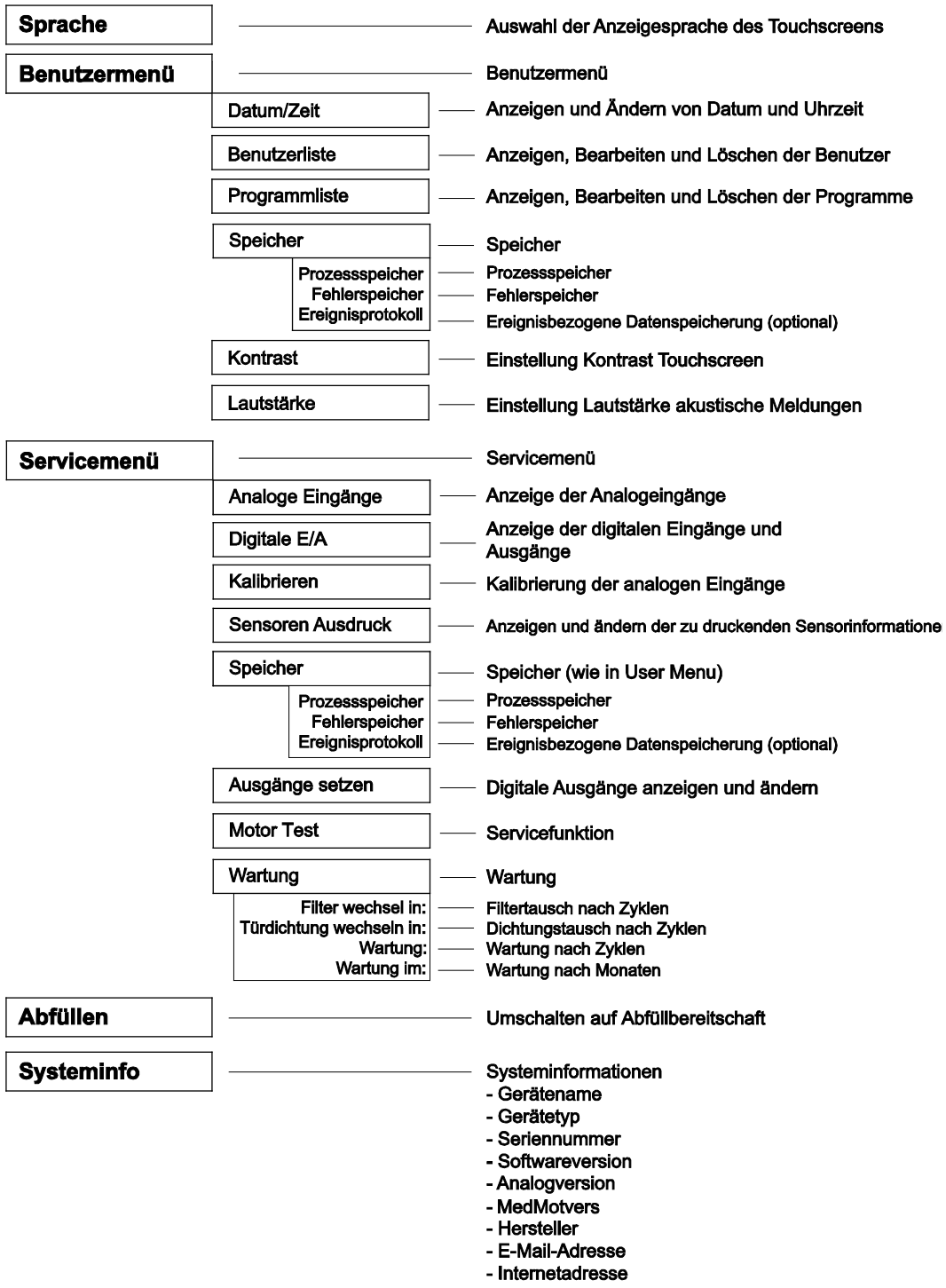


Fig. 12: Overview of the menu structure

4.4.2 Function keys

The following function keys are available on the device touchscreen:

START (START)	Starts the selected program
ÖFFNEN (OPEN)	Unlocks the door
MENÜ (MENU)	Displays the main menu
PROGRAMME (PROGRAM)	Displays the programs
QUIT (CLEAR)	Acknowledges error messages
GRAFIK (GRAPH)	Graphical display of the program cycle
ZURÜCK (BACK)	Goes back to the progress display
STOPP (STOP)	Stops the program
LEEREN (FLUSH)	Drains the deionised water

Tab. 1: Overview of function keys

4.4.3 Symbols

The following symbols are displayed on the touchscreen, depending on the menu currently in use.

All menus	
	Return to the standby mode display
	Confirm entry
	Scroll back through the menu
	Scroll up line by line
	Scroll down line by line
	Scroll to previous page
	Scroll to next page
	Save changed values
Menu -> Service menu -> Calibration	
	Recalculate values
	Accept values
Menu -> User menu -> Program list	
	Create program

	Edit program
	Delete program
Program	
	Changing the program parameters
Menu -> User menu -> User list	
	Add user
	Edit user
	Delete user
	Move line downwards
	Move live upwards
Menu -> Service menu -> Save Menu -> User menu -> Save	
	Search data record by serial number and/or date
	Exit search results
	Print data

Tab. 2: Functional overview of symbols

4.4.4 Functions according to the access level

The access level corresponds to a numerical value between 0 (no access) and 5 (highest access). Certain menus and functions have an associated access level. They are only accessible after a user with that access level or a higher level has logged in.

The basic configuration of the access levels can be changed from the "admin" (administrator) account.

Function	**Factory default settings**	**Settings with "audit trail" activated (optional)**
	0 = no access level; 1 – 5 = access level	
Opening the door	0	1*
Starting the program	0	1*
Stopping the program	0	1*
Selecting the program	0	1*
Acknowledge error/empty	0	1*
Setting date / time	0	1*
Changing parameters	1 – 5	1 – 5
Managing users	5	5*
Managing the program	5	5*
Maintenance	5	5

Tab. 3: Functions according to the access level

* Can be changed from "admin"

There are four users created in the default configuration.

User	**Password**	**Access level**
user	00	1
operator	00	3
admin	00	5
systec	Only for authorized service technicians from Systec	

Tab. 4:Factory-default users

4.4.5 Changing the date and time

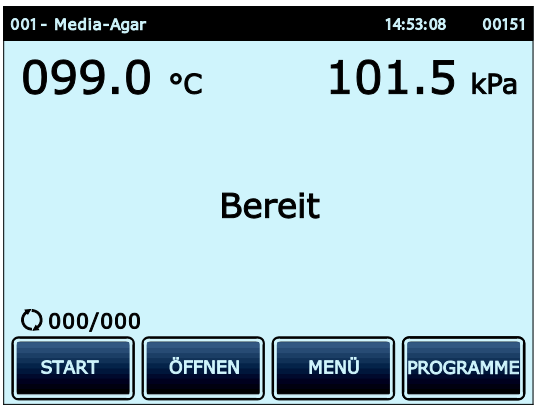


Fig. 13: Using the menu: Standby mode display

- Press MENU to access the main menu.

The five menu items on the main menu are displayed:

Fig. 14: Using the menu: Main menu

- Press USER MENU to switch to the user menu.

Fig. 15: Using the menu: navigating to the desired menu item

- Press DATE/TIME.
- Enter your access data if necessary.

The number to be set is highlighted in white.

Fig. 16: Using the menu: Selecting the desired menu item

- Press the field where the value should be changed. The activated field is displayed in blue.
- Enter the current date or time.
- Press  to save the changes. You then return to the user menu.
- Press  to go back to the user menu. Your settings will not be saved.

The time does not change automatically between summer and winter time.

4.4.6 Managing users

Multiple users can be assigned for each access level (also access level 5).

Users can only be created by operators with sufficient access rights (refer to Chapter 4.4.4 "Functions according to the access level").

A new user is created as follows:

- Access the user list:

MENU -> USER MENU -> USERS LIST

- Enter your access data.

The users list appears.

Fig. 17: User list

- Press  to create a new user.

Fig. 18: Enter the user name and password

Enter the desired user name and specify a password. The user name and password must be at least two characters long.

- Confirm your entry.
- The access level selection screen then appears.

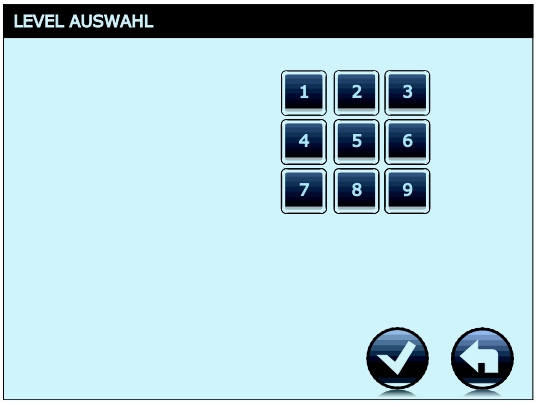


Fig. 19: Access level

- Press the access level that you want to assign to the user.
- Confirm your selection.
- The users list appears.

User data can be edited by pressing  (e.g. allocation of a new access level to a user).

Press  to delete users from the list.

After you delete a user, certain functions may no longer be available (refer to Chapter 4.4.4 "Functions according to the access level").

If necessary, contact the Systec Service department (refer to Chapter 8.3 "Service address").

You can save your changes when you exit the user list.

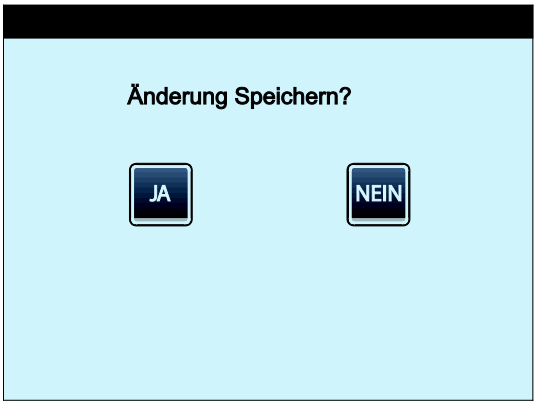


Fig. 20: Saving the user list

If you want to save the changes to the user list, press YES.

4.4.7 Managing the program

- Access the program list:

MENU -> USER MENU -> PROGRAM LIST

- Enter your access data.

A list of existing programs is displayed.

In addition to the programs already created, you can create up to 100 individual programs to fit your requirements.

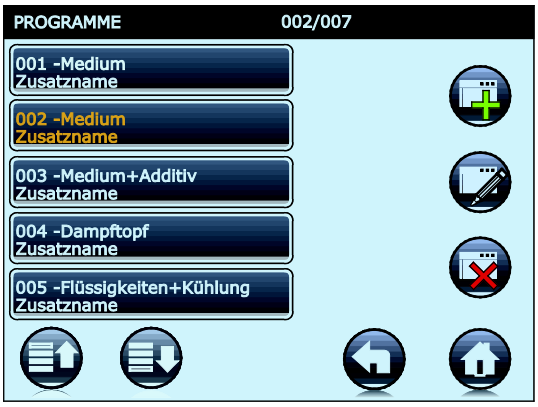


Fig. 21: Program list

- Press  in order to create a new program.

A list of available program types is displayed.

Fig. 22: Program types (depending on your device configuration)

- Select the desired program type.
- Confirm your entry.

The program description appears.

Fig. 23: Program description

- If necessary, enter an additional name (with no more than 20 characters).
- Confirm by pressing .

The parameter list for the new program then appears.

- Change the parameter settings if necessary (refer to Chapter 4.4.9 "Changing program parameters").
- Confirm your changes by pressing .

The program list appears.

- Press to change a program.
- Press to delete a program.

The program that has been selected for the standby mode cannot be deleted.

You can save your changes when the program list is exited.

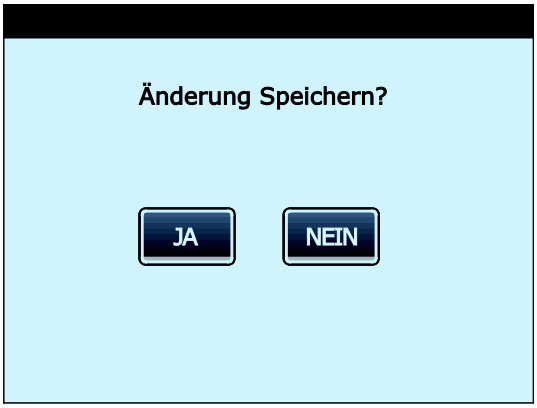


Fig. 24: Saving a newly-created program

Press YES to save your changes.

4.4.8 Customized program lists (optional)

A selection of assigned programs can be assigned to each user. The program list can then only be accessed by entering the login information.

A Systec service technician can activate this feature.

There are two ways to assign programs:

- Directly, when you create a new user
- Assigning them to users that have already been created

- Access the user list:

MENU -> USER MENU -> USERS LIST

- Create a user or edit an existing user.
- Specify a user name and password or confirm the user name and password.
- Press on the selected access level and confirm the selection with .

The program selection appears.

Fig. 25: Program selection

- Select the desired program
- Confirm your selection with .
- A "Sort programs" screen is available for changing the order.

Fig. 26: Sorting the programs

- Press the program that you wish to move.
- Move the program by pressing  .
- Confirm the program sorting by pressing  .

The user list appears again.

4.4.9 Changing the program parameters

- From the standby display screen, press Program.
- Enter your access data if necessary.

The program list appears.

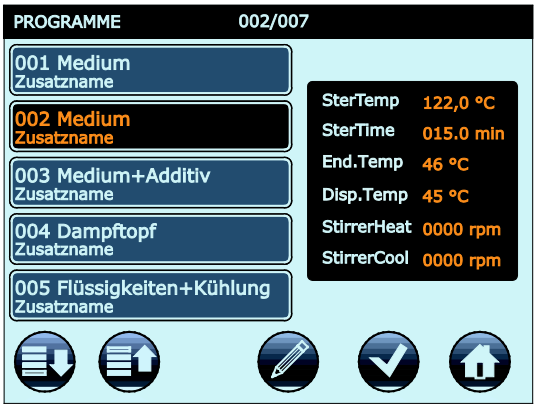


Fig. 27: Program list

- Select a program.
- Press  to access the parameter list.
- Enter your access data if necessary.

The parameter list appears.

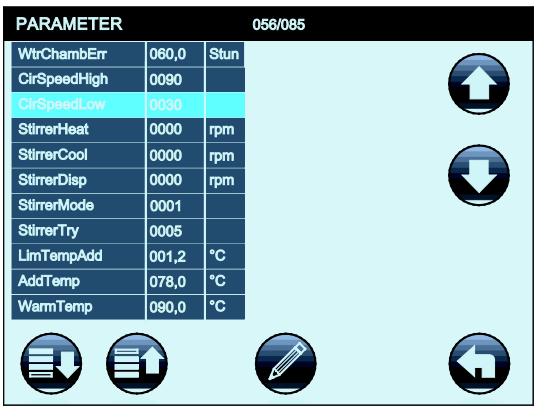


Fig. 28: Parameter list

- Press the parameter that you wish to change.
- Press  to change the parameter.

Fig. 29: Changing parameters

- Enter the new value (with decimal places).
- Press  to save the changes. You then return to the parameter list.
- Press  to access the parameter list again. Your settings will not be saved.
- When necessary, select further parameters and change their values as described above.

4.5 Memory

4.5.1 Process log

The built-in process memory saves the most important data for up to 500 sterilization cycles.

If the process memory is full, the oldest process log is deleted to make room for the new data.

The data stored in the process memory logs can be exported (using the PC software) to a long-term archive memory.

Section 6.6 "PC software", on page 106 contains more information.

- Access the process list:
  MENU -> User Menu -> Memory -> Process Log

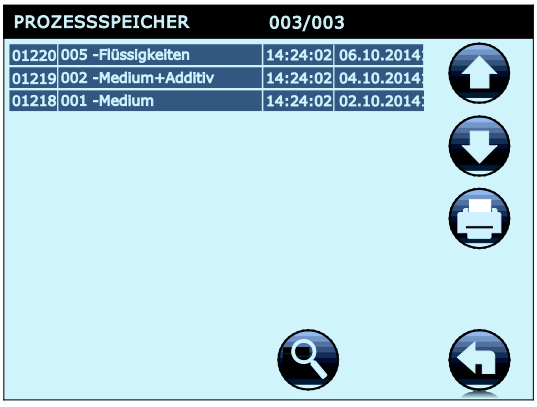


Fig. 30: Example: Process list

The following are displayed on the touchscreen:

Cycle number / program name / time / date

The complete log for the selected process is printed out by pressing  .

You can search for cycles according to a specific date or cycle number using the search function  .

If several matches are shown in the search list, then you can select and print out one cycle.

The results list is exited by pressing  .

4.5.2 Error log

Up to 500 error messages are saved in the error log.

- Access the error list:
  MENU -> User Menu -> Memory -> Error Log

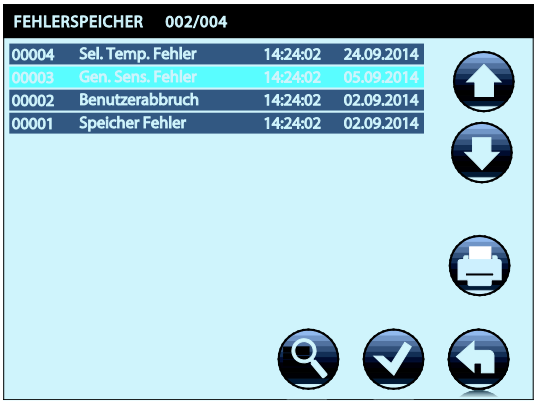


Fig. 31: Example: Error list

The following are displayed on the touchscreen:

Cycle number / error name / time / date

Press  to print out the selected error.

You can search for an error according to a specific date or cycle number using the search function  .

The results list is exited by pressing  .

Detailed information on an error is displayed after the error is selected and confirmed by pressing  .

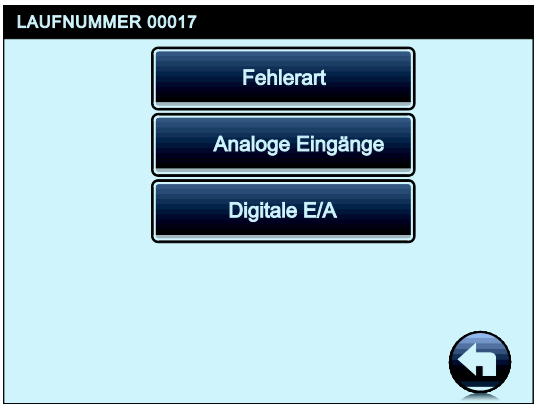


Fig. 32: Selection of cycle information

The following can be displayed:

- Error type (General Info)
- Analogue Inputs
- Digital Inputs/Outputs

4.5.3 Audit trail, optional

The Audit Trail is an unchanging, traceable documentation of user actions and operational data, in accordance with FDA 21 CFR Part 11. The Audit Trail memory stores the most important data for up to 1000 audit events.

If this memory is full, the oldest saved audit is deleted to make room for the new data.

The audits stored in this memory can be exported (using the PC software) to a long-term archive memory.

Section 6.6 "PC software", on page 106 contains more information.

Data for the following events are saved:

- Starting the program
- Stopping the program
- Opening the door
- Acknowledging errors
- Setting date / time
- Changing parameters
- Managing users
- Managing the program
- Maintenance
- Calibration
- Software Update

Navigating to the audit trail:

MENU -> User Menu -> Memory -> Audit Trail

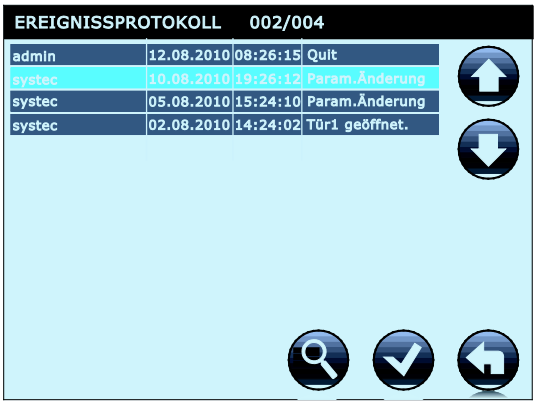


Fig. 33: Example: Event list

- Select an event.
- Confirm your selection with

The selected event is shown.

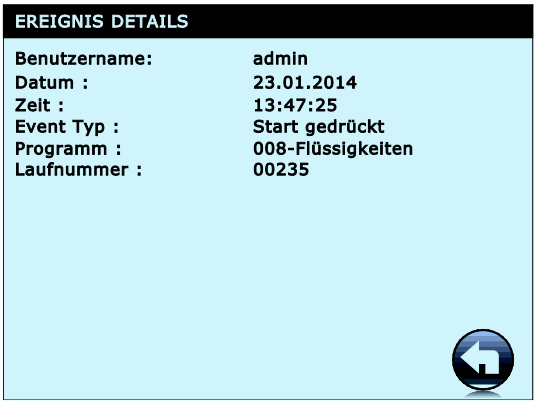


Fig. 34: Example: Saved data for an event

Information corresponding to an event is also shown:

- User Name
- Date
- Time
- Event Type
- Program
- Load No.
- Additional information is displayed when necessary.

Press to exit the selected event.

You can search for events on a specific date using the search function .

The results list is exited by pressing .

4.6 Print sensors

- Navigate to the "Print sensors" menu.

Menu -> Service Menu -> Print Sensors

You can select the sensors you wish to print data from.

- Select the desired sensors by pressing the symbol to the right of the sensor.
- Save your selection with  .

If no sensors are selected, the data from the sensors normally used is printed out.

4.7 Error descriptions and troubleshooting

If an error occurs, a corresponding error message appears on the touchscreen.

- Wait until the program has finished.
- Rectify the error.
- Press the function key CLEAR.

4.8 Sterilising nutrient media in cuvettes

Two default program types have been assigned at the factory for sterilising nutrient media in cuvettes:

- Medium
- Medium + additive

The following gives you an overview of the operations you must carry out for sterilising nutrient media in cuvettes.

WARNING

Danger when safety instructions are not observed!
This brief overview requires previous knowledge of the relevant safety instructions when working with autoclaves and sterilised items.

- Consult Chapter 3 "Safety" to familiarise yourself with the fundamental risks involved in handling the device.
- Pay attention to the following instructions concerning the individual process steps.

WARNING

The sterilisation of nutrient media in glass vessels is dangerous!
Only smaller quantities of nutrient media can be sterilised in glass vessels.

- Use only the program types for liquids and liquids + cooling.
- Make sure you put the base plate (and not the cuvette) in the sterilisation chamber.

The following Chapters give you a detailed description of the individual operations.

4.8.1 Overview

To sterilise, proceed as follows:

- Select the appropriate program for the item being sterilised.
- Put the nutrient medium in the cuvette according to the recipe.
- Close the door and start the program cycle.

The sterilisation process then takes place automatically. The controller measures the current temperature, pressure and time values, checks these against the saved set values and adjusts the procedure accordingly.

Only when using the program type **Medium + Additive**: You can add additives after the sterilisation phase.

When the cooling procedure has ended, an acoustic signal sounds and the following message appears in the display: Ready to dispense.

The additive and dispensing ports are unlocked so that you can add or dispense medium.

The device returns to its standby display after the dispensing is completed.

The MediaPrep is now ready for the next sterilisation procedure.

If the device will not be used for several hours:

- Close the door.
- Switch the device off at the main switch.
- Close all supply lines.

4.8.2 Preparation

If the MediaPrep is not connected to a demineralised water supply, you can also manually fill the sterilisation chamber with demineralised water.

- Remove the cuvette if necessary.
- Fill with deionised water until the lower water level electrode is completely covered with water.

- Use the cuvettes provided for the preparation of nutrient media.

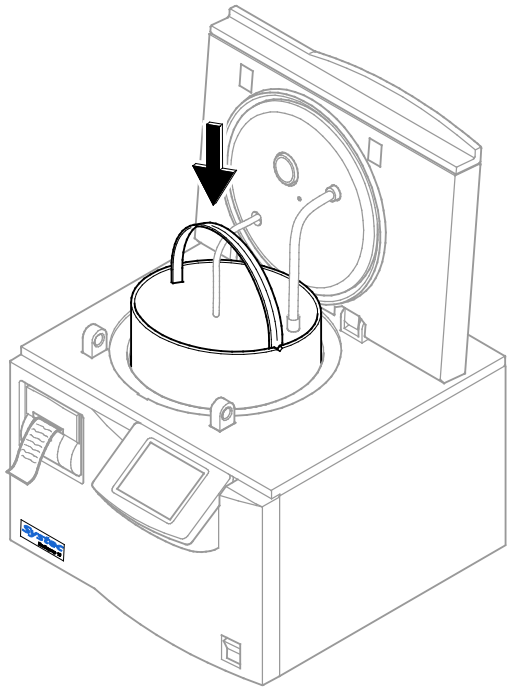


Fig. 35: Putting the cuvette into the sterilisation chamber

CAUTION

The device could be damaged when you insert the base plate!

- Insert the cuvette **without** the base plate into the sterilisation chamber.

- If necessary, insert the cuvette into the sterilisation chamber.
- Place the magnetic stirrer on the shaft at the bottom of the cuvette.

4.8.3 Selecting a program

Depending on the item being sterilised, you should select an appropriate sterilisation procedure in order to:

- Rule out risks to personnel and to the laboratory
- Guarantee an error-free sterilisation result.

The selection of a suitable sterilisation process is made by selecting a corresponding program.

The program overview is accessed by pressing the PROGRAM function key. You may need to enter your login information.

The most important sterilisation parameters of the program are displayed after a program is selected.

The standby mode display is shown after the program is confirmed. The selected program can be started here.

The devices are flexible in their design in order to be suitable for all standard laboratory applications. Therefore, the program parameters are variable to a large degree.
Make sure that you only use programs and sterilised items that can withstand the physical conditions in the device and correspond to your company regulations.
You may wish to refer to Chapter 4.10 "Parameters" and familiarise yourself with how to adapt the sterilisation parameters to your requirements.

An exact description of the individual sterilisation programs is found in Chapter 5 "Sterilisation programs". The following table gives a brief overview of the two program types and their parameters:

Sterilised item	**Sterilisation temperature (SterTemp)**	**Sterilisation time (SterTime)**	**Removal temperature (EndTemp)**
Medium (media)	121 °C	15 min.	45 °C
Medium + additive (Media + additives)	121 °C	15 min.	45 °C

Tab. 5: Sterilisation parameters for various items being sterilised

4.8.4 Putting in nutrient media

- Put the nutrient medium in according to the recipe.
- Press START to start the magnetic stirrer. Press STOP in order to stop the magnetic stirrer.

  You manually adjust the rotational speed by pressing  .
- Put the media into the cuvette.

4.8.5 Closing the MediaPrep

WARNING

Danger of burns!
For the sterilisation of liquids, an autoclave with a temperature-dependent door lock is required.

- Position the flexible temperature sensor in the liquid or a similar reference vessel so that the temperature can be measured in the liquid.

CAUTION

There is a risk of damage to the temperature sensor and dispensing tube!

- Make sure that the temperature sensor and dispensing tube are submerged in the cuvette when the door is closed.

CAUTION

You could be injured if foreign objects become stuck in the closed door.
If there is a foreign object between the door seal and the device housing when the door is closed, then hot steam can escape during operations! This leads to a risk of burn injuries and contamination.

- When closing the door, make sure that there is no foreign object between the door seal and the housing (for example, a loop of cable from the flexible temperature sensor or a bag).
- Load the device so that the sensor cable and any flexible material (e.g. a bag) is not placed in the immediate vicinity of the door seal.

- Check that additive port and dispensing port are tightly closed.
  Otherwise, the program will be interrupted during the leak test and an error message will appear on the touchscreen.

Automatic door lock!
These devices are equipped with an automatic door lock that locks the door securely.

Closing the door:

- Press the door in and hold it briefly until the locking mechanism has clearly locked.

A locking device prevents the door from being opened accidentally. The door lock can only be unlocked if the temperature is below the unloading temperature and the sterilisation chamber is depressurized.

4.8.6 Starting the program

Service messages may be displayed during the program start.

If an optional printer is installed, this automatically logs the entire program cycle from the start of the program.
The last metre of the paper roll is indicated by a red stripe.
Chapter 6.4 "Printer" describes how to put in a new roll of paper.

- If the door is closed, start the selected program by pressing START.
- Enter your access data if necessary.

The cycle runs through the following phases in sequence:

– Leak test
– Warm-up phase
– Sterilisation phase
– Cooling phase
– Dispensing phase

Program aborted during the leak test!
If a leak is detected during the leak test, then the program is interrupted and an error message is displayed on the touchscreen.
If the leak test results are negative, even though the locks on the additive and dispensing ports are closed securely, please contact the Systec service department.

4.8.7 Adding the additive

Only for program type Medium + Additive (Media + Additives)!

The following message appears on the touchscreen: and an acoustic signal sounds.

- Screw the cap off the additive port.
- Put in the additives in accordance with the recipe.
- Put the cap back on the additive port.
- Press CONTINUE: The second warm-up phase starts and runs until a temperature of 85 °C is reached.

4.8.8 Finishing the sterilisation

After the sterilisation process is complete, the medium is cooled down to the specified unloading temperature.

The following message appears on the touchscreen: Ready to dispense.

4.8.9 Dispensing the nutrient media

To prevent a vacuum in the sterilisation chamber, air is sucked into the sterilisation chamber through a sterilisation air filter.

After the program cycle is finished, the message Ready to dispense appears on the touchscreen and an acoustic signal sounds.

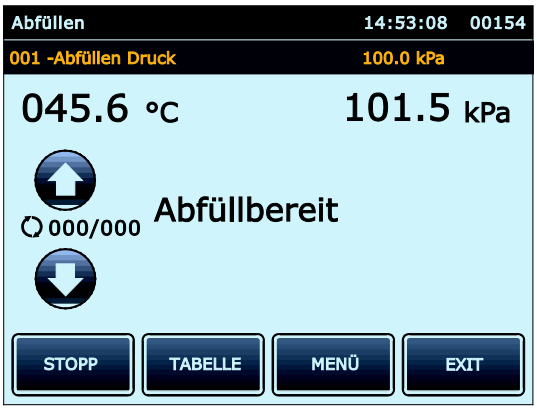


Fig. 36: Ready to dispense message

- Screw the cap off the dispensing port.
- Under sterilised conditions, insert the Systec dispensing adapter into the dispensing port and screw the connecting nut hand-tight.

Always use a sterilised dispensing unit!
The nutrient media is dispensed in an easy and sterile process which uses the Systec dispensing adapter and the corresponding dispensing tube.
When inserting the Systec dispensing adapter, make sure that no contact is made with non-sterile areas.

Select the desired dispensing pressure:

- Press Table.

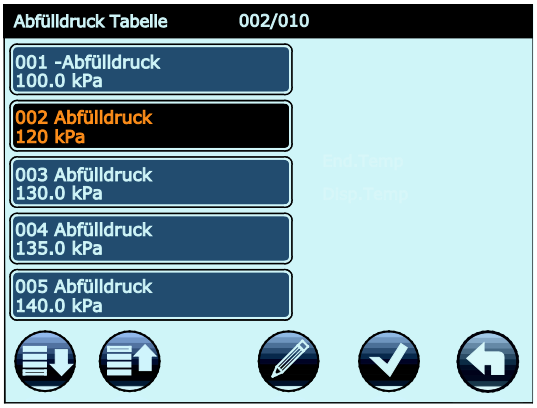


Fig. 37: Select and adjust the dispensing pressure

- Confirm your selection with .

If no suitable dispensing pressure is displayed, you can adjusted one of the displayed dispensing pressures by pressing .

- Press START to build up the dispensing pressure.
- If necessary, press STOP to reduce the dispensing pressure.
- Dispense the nutrient medium from the medium container and handle it as prescribed in your laboratory.
- During the dispensing process, you can adjust the stirring speed with the and keys.
- Press EXIT. The following message appears on the touchscreen: Exit Dispense?

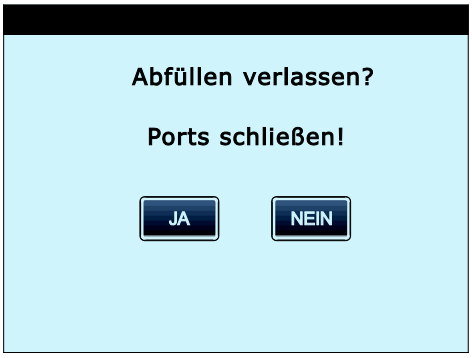


Fig. 38: Exit Dispense? screen

Press YES to end the program (and thus the dispensing). The water is drained depending on your program settings. The atmospheric conditions are established and the door can then be opened.

You can press NO to return to the Dispense menu where you can then proceed with the dispensing.

Dispensing with the optional Systec MediaFill

- Connect the Systec MediaFill with the Systec MediaPrep dispensing adapter.
- Select a dispensing pressure of 110 kPa.
- Press START to build up the pressure.
  The Systec MediaPrep is ready for dispensing.
- Start dispensing. Refer to the Systec MediaFill operating manual for instructions.

You can also dispense the medium without sterilising it. From the main menu, select Dispense and proceed as described above.

4.8.10 Opening the door

The message Cycle ended will appear on the touchscreen after the process is completely finished and the set unloading temperature and atmospheric conditions have been reached. You can now open the door.

- Press OPEN. The door is unlocked and automatically opens by 3 to 4 cm.
- To fully open the door, pull the door up using the recessed grip or grip bar.

If the device will not be used for several hours:

- Close the door.
- Switch the device off at the main switch.
- Close all supply lines.

4.8.11 Stopping the program

If you wish to end a program prematurely, you must stop the current running process.

CAUTION

Danger of incomplete sterilisation!
Depending on the point at which the sterilisation process is interrupted, sterilisation may be incomplete. An interruption in the heating or sterilisation phase causes the process to pass directly to the final cooling phase.

- Repeat the entire sterilisation process to guarantee complete sterilisation.

Work is not accelerated by cancelling the process (e.g. during the cooling phase). Bear in mind that the door can only be opened when the unloading temperature has been reached and atmospheric conditions are found inside the sterilisation chamber.

- Press STOP.
- Enter your access data if necessary.

The Manual Stop message appears on the touchscreen.

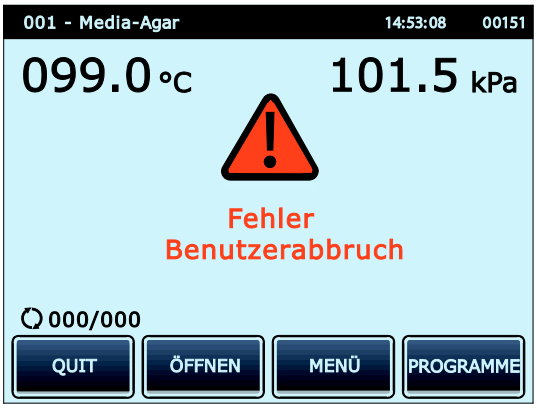


Fig. 39: The Manual Stop message after the user ends the program

The MediaPrep goes into the cooling phase and continues the cycle normally. Acknowledge the error message only after the entire process has finished:

- Press CLEAR and enter your login info when required.

4.8.12 Program error

If an error occurs, a corresponding error message appears on the touchscreen.

- Wait until the program has finished.
- Rectify the error.
- Press CLEAR.
- Enter your access data if necessary.

CAUTION

Danger of incomplete sterilisation!
Depending on the point at which the sterilisation process is interrupted, sterilisation may be incomplete. An interruption in the heating or sterilisation phase causes the process to pass directly to the final cooling phase.

- Repeat the entire sterilisation process to guarantee complete sterilisation.

If you are not clear about the meaning of an error message and how to resolve the problem, consult Chapter 8: "Description of errors".

4.9 Sterilising / dissolving media in glass vessels

Two program types have been assigned at the factory for sterilising media in glass vessels:

- Liquids + Cooling
- Liquids

One program type has been assigned at the factory for dissolving pre-sterilised media:

- Free steam

An overview of the activities required for sterilising/dissolving the nutrient media is provided below.

WARNING

Danger when safety instructions are not observed!
This brief overview requires previous knowledge of the relevant safety instructions when working with autoclaves and sterilised items.

- Consult Chapter 3 "Safety" to familiarise yourself with the fundamental risks involved in handling the device.
- Pay attention to the following instructions concerning the individual process steps.

4.9.1 Overview

To sterilise, proceed as follows:

CAUTION

Only use the device as an autoclave when the base plate is inserted!
If the MediaPrep is being used as an autoclave, the cuvette must be removed and the base plate inserted.
Otherwise, error messages may appear.
You can remove the dispensing hose during sterilisation.

If the MediaPrep is not connected to a demineralised water supply, you can also manually fill the sterilisation chamber with demineralised water.
Pour in the demineralised water until the lower water level electrode is completely covered by water (refer to the device description).

- Select the appropriate program for the item being sterilised.
- Load the MediaPrep with the item you wish to sterilise.

- Check that additive port and dispensing port are tightly closed.
  Otherwise, the program will be interrupted during the leak test and an error message will appear on the touchscreen.

- Close the door.
- Start the selected sterilisation program.

The sterilisation process then takes place automatically. The controller measures the current temperature, pressure and time values, checks these against the saved set values and adjusts the procedure accordingly.

When the sterilisation process completes successfully, an acoustic signal will sound and the message Cycle ended appears on the touchscreen.

Proceed as follows to remove the sterilised item:

- Open the door.
- Remove the sterilised item from the sterilisation chamber and proceed as prescribed by your laboratory.

The MediaPrep is now ready for the next sterilisation procedure.

If the device will not be used for several hours:

- Close the door.
- Switch the device off at the main switch.
- Close all supply lines.

4.9.2 Loading the MediaPrep

CAUTION

Damage can result when you do not insert the base plate!
The sterilisation chamber and the sterilised items can be damaged!

- Always insert the base plate.

WARNING

Danger of burns!
For the sterilisation of liquids, an autoclave with a temperature-dependent door lock is required.

- Position the flexible temperature sensor in the liquid or a similar reference vessel so that the temperature can be measured in the liquid.

WARNING

Tightly closed vessels may explode!
Tightly closed vessels can burst if they are sterilised in programs without rapid cooling and a support pressure supply. When removed, they exhibit a considerably higher temperature than the set unloading temperature.

- Make sure that the vessels to be sterilised are never shut tightly!

WARNING

Danger of burns when removing liquids!
Leaking or escaping liquids can cause scalding or burns.

- Only remove vessels filled with liquid with extreme care whilst adhering to all safety instructions.
- Wear suitable protective clothing.

CAUTION

Danger of damage to the device caused by escaping liquid!
The containers must be able to withstand the selected sterilisation temperatures.

- Always use temperature-resistant vessels when sterilising liquids.

You can use either the "Liquids + Cooling" or the "Liquids" program type when sterilising with open vessels.

When using open vessels, the volume of the liquid to be sterilised may be reduced by up to 5 % after the sterilisation process due to boiling. The filling level for open vessels may be a maximum of 75 % of the fill volume.

- Place the vessels filled with liquid on the perforated base plate.

Do not overload the autoclave!
For an optimal result, the steam must reach all parts of the item being sterilised.
.
Overloading the MediaPrep can lead to insufficient air extraction and may cause malfunctions.

4.9.3 Closing the MediaPrep

- Close the MediaPrep. Refer to Chapter 4.8.5 "Closing the MediaPrep" for more information.

4.9.4 Selecting a program

Depending on the item being sterilised, you should select an appropriate sterilisation procedure in order to:

- Rule out risks to personnel and to the laboratory
- Guarantee an error-free sterilisation result.

The selection of a suitable sterilisation process is made by selecting a corresponding program.

The program overview is accessed by pressing the PROGRAM function key. You may need to enter your login information.

The most important sterilisation parameters of the program are displayed after a program is selected.

The standby mode display is shown after the program is confirmed. The selected program can be started here.

The devices are flexible in their design in order to be suitable for all standard laboratory applications. Therefore, the program parameters are variable to a large degree.
Make sure that you only use programs and sterilised items that can withstand the physical conditions in the device and correspond to your company regulations.
You may wish to refer to Chapter 4.10 "Parameters" and familiarise yourself with how to adapt the sterilisation parameters to your requirements.

An exact description of the individual sterilisation programs is found in Chapter 5 "Sterilisation programs". The following table gives a brief overview of the three program types and their parameters:

Program type	Sterilisation temperature (SterTemp)	Sterilisation time (SterTime)	Removal temperature (EndTemp)
Free steam	101 °C	15 min.	100 °C
Liquids + Cooling	121 °C	15 min.	80 °C
Liquids	121 °C	15 min	80 °C

Tab. 6: Sterilisation parameters for various program types

4.9.5 Starting the program

Service messages may be displayed during the program start.

If an optional printer is installed, this automatically logs the entire program cycle from the start of the program.
The last metre of the paper roll is indicated by a red stripe.
Chapter 6.4 "Printer" describes how to put in a new roll of paper.

- If the door is closed, start the selected program by pressing START.
- Enter your access data if necessary.

The cycle runs through the following phases in sequence:

- Leak test
- Warm-up phase
- Sterilisation phase
- Cooling phase

Program aborted during the leak test!
If a leak is detected during the leak test, then the program is interrupted and an error message is displayed on the touchscreen.
If the leak test results are negative, even though the locks on the additive and dispensing ports are closed securely, please contact the Systec service department.

4.9.6 Finishing the sterilisation

After the sterilisation process is complete, the medium is cooled down to the specified unloading temperature.

The following message appears on the touchscreen: Cycle ended.

4.9.7 Opening the door

- Refer to Chapter 4.8.10 "Opening the door".

4.9.8 Stopping the program

- Refer to Chapter 4.8.11 "Stopping the program".

4.9.9 Program error

- Refer to Chapter 4.8.12 "Program errors".

4.9.10 Removing the sterilised item

WARNING

There is a danger that you could be crushed or caught when the door is opened incompletely!
The door may fall closed if it is not fully open. There is a danger of crushing and shearing injuries between the door and the edge of the sterilisation chamber.

- Always open the door completely before adding or removing anything.

WARNING

Danger of burns when opening the door!
After sterilisation, the surfaces of the door and the container are hot. Hot steam can escape when opened.

- Always use the recessed grip and grip bar to move the door.
- Wear the prescribed personal protective equipment and clothing.

WARNING

There is a danger of being burned after the unloading temperature is reached!
The sterilised item may have a much higher temperature, even after the unloading temperature has been reached.
The sterilisation chamber can also be very hot.

- Wear the prescribed protective gear when taking out the sterilised items!

- If applicable, remove the flexible temperature sensor from the sterilised item (reference vessel).
- Take the sterilised item out of the sterilisation chamber and proceed with it according to your company regulations.

4.10 Parameters

The parameters for the individual sterilisation cycles can be adjusted to suit the individual circumstances in your company.

WARNING

Danger when parameters are changed!
The pre-set programs in the device can be changed significantly using the parameters, which can lead to an incomplete sterilisation.

- Changes and modifications may only be made by trained technical personnel.
- Document the changes in your logbook (Chapter 12).

Setting parameters requires a specific access level that depends on the risks involved. A complete description of the parameters that can be adjusted in access levels 2 to 5 can be found in Chapter 4.12 "Meaning of the individual parameters".

4.10.1 Viewing parameters saved for the desired cycle

You can view the basic program parameters in the program list in order to check their values.

- From the standby display screen, press Program.
- Enter your access data if necessary.

The program list appears.

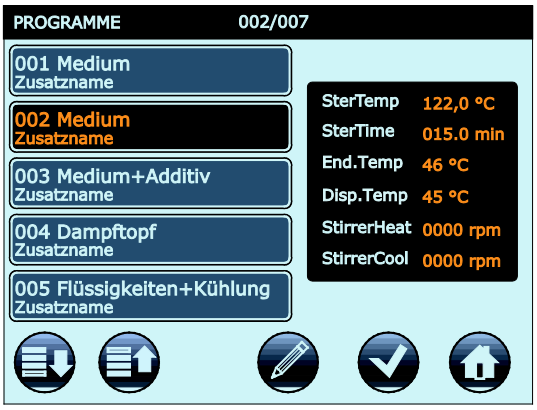


Fig. 40: Program list

- Select a program.

The basic parameters for the selected program are displayed.

The following values are shown:

SterTemp	Sterilisation temperature in °C
SterTime	Sterilisation time in minutes
EndTemp	Unloading temperature in °C
DispTemp	Dispensing temperature
StirrerHeat	Stirring speed in the heating and sterilisation phases for the magnetic stirrer
StirrerCool	Stirring speed in the cooling phase for the magnetic stirrer

Tab. 7: Basic parameters

- Press  to exit the program list and return to the standby display.

4.11 Changing the program parameters

- From the standby display screen, press Program.
- Enter your access data if necessary.

The program list appears.

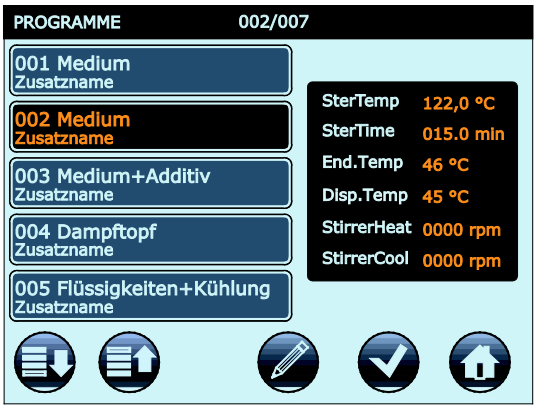


Fig. 41: Program list

- Select a program.
- Press  to access the parameter list.
- Enter your access data if necessary.

The parameter list appears.

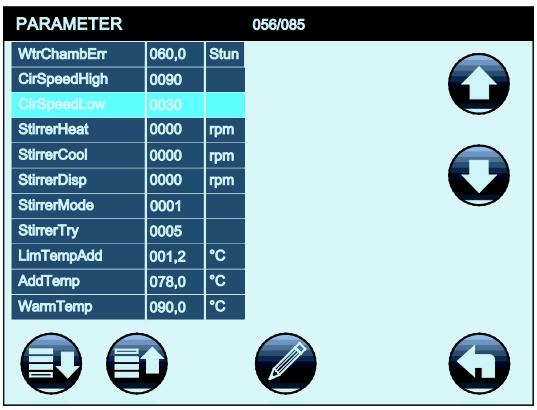


Fig. 42: Parameter list

- Press the parameter that you wish to change.
- Press  to change the parameter.

Fig. 43: Changing parameters

- Enter the new value (with decimal places).
- Press  to save the changes. You then return to the parameter list.
- Press  to access the parameter list again. Your settings will not be saved.
- When necessary, select further parameters and change their values as described above.

4.12 Meaning of the individual parameters

You can adjust the device functions to suit your individual requirements using the parameters.

You can display and change the following cycle parameters.

Designation	**SterTemp**
Description	**Sterilisation temperature**
Access level	**Level 2**

Increment	Minimum value	Maximum value
0.1 °C	**60 °C**	**136 °C** optional: 150°C

Designation	**SterTime**
Description	**Sterilisation time**
Access level	**Level 2**

Increment	Minimum value	Maximum value
0.1 min	**0 min**	**300 min**

Designation	**EndTemp**
Description	**Unloading temperature**
	If the temperature in the device or sterilised item is higher than the set value, then the door remains locked and the program is not completed.
Access level	**Level 2**

Increment	Minimum value	Maximum value
0.1 °C	**30 °C**	**80 °C** (liquid) **120 °C** (solid)

Designation	**DispenseTemp**
Description	**Hold temperature**
	Temperature that is maintained in the pressure chamber after the sterilisation cycle.
Access level	**Level 3**

Increment	Minimum value	Maximum value
0.1 °C	**30**	**80**

Designation	**Pulses**
Description	**Number of steam pulses** in the pre-treatment phase With this parameter you can set the number of steam pulses for fractionated warm-up.
Access level	**Level 3**

Increment	Minimum value	Maximum value
1	**0**	**7**

Designation	**PulsePress 1**
Description	**Steam pressure level for the first steam pulse**
Access level	**Level 3**

Increment	Minimum value	Maximum value
0.1 kPa	**10 kPa**	**250 kPa**

Designation	**PulsePress 2**
Description	**Steam pressure level for the second and subsequent steam pulses**
Access level	**Level 3**

Increment	Minimum value	Maximum value
0.1 kPa	**10 kPa**	**250 kPa**

Designation	**PulsePress 3**
Description	**Steam pressure level for the last pulse**
Access level	**Level 3**

Increment	Minimum value	Maximum value
0.1 kPa	**10 kPa**	**250 kPa**

Designation	**ExhShootOn**
Description	**Clocking of the steam exhaust valve ("On time")**
	In conjunction with the "ExShootOff" parameter, the length of time for which the steam exhaust valve is switched on can be controlled for cycles with slow steam exhaust.
Access level	**Level 3**

Increment	Minimum value	Maximum value
1/10 sec	**0 sec**	**100 sec**

Designation	**ExhShootOff**
Description	**Clocking of the steam exhaust valve ("Off time")**
Access level	**Level 3**

Increment	Minimum value	Maximum value
1/10 sec	**0 sec**	**100 sec**

Designation	**StartByTime**
Description	**Specifying the starting time**
	Enables you to set a time and date for starting a selected sterilisation program.
	The setting is made when the program starts.
	0 = inactive
	1 = active
Access level	**Level 3**

Increment	Minimum value	Maximum value
1	**0**	**1**

Designation	**F0 Enable**
Description	**Determination of the actual sterilisation effect** The sterilisation effect for temperatures from 90 – 130 °C is calculated according to the "F0" formula. – The D value is 121.11 °C. – The Z value is 10 °C. 0 = function inactive 1 = FO values for the heating up, sterilisation and cooling down times are printed out on the optional printer. 2 = The sterilisation time is automatically shortened by the F0 times of the heating and sterilisation times. 3 = The sterilisation time is automatically shortened by the F0 time of the sterilisation time and double the F0 time of the heating phase. This is only used if the cooling time roughly corresponds to the heating time.
Access level	**Level 4**

Increment	Minimum value	Maximum value
1	**0**	**3**

Designation	**SterPrintT**
Description	Print interval time for the printer in the sterilisation phase. 0 = Printer off (if parameter "PrintTimer" = 0) 1 = Short pressure (change of program phases are printed when parameter "PrintTimer" = 1) > 1 = Time in seconds
Access level	**Level 3**

Increment	Minimum value	Maximum value
1 sec	**0 sec**	**3600 sec**

Designation	**PrintTimer**
Description	Print interval time for the printer outside the sterilisation process. 0 = Printer off (if parameter "SterPrinT" = 0) 1 = Short pressure (change of program phases are printed when parameter "SterPrinT" = 1) > 1 = Time in seconds
Access level	**Level 3**

Increment	Minimum value	Maximum value
1 sec	**0 sec**	**600 sec**

Designation	**StirrerHeat**
Description	**Speed of the magnetic stirrer** Speed of the magnetic stirrer in the heating and sterilisation phases.
Access level	**Level 3**

Increment	Minimum value	Maximum value
1	**0**	**100**

Designation	**StirrerCool**
Description	**Speed of the magnetic stirrer** Speed of the magnetic stirrer during the cooling phase.
Access level	**Level 3**

Increment	Minimum value	Maximum value
1	**0**	**100**

Designation	**StirrerDisp**
Description	**Speed of the magnetic stirrer** Speed of the magnetic stirrer for the preparing and dispensing.
Access level	**Level 3**

Increment	Minimum value	Maximum value
1	**0**	**100**

Designation	**AddTemp**
Description	**Adding temperature** Temperature at which you are permitted to put in additives.
Access level	**Level 3**

Increment	Minimum value	Maximum value
0.1 °C	**0 °C**	**80 °C**

Designation	**WarmTemp**
Description	**Temperature for warming up** Temperature to which the medium is heated up after additives are put in (Medium + Additive cycle).
Access level	**Level 3**

Increment	Minimum value	Maximum value
0.1 °C	**0 °C**	**95 °C**

Designation	**WarmTime**
Description	**Warm holding time** The time for which the medium is held at the warm-up temperature (WarmTemp) after reaching this temperature. If WarmTime = 0 then there is no second warm-up phase.
Access level	**Level 3**

Increment	Minimum value	Maximum value
0.1 min	**0 min**	**9999 min**

5. STERILISATION CYCLES

Aim of this section

This section gives you an overview of the factory-set programs and their suitability for certain items being sterilised. An illustrative graph shows the typical pressure and temperature curves for each of the programs described.

Contents

5.1 Medium program cycle

5.1.1 Applications

The Medium program cycle is used for:

- the preparation,
- sterilisation and
- dispensing

of nutrient media.

WARNING

Danger of burns!
For the sterilisation of liquids, an autoclave with a temperature-dependent door lock is required.

- Position the flexible temperature sensor in the liquid or a similar reference vessel so that the temperature can be measured in the liquid.

5.1.2 Pre-set parameters

Sterilisation temperature (SterTemp)	121 °C
Sterilisation time (SterTime)	15 minutes
Unloading temperature (EndTemp)	45 °C
Holding temperature (DispenseTemp)	46 °C

Tab. 8: Pre-set parameters

5.1.3 Cycle procedure

The cycle runs through the following phases in sequence:

Leak test	Duration: max. 10 minutes If a leak is detected during the leak test, then the program is interrupted and an error message is displayed on the touchscreen. If the leak test results are negative, even though the locks on the additive and dispensing ports are closed securely, please contact the Systec service department.
Heating-up phase	The medium is heated to the sterilisation temperature.

Sterilisation phase	After the sterilisation temperature has been reached, it remains constant for the duration of the specified sterilisation time.
Cooling phase	After the sterilisation period has elapsed, the nutrient media is cooled down to the unloading temperature.
Dispensing phase	During the dispensing phase, the media temperature is kept constant (DispenseTemp) and additives may still be added. After this, the medium can be dispensed:

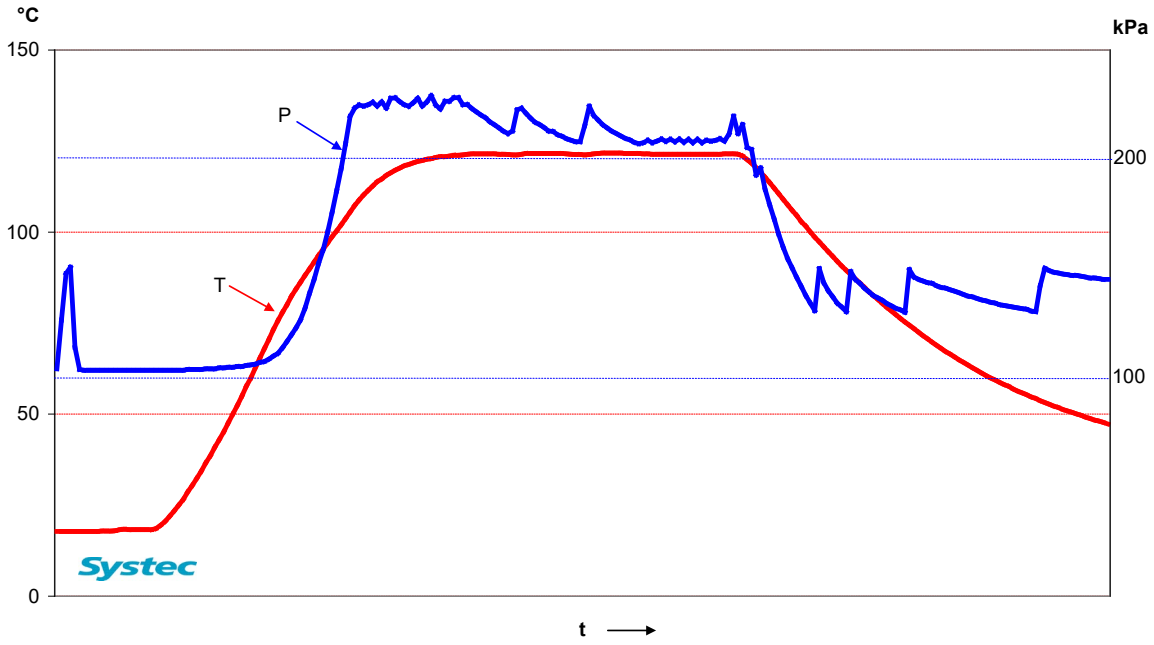


Fig. 44: Graph with typical pressure/temperature curves for the "Medium" program

P: Pressure curve,
T: Temperature curve, t: time

5.2 Medium + Additive program

5.2.1 Applications

The Medium + Additive program cycle is used for:

- the preparation,
- sterilisation with the addition of additives and
- dispensing

of nutrient media.

WARNING

Danger of burns!
For the sterilisation of liquids, an autoclave with a temperature-dependent door lock is required.

- Position the flexible temperature sensor in the liquid or a similar reference vessel so that the temperature can be measured in the liquid.

5.2.2 Pre-set parameters

Sterilisation temperature (SterTemp)	121 °C
Sterilisation time (SterTime)	15 minutes
Add-in temperature (AddTemp)	78 °C
Warm-up temperature (WarmTemp)	90 °C
Warm holding time (WarmTime)	10 minutes
Unloading temperature (EndTemp)	45 °C
Holding temperature (DispenseTemp)	46 °C

Tab. 9: Pre-set parameters

5.2.3 Cycle procedure

The cycle runs through the following phases in sequence:

Leak test	Duration: max. 10 minutes If a leak is detected during the leak test, then the program is interrupted and an error message is displayed on the touchscreen. If the leak test results are negative, even though the locks on the additive and dispensing ports are closed securely, please contact the Systec service department.
1. Heating-up phase	The medium is heated to the sterilisation temperature.
Sterilisation phase	After the sterilisation temperature has been reached, it remains constant for the duration of the specified sterilisation time.
1. Cooling phase	After the sterilisation period has elapsed, the nutrient media is cooled down to the add-in temperature (AddTemp). The message Add Additives appears on the touchscreen and an acoustic signal sounds. After the additives have been added and the additive port is re-closed, the second heating phase is initiated by pressing Continue.
Second Heating-up phase	After reaching the warm-up temperature (WarmTemp), this temperature is maintained for the warming hold time (WarmTime).
Second cooling phase	After the warming hold time has expired, the nutrient media is cooled down to the unloading temperature.
Dispensing phase	When the unloading temperature has been reached, additional additives can be added to the nutrient medium. After this, the nutrient medium can be dispensed.

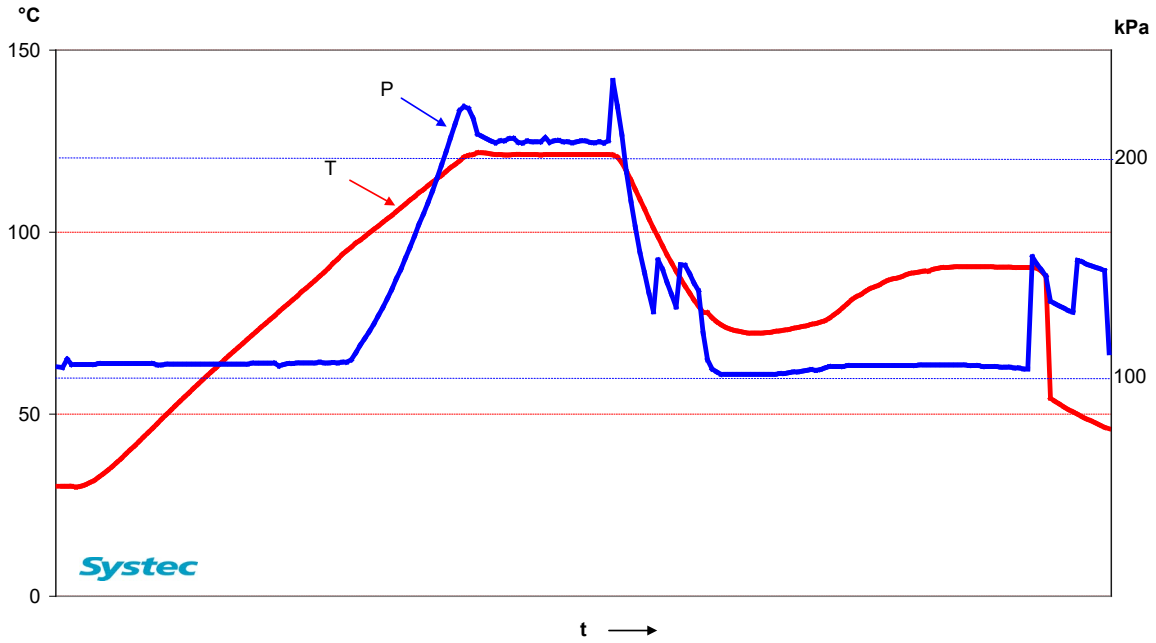


Fig. 45: Graph with typical pressure/temperature curves for the "Medium + Additive" program

P: Pressure curve,
T: Temperature curve, t: time

5.3 Liquids and Liquids + Cooling programs

5.3.1 Applications

These programs are used for sterilising media that are in suitable glass vessels:

- Liquids program: with passive cooling
- Liquids + Cooling program: with active cooling

WARNING

Danger of burns!
For the sterilisation of liquids, an autoclave with a temperature-dependent door lock is required.

- Position the flexible temperature sensor in the liquid or a similar reference vessel so that the temperature can be measured in the liquid.
- In order to avoid incorrect temperature measurements, use a reference vessel with the same size and fill volume as the largest vessel containing the liquid to be sterilised.

WARNING

Tightly closed vessels may explode!
Tightly closed vessels could burst during the "Liquids" sterilisation program. When removed, they exhibit a considerably higher temperature than the set unloading temperature.

- Make sure that the vessels to be sterilised are never shut tightly!

5.3.2 Pre-set parameters

Sterilisation temperature (SterTemp)	121 °C
Sterilisation time (SterTime)	15 minutes
Unloading temperature (EndTemp)	80 °C

Tab. 10: Pre-set parameters

5.3.3 Cycle procedure

The cycle runs through the following phases in sequence:

Leak test	Duration: max. 10 minutes If a leak is detected during the leak test, then the program is interrupted and an error message is displayed on the touchscreen. If the leak test results are negative, even though the locks on the additive and dispensing ports are closed securely, please contact the Systec service department.
Heating-up phase	The heating-up takes place until the sterilisation temperature has been reached.
Sterilisation phase	After the sterilisation temperature has been reached, it remains constant for the duration of the specified sterilisation time.
Cooling phase	For the "Liquids + Cooling" program, after the sterilisation time elapses, the temperature is cooled down using the built-in cooler until the unloading temperature has been reached. No active cooling takes place for the "Liquids" program.

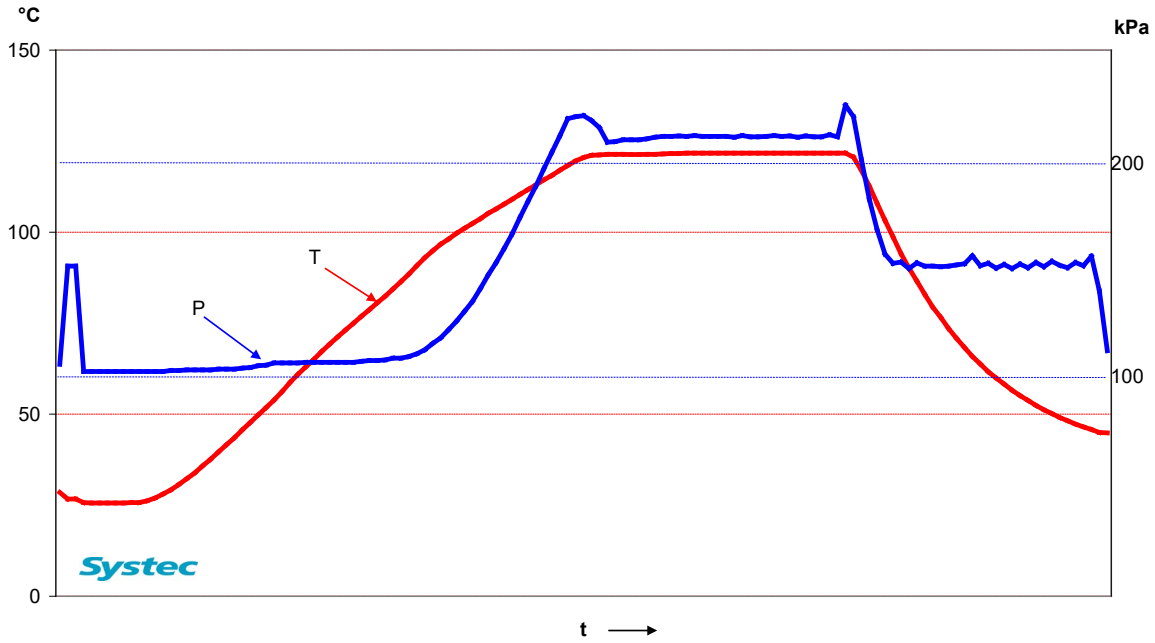


Fig. 46: Graph with typical pressure/temperature curves for the "Liquids" program cycle (with active cooling)

P: Pressure curve,
T: Temperature curve, t: time

5.4 Free steam program

5.4.1 Applications

This program is used to dissolve pre-sterilised nutrient media.

The "free steam" program is not a sterilisation program. But the parameter names are the same as for the other programs.

WARNING

Danger of burns!
When dissolving liquids, an autoclave with a temperature-dependent door lock is required.

- Position the flexible temperature sensor in the liquid (in the cuvette or a similar reference vessel) so that the temperature can be measured in the liquid.
- In order to avoid incorrect temperature measurements, use a reference vessel with the same size and fill volume as the largest vessel containing the liquid to be sterilised.

WARNING

Tightly closed vessels may explode!
Tightly closed vessels may burst when dissolving media in the "free steam" program. When removed, they exhibit a considerably higher temperature than the set unloading temperature.

- Make sure that the vessels to be sterilised are never shut tightly!

5.4.2 Pre-set parameters

Sterilisation temperature (SterTemp)	100 °C
Sterilisation time (SterTime)	20 minutes
Unloading temperature (EndTemp)	99.9 °C

Tab. 11: Pre-set parameters

5.4.3 Cycle procedure

The cycle runs through the following phases in sequence:

Leak test	Duration: max. 10 minutes If a leak is detected during the leak test, then the program is interrupted and an error message is displayed on the touchscreen. If the leak test results are negative, even though the locks on the additive and dispensing ports are closed securely, please contact the Systec service department.
Heating-up phase	The heating-up takes place until the sterilisation temperature has been reached.
Sterilisation phase	After the sterilisation temperature has been reached, it remains constant for the duration of the specified sterilisation time.
Exhaust phase	After the sterilisation time has elapsed, the pressure is released quickly.

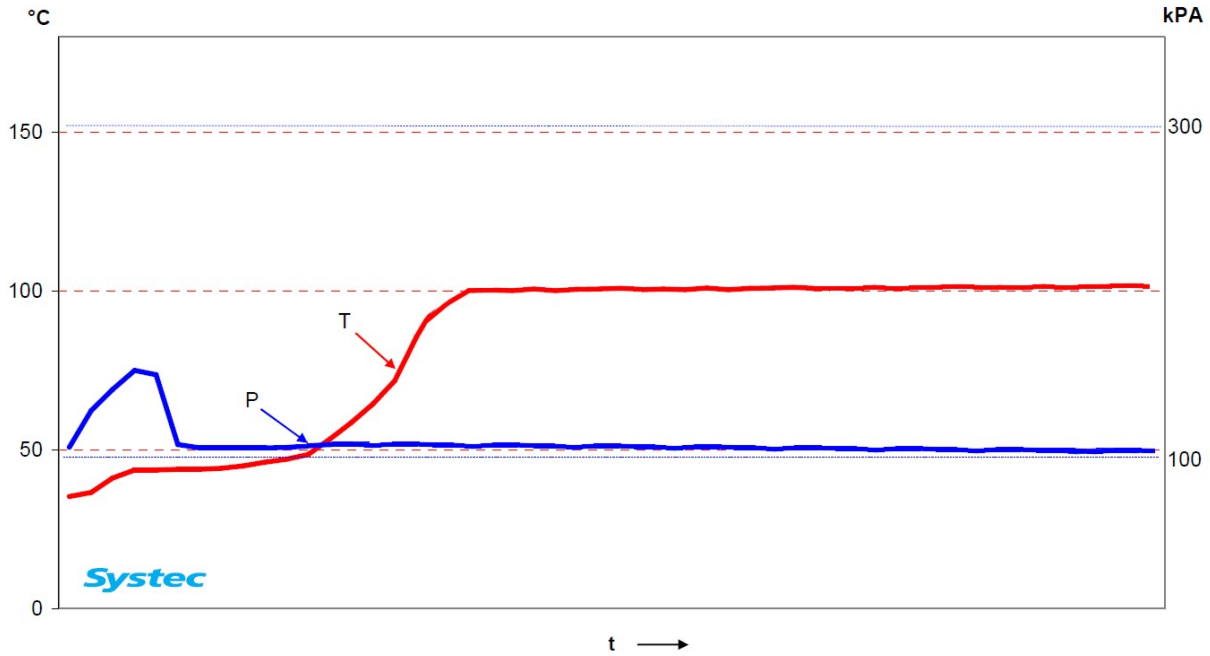


Fig. 47: Graph with typical pressure/temperature curves for the "Free steam" program

P: Pressure curve,
T: Temperature curve, t: time

5.5 Cleaning program

5.5.1 Applications

This program is used to clean the device.

5.5.2 Pre-set parameters

Sterilisation temperature (SterTemp)	132 °C
Sterilisation time (SterTime)	1 minute
Unloading temperature (EndTemp)	110 °C

Tab. 12: Pre-set parameters

5.5.3 Cycle procedure

The cycle runs through the following phases in sequence:

Leak test	Duration: max. 10 minutes If a leak is detected during the leak test, then the program is interrupted and an error message is displayed on the touchscreen. If the leak test results are negative, even though the locks on the input and dispensing ports are closed securely, please contact the Systec service department.
Heating-up phase	The heating-up takes place until the sterilisation temperature has been reached.
Sterilisation phase	After the sterilisation temperature has been reached, it remains constant for the duration of the specified sterilisation time.
Exhaust phase	After the sterilisation time has elapsed, the pressure is released quickly.

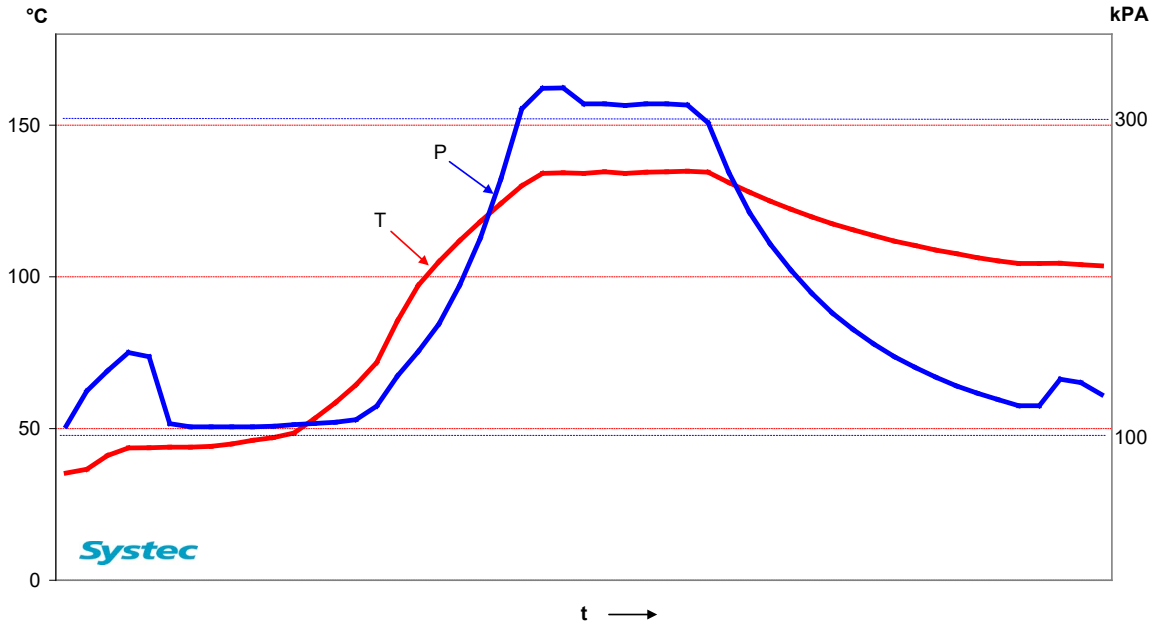


Fig. 48: Graph with typical pressure/temperature curves for the "Cleaning" program

P: Pressure curve,
T: Temperature curve, t: time

6. OPTIONS

Aim of this section

This section describes options which can be purchased from Systec.
If you have ordered a device with options, these will already be integrated within the device.
The options purchased can be retrofitted, e.g. if your application should change. Note that some purchased options cannot be combined with other options.

Contents

6.1 Systec MediaFill

The Systec MediaFill is used to dispense nutrient media into Petri dishes and tubes, in aliquots of 5 to 1000 ml.

Additional information is available from Systec on request.

6.2 Connecting cable: Systec MediaPrep – Systec MediaFill

The connection between the two devices allows data (such as process logs and error logs) from the Systec MediaFill to be printed using the Systec MediaPrep's printer.

6.3 Magnetic stirrer with ball bearing

The slide bearing of the magnetic stirrer can be damaged during the preparation of media that contain particles. This specially designed magnetic stirrer is resistant to wear.

If this option is ordered, then the ball bearing is already built into the magnetic stirrer.

Carry out the following steps when you need to retro-fit the ball bearing onto the magnetic stirrer:

- Unscrew the sliding bearing counter-clockwise.

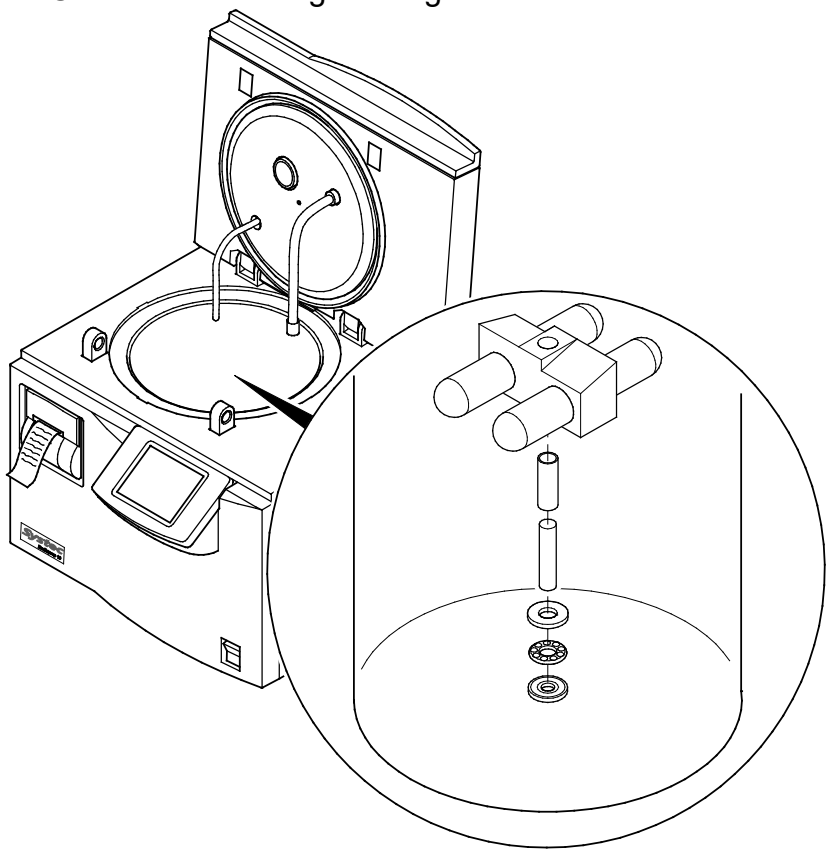


Fig. 49: Installing the magnetic stirrer with ball bearing

- Install the magnetic stirrer with ball bearing as shown in the illustration. The ring with the smaller diameter must be inserted first.

6.4 Printer

The device can also be equipped with a printer to document the program sequence and parameters.

If you have ordered a device with a printer, the printer is already integrated into the device.
However, the printer can also be retrofitted.
The print intervals can be configured in the parameter list under access level 3 (parameters "PrintTimer" and "SterPrintT").

CAUTION

Danger of damage to the printing mechanism!

- Never use the printer without paper.
- Use only original paper rolls from Systec.

The last metre of the paper roll is indicated by a red stripe.

The printouts may be illegible when exposed directly to sunlight and moisture.

- Protect the printouts from direct sunlight and moisture.

The printer starts automatically and logs the following parameters during performance of the cycle.

Header data:

- Real time and date (process start)
- Software version and serial number
- Cycle number
- Selected program
- Preselected sterilisation temperature
- Preselected sterilisation time
- Steam exhaust mode
- Unloading temperature

Program cycle:

In each line, the respective phase is displayed by means of the corresponding symbol, as shown in this table:

International		German	
W	Water inlet	W	Wasserzufuhr
P	Pulses	P	Pulse
H	Heating	H	Heizen
S	Sterilisation	S	Sterilisieren
E	Exhaust	A	Ablass
D	Drying	T	Trocknen
C	Cooling	K	Kühlung
F	Fail	F	Fehler

Tab. 13: Printer symbols for the documentation of the cycle procedure

- The beginning of a phase is symbolised by a capital letter
- and all data recorded within this phase by a lower case letter.

The following is specified for each phase:

- The current elapsed time (in minutes and seconds) since the beginning of the process
- The current temperature and pressure of the control sensors, or
- The data from the selected sensors (refer to Chapter 4.6 "Print sensors").

End of the program:

At the end of the cycle the following message appears:

CYCLE ENDED or TEST PASSED

If the cycle has not been completed correctly (e.g. because of a premature termination or an error), CYCLE FAIL or Test Failed! is displayed along with the corresponding error message.

Footer:

The following data is also provided at the end of the cycle:

- Minimum temperature reached during the sterilisation cycle
- Maximum temperature reached during the sterilisation cycle
- Minimum pressure reached during the sterilisation cycle
- Maximum pressure reached during the sterilisation cycle
- Real time and date (process end)
- Blank field for name and signature of operator

Replacing the paper and printer ribbon:

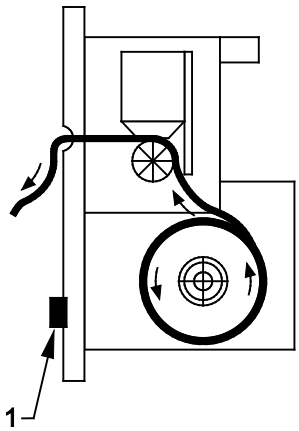


Fig. 50: Feeding paper into the printer

1 "Feed" key for feeding paper

The paper is inserted as follows:

CAUTION

Danger of damage to the printer!

- Never pull the paper manually out of the guide slot.
- Always press the "Feed" key to feed in the paper.

The paper must roll off backwards!
Fit the spindle as shown on the sticker in the paper drawer.
The side of the spindle with the paper feed must be either on the right or on the left.

1. Withdrawing the paper:

- Open the cover and take out the empty roll with the spindle.

2. Feeding paper into the printer:
- Cut off the start of the paper in a straight line.
- Feed the start of the paper into the printer.
- Press the green "FEED" key and hold it down until the paper has been pulled in about 30 mm.

The edge of the paper is clearly protruding from the printer.

3. Inserting the paper:
- Put the new paper roll on the spindle.
- Push the spindle into the gap provided in the housing until it audibly clicks into place.

4. Closing the printer:
- Insert the paper through the slot in the cover.
- Close the cover.

Changing the ribbon:

1. Taking out the ribbon:
- Open the cover of the printer.
- Press down on the left side of the ribbon cartridge. The ribbon cartridge swings forward and can be taken out.

2. Inserting a ribbon:
- Tighten the ribbon by turning the grooved wheel in the direction of the arrow.
- Put the ribbon cartridge on the holder.
- Pull the strips of paper through the ribbon cartridge and ribbon.
- Insert the cartridge by pressing gently.

3. Closing the printer:
- Insert the paper through the slot in the cover.
- Close the cover.

6.5 Aquastop

The "Aquastop" option is an additional safeguard against water damage.

CAUTION

- Follow the instructions that come with this device.
- Check regularly that the device is working correctly.
- Replace the battery each year.

6.6 PC software

The PC software documents the process cycles of the device on the PC.

Additional information is available from Systec on request.

6.7 Systec dispensing adapter with anti-kink spring

A dispensing adapter with a 6 mm inner diameter is included in the delivery.

Additional dispensing adapters with 6 or 8 mm inner diameters are available on request.

6.8 Exhaust filter

This system is required when sterilising infectious material.

WARNING

There is a risk of infection when replacing the exhaust filter!
The exhaust filter is not always sterile. There is therefore a risk of infection when it is changed.

- Wear protective clothing.
- Re-sterilise used exhaust filters separately after exchanging them.
- Dispose of the exhaust filter in accordance with the applicable on-site health and safety regulations.

WARNING

Danger of infection if sterilisation is not completed!
During the sterilisation of infectious material, non-sterile condensate can be left behind in the sterilisation chamber if the process is not completed successfully.

- You must adhere to the work and safety regulations applicable on site.

Operating principle:

Air that leaves the device during the heating and sterilisation phases passes through an exhaust filter and is thus cleaned.

A temperature sensor in the exhaust filter ensures that the air filter is also sterilised.

Replace the exhaust filter as described in Chapter 7, "Maintenance, cleaning and care".

6.9 Dosierfix

The Dosierfix is a multi-functional pump used to dispense nutrient media.

Additional information is available from Systec on request.

7. MAINTENANCE, CLEANING AND CARE

Aim of this section

This section gives you an overview of the measures for maintenance and care to be regularly carried out.

Contents

7.1 Obligations of the operator

The operator is obliged to:

- Train users about operations and safety regulations and, if necessary, carry out further training at regular intervals.
- Keep the device in a faultless condition with regard to safety.
- Shut down the device immediately whenever defects affecting safety are discovered.
- Follow all current safety regulations and guidelines which apply to this device and its operating surroundings.
- Ensure the reliability of the device (e.g. in Germany: in accordance with the Ordinance on Industrial Safety).

7.2 Preventive measures

The maintenance and care tasks described in this section must be carried out at regular intervals. This guarantees that

- The good working order and reliability of the device is maintained.
- Errors and defects are recognised early.
- The device has a longer service life.

The prescribed tasks can be quickly and easily carried out by the user or technical personnel.

7.3 Taking care of the device

7.3.1 Taking care of the touchscreen

- Switch the device off.
- Clean the touchscreen. Only use a soft cloth.

7.3.2 Caring for the device's surface

CAUTION

Aggressive cleaning agents can harm this device!
Steel wool, wire brushes, and aggressive cleaning agents can damage this device and the surface of the device.

- You may use citric acid (approx. 25 – 30 ml diluted in one litre of water) for cleaning.
- Clean the exterior surfaces of the device with a soft cloth.

7.3.3 Removing impurities from the sterilisation chamber

- Before starting the program cycle, check the sterilisation chamber for impurities (glass splinters, medium that has leaked out, etc.).
- Remove any impurities in the correct manner.

7.3.4 Cleaning after using temperature-resistant substances/poisons

- Clean the cuvette.
- Clean the temperature sensor.
- Pull the dispensing tube from the dispensing adapter and clean the dispensing adapter and the tube.

CAUTION

Danger of damage to the device caused by impurities!
The operating safety of the device can no longer be ensured if the sterilisation chamber has been contaminated by medium that has leaked out.

- Empty the sterilisation chamber immediately.
- Run the cleaning program immediately after emptying the sterilisation chamber.

7.3.5 Daily care of the device

- Clean the door gasket with a soft cloth.
- Clean the contact surfaces of the sterilisation chamber and door with a soft cloth.

7.3.6 Weekly care of the device

- Remove the cuvettes or the base plate from the nutrient media autoclave.
- Clean the sterilisation chamber with a mild cleaning agent and water. Use only a soft cloth or a sponge.
- Remove the stirring magnet from the cuvette.
- Clean the cuvette and the stirring magnet with a mild cleaning agent and water. Use only a soft cloth or a sponge.
- Carry out the cleaning cycle.

CAUTION

Danger of the device malfunctioning when dirty!
If the water level electrodes in the sterilisation chamber are dirty, the measurement results will be distorted.

- Clean the electrodes with a soft cloth, using alcohol if necessary.

7.4 Maintenance tasks to be carried out regularly

- Check the condition of the supply cables at regular intervals for kinks or possible mechanical damage. After the end of a sterilisation program, close all the valves and taps of the supply cables, such as those for tap water.
- This device is equipped with a safety valve located at the steriliser chamber. If the device is regularly (at least once a year) inspected by an authorised customer service agent, it is not necessary to relieve the valve as a precaution. If this is not the case, a qualified person must follow the appropriate regulations and ensure that the valve functions correctly. During the functional test of the valve, make sure that the sealing rings, bayonets and closures are in the proper condition.
- Check the insulation of the temperature sensor for damage.

7.4.1 Service messages at program start

In addition to these maintenance tasks that need to be carried out at regular intervals, other maintenance tasks need to be performed depending on the number of program cycles and the features of the device.

This can include the following maintenance:

- Changing the exhaust filter
- Change the gasket
- Required maintenance

Alert messages for the above maintenance procedures are issued 30 cycles in advance, in increments of 5, until the counter reaches zero.

The filter counter alert, for example, is displayed like this:

Fig. 51: Maintenance alert for the filter counter

- Press "O.K." to acknowledge the alert.
- The program cycle continues.

When the counter reaches 0, an alert will be displayed that the maintenance task must be performed:

Fig. 52: Alert for filter change

- Press "YES" if the corresponding maintenance task has been carried out. The counter is reset.
- Press "No" if you plan to carry out the maintenance task later. The program cycle continues. At the start of each program, you will be prompted to perform the maintenance task.

7.4.2 Changing the exhaust filter cartridge

Replacement

The exhaust filter cartridge may only be changed if there is no pressure in the device.

The exhaust filter is put on the front left side of the device in a filter housing and then sealed by a white plastic cover.

WARNING

There is a risk of infection when replacing the exhaust filter!
The exhaust filter is not always sterile. There is therefore a risk of infection when it is changed.

- Wear protective clothing.
- Re-sterilise used exhaust filters separately after exchanging them.
- Dispose of the exhaust filter in accordance with the applicable on-site health and safety regulations.

WARNING

Danger of burns due to hot filter housing!
Beware of burning yourself on hot filter housing components when replacing the exhaust filter.

- Let the filter housing cool down or wear suitable protective clothing (gloves).

- Remove the white cover.
- Pull the exhaust filter out of the housing. Use the pliers that are provided with the delivery.
- Insert the new exhaust filter. Make sure that the exhaust filter is seated correctly.
- Put the white cover on.
- Reset the service counters (refer to Chapter 7.4.4 "Resetting the counters").

7.4.3 Replacing the door gasket

The door gasket should only be replaced according to the System service guidelines.

MediaPrep 10 – 30:

- Open the door.
- Pull out the door gasket.
- Insert the new door gasket.
- Reset the counters (refer to Chapter 7.4.4 "Resetting the counters").

MediaPrep 45 – 120:

- Open the door.
- Loosen the screws on the fixing plate by two to three turns (do not remove them).

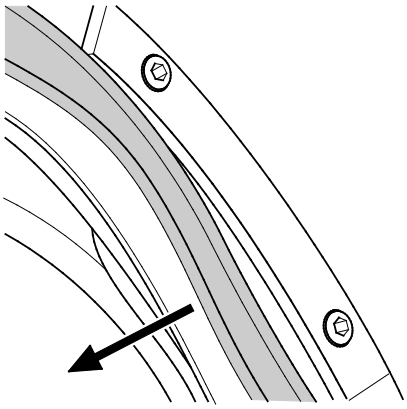


Fig. 53: Pulling out the door gasket

- Pull out the door gasket.
- Insert the new door gasket.

CAUTION

- Both the screws and the door are made of stainless steel. To prevent jamming, the threads are treated at the factory with an aluminium paste and must only be fastened hand-tight.

- Tighten the fixing plate by hand.
- Reset the counters (refer to Chapter 7.4.4 "Resetting the counters").

7.4.4 Resetting the counters

The counter values can be reset manually.

Fig. 54: Resetting the counter

- Navigate to the "Maintenance" menu:
  Menu -> Service Menu -> Maintenance
- Press  in order to select the proper maintenance task.
- Press  to reset the counter.

7.4.5 Maintenance performed by technical customer service

In addition to all maintenance and care tasks carried out by the operator or user, it is imperative to have the device maintained by a technical customer service agent at regular intervals. This improves the reliability of the product and ensures that the device has been tested for safety in keeping with all applying norms and guidelines.

We recommend maintenance by a qualified person every 500 cycles, or at least once a year. The maintenance intervals can vary according to the type and frequency of use.

Please contact us for more information (refer to Chapter 8.3 for our service address). We will be glad to advise you on the type of maintenance appropriate for you. We can also perform this maintenance work for you.

8. ERROR DESCRIPTION

Aim of this section

This section gives you an overview of the error messages of the device and the measures required to rectify the errors.

Contents

8.1 Error description and troubleshooting

One of the following error messages appears on the touchscreen:

- Acknowledge all error messages by pressing the Clear function key.
- Enter your access data if necessary.

Error description	Possible cause	Fault removal Contact our service department if necessary (refer to Chapter 8.3 "Service address").
Sensor error SelTempErr GenSenseErr The displayed chamber pressure is > 550 kPa or the displayed temperature is < 5 °C or > 155 °C	Temperature or pressure sensor is faulty	Replace the faulty sensor
No steam The device has not reached the preselected pressure within 40 minutes	Heating power too low Steam loss due to leakage	Check that the device is working correctly Check the heating power Check the safety temperature limiter
Low Chamb.Temp. The sterilisation temperature has not been reached within the pre-set maximum heating time. The temperature went below the set sterilisation temperature by more than 1.0 K during the sterilisation phase; the cycle is terminated.	Power failure Heating is defective The sensor is incorrectly positioned (in the item being sterilised). A cushion of air may have formed during the destruction of waste. Incorrect sterilisation program selected	Check that the device is working correctly Position the sensor correctly Select a suitable sterilisation program Check the safety temperature limiter
High Chamb.Temp. A temperature > 155 °C has been measured in the pre-vacuum or heating phase. The set sterilisation temperature was exceeded by more than 3.5 K in the sterilisation phase, and the cycle is interrupted.	PT 100 sensor faulty Pressure controller faulty	Check the temperature sensor for damage and replace if necessary.

Error description	Possible cause	Fault removal Contact our service department if necessary (refer to Chapter 8.3 "Service address").
Low Chamb.Press. The pressure went below the pressure for correlating the temperature in the sterilisation phase and the cycle is terminated.	Pressure sensor faulty Insufficient steam supply	Check the safety temperature limiter
High Chamb.Press. The pressure went above the pressure for correlating the sterilisation temperature and the cycle is terminated.	Pressure sensor faulty	Check the pressure sensor
Manual stop The Stop key was pressed and the program cycle is interrupted	User has interrupted the program cycle	Acknowledge the message
Lock Door not closed correctly, or error reported by door lock when door is open	The end switches for monitoring the locking ring are not working The locking ring is not opening or closing completely The safety pressure switch is faulty The end switches are misaligned The locking ring does not open An end switch is jammed or misaligned	Check the end switches Check the safety pressure switch Check the compressed air supply to the pneumatics Check the end switch and the locking ring Before acknowledging the error message, the device must be switched off and switched on again at the main switch
No Demin water No deionised water in the sterilisation chamber	The water level electrodes have not detected water	Check the deionised water supply
No gen. water The lower water level electrode reports that there is no water although the upper one reports that there is water	The lower water level electrode reports that there is no water	Check the connections of the lower and upper water level electrodes
Chamber without water! No water in the sterilisation chamber	The water level electrodes have not detected water	Check the water supply

Tab. 14: Error messages

8.2 Messages

Message	Possible cause	Measure
NOT READY	Door is not shut	Close the door, start the device, and follow any instructions in the display
	The pressure or temperature sensor displays an abnormal value	
Repl. Filter!	Recommended number of cycles has been reached	Replace the filter as described in Chapter 7, "Maintenance, cleaning and care".
Comp.Air Error	Compressed air is not available. The cooling is stopped	Check the connection. As soon as compressed air is available, the cooling is activated.

Tab. 15: Messages

8.3 Service address

Should you require technical support, please contact:

Systec Service telephone: +49 (0) 6403 67070 - 0

Systec GmbH
Konrad-Adenauer-Straße 15
35440 Linden, Germany

Tel: +49 (0) 6403 67070 - 0
Fax: +49 (0) 6403 67070 - 222
email: info@Systec-Lab.de
www.Systec-Lab.de

We will help you to resolve any problems and support you in all technical questions and queries on how to use the equipment.

9. DECOMMISSIONING

9.1 Decommissioning

CAUTION

Consider the qualifications of the personnel!
The device may only be decommissioned by a qualified person.

9.2 Disposal

- Dispose of the machine in accordance with the applicable laws and regulations.
- If applicable, de-register the device.
- You may be required to return parts to the manufacturer.

Parts contaminated with dangerous substances must be marked as such before sending them!

You may not dispose of the device with normal refuse at the end of its service life. In this case, ensure that your device and any accessories are disposed of properly, in accordance with the national regulations.

9.3 Returning the device

When sending the device to Systec for repair or retrofitting, use the original packaging.

- Always contact us before sending a device to us.
- Please tell us the reason why you are sending it back and consult us about the necessary steps to be taken.

In accordance with EU guidelines, the owner of devices that have been exposed to dangerous substances is responsible for the appropriate disposal or the correct declaration for transport of the device. At the same time, our company is responsible for protecting our employees against dangerous substances. For this reason, we inform you that:

- All devices sent back to us must be free from any kind of dangerous substance (acids, alkalis, biogenic dangerous substances, etc.).
- The devices must be decontaminated and residual dangerous substances neutralised. Note that there are cavities in the interior of the housing of some devices that are difficult to clean, and in which might be the remains of dangerous substances.
- On returning the device, it must be confirmed in writing in the accompanying documents that the above measures have been carried out.

If the owner of the device cannot perform these measures, the costs arising from the removal of the dangerous substances during repairs are charged to the owner of the device.

9.4 Storage

The device may only be prepared for storage by a service technician authorised by Systec.

When storing, ensure that the device is protected against external influences!

10. TECHNICAL DATA

Aim of this section

This section gives you an overview of the technical data of the devices.

Contents

10.1 Scale drawings

10.1.1 MediaPrep-10

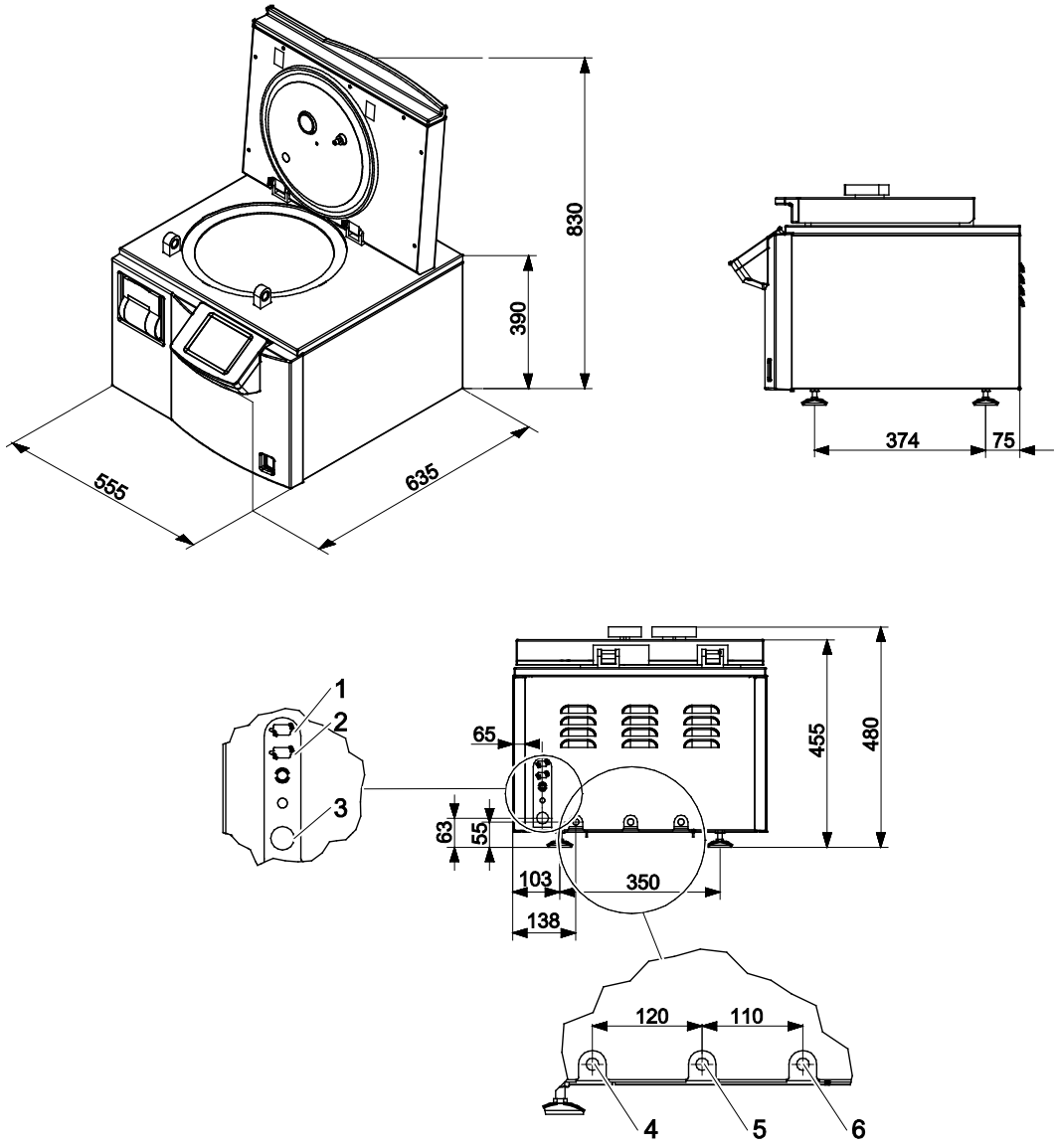


Fig. 55: Dimensions of Systec MediaPrep-10

10.1.2 MediaPrep-20

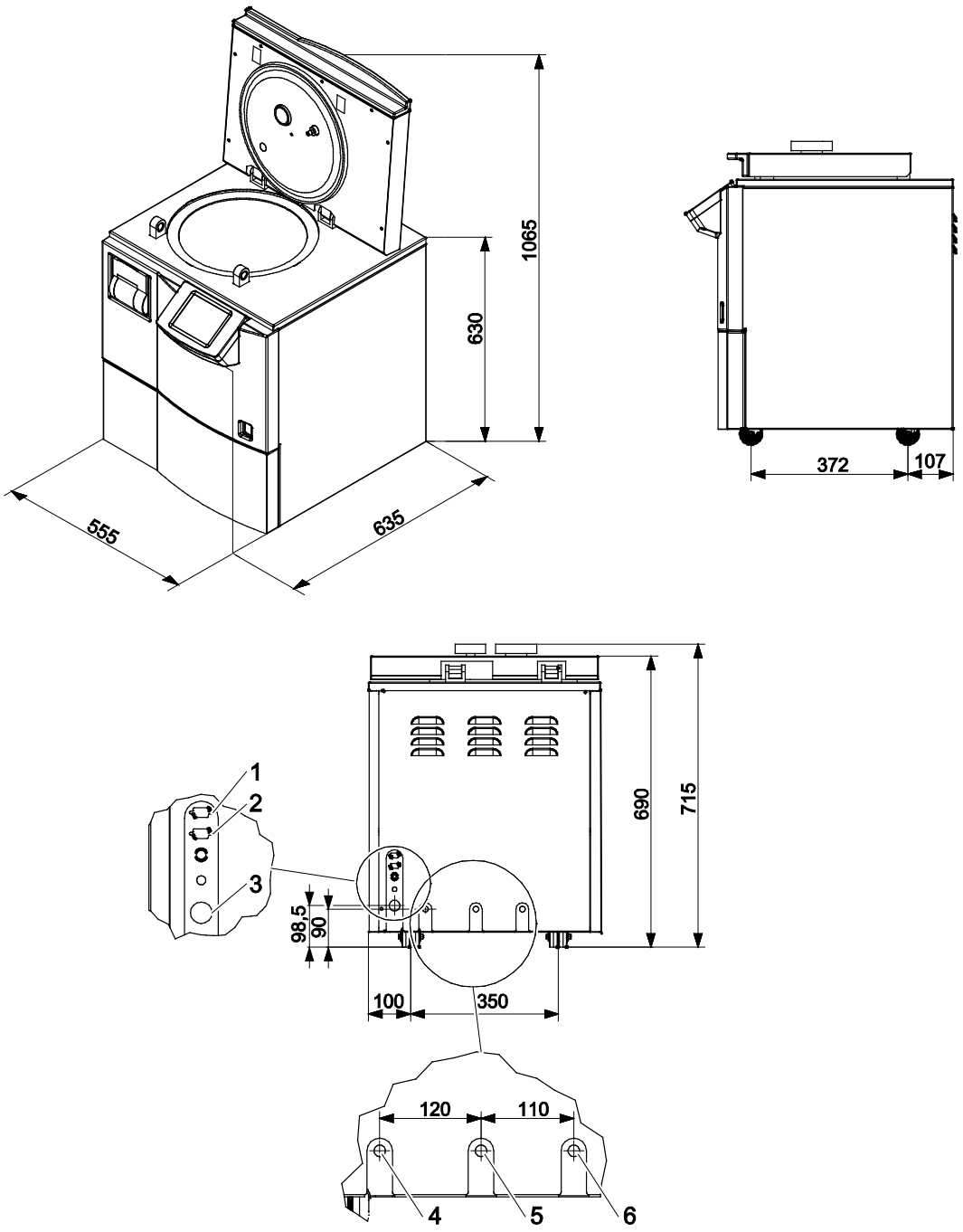


Fig. 56: Dimensions of Systec MediaPrep-20

10.1.3 MediaPrep-30

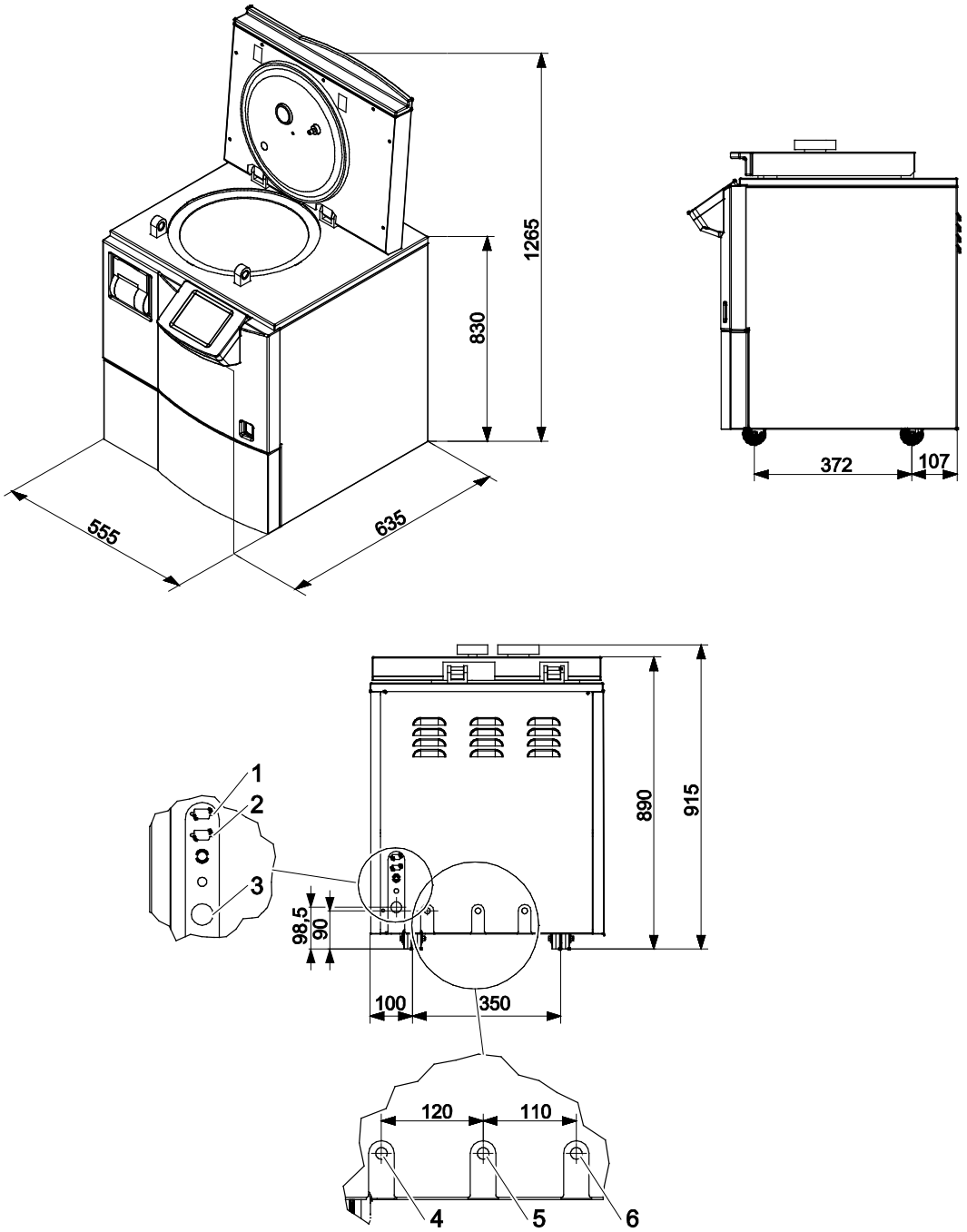


Fig. 57: Dimensions of Systec MediaPrep-30

10.1.4 MediaPrep-45

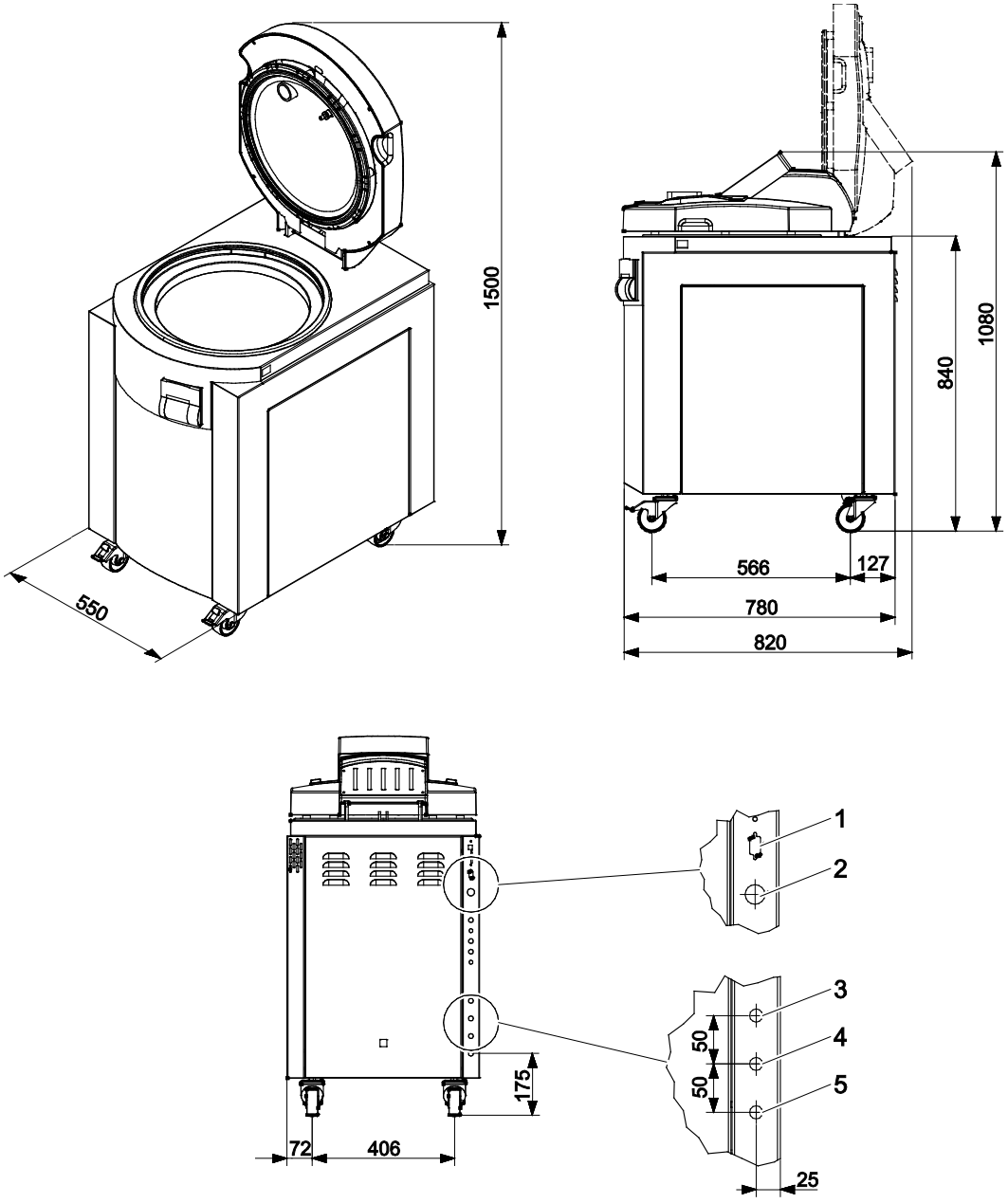


Fig. 58: Dimensions of Systec MediaPrep-45

10.1.5 MediaPrep-65

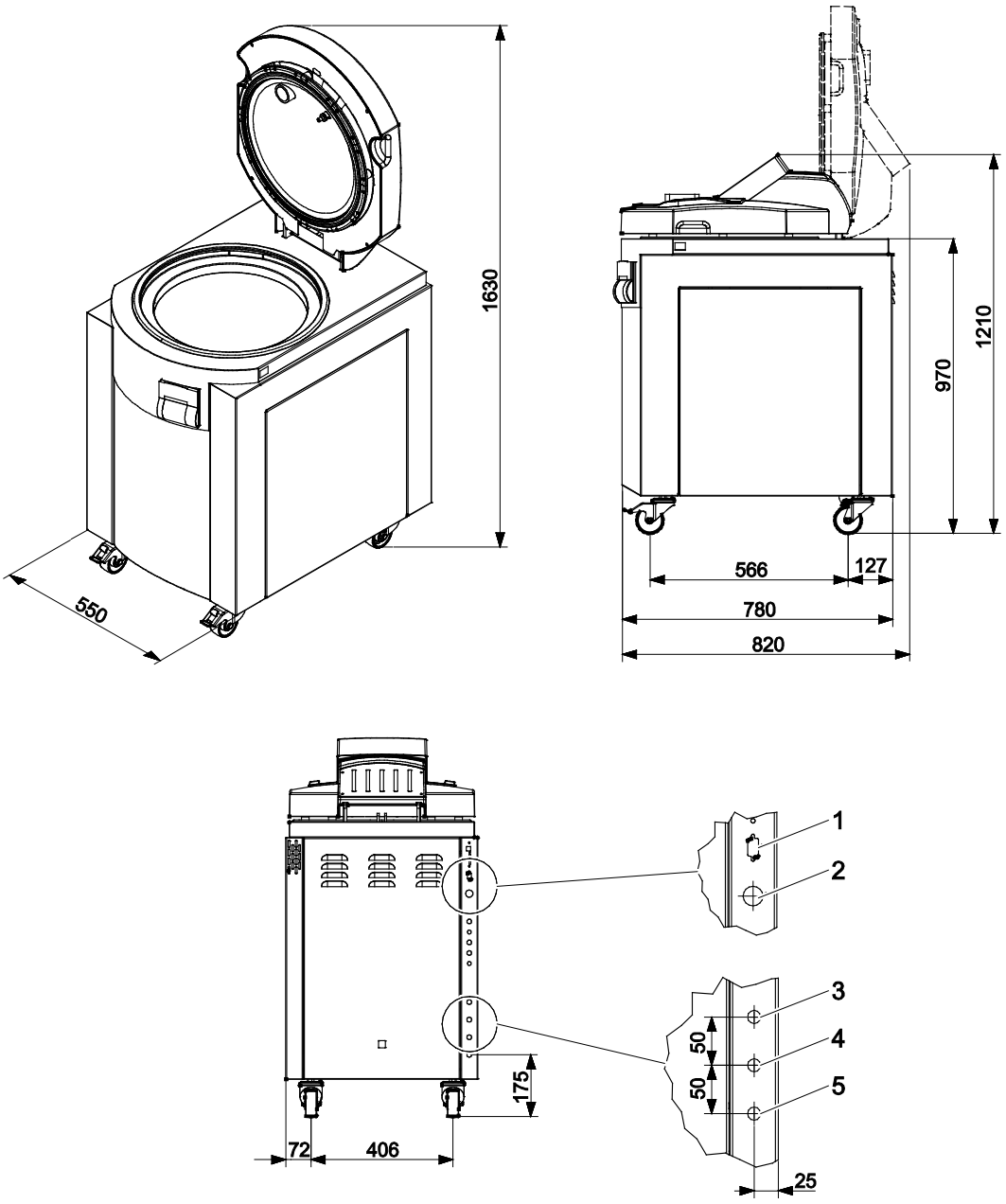


Fig. 59: Dimensions of Systec MediaPrep-65

10.1.6 MediaPrep-90

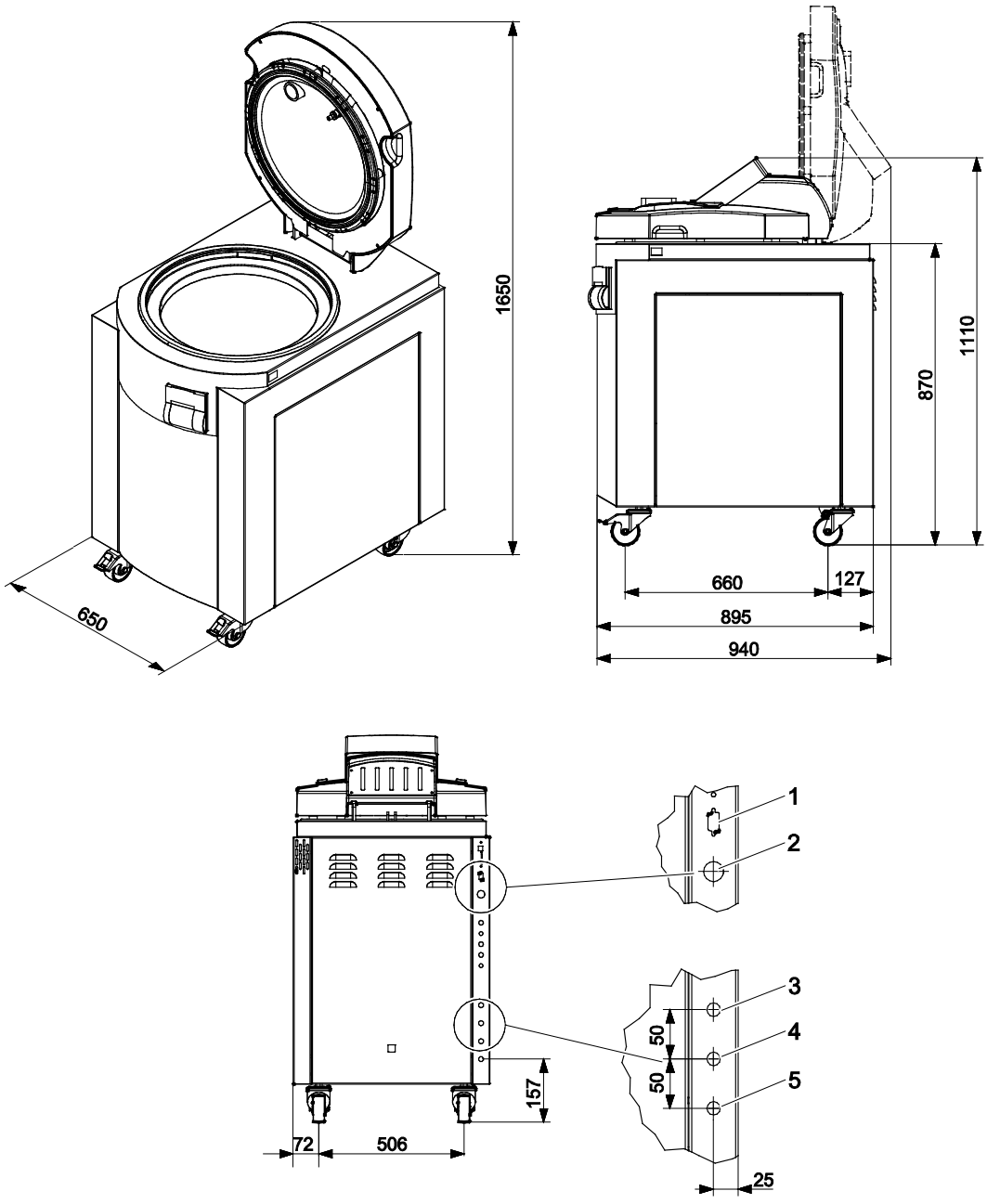


Fig. 60: Dimensions of Systec MediaPrep-90

10.1.7 MediaPrep-120

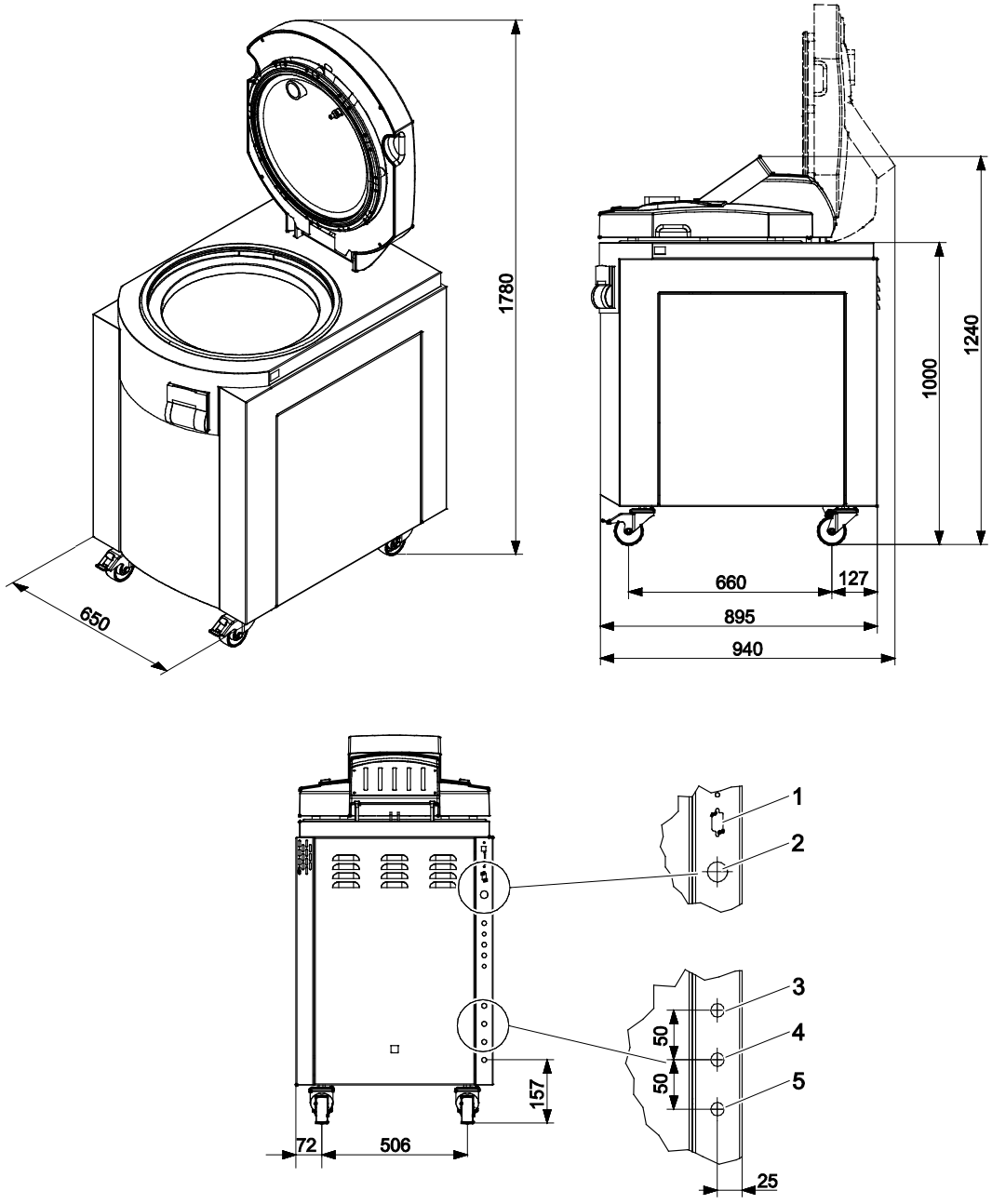


Fig. 61: Dimensions of Systec MediaPrep-120

10.2 Specifications

10.2.1 Chamber

10.2.1.1 MP- 10 – MP-30

MODEL	Systec MediaPrep-10	Systec MediaPrep-20	Systec MediaPrep-30
Chamber dimensions			
Diameter [mm]	296	296	296
Height [mm]			
According to "PED" and "China Stamp"	255	455	655
According to "ASME"	250	450	650
Volume, nominal/total [l]			
According to "PED" and "China Stamp"	17/18	30/31	44/45
According to "ASME"	17/17.2	30/31	44/44.7
Net weight [kg]	50	60	70
Cuvette dimensions			
Diameter [mm]	270	270	270
Height [mm]	222	422	622
Volume [l]	12.7	24.2	35.6

Tab. 16: Specifications for chambers in MediaPrep series 10 – 30

10.2.1.2 MP- 45 – MP-120

MODEL	Systec MediaPrep-45	Systec MediaPrep-65	Systec MediaPrep-90	Systec MediaPrep-120
Chamber dimensions				
Diameter [mm]	400	400	500	500
Height [mm]				
According to "PED" and "China Stamp"	500	700	570	750
According to "ASME"	500	705	570	750
Volume, nominal/total [l]				
According to "PED" and "China Stamp"	63/65	88/90	112/126	147/162
According to "ASME"	63/65	89/90	112/126	147/162
Net weight [kg]	165	185	200	220
Cuvette dimensions				
Diameter [mm]	380	380	480	480
Height [mm]	452	657	572	752
Volume [l]	51.3	74.5	103.5	136.1

Tab. 17: Specifications for chambers in MediaPrep series 45 – 120

10.2.2 Pressure / temperature

10.2.2.3 MP- 10 – MP-30

MODEL	Systec MediaPrep 10 – 30
Operating pressure according to "PED" and "China Stamp" [bar]	-1/+2.5
Operating pressure according to "ASME" [bar]	-1/+2.0
Operating temperature according to "China Stamp" [°C]	0/140
Operating temperature according to "PED" and "ASME" [°C]	0/140
Test pressure according to "PED" and "China Stamp" [bar]	4
Test pressure according to "ASME" [bar]	2.6

Tab. 18: Specifications for pressure/temperature in MediaPrep series 10 – 30

10.2.2.4 MP- 45 – MP-120

MODEL	Systec MediaPrep 45 – 120
Operating pressure according to "PED" and "China Stamp" [bar]	-1/+2.5
Operating pressure according to "ASME" [bar]	-1/+2.0
Operating temperature according to "China Stamp" [°C]	-10/140
Operating temperature according to "PED" and "ASME" [°C]	-10/130
Test pressure according to "PED" and "China Stamp" [bar]	3.9
Test pressure according to "ASME" [bar]	2.6

Tab. 19: Specifications for pressure/temperature in MediaPrep series 45 – 120

10.3 Connection data

Connection	Feature
Drain	– ¾" external thread – Temperature-resistant version (up to 103 °C in case of malfunction) – Temperature is regulated to 70 °C (adjustable) – On-site: max. height ≤ 40 cm from the ground – Securely connected on-site
Tap water	– ¾" external thread – ≥ 1 bar water pressure – Σ alkaline earth metal ions ≤ 2.0 mmol / l, conductivity of max. 300 µS/cm, 11 °dH, 200mg/l $CaCO_3$
Demin water	– ¾" external thread – ≥ 1 bar water pressure – Σ alkaline earth ions < 0.02 mmol / l, conductivity between 0.1 to 15 µS/cm
Interface	– RS-232 interface (Ethernet network and USB compatible)

Tab. 20: Connection data

– Demineralised water is used for sterilisation.
– Unprocessed water of drinking water quality is used for cooling.

CAUTION

Danger of damage to the device caused by incorrect water quality!
The quality of the tap water (unprocessed water) and demineralised water used has a considerable influence on the performance and service life of the device, including the reproducibility of the sterilisation results.

- Adhere to the water quality thresholds, in accordance with DIN 58951-2.

10.4 Electrical

MODEL	Systec MediaPrep-10	Systec MediaPrep-20	Systec MediaPrep 30
Number of heating elements	2	3	3
Heating power [kW]	3.6	9.3	9.3
Voltage [V]	220 – 240 V, 50/60 Hz	3 x 380 – 400 V, 50/60 Hz	3 x 380 – 400 V, 50/60 Hz
Fuse [A]	15.5	15.5	15.5
Protection class	1		
Degree of protection	IP 22		

Tab. 21: Electrical for the MediaPrep series 10 – 30

MODEL	Systec MediaPrep-45	Systec MediaPrep-65	Systec MediaPrep-90	Systec MediaPrep-120
Number of heating elements	3	3	3	3
Heating power [kW]	19.998	19.998	20.1	20.1
Voltage [V]	3 x 380 – 400 V, 50/60 Hz	3 x 380 – 400 V, 50/60 Hz	3 x 380 – 400 V, 50/60 Hz	3 x 380 – 400 V, 50/60 Hz
Fuse [A]	29	29	29	29
Protection class	1			
Degree of protection	IP 22			

Tab. 22: Electrical for the MediaPrep series 45 – 120

10.5 Noise and heat emission

Noise level [dbA]	
All models	< 70
Heat emission [W/h]	
Systec MediaPrep -10	< 400
Systec MediaPrep -20	< 500
Systec MediaPrep -30	< 550
Systec MediaPrep - 45, -65	< 700
Systec MediaPrep - 90, -120	< 800

Tab. 23: Noise and heat emission

10.5.1 Environmental conditions on-site

Ambient temperature	4 °C – 30 °C
Humidity	25 – 80 %

Tab. 24: Environmental conditions on-site

10.6 Materials used

	Systec MediaPrep series
Chamber material	ST. ST. 1.4571 (316 Ti)
Door material	ST. ST. 1.4571 (316 Ti)
Housing material	ST. ST. 1.4301 (304)
Chamber and door insulation	Melamine resin foam

Tab. 25: Materials used in the MediaPrep series

11. INDEX

12. LOGBOOK

Systec GmbH

Konrad-Adenauer-Straße 15

35440 Linden, Germany

Telephone +49 (0) 6403 67070 - 0

Fax +49 (0) 6403 67070 - 222

E-mail: Info@Systec-Lab.de

Internet: www.Systec-Lab.de

Place of manufacture (stamp)

Device:	Nutrient media autoclave		
Model:	Systec MediaPrep -		
Serial number:			
Year of manufacture:			
Location:			
Date of commissioning:			
Commissioned by:		**Signature**:	
Operator:			

Date	Employee instructed in usage	Signature

The device logbook contains three service pages.

The device logbook must be kept for at least five years after the device is decommissioned.

Maintenance log

Date	Work carried out / parts replaced	Signature

Date	Work carried out / parts replaced	Signature

Date	Work carried out / parts replaced	Signature

13. LANGUAGES TABLE

Aim of this section

You will find all plans, drawings and certificates for the devices in this section. The languages table is also included.

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
Screen Text	**Displaytexte**					
CYCLE PARAMETERS	PARAMETER	PARÁMETRO	PARAMÈTRES	PARAMETRO	PARAMETRY	ИЗМЕНИТЬ УСИЛ/СМЕЩ
SET PARAMETER	PARAMETER ÄNDERN	CAMBIAR PARÁMETRO	MODIFIER PARAMÈTRES	MODIFICA PARAMETR0	ZMIANA PARAMETRU	РАССЧ. УСИЛ/СМЕЩ
MENU	MENÜ	MENÚ	MENU	MENU	MENU	ДАТА/ВРЕМЯ
PROGRAM	PROGRAMME	PROGRAMAS	PROGRAMMES	PROGRAMMI	PROGRAMY	ВХОДЫ
CALIBRATION	KALIBRIEREN	CALIBRAR	CALIBRAGE	CALIBRATURA	KALIBROWANIE	АНАЛОГОВЫЕ ВХОДЫ
SET GAIN OFFSET	GAIN/OFFSET ÄNDERN	CAMBIAR GAIN/OFFSET	MODIF GAIN/OFFSET	MODIF. GAIN/OFFSET	ZMIANA GAIN/OFFSET	ЦИФРОВЫЕ ВХОДЫ
CALC.GAIN OFFSET	GAIN/OFFSET BERECH.	CALC. GAIN/OFFSET	CALCUL GAIN/OFFSET	CALC. GAIN/OFFSET	OBLICZ. GAIN/OFFSET	ЦИФРОВЫЕ ВЫХОДЫ
DATE/TIME	DATUM/ZEIT	FECHA/HORA	DATE/HEURE	DATA/ORARIO	DATA/GODZINA	СЕРВИСНОЕ МЕНЮ
INPUTS	EINGÄNGE	ENTRADAS	ENTRÉES	INPUT	WEJŚCIA	ПАРОЛЬ
ANALOG INPUTS	ANALOGE EINGÄNGE	ENTRADAS ANALÓGICAS	ENTRÉES ANALOGIQUES	INPUT ANALOGICI	WEJŚCIA ANALOGOWE	ЯЗЫК
DIGITAL INPUTS	DIGITALE EINGÄNGE	ENTRADAS DIGITALES	ENTRÉES NUMÉRIQUES	INPUT DIGITALI	WEJŚCIA CYFROWE	ВРЕМЯ ПУСКА
DIGITAL OUTPUTS	DIGITALE AUSGÄNGE	SALIDAS DIGITALES	SORTIES NUMÉRIQUES	OUTPUT DIGITALI	WYJŚCIA CYFROWE	ИНФОРМ. О СИСТЕМЕ
SERVICE MENU	SERVICE MENÜ	MENÚ DE SERVICIO	MENU SERVICE	MENU SERVIZIO	MENU SERWISOWE	ПОЛЬЗОВАТ. МЕНЮ
PASSWORD	PASSWORT	CONTRASEÑA	MOT DE PASSE	PASSWORD	HASŁO	ПАМЯТЬ
LANGUAGE	SPRACHE	IDIOMA	LANGUE	LINGUA	JĘZYK	КОНТРАСТНОСТЬ
START BY TIME	STARTZEIT	HORA DE INICIO	HORAIRE DE DÉPART	ORARIO DI AVVIO	GODZ. ROZPOCZĘCIA	НАСТРОЙКА
SYSTEM INFO	SYSTEM INFO	INFO DE SISTEMA	INFO SYSTÈME	INFORMAZ. SISTEMA	INF. SYSTEMOWA	ДОКУМЕНТАЦИЯ
USER MENU	BENUTZER MENÜ	MENÚ DE USUARIO	MENU UTILISATEUR	MENU UTENTE	MENU UŻYTKOWNIKA	ОБСЛУЖИВАНИЕ
MEMORY	SPEICHER	MEMORIA	MÉMOIRE	MEMORIA	PAMIĘĆ	ИНФОРМАЦИЯ
SCREEN CONTRAST	KONTRAST	CONTRASTE	CONTRASTE	CONTRASTO	KONTRAST	ПРИМЕР. ЗАГРУЗКА
SETUP	EINSTELLUNG	CONFIGURACIÓN	RÉGLAGE	IMPOSTAZIONE	USTAWIENIE	ОПИСАНИЕ НЕИСПР.
DOCUMENTATION	DOKUMENTATION	DOCUMENTACIÓN	DOCUMENTATION	DOCUMENTAZIONE	DOKUMENTACJA	ИНСТР. ПО БЕЗОП
MAINTENANCE	WARTUNG	MANTENIMIENTO	MAINTENANCE	MANUTENZIONE	KONSERWACJA	СБРОС СИСТЕМЫ
INFORMATION	INFORMATION	INFORMACIÓN	INFORMATION	INFORMAZIONI	INFORMACJA	ИМЯ ПОЛЬЗОВАТЕЛЯ
SAMPLE LOAD	BEISPIELBELADUNG	CARGA DE MUESTRA	CHARGEMENT EXEMPLE	ESEMPIO CARICAMENTO	NAŁAD. PRZYKŁAD.	СПИСОК ПОЛЬЗОВАТ
ERRORS DESCRIPTION	FEHLERBESCHREIBUNG	DESCRIPCIÓN ERRORES	DESCRIPTION ERREURS	DESCRIZIONE ERRORE	OPIS BŁĘDU	ВЫБОР УРОВНЯ

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
SAFETY INSTRUCTION	SICHERHEITSANW.	INST. DE SEGURIDAD	INSTRUCT. SÉCURITÉ	ISTRUZ.DI SICUREZZA	INSTR. BEZPIECZ.	ПОИСК
RESET SYSTEM	SYSTEM ZURÜCKSETZEN	REINICIAR SISTEMA	RÉINITIAL. SYSTÈME	RESET SISTEMA	RESETOWANIE SYSTEMU	ПОР. НОМЕР
USER NAME	BENUTZERNAME	NOMBRE DE USUARIO	NOM UTILISATEUR	NOME UTENTE	NAZWA UŻYTKOWNIKA	ДАТА
USERS LIST	BENUTZERLISTE	LISTA DE USUARIO	LISTE UTILISATEURS	LISTA UTENTI	LISTA UŻYTKOWNIKÓW	ВРЕМЯ
SELECT LEVEL	LEVEL AUSWAHL	SELECCIÓN DE NIVEL	SÉLECTION LEVEL	SELEZIONE LIVELLO	WYBÓR POZIOMU	ЗАДАН. ПРОГРАММЫ
SEARCH	SUCHEN	BÚSQUEDA	RECHERCHER	CERCA	SZUKANIE	ТИП НЕИСПР.
Load Number	LAUFNUMMER	NÚMERO DE CARGA	NUMÉRO D'ORDRE	NUMERO PROGRESSIVO	NUMER PRZEBIEGU	ПАМЯТЬ ПРОЦЕССА
Date	DATUM	FECHA	DATE	DATA	DATA	ПАМЯТЬ НЕИСПР.
Time	ZEIT	HORA	HEURE	ORARIO	GODZINA	ПРОТОКОЛ СОБЫТИЙ
DEFAULT PROGRAMS	VORGABEPROGRAMME	PROGRAMAS PREDET.	PROGRAMMES PRESCR.	PROGRAMMI PREIMPOS.	PROGRAMY DOMYŚLNE	ПОР. НОМЕР
GENERAL INFO	FEHLERART	TIPO DE ERROR	TYPE D'ERREUR	TIPO DI ERRORE	RODZAJ BŁĘDU	ДАТЧИКИ РАСПЕЧ.
PROCESS LOG	PROZESSSPEICHER	REGISTRO DE PROCESO	MÉMOIRE PROCESSUS	MEMORIA DI PROCESSO	PAMIĘĆ PROCESÓW	ГРОМКОСТЬ
ERROR LOG	FEHLERSPEICHER	REGISTRO DE ERRORES	MÉMOIRE ERREURS	MEMORIA DI ERRORE	PAMIĘĆ BŁĘDÓW	ИЗМЕНИТЬ УСИЛ/СМЕЩ
AUDIT TRAIL	EREIGNISSPROTOKOLL	REGISTRO DE EVENTOS	COMPTE RENDU ÉVÉN.	REGISTRO EVENTI	PROTOKÓŁ ZDARZENIA	РАССЧ. УСИЛ/СМЕЩ
LOAD NUMBER	LAUFNUMMER	NÚMERO DE CARGA	NUMÉRO D'ORDRE	NUMERO PROGRESSIVO	NUMER PRZEBIEGU	ДАТА/ВРЕМЯ
PRINT SENSORS	SENSOREN AUSDRUCK	IMPRESIÓN SENSORES	IMPRESS. SONDES	STAMPA SENSORI	CZUJNIKI DO WYDRUKU	ВХОДЫ
SOUND VOLUME	LAUTSTÄRKE	VOLUMEN	VOLUME	VOLUME	GŁOŚNOŚĆ	АНАЛОГОВЫЕ ВХОДЫ
Event types	**Ereignisse**					
Start	Start	Inicio	Start	Avvio	Rozpoczęcie	Пуск
Stop	Stopp	Fin	Stop	Stop	Zatrzymanie	Стоп
Clear	Quit	Cancelar	Quit	Riscontro	Potwierdzanie	Квитировать
Maintenance	Wartung	Mantenimiento	Maintenance	Manutenzione	Konserwacja	Обслуживание
Source Failure	Medienfehler	Error de medio	Erreur produit	Errore mezzo fisico	Błąd źródła	Неиспр. сред
Gain/Offset	Gain/Offset	Gain/Offset	Gain/Offset	Gain/Offset	Gain/Offset	Усил/Смещ
Restore G/O	G/O zurücksetz	Restaurar G/O	Réinit. G/O	Reset G/O	Resetowanie G/O	Сброс усил/смещ
Param.Chng	Param.Änderung	Cambio de parámetro	Modif. Param.	Modifica parametro	Zmiana param.	Измен параметров
Date/Time	Datum/Zeit	Fecha/hora	Date/heure	Data/orario	Data/Godzina	Дата/Время
Door1 Oper.	Tür1 geöffnet	Puerta1 abierta	Porte1 ouverte	Porta1 aperta	Otwarte drzwi1	Дверца1 открыта
Door2 Oper.	Tür2 geöffnet	Puerta2 abierta	Porte2 ouverte	Porta2 aperta	Otwarte drzwi2	Дверца2 открыта
Progr. Mod.	Prog änderung	Cambio de prog.	Modif. prog	Modifica programma	Zmiana progr.	Измен. прогр.
Users Mod.	Benutz. änder.	Cambio de usuario	Modif. utilis.	Modifica utente	Zmiana użytk.	Измен. польз.
Event description	**Ereignis-beschrei-**					

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
	bungen					
Start pressed	Start gedrückt	Inicio pulsado	Bout. Start enfoncé	Avvio premuto	Naciśn. Rozpoczęcie	Нажат Пуск
Stop pressed	Stopp gedrückt	Fin pulsado	Bouton Stop enfoncé	Stop premuto	Naciśn. Zatrzymanie	Нажат Стоп
Clear pressed	Quit gedrückt	Cancelar pulsado	Bouton Quit enfoncé	Riscontro premuto	Naciśn. Potwierdz.	Нажат Квитир
Maintenance changed	Wartung geändert	Cambio manten.	Maintenance modif.	Manutenz. modif.	Zmieniona konserw.	Обслуж. изменено
Source Failure	Medienanschluss fehlt	Falla de medio	Raccordt manquant	Attacco m.fis.asse.	Brak podł. do źród.	Нет подвода среды
Gain/Offset changed	Gain/Offset geändert	Cambio Gain/Offset	Gain/Offset modifié	Gain/Offset mod.	Zmien. Gain/Offset	Измен. усил/смещ
Restore Gain/Offset	Gain/Offset zurückgesetzt	Rest. Gain/Offset	Gain/Offset réinit.	Gain/Offset resett.	Zreset. Gain/Offset	Сброшено усил/смещ
Parameters Change	Parameter geändert	Cambio de parámetro	Paramètres modifiés	Parametro modific.	Zmieniony parametr	Изменены параметры
Date/Time Change	Datum/Zeit geändert	Cambio fecha/hora	Date/heure modifiée	Data/orario modif.	Zmien. Data/Godzina	Измен. дата/время
Door1 Operation	Tür1 geöffnet	Puerta1 abierta	Porte1 ouverte	Porta1 aperta	Otwarte drzwi1	Дверца1 открыта
Door2 Operation	Tür2 geöffnet	Puerta2 abierta	Porte2 ouverte	Porta2 aperta	Otwarte drzwi2	Дверца2 открыта
Programs list modified	Programliste geändert	Lista prog. modif.	Liste prog. modif.	Lista progr. mod.	Zmien. lista progr.	Изм список прогр
Users list modified	Benutzerliste geändert	Lista usuar. modif.	Liste utilis modif.	Lista utenti mod.	Zmien. lista użytk.	Изм список пользов
Stage names	**Arbeitsgänge**					
Not Avaliable	Nicht Verfügbar	No disponible	Non disponible	Non disponibile	Brak dostępności	Не доступен
StandBy	Bereitschaft	En espera	Veille	Disponibilità	Gotowość	Готовность
Vacuum	Vakuum	Vacío	Vide	Vuoto	Próżnia	Вакуум
WaterInlet	Wassereinlass	Admisión de agua	Entrée d'eau	Ingresso acqua	Wpust wody	Впуск воды
Heating	Aufheizphase	Calentamiento	Phase de chauffage	Fase di riscaldam.	Faza nagrzewania	Фаза нагрева
Sterilize	Sterilisierphase	Esterilización	Phase stérilisation	Fase di sterilizza.	Faza sterylizacji	Фаза стерилизации
Exhaust	Ablass	Purga	Ecoulement	Scarico	Spust	Слив
Dry	Trocknung	Secado	Séchage	Essiccazione	Suszenie	Сушка
Cooling	Kühlung	Enfriamiento	Refroidissement	Raffreddamento	Chłodzenie	Охлаждение
Fail	Fehler	Error	Erreur	Errore	Błąd	Неисправность
Hold	Haltephase	Fase de espera	Phase de maintien	Fase di trattenim.	Faza zatrzymania	Фаза поддержания
Test	Test	Prueba	Test	Test	Test	Тест
Messages	**Meldungen**					
Sensor Error	Sensor Fehler	Error de sensor	Erreur sonde	Errore sensore	Błąd czujnika	Неиспр. датчика
Low Chamb.Temp.	Low Chamb.Temp.	Temp. cám. baja	Temp.chamb.base	Low Chamb.Temp.	Niska temp. kom.	Низкая темп. кам
High Chamb.Temp.	High Chamb.Temp.	Temp. cám. alta	Temp.chamb.haute	High Chamb.Temp.	Wys. temp. kom.	Выс. темп. кам.
No Gen.Water	kein Gen. Wasser	Sin agua gen.	Pas d'eau gén.	nessuna gen.acqua	Brak wody gen.	Нет общ. воды
Gen.Press High	Gen. Überdruck	Presión gen. alta	Surpress. gén.	gen. Sovrappres.	Nadciśn. gen.	Общ. изб. давл.
Comp.Air Error	keine Druckluft	Sin aire comp.	Pas d'air comp.	assenza aria com.	Brak pow. spręż.	Нет сжатого возд
High Chamb.Press	High Chamb.Press	Pres. cám. alta	Press.Chamb.haute	High Chamb.Press	Wys. ciśn. kom.	Выс. давл. кам.

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
Low Chamb.Press	Low Chamb.Press	Pres. cám. baja	Press.Chamb.base	Low Chamb.Press	Niska ciśn. kom.	Низкое давл. кам.
Door Lock Error	Verriegelung!	Error de bloqueo	Verrouillage !	Bloccaggio!	Blokada!	Блокировка!
No Chamb Water	Kammer o. Wasser	Cámara sin agua	Pas d'eau chamb.	Camera o acqua	Komora bez wody	Камера без воды
Door Not Closed	Tür offen	Puerta abierta	Porte ouverte	Porta aperta	Otw. drzwi	Открыть дверцу
Manual Stop	Benutzerabbruch	Parada manual	Arrêt manuel	Interruz manuale	Przerwanie ręczne	Прекращ. пользов
No Demin. Water !	kein VE Wasser!	Sin agua dem.	Pas d'eau démin.	ass.acqua demin.!	Brak wody dem.!	Нет демин. воды!
Low Vacuum	kein Vakuum	Sin vacío	Pas de vide	assenza vuoto	Brak próżni	Нет вакуума
Low Steam	kein Dampf	Sin vapor	Pas de vapeur	assenza vapore	Brak pary	Нет пара
Chamb.Press.Err	Kam.Druck.Fehler	Error pres.cámara	Err. press.chamb.	Errore press. cam.	Błąd ciśn. w kom.	Кам. давл неиспр
Door Lock Error!	Verriegelung!	Error de bloqueo	Verrouillage !	Bloccaggio!	Blokada!	Блокировка!
Door SW. Error	Tür Schalter	Int. puerta	Commut. porte	Interrutt. porta	Przełącz. drzwi	Выключ дверцы
Door Lock Error!!	Verriegelung!!	Error de bloqueo	Verrouillage !!	Bloccaggio!!	Blokada!!	Блокировка!!
No Demin. Water	kein VE Wasser	Sin agua dem.	Pas d'eau démin.	ass.acqua deminl.	Brak wody dem.	Нет демин. воды
Test Fail	Test gescheitert	Prueba fallida	Echec test	Test fallito	Neg. wynik testu	Тест не удался
No Tap Water	kein Kühlwasser	Sin agua fría	Pas d'eau froide	ass.acqua raffre.	Brak wody chłodz.	Нет охлажд воды
Door2 Lock Error	Verriegelung2	Error de bloqueo2	Verrouillage2	Bloccaggio2	Blokada2	Блокировка2
Door2 Not Closed	Tür 2 offen	Puerta2 abierta	Porte 2 ouverte	Porta 2 aperta	Otw. drzwi 2	Дверца 2 открыта
Door2 Lock Error!	Verriegelung2!	Error de bloqueo2	Verrouillage2 !	Bloccaggio2!	Blokada2!	Блокировка2!
Door2 SW. Error	Tür2 Schalter	Int. puerta2	Commut. porte2	Interrutt. porta2	Przeł. drzwi2	Выключ дверцы2
Door2 Lock Error!!	Verriegelung2!!	Error de bloqueo2	Verrouillage2 !!	Bloccaggio2!!	Blokada2!!	Блокировка2!!
No I2C Com.	keine I2C Kom.	Sin com. I2C	Pas de comm. I2C	nessun I2C com.	Brak kom. I2C	Нет связи I2C
Gen.Sens.Err	Gen. Sens. Fehler	Error sens. gen.	Err gén. sond.	Errore gen. sens.	Błąd czujn. gen.	Общ.датч.неиспр
Sel. Temp. Error	Sel. Temp. Fehler	Error sel. temp.	Err temp. sél.	Errore sel. temp.	Błąd temp. sel.	Выб.темп.неиспр
Memory Error	Speicher Fehler	Error memoria	Erreur mémoire	Errore memoria	Błąd pamięci	Ошибка памяти
Flash Error	Flash Fehler	Error flash	Erreur flash	Errore flash	Błąd flash	Ошибка флэш-пам
Error Saving Log	Fehler beim Sp.	Error al guardar	Err. sauveg.	Errore nel salv.	Błąd podcz. zap.	Ошибка при сохр.
Flash Check Error	Flash Prüffehler	Error control flash	Err vérif. flash	Errore con.flash	Błąd kontr. flash	Ошибка пров. флэш
Panel Conn. Err.	Panel Con. Fehler	Error con. panel	Err conn panneau	Errore con.pann.	Błąd poł. z pan.	Неиспр соед. пан
Text	**Text**					
FAIL	Fehler	Error	Erreur	Errore	Błąd	Неисправность
CYCLE ENDED	Programm beendet	Fin de programa	Programme terminé	Programma terminato	Program zakończony	Программа завершена
Dry	Trocknung	Secado	Séchage	Essiccazione	Suszenie	Сушка
READY	Bereit	Secado	Prêt	Pronto	Gotowe	Готово
kPa	kPa	kPa	kPa	kPa	kPa	кПа
°C	°C	°C	°C	°C	°C	°C
PSI	PSI	PSI	PSI	PSI	PSI	PSI
Clean Electrode	Elektrode reingen	Limpiar electrodo	Nettoyer électrode	Pulizia elettrodi	Czyszczenie elektrody	Очистить электрод
PSIg	PSIg	PSIg	PSIg	PSIg	PSIg	PSIg
Ing	Ing	Ing	Ing	Ing	Ing	Ing
°F	°F	°F	°F	°F	°F	°F
DONE	erledigt	Hecho	Exécuté	eseguito	Wykonane	выполнено
NOT READY	nicht Bereit	No listo	Pas prêt	non pronto	Brak gotowości	не готово
READ	lesen	Leer	Lire	leggi	Odczyt	читать

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
Gain	Gain	Gain	Gain	Gain	Gain	Усиление
Offset	Offset	Offset	Offset	Offset	Offset	Смещение
20	20	20	20	20	20	20
SAVE	Speichern	Guardar	Sauvegarder	Salva	Zapamiętanie	Сохранить
EXIT	Exit	Salir	Quitter	Esci	Wyjście	Выйти
O.K.	O.K.	O.K.	O.K.	O.K.	OK	OK
Calib	Kalib	Calib	Calib	Calib	Kalib	Калиб
SET	SET	AJUSTAR	SET	IMPOSTA	USTAWIANIE	УСТ
Time:	Zeit :	Hora :	Temps :	Orario :	Godz. :	Время :
Date:	Datum :	Fecha :	Date :	Data :	Data :	Дата :
Drain Condense ?	Kondensat ablassen ?	¿Purgar condensado?	Evacuer condensat ?	Scarica condensato ?	Czy spuścić skropliny?	Слить конденсат?
Door Open	Tuer ist offen	Puerta abierta	La porte est ouverte	La porta è aperta	Drzwi są otwarte	Дверца открыта
Water Inlet	Wassereinlass	Admisión de agua	Entrée d'eau	Ingresso acqua	Wpust wody	Впуск воды
Heating to Stay1	Aufheizen "Stay1"	Calentar "Stay1"	Chauffage "Stay1"	Ricaldamento "Stay1"	Nagrzewanie "Stay1"	Нагрев "Stay1"
Stay1	Haltezeit "Stay1"	Tiempo espera "Stay1"	Temps de maintien "Stay1"	Tempo tratten. "Stay1"	Czas zatrzymania "Stay1"	Время выдержки "Stay1"
Heating to Stay2	Aufheizen "Stay2"	Calentar "Stay2"	Chauffage "Stay2"	Ricaldamento "Stay2"	Nagrzewanie "Stay2"	Нагрев "Stay2"
Stay2	Haltezeit "Stay2"	Tiempo espera "Stay2"	Temps de maintien "Stay2"	Tempo tratten. "Stay2"	Czas zatrzymania "Stay2"	Время выдержки "Stay2"
Heating to Ster	Aufheizphase	Calentamiento	Phase de chauffage	Fase di riscaldamento	Faza nagrzewania	Фаза нагрева
Sterilize	Sterilisierphase	Esterilización	Phase de stérilisation	Fase di sterilizzazione	Faza sterylizacji	Фаза стерилизации
Exh-Fast	Ablass	Purga	Ecoulement	Scarico	Spust	Слив
Exh-Slow	Ablass	Purga	Ecoulement	Scarico	Spust	Слив
Air Cooling	Raumluftkühlung	Enfriamiento de aire	Refroidissement air ambiant	Raffreddam. aria amb.	Chłodzenie temp. pomieszcz.	Охлажд. воздуха пом.
Cooling	Kühlung	Enfriamiento	Refroidissement	Raffreddamento	Chłodzenie	Охлаждение
Water Cool	Kühlung	Enfriamiento	Refroidissement	Raffreddamento	Chłodzenie	Охлаждение
Holding Temp	Warmhaltephase	Fase mant. temp.	Phase de maintien au chaud	Fase tratten. calore	Faza zatrzymania ciepła	Фаза поддержания
Prevacuum-Vac	Vakuum	Vacío	Vide	Vuoto	Próżnia	Вакуум
Prevacuum-Stay	Haltephase	Fase de espera	Phase de maintien	Fase di trattenimento	Faza zatrzymania	Фаза поддержания
Prevacuum-Press	Dampfstoss	Golpe de vapor	Expulsion de vapeur	Spinta vapore	Uderzenie pary	Паровой удар
Prevacuum-Exh	Dampfablass	Purga de vapor	Evacuation de la vapeur	Scarico vapore	Spust pary	Сброс пара
Opening Door	Tür öffnet	Apertura puerta	La porte s'ouvre	La porta si apre	Otwarte drzwi	Дверца открывается
sec	sek	seg.	sec	sec	sek.	с
min	min	min.	min	min	min.	мин
hour	Stunde	Hora	Heure	Ora	Godzina	Час
day	Tag	Día	Jour	Giorno	Dzień	День
month	Monat	Mes	Mois	Mese	Miesiąc	Месяц
year	Jahr	Año	Année	Anno	Rok	Год
Reset System???	System Reset ???	¿Reiniciar sistema?	Réinitialiser système ???	Reset sistema ???	Czy zresetować system ???	Сброс системы???
Restore Values?	Werte wiederherstellen?	¿Restablecer valores?	Restaurer valeurs ?	Ripristina i valori?	Czy przywrócić wartości?	Восстановить значения?

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
Autoclaves	Autoclaves	Autoclaves	Autoclaves	Autoclavi	Autoklawy	Автоклавы
Pulse Num:	Pulse Nr.	N° pulso	N° d'impulsion	Nr. impulsi	Nr impulsu	№ импульса
On Test	Testphase	Prueba	Phase de test	Fase di test	Faza testowa	Тест-фаза
TEST PASSED	TEST BESTANDEN	PRUEBA APROBADA	TEST RÉUSSI	TEST SUPERATO	POZYTYWNY WYNIK TESTU	ТЕСТ ПРОЙДЕН
DOOR	TÜR ÖFFNEN	APERTURA PUERTA	OUVRIR LA PORTE	APRI PORTA	OTWIERANIE DRZWI	ОТКРЫТЬ ДВЕРЦУ
FLUSH	ABLASS	PURGA	ECOULEMENT	SCARICO	SPUST	СБРОС
Reset Wait...	Reset - Warten…	Reinicio, espere...	Réinitialisation - Patientez…	Reset - attendi…	Reset - proszę czekać...	Сброс - ждите…
CoolCompAir	Kühlung + Druck	Enfr. + presión	Refroidissement + pression	Raffreddamento + pressione	Chłodzenie + ciśnienie	Охлажд + давл
Touch calibration	Touchkalibrierung	Calibración de toque	Calibrage touches	Calibratura touch	Kalibracja ekranu dotyk.	Сенс. калибровка
Loading new Data	Lade neue Daten	Cargando nuevos datos	Chargement nouvelles données	Carica nuovi dati	Wczytywanie nowych danych	Загружаю новые данные
Saving Wait…	Speichern - Warten…	Guardando, espere...	Enregistrement - Patientez…	Salva - attendi…	Zapamięt. - pr. czekać...	Сохранение - ждите…
Changing Language	Sprache wird gewechselt	Cambiando idioma	La langue est modifiée	La lingua viene modificata	Język jest zmieniany	Идет смена языка
No Liquids!!!	keine Flüssigkeiten!!!	¡Sin líquidos!	Pas de liquides !!!	assenza di liquidi!!!	Brak płynów!!!	Нет жидкостей!!!
Start Download	Start Download	Iniciar descarga	Démarrage téléchargement	Avvia download	Rozpoczęcie zapisu	Пуск скачать
Pan.Ver:	Pan.Ver:	Ver. pan.:	Ver. pan. :	Ver. pan.:	Wer.pan.:	Пан.вер:
Sys.Ver:	Sys.Ver:	Ver. sis.:	Ver. sys. :	Ver. sis.:	Wer. sys.:	Сис.вер:
Ser.Num:	Ser.Num:	N° ser.:	Num. série :	Num. ser.:	Num.ser.:	Сер.ном:
Drain Condense	Kondensat Ablass	Purga de condensado	Ecoulement condensat	Scarica condensato	Spust kondensatu	Слив конденсата
please wait..	Bitte warten…	Espere...	Veuillez patienter...	Attendi…	Proszę czekać...	Ждите…
Opening Door2	Tür 2 öffnet	Apertura puerta2	La porte 2 s'ouvre	La porta 2 si apre	Otw. drzwi 2	Дверца 2 открыв
Front Panel	Front Panel	Panel del.	Panneau avant	Pannello frontale	Panel przedni	Лиц. панель
Back Panel	Back Panel	Panel tras.	Panneau arrière	Pannello posteriore	Panel tylny	Зад. панель
Access denied	Tuer gesperrt	Puerta bloq.	Porte bloquée	Porta bloccata	Zablokowane drzwi	Дверца заблок
Door2 Open	Tür 2 offen	Puerta2 abierta	Porte 2 ouverte	Porta 2 aperta	Otw. drzwi 2	Дверца 2 открыта
Username Exist!	Benutzername vorhanden!	¡Nombre usuario ya existe!	Nom utilisateur existant !	Nome utente presente!	Nazwa użytkownika istnieje!	Имя пользователя имеется!
Type new name	versuchen Sie es erneut	Inténtelo nuevamente	Essayez encore !	fare un nuovo tentativo	Proszę spróbować ponownie	Попытайтесь еще раз
Password too small!	Passwort zu kurz!	¡Contraseña muy corta!	Mot de passe trop court !	Password troppo breve!	Hasło jest za krótkie!	Слишком короткий пароль!
Username too small!	Benutzername zu kurz!	¡Nombre usuario muy corto!	Nom d'utilisateur trop court!	Nome utente troppo breve!	Nazwa użytk. jest za krótka!	Слишком кор. имя польз!
Delete Current Program?	akt. Programm Löschen?	¿Borrar prog. actual?	Supprimer programme actuel ?	cancella il program. attuale?	Czy usunąć bieżący program?	Удалить тек. программу?
Resolution	Auflösung	Resolución	Résolution	Risoluzione	Rozwiązanie	Разрешение
Min.Value	Min. Wert	Valor min.	Valeur min.	Valore min.	Wartość min.	Мин. значение
Max.Value	Max. Wert	Valor máx.	Valeur max.	Val. massimo	Wartość maks.	Макс. значение

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
Wrong Typing	Falsche Eingabe	Datos incorrectos	Saisie erronée	Inserimento scorretto	Niewłaściwe dane	Неверный ввод
This Action will	Dieser Vorgang	Esta acción	Cette procédure	Questo procedimento	Ta operacja spowoduje	Этот процесс
Delete all users!	löscht alle Benutzer	borra todos los usuarios	supprime tous utilisateurs	cancella tutti gli utenti	usunięcie wszyst. użytk.	удаляет всех пользователей
Printing...	druckt…	Imprimiendo...	Impression en cours...	stampa…	drukowanie w toku...	печатает…
Save changes?	Änderung Speichern?	¿Guardar cambios?	Enregistrer modifications ?	Salva le modifiche?	Czy zapisać zmianę?	Сохранить изменение?
Stage :	Phase:	Fase:	Phase :	Fase:	Faza:	Фаза:
ON	AN	ON	MARCHE	ON	WŁ.	ВКЛ
OFF	AUS	OFF	ARRÊT	OFF	WYŁ.	ВЫКЛ
User Name :	Benutzername:	Nombre usuario:	Nom d'utilisateur :	Nome utente:	Nazwa użytkownika:	Имя пользователя:
Signature:	Unterschrift:	Firma:	Signature :	Firma:	Podpis:	Подпись:
Not Avaliable	nicht verfügbar	No disponible	Non disponible	non disponibile	niedostęp.	не имеется
EVENT DETAILS	EVENT DETAILS	DETALLES DE EVENTO	DÉTAILS ÉVÉNEMENT	DETTAGLI EVENTO	SZCZEGÓŁY ZDARZENIA	ПОДРОБНОСТИ СОБЫТИЯ
Event Type :	Event Typ:	Tipo de evento:	Type d'événement :	Tipo evento:	Typ zdarzenia:	Тип события:
Program :	Programm:	Programa:	Programme :	Programma:	Program:	Программа:
Stage :	Phase:	Fase:	Phase :	Fase:	Faza:	Фаза:
Error description :	Fehlerbeschreibung:	Descripción de error:	Description des erreurs :	Descrizione errore:	Opis błędu:	Описание ошибки:
Num. of changes :	Anz. Der Änderungen:	Cant. de cambios:	Nbe de modifications :	Vis. delle modifiche:	Liczba zmian:	Кол-во изменений:
Parameter name	Parametername	Nombre de parámetro	Nom du paramètre	Nome parametro	Nazwa parametru	Имя параметра
Old value	Alterwert	Valor anterior	Ancienne valeur	Valore vecchio	Poprzednia wartość	Старое значение
New Value	Neuerwert	Valor nuevo	Nouvelle valeur	Valore nuovo	Nowa wartość	Новое значение
No changes were made	keine Änderungen	No hubo cambios	Pas de modification	nessuna modifica	Brak zmian	Нет изменений
Source Type :	Medientyp:	Tipo de medio:	Type de produit :	Tipo di mezzo fisico:	Typ źródła:	Тип среды:
Analog Source :	Analog Source :	Medio analógico:	Source analogique :	Analog Source :	Źródło analogowe:	Аналог. источник:
Last values restored by user!	alte Werte wiederhergestellt!	¡Valores anteriores restaurados!	Anciennes valeurs restaurées!	vecchi valori ripristinati!	Pop. wartości przywrócone!	Старые значения восстановл!
Search result for date	Suchergebnis - Datum	Resultado búsq. por fecha	Résultat recherche - date	Risultato ricerca - data	Wynik wyszukiwania - data	Результат поиска - дата
Search result for load number	Schergebnis - Laufnummer	Resultado búsq. por n° carga	Résultat recherche - no ordre	Risultato ric. - num. progr.	Wynik wyszuk. - nr przeb.	Результат поиска - пор. номер
Next	Weiter	Siguiente	Continuer	Avanti	Następny	Дальше
Prev	Zurück	Anterior	Retour	Indietro	Poprzedni	Назад
Exit and terminate printing?	Druckvorgang abbrechen?	¿Interrumpir impresión?	Interrompre l'impression ?	Interrompi proced.di stampa?	Czy przerwać oper. drukow.?	Прервать печать?
Updated Time:	Zeit aktualisiert:	Hora actualizada:	Temps actualisé :	Orario aggiornato:	Zaktualizowana godzina:	Время обновлено:
Updated Date:	Datum aktualisiert:	Fecha actualizada:	Date actualisée :	Data aggiornata:	Zaktualizowana data:	Дата обновлена:
Door1 opening by	Tür1 geöffnet vom	Puerta1 abierta	Porte1 ouverte	Porta1 aperta	Drzwi1 otwarte	Дверца1 открыта

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
user	Benutzer	por usuario	utilisateur	dall'utente	przez użytk.	пользоват.
Door2 opening by user	Tür2 geöffnet vom Benutzer	Puerta2 abierta por usuario	Porte2 ouverte utilisateur	Porta2 aperta dall'utente	Drzwi2 otwarte przez użytk.	Дверца2 открыта пользоват.
You can update Date/Time	Datum/Zeit kann nur im	¡La fecha/hora sólo puede	La date/heure ne peut être	La data/l'orario può essere	Datę/godz. można zaktualiz.	Дату/время можно обновить
only on StandBy!	Standby aktualisiert werden!	actualizarse en standby!	actualisée qu'en veille !	aggiornato solo in standby!	tylko w trybie czuwania!	только в режиме готовности!
Invalid Date typed!	Ungültiges Datum!	¡Fecha no válida!	Date invalide !	Data non valida!	Niewłaściwa data!	Неверная дата!
Invalid Time typed!	Ungültige Zeit!	¡Hora no válida!	Heure invalide !	Orario non valido!	Niewłaściwa godzina!	Неверное время!
PROGRAM DESCRIPTION	PROGRAMMBESCHREIBUNG	DESCRIPCIÓN DE PROGRAMA	DESCRIPTION PROGRAMMES	DESCRIZIONE PROGRAMMA	OPIS PROGRAMU	ОПИСАНИЕ ПРОГРАММЫ
PROGRAMS SELECTION	PROGRAMMAUSWAHL	SELECCIÓN PROGRAMAS	SÉLECTION PROGRAMMES	SELEZIONE PROGRAMMA	WYBÓR PROGRAMU	ВЫБОР ПРОГРАММЫ
PROGRAMS SORT	PROGRAMMSORTIERUNG	CLASIFICACIÓN PROGRAMA	TRI PROGRAMMES	CLASSIFICAZIONE PROGRAMMA	SORTOWANIE PROGRAMÓW	СОРТИРОВКА ПРОГРАММ
Delete Current User?	Aktuellen Benutzer löschen?	¿Borrar usuario actual?	Supprimer utilisateur actuel?	Cancella gli attuali utenti?	Czy usunąć bież. użytkownika?	Удалить тек. пользователя?
Saving data,	Daten Speicherung,	Guardando datos,	Sauvegarde des données,	Salvataggio dati,	Zapamiętanie danych,	Сохранение данных,
Please wait...	Bitte warten…	Espere...	Veuillez patienter...	Attendi…	Proszę czekać...	Ждите…
(deleted)	(gelöscht)	(borrado)	(supprimé)	(cancellato)	(usunięte)	(удалено)
(modified)	(geändert)	(modificado)	(modifié)	(modificato)	(zmienione)	(изменено)
Replace filter in	Filterwechsel in	Cambiar filtro en	Changement de filtre dans	Sostituzione filtro in	Wymiana filtra w	Замена фильтра через
Replace gasket in	Türdichtung wechseln in	Cambiar junta de puerta en	Changement joint porte dans	Sostituzione guarnizione porta in	Wymiana uszczelki drzwi w	Замена уплотн. дверцы через
Maintenance in	Wartung in	Mantenimiento en	Maintenance dans	Manutenzione in	Konserwacja w	Обслуживание через
Maintenance on	Wartung im	Mantenimiento en	Maintenance dans	Manutenzione in	Konserwacja podczas	Обслуживание через
cycles	Läufen	ciclos	Cycles	Cicli	przebiegów	Циклы
Cancel	Cancel	Cancelar	Annuler	Cancella	Anulowanie	Отменить
Replace filter!	Filter wechseln!	¡Cambiar filtro!	Changer filtre !	Sostituisci filtro!	Konieczna wymiana filtra!	Заменить фильтр!
Filter replaced?	Filter gewechselt?	¡Cambio el filtro!	Filtre changé ?	Filtro sostituito!	Filtr wymieniony?	Фильтр заменен?
Replace door gasket!	Türdichtung wechseln!	¡Cambiar junta de puerta!	Changer joint porte !	Sostituisci guarnizione por.!	Wymienić uszczelkę drzwi!	Заменить уплотн. дверцы!
Door gasket replaced?	Türdichtung gewechselt?	¿Cambio la junta de puerta?	Joint porte changé ?	Guarnizione porta sostituita?	Wymieniona uszczelka drzwi?	Уплотн. дверцы заменено!
Perform maintenance!	Wartung durchführen!	¡Realice mantenimiento!	Effectuer maintenance !	Esegui la manutenzione!	Wykonać konserwację!	Выполнить обслуживание!
Maintenance done?	Wartung durchgeführt?	¿Realizó el mantenimiento?	Maintenance effectuée ?	Manutenzione eseguita!	Konserwacja wykonana?	Обслуживание выполнено?
SET CYCLE START TIME	STARTZEIT EINSTELLEN	AJUSTAR HORA DE INICIO	RÉGLER HEURE DÉMARRAGE	IMPOSTAZIONE ORARIO DI AVVIO	USTAWIANIE CZASU ROZPOCZĘCIA	НАСТРОЙКА ВРЕМЕНИ ПУСКА
Print Text	**Drucktexte**					
Time:	Zeit:	Hora:	Temps :	Orario:	Godz:	Время:
Date:	Datum:	Fecha:	Date :	Data:	Data:	Дата:

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
POWER ON	System an	Sistema enc.	Syst. activé	Sistema ON	System wł.	Система вкл
20	20	20	20	20	20	20
Load No.:	Laufnr.:	N° carga:	N° d'ordre :	N.ro progr.:	Nr przeb.:	Пор. №:
Sys.Ver.:	Sys.Ver.:	Ver. sis.:	Ver. sys. :	Ver. sis.:	Wer.sys.:	Сис.вер:
Ser.Nr. :	Ser.Nr. :	N° ser.:	Num. série:	Num. ser.:	Nr ser. :	Сер.ном:
0-Exhaust	0-Ablass	0-Purga	0-Ecoulement	0-Scarico	0-Spust	0-слив
1-Exhaust	1-Ablass	1-Purga	1-Ecoulement	1-Scarico	1-Spust	1-слив
2-Air Cool	2-Raumluft	2-Aire amb.	2-Air ext.	2-Aria ambi.	2-Temp. pow.	2-возд пом
3-Cooling	3-Kühlung	3-Enfriam.	3-Refroidiss	3-Raffredda.	3-Chłodzenie	3-охлажд
4-Cooling	4-Kühlung	4-Enfriam.	4-Refroidiss	4-Raffredda.	4-Chłodzenie	4-охлажд
5-Cooling	5-Kühlung	5-Enfriam.	5-Refroidiss	5-Raffredda.	5-Chłodzenie	5-охлажд
6-Cooling	6-Kühlung	6-Enfriam.	6-Refroidiss	6-Raffredda.	6-Chłodzenie	6-охлажд
Cycle :	Progr.:	Progr.:	Progr. :	Progr.:	Progr.:	Прогр.:
kPa	kPa	kPa	kPa	kPa	kPa	кПа
Process	Verfahren	Proceso	Procédure	Procedimento	Proces	Процесс
sec	sec	seg.	sec	sec	sek.	с
min	min	min.	min	min	min.	мин
Hour	Hour	Hora	Hour	Ora	Godz.	Час
day	day	día	day	giorno	dzień	День
month	month	mes	month	mese	miesiąc	Месяц
POWER OFF	System aus	Sistema apa.	Syst. désact	Sistema OFF	System wył.	Систем выкл
POWER ON	System an	Sistema enc.	Syst. activé	Sistema ON	System wł.	Система вкл
Time	Zeit	Hora	Temps	Orario	Godz	Время
FAIL	Fehler	Error	Erreur	Errore	Błąd	Неисправ
CYCLE ENDED!	PROGRAMMENDE	FIN PROGRAMA	FIN PROGRAMM	FINE PROGRA.	KON. PROGR.	КОНЕЦ ПРОГР
TEST ENDED!	TEST OKAY!	¡PRUEBA OK!	TEST OKAY !	TEST OK!	TEST OK!	ТЕСТ ОК!
CYCLE FAIL!	ABBRUCH!	INTERRUPCIÓN	INTERRUP. !	INTERRUZIONE	PRZERWANIE!	ОТМЕНА!
TEST FAIL!	FEHLER!	¡FALLA!	ERREUR !	ERRORE!	BŁĄD!	ОШИБКА!
Max Temp:	Max Temp:	Temp. máx.:	Temp. max. :	Temp. max:	Maks. temp.:	Макс темп:
Min Temp:	Min Temp:	Temp. mín.:	Temp. min :	Temp. min:	Min. temp.:	Мин темп:
Operator:	Benutzer:	Usuario:	Utilisateur:	Utente:	Użytkownik:	Пользов:
Gain Offset	Gain Offset	Gain Offset	Gain Offset	Gain Offset	Gain/Offset	Усил смещ
System Reset	System Reset	Reinicio	Réinit. syst	Reset sistema	Zreset. sys.	Сброс сист
Printer Test	Druckertest	Prueba imp.	Test imprim.	Test di stampa	Test druk.	Тест принт
Filter Count	Filter Lauf	Ciclo filtro	Cycle filtre	Cic.di filt.	Przeb. fil.	Фильтр цикл
FO Heat :	FO Heat :	FO Heat :	Chauff. FO:	FO Heat :	FO nagrz.:	FO нагр:
FO Ster :	FO Ster :	FO Ster :	Stér. FO :	FO Ster :	FO ster.:	FO стер:
FO Exh :	FO Exh :	FO Exh :	Evac. FO :	FO Exh :	FO spus.:	FO выт:
FO Total:	FO Total:	FO Total:	Total FO :	FO Total:	FO łącz.:	FO всего:
Jan	Jan	Ene	Jan	Gen	Sty	Янв
Feb	Feb	Feb	Fév	Feb	Lut	Фев
Mar	Mar	Mar	Mar	Mar	Marz	Мар
Apr	Apr	Abr	Avr	Apr	Kwi	Апр
May	Mai	May	Mai	Mag	Maj	Май
Jun	Jun	Jun	Juin	Giu	Cze	Июн
Jul	Jul	Jul	Juil	Lug	Lip	Июл
Aug	Aug	Ago	Août	Ago	Sie	Авг
Sep	Sep	Sep	Sep	Set	Wrz	Сен
Oct	Okt	Oct	Oct	Ott	Paź	Окт
Nov	Nov	Nov	Nov	Nov	Lis	Нов
Dec	Dez	Dic	Déc	Dic	Gru	Дек

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
Digital Inputs	Dig Eingänge	Ent. dig.	Entrées num	Input digit.	Wej. cyfr.	Цифр входы
Digital Outputs	Dig Ausgänge	Salidas dig.	Sorties num	Output digi.	Wyj. cyfr.	Цифр выходы
Programs	**Programme**					
Instruments	Festkörper	Instrumentos	Solides	Corpi solidi	Ciała stałe	Твердые тела
Waste (Bags)	Abfall fest	Desecho sólido	Déchets solides	Rifiuti solidi	Odpady stałe	Твердые отходы
Liquid Waste	Abfall flüssig	Desecho líquido	Déchets liquides	Rifiuti liquidi	Odpady płynne	Жидкие отходы
Liquids	Flüssigkeiten	Líquidos	Liquides	Liquidi	Płyny	Жидкости
Cleaning	Reinigen	Limpieza	Nettoyage	Pulizia	Czyszczenie	Очистка
Vac-Test	Vakuumtest	Prueba vacío	Test de vide	Test vuoto	Test próżni	Вакуум-тест
BD-Test	BD-Test	Prueba BD	Test BD	Test BD	Test BD	BD-тест
Free Steam	Dampftopf	Unidad de vapor	Autoclave	Riscaldamento a vap.	Naczynie parowe	Пароприемник
Glass Test	Glastest	Prueba de vaso	Test verre	Test vetro	Test szkła	Тест стекла
Steam Air	Dampf/Luft	Vapor/aire	Vapeur/air	Vapore/aria	Para/Powietrze	Пар/воздух
Durham	Durham	Durham	Durham	Durham	Durham	Дарем
Hot Water	Heisswasser	Agua caliente	Eau chaude	Acqua bollente	Gorąca woda	Горячая вода
Fermenter	Fermenter	Fermentador	Fermenteur	Fermentatore	Fermenter	Ферментер
Empty	leer	Sin carga	vide	vuoto	puste	пусто
Buttons	**Tasten**					
START	START	INICIO	START	AVVIO	START	ПУСК
STOP	STOPP	FIN	STOP	STOP	ZATRZ.	СТОП
SHOW	ANZEIGE	MOSTRAR	AFFICH.	VISUAL.	WYŚW.	ИНДИК
QUIT	QUIT	SALIR	QUIT	RISCON.	WYJŚCIE	КВИТ
MENU	MENÜ	MENÚ	MENU	MENU	MENU	МЕНЮ
PRINT	DRUCKEN	IMPRIME	IMPRIM.	STAMPA	DRUKOW.	ПЕЧАТЬ
READ	LESEN	LEER	LIRE	LEGGI	ODCZYT	ЧТЕНИЕ
OPEN	ÖFFNEN	ABRIR	OUVRIR	APRI	OTWIER.	ОТКРЫТЬ
FLUSH	LEEREN	VACIAR	VIDER	SVUOTA	OPRÓŻN.	ОПОРОЖН
WAIT	WARTEN	ESPERAR	ATTEND.	ATTENDI	CZEK.	ЖДАТЬ
YES	JA	SÍ	OUI	SÌ	TAK	ДА
NO	NEIN	NO	NON	NO	NIE	НЕТ
CLEAR	QUIT	SALIR	QUIT	RISCON.	POTW.	КВИТ
SET	SET	AJUSTAR	SET	IMPOSTA	USTAW.	УСТ
EXIT	EXIT	SALIR	EXIT	USCITA	WYJŚCIE	ВЫХОД
GRAPH	GRAFIK	GRÁFICO	GRAPHIQ	GRAFICA	GRAFIKA	ГРАФИК
BACK	ZURÜCK	VOLVER	RETOUR	INDIET.	POWRÓT	НАЗАД
ABC	ABC	ABC	ABC	ABC	ABC	ABC
SPACE	LEER	ESPACIO	VIDE	VUOTO	PUSTE	ПУСТО
Menu	**Menü**					
Language	Sprache	Idioma	Langue	Lingua	Język	Язык
User Menu	Benutzermenü	Menú de usuario	Menu utilisateurs	Menu utente	Menu użytkownika	Пользоват меню
Service Menu	Servicemenü	Menú de servicio	Menu service	Menu Servizio	Menu serwisowe	Сервисное меню
System Info	Systeminfo	Info del sistema	Info système	Informaz. sistema	Informacja syst.	Информ. о сист
Languages	**Sprachen**					
English	Deutsch	Español	Français	Italiano	Polski	Русский

Englisch	Deutsch	Spanisch	Französ-sisch	Italienisch	Polnisch	Russisch
User menu	**Benutzer-menu**					
Date/Time	Datum/Zeit	Fecha/hora	Date/heure	Data/orario	Data/Godzina	Дата/Время
User List	Benutzerliste	Lista usuarios	Liste utilisat.	Lista utenti	Lista użytkow.	Список пользов
Program List	Programmliste	Lista programas	Liste programmes	Lista programmi	Lista programów	Список программ
Memory	Speicher	Memoria	Mémoire	Memoria	Pamięć	Память
Screen Contrast	Kontrast	Contraste	Contraste	Contrasto	Kontrast	Контрастность
Sound Volume	Lautstärke	Volumen	Volume	Volume	Głośność	Громкость
Options	**Optionen**					
Analog Inputs	Analoge Eingänge	Entradas analóg.	Entrées analogiq.	Input analogici	Wejścia analogowe	Аналоговые входы
Digital I/O	Digitale E/A	E/S digitales	E/S numériques	I/O digitali	We/Wy cyfrowe	Цифр вход-выход
Calibration	Kalibrieren	Calibración	Calibrage	Calibratura	Kalibrowanie	Калибровка
Manual Output Set	Ausgänge setzen	Ajustar salidas	Régler sorties	Impostazi. output	Ustawanie wyjść	Устан выходов
Memory	Speicher	Memoria	Mémoire	Memoria	Pamięć	Память
Maintenance	Wartung	Mantenimiento	Maintenance	Manutenzione	Konserwacja	Обслуживание
Print Sensors	Sensoren Ausdruck	IImpresion sensores	Impress sondes	Stampa senosi	Czujniki do wydruku	ДАТЧИКИ РАСПЕЧ.
Calibration	**Kalibrierung**					
Change GainOffset	G/O ändern	Cambiar G/O	Modif. G/O	Modifica G/O	Zmiana G/O	Измен усил/смещ
Calc. GainOffset	G/O berechnen	Calcular G/O	Calcul. G/O	Calcolo G/O	Obliczanie G/O	Расчет усил/смещ
Restore Values	G/O zurücksetzen	Restaurar valores	Réinit. G/O	Reset G/O	Pon. ustaw. G/O	Сброс усил/смещ
Log main menu	**Menü Daten-speicher**					
Process Log	Prozessspeicher	Registro proceso	Mémoire processus	Memoria di proc.	Pamięć procesów	Память процесса
Error Log	Fehlerspeicher	Registro errores	Mémoire erreurs	Memoria di errore	Pamięć błędów	Память неиспр.
Audit Trail	Ereignisprotokoll	Registro eventos	Compte rendu évén	Registro eventi	Protokół zdarzeń	Протокол событий
Log error menu	**Menü Fehler-speicher**					
General Info	Fehlerart	Tipo de error	Type d'erreur	Tipo di errore	Rodzaj błędu	Тип неисправн
Analog Inputs	Analoge Eingänge	Entradas analógicas	Entrées analogiq.	Input analogici	Wejścia analogowe	Аналоговые входы
Digital Inputs/Outputs	Digitale E/A	E/S digitales	E/S numériques	I/O digitali	We/Wy cyfrowe	Цифр вход-выход
Maintenance	**Wartung**					
Replace Filter in:	Filter wechsel in:	Cambiar filtro:	Chgt filtre ds :	Sostit.filtro in:	Wymiana filtra w:	Зам фильтра чер:
Replace Gasket in:	Türdichtung wechseln in:	Cambiar junta en:	Chgt joint p. ds:	Sostit.gua.po.in:	Wym. usz. drz. w:	Зам уплотн дв ч:
Maintenance in cycles:	Wartung in Zyklen:	Mant. en ciclos:	Maintence ds c.:	Manuten.in cicli:	Konserw. w cykl.:	Обсл через цик:
Maintenance on:	Wartung im:	Mantenimiento en:	Maintence ds:	Manutenzione in:	Konserwacja w:	Обслуже через:

Englisch	Deutsch	Spanisch	Franzö-sisch	Italienisch	Polnisch	Russisch
Notification start:	Anzeige der Meldung ab:	Inicio notif.:	Affich mess dès:	Visuali. mess.da:	Wyśw. zgłosz. od:	Индик сообщ от:
Cycles	Zyklen	Ciclos	Cycles	Cicli	Cykle	Циклы
System info	**System Info**					
System	System	Sistema	Système	Sistema	System	Система
Machine name:	Maschinenname:	Nombre máquina:	Nom machine :	Nome macchina:	Nazwa maszyny:	Название машины:
Machine type:	Maschinentyp:	Tipo de máquina	Type machine :	Tipo macchina:	Typ maszyny:	Тип машины:
Serial Num:	Seriennummer:	Número de serie:	Numéro de série :	Numero di serie:	Numer seryjny:	Серийный номер:
Software ver:	Softwareversion:	Versión software:	Version logiciel:	Vers. software:	Wer. oprogram.:	Версия ПО:
Analog ver:	Analogversion:	Ver. analógica:	Version analog:	Vers. analogica:	Wer. analogowa:	Аналог. версия:
Manufacturer:	Hersteller:	Fabricante:	Constructeur :	Produttore:	Producent:	Изготовитель:
Address:	Adresse:	Dirección:	Adresse :	Indirizzo:	Adres:	Адрес:
Email:	Email:	Email:	E-mail :	E-mail:	E-mail:	Email:
Web:	Web:	Web:	Internet :	Web:	WWW:	Интернет:
Systec HX	Systec HX	Systec HX	Systec HX	Systec HX	Systec HX	Systec HX
CPanel	Cpanel	Cpanel	Cpanel	Cpanel	Cpanel	Cpanel
Not ready	**Nicht bereit**					
No Tap Water	kein Kühlw.	Sin agua fr.	Pas d'eau fr	as. a. raff.	B. wody chł.	Нет ох воды
Chamb.No Wtr	k. Kammerw.	Sin agua ca.	Pas eau cham	as. acq. ca.	B. wody kom.	Нет кам вод
Gen. Low Prs	Gen. Druck	Presión gen.	Press gén.	gen. press.	Ciśn. gen.	Общ давл
Not Closed	offen	Abierto	Ouvert	apri	otw.	Открыто
No Demin Wtr	kein VE-W.	Sin agua de.	Pas eau dém	ass. acqua	B. wody dem.	Нет дем вод
No Comp.Air	keine Druckl	Sin aire co.	Pas air comp	ass. ar. co.	B. pow. spr.	Нет сж возд
Tank empty	Tank leer	Tanque vacío	Réserv. vide	serb. vuoto	Pusty poj.	Бак пустой
Repl. Filter	Filtertausch	Camb. filtro	Chan. filtre	sost. filt.	Wym. filtra	Замен фильт

Tab. 26: Overview of the text display, depending on the language setting selected

14. APPENDIX

Aim of this section

This section contains additional documentation about the device.