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1 General guidelines

The purpose of these instructions is to explain to the user how to use the GS 45 sealer safely and correctly.

Anyone whose work involves using the sealer must be familiar with these instructions and the safety regulations.

These instructions must always be available to personnel, to prevent incorrect use of the sealer and to ensure trouble-free operation.

Copyright

These instructions may only be given to third parties with the written consent of GETINGE. All documents are protected by copyright.

The passing-on and copying of documents, including extracts and the communication or use for gain of their contents is not permitted, except by express consent. Infringements are punishable and will lead to claims for damages. We reserve all rights to exercise the provisions of commercial copyright law.

Warranty and liability

We accept liability within the terms of the stated warranty obligations for errors and omissions, to the exclusion of further claims.

We reserve the right to make technical changes to the sealer covered by this instruction manual, for the purpose of further development.

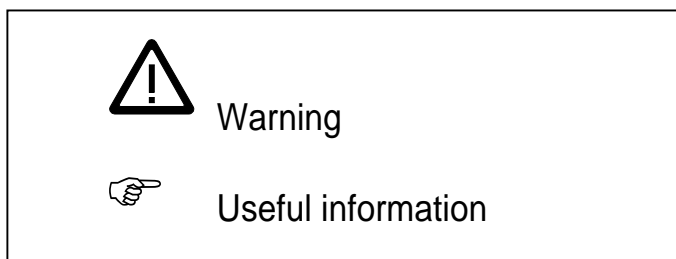
We accept no liability for damage and operational disturbances arising from incorrect operation, failure to observe these instructions, or improper repairs. Only original spare parts and accessories approved by GETINGE may be used.

GETINGE accepts no liability for damage resulting from the use of non-approved spare parts and accessories.

The drawings and graphics are not to scale.

Explanations

Important instructions given in the technical documentation are indicated as follows:



2 Safety regulations

These instructions must be read and strictly complied with.



2.1 Before use

Users must familiarise themselves with the instructions in this manual before using the GS 45 sealer.



2.2 Field of application

The GS 45 sealer is to be used only for sealing sterilisation packages. No liability will be accepted for use of the sealer for any other purpose.

The sealer may only be used for its intended purpose, in accordance with the generally recognised rules of technology and the industrial health and safety regulations. It must not be used if it has defects that might be dangerous to employees or third parties.



2.3 Danger of electric shock

Before the case is opened, the sealer must be disconnected from the electric power supply. To open the case, unscrew the four unmarked internal hexagon screws with a 4 mm key.

Only an authorised technician or a specialist dealer may undertake servicing work on the sealer.



2.4 “Damage to the sealer”

1. If the packaging material becomes trapped, it **must not** be pulled out of the sealer. This would damage the sealer.
2. The sealer is not suitable for sealing PE bags. The sealer may be damaged if an unsuitable material is used.
3. The reverse button must not be used to feed packaging material into the sealer from the left (see Section 4.7, page 9).



2.5 Contamination of the sterilised goods

“Danger of patient infection”

1. If the pressure of the pressure rollers is incorrectly set, the seam will not be bacteria-tight.
2. The user must set the correct sealing temperature for each packaging material and sealer. This is done by trial sealing operations.
The usual sealing temperatures are between 120 °C and 200 °C. Our recommendation is to set the sealing temperature to 120 °C and to raise it gradually until a bacteria-tight seam is obtained.
 - If the temperature is too low, the seam will be incomplete or weak.
 - If the temperature is too high, the package will be difficult to peel open. Paper fibres may be released and contaminate the sterile goods.
 - Released paper fibres may result in patient infection.

3 Installation

Set up the GS 45 sealer on a clean, smooth surface as follows:

- Position the sealer as required.
- Leave at least 15 cm free space behind the sealer to ensure good cooling and trouble-free operation.
- Plug the mains cable into the socket on the back of the sealer.
- Check that the voltage and frequency of the supply agree with the voltage and frequency shown on the sealer.
- Plug the mains lead into the power socket.
- Install the feed plate.
- To adjust the distance to the seam, slacken the knurled nut on the feed plate. Move the feed plate to the required position and tighten the knurled nut.

With the feed stop fully forward, the seam is about 15 mm away from the cut-off edge of the material; with the feed plate fully back it is about 35 mm away from it.

- The GS 45 sealer has is now installed.

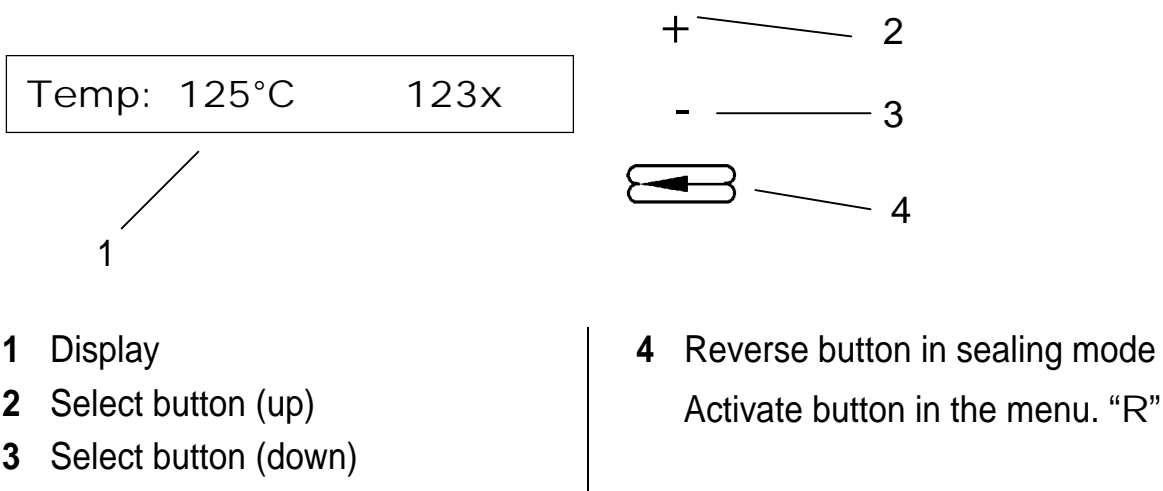
Feeder table (accessory)

GETINGE recommend the use of a feeder table for convenient feeding and trouble-free transport of the material.

- Remove the feed plate and install the feeder table.
- To set the seam width, slacken the knurled nut on the underside to release the feed stop. Move the feed stop to the required position and tighten the knurled nut.

With the feed stop fully forward, the seam is about 15 mm away from the cut-off edge of the material; with the feed plate fully back it is about 35 mm away from it.

Overview of controls



4 Operating instructions

The GS 45 sealer seals all sterilisation packages that are normally commercially available. The sealer is **not** suitable for sealing PE bags.



Important

- ▶ To get into menu mode, press a select button (up/+ or down/-). Having entered the password, if required, choose the required menu item with the same buttons. To change the menu item, press the reverse/back button. Confirm the change by pressing the reverse/back button.
- ▶ After every complete entry, the sealer is ready to seal.
- ▶ To make large temperature changes (eg from 50 to 185 °C) quickly, hold down the select button.
- ▶ The factory default password is 12.

4.1 Switching on the sealer

Set the green switch on the back of the sealer to (I).

The following information appears on the display:

The sealer heats up to the programmed temperature in about 30 seconds.

When the sealing temperature is reached, the current sealing temperature and counter reading appear on the display.

Temp: 125°C	Ox
-------------	----

The sealer is ready to seal.

Subsequent settings can now be done.

4.2 Set the sealing temperature

You can enter the sealing temperature in two ways.

1. Select temperature freely

This is the procedure for setting the target temperature:

- „-“ Press the button until Temp#: appears.

Temp # :	125°C
----------	-------

The display looks like this.

Press “R” to confirm.

- The sealer is in input mode.
- Enter the target temperature with the + or - select button.
- Press “R” to confirm.
- Input mode is ended and the sealer is ready to seal.
- The sealer now cools down or heats up.

2. Selecting a preset temperature

- Press the “-” button until Temp#: appears.

The display looks like this.

>Temp # :	125°C
-----------	-------

- Press “R” to confirm.

- The sealer is in input mode.

You can choose between four stored temperatures by pressing the select buttons.

Press “R” to confirm.

- Input mode is ended and the sealer is ready to seal.
- The sealer now cools down or heats up.

4.3 Changing the counter setting

This is how to change the counter setting:

- Press the select button until the menu item you want appears.

Press “R” to confirm.

Count :	67x
---------	-----

The display looks like this.

- The sealer is in input mode.

- Use the plus button to increase the counter setting and the minus button to set it to zero.

Press “R” to confirm.

- Input mode is ended and the sealer is ready to seal.

4.4 Changing a preset temperature

To make it easier to set the sealing temperature, four different temperatures can be stored.

This is how to change a preset temperature:

- Press a select button until the temperature you want appears, eg Temp 4.

Press “R” to confirm.

Temp 4 :	185°C
----------	-------

The display looks like this.

- The sealer is in input mode.

- Increase or reduce the temperature with the select buttons.

Press “R” to confirm.

- Input mode is ended and the sealer is ready to seal.

4.5 Changing heating standby time

The sealer has a standby mode. After a set time of five minutes, for instance, the sealing temperature of the sealer drops automatically. The sealer is in standby mode. Pressing any key returns the temperature to the set sealing temperature.

- Press the select button until the menu item you want appears.

Standby:	5 min
----------	-------

The display looks like this.

Press “R” to confirm.

- The sealer is in input mode.

Use the select buttons to enter the new standby time. Press “R” to confirm.
Input mode is ended and the sealer is ready to seal.

Important

- To disable the standby function, set the time to 0.

4.6 Changing the password

The functions for making changes are protected by a user password.

- Press the select button until “Pass” appears.

Press “R” to confirm.

Pass:	22
-------	----

The display looks like this.

Enter the new password (0 to 200) with the select buttons. Press “R” to confirm.

- Input mode is ended and the sealer is ready to seal.

Important

- To disable the password function, set the value to 0.

4.7 Reverse button

This is what to do if material has become trapped:



Press the button.

- The transport mechanism runs in the opposite direction and the material can easily be removed.



Important

- If the set temperature does not correspond to the target temperature, transport does not start. If this happens, wait until the correct temperature is reached.

These are the default settings of the GS 45 sealer: User password (12), service password (174), standby time five minutes.

5 Service functions

The service functions allow a technician to use other functions in addition to those described above.

This is how to access the service menu:

- Switch of the sealer and switch it on again while holding down the two select buttons (+ and -).

Enter the password (the factory default password is 174).

5.1 Showing the total counter reading

Press the select button until Total: appears on the display.

Total: 565x	The display looks like this. The reset function is barred.
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- In this example, 565 packages have been sealed.

5.2 Testing sensors

Press the select button until s1: 0 s2: 0: appears on the display.

S1: 0x S2: 0x	The display looks like this.
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The transport sensor (sensor 1) is on the left-hand side of the sealer.

The counter sensor (sensor 2) is on the right-hand side of the sealer.

When the sensors are activated, the counter reading must increase. If the sensors no longer work properly you can order spare parts for the sealer or send the sealer to GETINGE for repair.

5.3 Testing the temperature sensors

Instructions for correcting the temperatures are given in the service manual.



“Damage to the sealer”

A seriously incorrect setting can cause the temperature to go so high that the temperature cutout operates. Use a separate instrument to check the actual temperature and do not let it go above 200 °C.

6 Technical data

SEALER GS 45	
Dimensions w x d x h	570 x 280 x 240 mm approx

Dimensions with feeder table	575 x 320 x 240 mm approx
Weight	13 kg approx
Max. sealing temperature	200°C
Transport speed	9.8 m/min
Seal seam dimensions	4 x 2.5 mm approx
Max. power consumption	770 VA
Power supply	230V (115V) / 50Hz (60Hz)
Mains fuse	4 A slow (115V: 8A slow)

Every GS 45 sealer is set up to produce a seal seam that complies with DIN 58953-7. Every sealer has a certificate of initial validation.

7 Wear and replacement parts

Fax order to : _____

Quantity	Description	Ordering no.
	PTFE strip for heating element (70 cm)	4427032
	PTFE strip for transport rails (100cm)	4427030
	Pressure roller, upper, complete	4419016
	Pressure roller, lower	4425723
	Transport belt (one)	4416004
	Toothed belts for pressure roller	4416016
	Bearing sleeve (Ø10 x Ø12)	4415015
	Ball bearing	4415000

From: _____

Series no. _____

Signature: _____ Date: _____

Other parts are available from GETINGE on request.